VIVRE AVEC LE SAF

IN PARTNERSHIP WITH EUROPEAN FASD ALLIANCE

EUFASD 2026

8th EUROPEAN CONFERENCE

CONFERENCE

Opening-up FASD

13 › 16 SEPTEMBER 2026

Welcome to AMIENS France

Programme and Abstract Book

More information on: www.eufasd2026.com

Organisateur français
French organizer

VIVRE AVEC LE SAF

Partenaires locaux d'organisation
Local organizing partners

Société Française d'Alcoologie

Université de Picardie Jules Verne

Financeurs
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Mission interministérielle de lutte contre les drogues et les conduites addictives

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Autisme & Troubles du neuro-développement GIS

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Groupe de Recherche sur l'Alcool & les Pharmacodépendances

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Partner organizations

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Association Nationale des Equipes Centrées sur l'Action Médico Sociale Précoce
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CoreAddd
Coordination Régionale Addictions Nouvelle-Aquitaine

GEGA
Groupe d'Étude Grossesse & Addiction

COPEGE
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FFA
Fédération Française d'Addictologie

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Welcome to Amiens !

We are delighted to welcome you all to the Amiens Convention Centre for the 8th Edition of the European FASD Alliance's Conference.

First of all, many thanks to the EUFASD Board for entrusting our French team with the organization of the Conference back in early 2024! This is the first time the Conference is being held in France, and we would like to express our gratitude to the French agencies and organisations that provided us with essential moral and financial support:

- the MILDECA, Interministerial Mission for the Fight against Drugs and Addictive Behaviours, for its major support,
- the Région Hauts-de-France
- Santé Publique France
- the GIS Autisme et TND (Scientific Interest Group on Autism and Neurodevelopmental Disorders)
- the GRAP (Research Group on Alcohol and Substance Dependence)
- the Amiens-Metropole

We would also like to thank our local partners – the French Society of Alcohol and Addiction Studies and the University of Picardie-Jules Verne – who provided invaluable assistance in organising this event, as well as the Local Planning Committee, the members of our association and our group of concerned people, who have worked so hard to fulfil the ambitions of the Conference and the Family Day.

We are grateful to the Scientific Planning Committee, and to all who submitted papers, for helping us to put together a balanced, inclusive and ambitious programme that helps both opening-up the field of Fetal Alcohol and repositioning it within the many broader fields of research, health and care, and eventually public action it belongs and is essential to. It is at the crossroad of disciplines, by upholding high standards in both research and action, that we will find the solutions to tackle the challenges posed by FASD.

The Mégacité Conference Centre is a wide and modern venue to house the event: with 250 participants, 4 keynote speakers, 11 scholarships, more than 170 presentations (27 in plenary sessions, 63 in parallel sessions, and 80 in poster chaired-tours), we are proud to give everyone an opportunity to have the floor and interact with colleagues. Thank you all for coming to share your works, experience and ensure the success of the 2026 Conference!

Holding this event is of great importance to our families and those affected: it is indeed a unique opportunity to highlight the consequences of alcohol consumption during pregnancy, as people with FASD remain insufficiently recognised and supported in our country and across Europe. It has become an important European rendez-vous for sharing and discussing international researches and initiatives regarding understanding, prevention, healthcare, lifelong support, and advocacy on FASD.

Beyond the Conference, don't forget to visit the beautiful city of Amiens, famous for its magnificent Gothic cathedral, the house of the writer Jules Verne, the Hortillonnages, the floating gardens on the banks of the River Somme, and enjoy its many restaurants: (use the QR code on the back cover of the notebooks in your welcome kit to find out the opportunities).

Have a great Conference!

David Germanaud and **Catherine Metelski**,
co-chairs of EUFASD 2026

Scientific Planning Committee

Dr David Germanaud, France,
Neuropaediatrician, Researcher in medical imaging, Chair of the Scientific Planning Committee

Pr Mirjam Landgraf, Germany,
Neuropaediatrician, Head of the German FASD Competence Center in Munich, Chair of the EUFASD Board

Dr Gro Løhaugen, Norway,
Neuropsychologist, Head of the regional Resource Center for Children with Prenatal Alcool Exposure, Arendal, Co-Chair of the EUFASD Board

Dr Teodora Ciolompea, Romania,
Prevention and Treatment of Drug Addictions Center, Bucarest
Co-Chair of the EUFASD Board

Magdalena Borkowska, Poland,
in charge of Prevention and Public Education in The National Center for Prevention of Addictions,
Member of the EUFASD Board

Jan de Vries, Netherland,
psychologist Child and Adolescent,
Member of the EUFASD Board

Pr Bérénice Roy-Doray, France,
Medical Geneticist, Director of the FASD Resource Center of the Reunion Island

Pr Bruno Gonzalez, France,
Inserm Research Director,
University of Rouen

Dr Vicente Andreu Fernandez,
Spain, Research Director in Valencia International University

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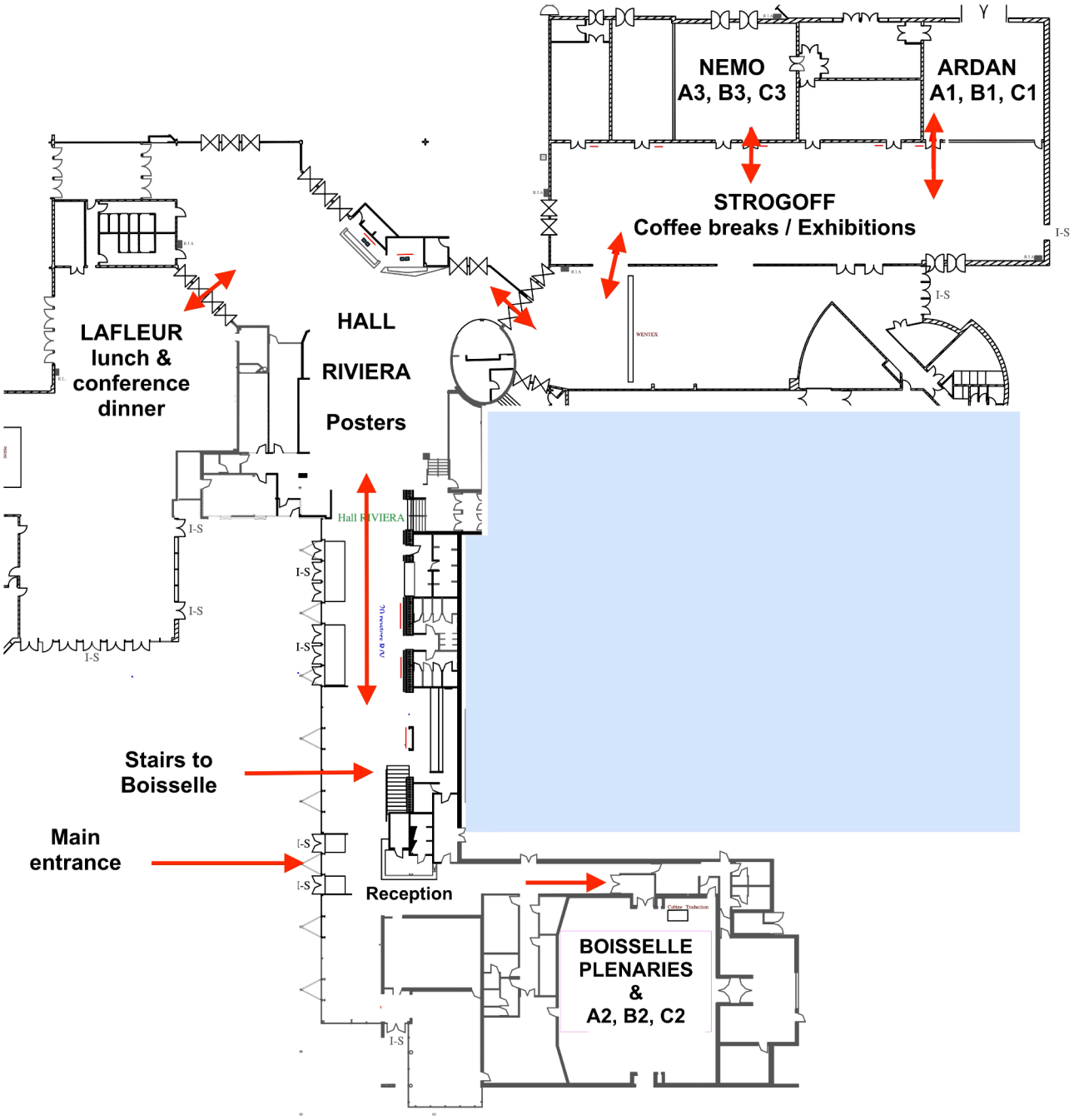
Macha Cambier,
project manager for the “Addiction and Pregnancy Resource Centre”, COREADD, Bordeaux

Pr Mickael Naassila, PhD,
Professor of Physiologie in the University of Picardie (Amiens), president of the French Society of Alcohology

Pr Olivier Pierrefiche, PhD,
Neurosciences professor in University of Picardie (Amiens)

Me Benoit Titran,
Lawyer at the Lille Bar

Amiens Megacité Conference Centre



La journée des familles

Dimanche 13 septembre 2026

de 9h00 à 18h00

La journée des familles est un grand moment du congrès.

Nous souhaitons une journée conviviale, dans laquelle vous tous, familles et personnes concernées, vous pourrez vous reconnaître, une journée qui vous permette de vous exprimer sur vos difficultés et vos besoins, mais aussi sur vos joies et vos réussites.

Auditorium du CHU Amiens-Sud
1 Rond-point du Pr Christian Cabrol
80000 Amiens - France
Ligne de bus N2

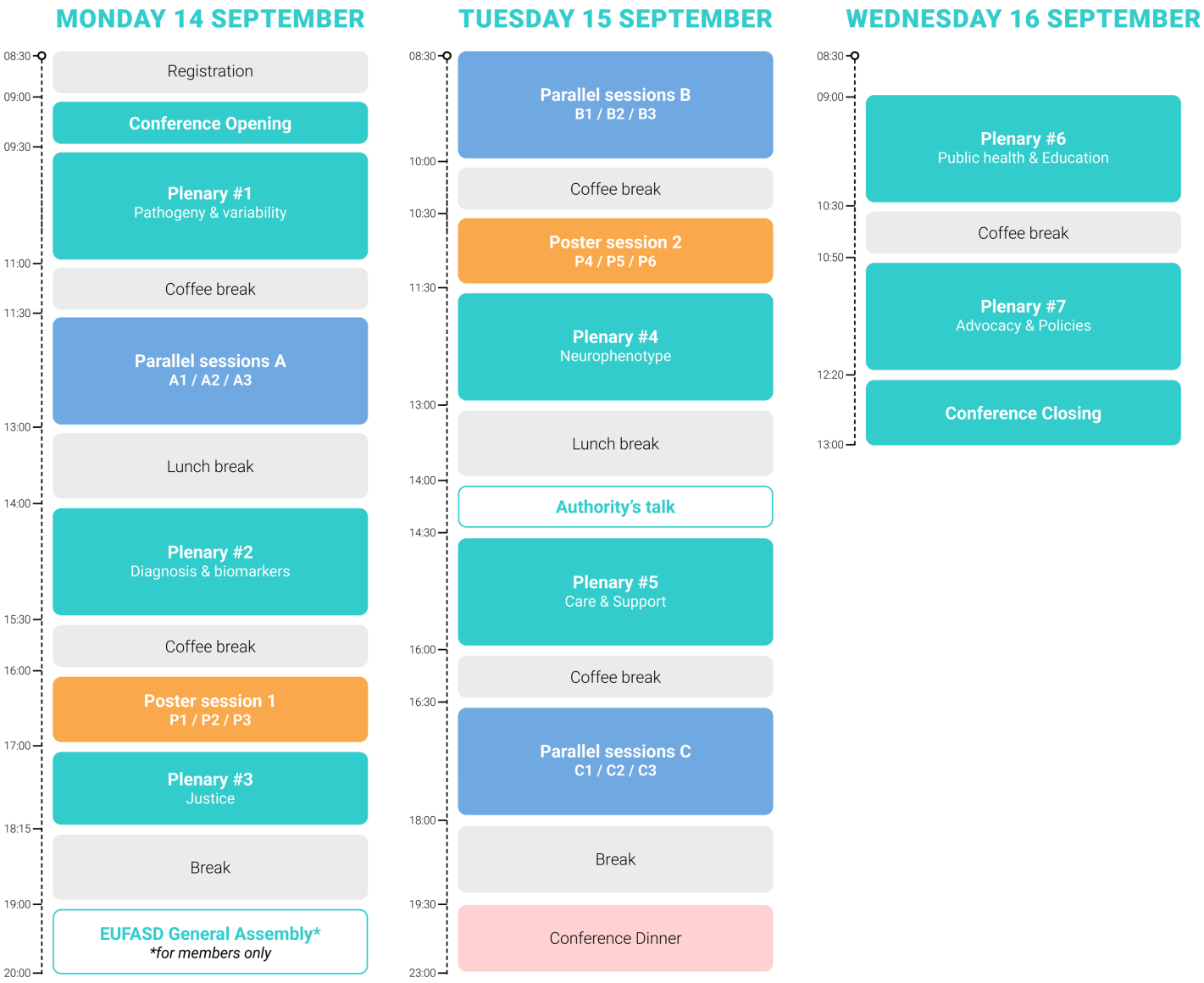
La journée est entièrement gratuite
(repas et visite des Hortillonnages compris).

Programme :

8h30	Accueil des participants
9h00	**Ouverture de la journée** avec le groupe de musiciens Nantso-M Quartet de La Réunion
9h30	**Découverte du travail autour du développement sensoriel et des réflexes archaïques** animée par **Nadège Beaulieu**, coach sportive *L'intégration des réflexes archaïques constitue une étape essentielle du développement du jeune enfant. Lorsque cette phase est perturbée, elle peut entraîner diverses difficultés, notamment dans les domaines cognitif (apprentissages), émotionnel (gestion des émotions et du stress) et corporel (coordination, équilibre).* *Grâce à des exercices spécifiques basés sur le mouvement, il est possible d'accompagner la levée de certains blocages. Nadège Beaulieu vous propose de découvrir cette approche à travers l'expérience vécue par l'un de nos jeunes adultes.*
11h00	Pause-café devant l'auditorium, avec exposition-photo des réussites des personnes
11h20	**Échanges libres entre familles** Modératrice : **Meïssa Nékaa**
12h30	Dans la salle annexe : pause déjeuner favorisant les rencontres informelles
14h00	**Présentation dans l'auditorium des réalisations audio-visuelles** des personnes concernées et discussion.
16h00	**Déplacement en bus vers les Hortillonnages**
16h30	**Visite des Hortillonnages en barque** (durée : 45 mn) et retour en bus vers le centre-ville (gare)

Informations et inscription obligatoire sur *HelloAsso* :
www.helloasso.com/associations/vivre-avec-le-s-a-f/
Réponses souhaitées avant le 14 juillet

Programme at a glance



MONDAY 14 SEPTEMBER

8:30 Registration

9:00 **Conference opening**

9:30 **Plenary #1**

Understanding pathogeny and individual sources of variability

Moderation: Gonzalez Bruno and Andreu Fernández Vicente

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, it sheds light on our understanding of the variability in clinical manifestations beyond differences in alcohol exposure, by elucidating the interaction between ethanol and genetic predisposition, via epigenetic mechanisms or the reprogramming of brain development.

PL1.1 Keynote: From individual susceptibility to common mechanisms: how genetics and epigenetics shed light on our understanding of FASD
Kaminen-Ahola Nina, University of Helsinki

PL1.2 Genetic Factors Contributing to Fetal Alcohol Syndrome
Parnell Scott

PL1.3 Early Ethanol Exposure Reprograms Brain Development: Mechanistic and Behavioral Insights into Fetal Alcohol Spectrum Disorders
Gerace Elisabetta

11:00 Coffee break

11:30 – 13:00 **Parallel sessions A**

A1 / Scientific & Translational: from understanding mechanisms to new markers and targets (I. epigenetics, genetics and immune regulation)

Moderation: **Dournaud Pascal** and **Kaminen-Ahola Nina**

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, a better understanding of involved mechanisms paves the way for the identification of new biomarkers and targets to improve the diagnosis and management of FASD. First session: focusing on epigenetic, genetic mechanisms and (neuro)immune regulation.

A1.1 Epigenetic Dysregulation of Reward and Synaptic Plasticity Pathways in Children with Fetal Alcohol Spectrum Disorders
Navarro-Tapia Elizabet

A1.2 A large maternally imprinted microRNA cluster on Human chromosome 14 can potentially aid diagnosis of prenatal alcohol exposure
Mukhopadhyay Arijit

A1.3 NR2F1 is a Cross-Species Mediator of Cerebral Cortex Defects Induced by Fetal Alcohol Intoxication
Laguesse Sophie

A1.4 The Histone Acetyltransferase Kat6a modulates outcomes of embryonic alcohol exposure.
Eberhart Johann

A1.5 The long-term impacts of prenatal alcohol exposure on the adult gut microbiota and mental health in adults with FASD
Ainsworth-Cruikshank Garrett

A1.6 Immune Dysregulation as a Driver of Mental Health Challenges in Adults with Fetal Alcohol Spectrum Disorder
Sadler Kyla

A1.7 Moderate prenatal alcohol exposure: focus on the neuroimmune axis
Hermann-Lacoste Léa

A2 / **Health & Care:** don't forget fathers, teachers and… employers
Moderation: **Maillard Thierry** and **Reid Natasha**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from not forgeting about certain actors who are sometimes overlooked, yet who play a vital role in their health and well-being: fathers, teachers… and even employers.

A2.1 Fetal Alcohol Spectrum Disorders (FASD): Not Only a "Women's Matter"!
Roy-Doray Bérénice

A2.2 Characteristics of fathers of children with fetal alcohol spectrum disorder in Reunion Island
Leruste Sébastien

A2.3 Tool Time for Dads: Addressing the unique needs fathers have when parenting a child from a hard place, including FASD
Troutt Chris

A2.4 Parent Psychoeducation in Fetal Alcohol Spectrum Disorder (FASD): Preliminary Outcomes from a Norwegian Follow-Up Program
Tveiten Anne Cecilie

A2.5 Learning with FASD: Evaluation of a research translation initiative to disseminate evidence-based resources on FASD for secondary school teaching and support staff
Devine Emma

A2.6 The Animation Curriculum: Findings from a phase one feasibility study of a novel and inclusive classroom intervention for children with FASD
Price Alan

A2.7 Supporting Employment Success for Individuals with FASD: Lessons from a 15-Year Integrated Community Program
Murphy Lisa

A3 / People & Community Perspective: life as it is, self-advocacy and participatory involvement

Moderation: **Bourely Antoine** and **Michalowski Gisela**

Considering the issues from multiple perspectives seems essential to gain a meaningful understanding of the challenges posed by fetal alcohol. This includes the perspectives of, and on, carers and the community. More importantly, it includes the perspectives of those most directly affected, as a true reflection of their aspirations and their power to make a difference.

A3.1 Day-to-Day Parenting in Caregivers of Adolescents with Fetal Alcohol Spectrum Disorder: Links Between Parenting Behaviours, Child Behaviour, and Caregiver Affect
Pei Jacqueline

A3.2 Quality of Life and Needs Assessment in Children and Young People with FASD: Preliminary Results from a Community-Based Observational Study in Spain
Astals Vizcaino Marta

A3.3 Prevention project for pupils aged 12 and over
Michalowski Gisela

A3.4 Talk to us and give us a voice! We want to share information about ourselves and advocate for our rights.
Hoff-Emden Heike

A3.5 Hidden in Plain Sight: FASD in Ireland and the Sociological Imperative for Change
Casson Rennie Tristan

A3.6 Creation and Animation of a Peer Support Group for Adults With FASD
Eglin Olga

A3.7 Titoki: An Innovative Global-First Initiative Empowering Adolescents and Adults with FASD Through Connection, Confidence, and Advocacy in Aotearoa New Zealand
Gundesen Anna

13:00 Lunch break

14:00

Plenary #2

Improving etiological diagnosis, especially FAS-less: biomarkers and newtech

Moderation: Germanaud David and Mukhopadhyay Arijit

Efforts to formalise the diagnosis of FASD have led to a high degree of consensus on clinical recommendations. However, the diagnosis of non-specific forms – those not presenting with FAS – remains probabilistic and more challenging if a high degree of aetiological confidence is to be achieved. The development of diagnostic markers and newtechs to complement clinical assessment offers a realistic prospect of improving the situation.

PL2.1 Discovery of a DNA methylation episignature as a molecular biomarker for fetal alcohol syndrome
Henneman Peter

PL2.2 Metabolomic signatures coupled with predictive analytics for early fetal alcohol spectrum disorder diagnosis

Navarro-Tapia Elizabet

PL2.3 Beyond face in FASD: leveraging additional anatomical markers to improve the likelihood of causal link with alcohol in non-FAS forms of the disease
Germanaud David

PL2.4 Quantitative Three-Dimensional Characterization of Facial Dysmorphism in African American Individuals with Prenatal Alcohol Exposure
Li Qing

15:30 Coffee break

16:00 **Poster session 1**

P1 / Health & Care
Moderation: **Maillard Thierry**

P1.01 When Mealtimes Become a Challenge: Understanding Chewing and Swallowing in FASD
Spruit Manon

P1.02 Sleep Disorders related to Orofacial Myofunctional Disorders (OMDs) in Children and Youth with Prenatal Alcohol Exposure
Rajani Hasmukhlal

P1.03 Adapting the Model of FASD Assessment to Enhance Access to Care
Rajani Hasmukhlal

P1.04 Knowledge Sharing: The FASD Expert Platform as a Low-Threshold Professional Communication Tool
Landgraf Mirjam

P1.05 Interdisciplinary training in the diagnosis, prevention and management of Fetal Alcohol Spectrum Disorder (FASD)
Tudela Saldana Nuria

P1.06 Use of Alcohol, Tobacco, and Cannabis Among Pregnant Women in Slovenia
Velkavrh Manca

P1.07 Fetal Alcohol Spectrum Disorder (FASD) in Australia: Results from 10 years of national surveillance conducted by the Australian Paediatric Surveillance Unit (APSU)
Nunez Miranda Carlos

P1.08 Heavy prenatal alcohol exposure and risk for adverse pregnancy outcomes in France 2015-2024
Crassous Agnès

P1.09 Training objectives on neurodevelopment disorders for general medicine interns at the university of La Reunion
Leruste Sébastien

P1.10 Building FASD-Informed Capability in the Alcohol and Other Drug Workforce: An Australian Practice-Based Approach
Harrington Sophie

P1.11 Interventions to address stigma relating to alcohol use in pregnancy and FASD
Robards Fiona

P1.12 Organization and management by the pediatrician of fetal alcohol spectrum disorders (FASD): from prenatal to adulthood
Bruel Henri

P1.13 The Fetal Fentanyl syndrome: spectrum of phenotypes in 56 infants
Del Campo Miguel

P1.14 Immune Mechanisms in Fetal Alcohol Spectrum Disorders: From Prenatal Programming to Lifelong Disease Risk
Kosmenda Aleksandra

*P2 / **Brain, Cognition, and Behaviour***
Moderation: Germanaud David

P2.01 Impact of Choline in the anterior Cingulate Cortex on Youth and Young Adults with FASD
Jones Sabrina

P2.02 Characterization of Cardiac and Immune Function, Behavior, and Mental Health in Children with Fetal Alcohol Spectrum Disorder
Tjostheim Erika

P2.03 Fetal Alcohol Spectrum Disorders (FASD): Clinical, socio-familial and Neurodevelopmental Profile of a Cohort in Reunion Island, A Multidisciplinary Approach
Roy Doray Bérénice

P2.04 Prenatal Alcohol Exposure and Adolescent Socio-Emotional Outcomes in Ireland: Evidence from a National Longitudinal Cohort
Fay Ciara

P2.05 Fetal alcohol spectrum disorder: biometry and optic nerve affections in a multicentric cohort study
Borella Ysé

P2.06 Investigating the impact of low levels of prenatal alcohol exposure on sleep outcomes in young adolescents: An Adolescent Brain Cognitive Development (ABCD) Study
Devine Emma

P2.07 Exploring the relationship between sensory and behavioural profiles of young people with Fetal Alcohol Spectrum Disorder in the UK Clinic Database
Ifede Matilda

P2.08 Early Neurodevelopmental Trajectories in Infants and Toddlers With Prenatal Alcohol Exposure
Dylag Katarzyna

P2.09 The prevalence of Attention-Deficit Hyperactivity Disorder (ADHD) in the cohort of FASD children diagnosed in FASD Diagnostic Reference North Center at University Hospital Center Reunion Island, France, a first study
Nekaa Meissa

P2.10 Cervical spine anomalies in FASD whether or not FAS is present: MRI-based frequency study within a large monocentric series and perspective as a diagnosis marker
Germanaud David

P2.11 Facial Motor Function and Emotional Expression in Children with Fetal Alcohol Spectrum Disorders: A Pilot Study Using Quantitative Motion Capture
Le Moing Anne Gaelle

P2.12 Interoception and Children with FASD: An Exploratory Study
Yue Janis

P2.13 Fetal Alcohol Spectrum Disorder and Post-Natal Trauma in the Classroom: A Proof of Concept Extended Case Study describing a Whole Brain Approach to Education (2025)
Oates Thomas

P2.14 Decoding Cognitive Profiles in FASD: A Neuropsychological Window into Brain Network Functioning
Coriale Giovanna

*P3 / **People & Community Perspective***
Moderation: **Krijgsheld Martha**

P3.01 Listening to Lived Experience: Improving the Safety and Validity of FASD Diagnostic Assessments in the UK
Howlett Helen

P3.02 FASD training provision for social workers delivering post adoption support in England
Govan Rebecca

P3.03 Advancing FASD-Informed Mental Health Care Through Community-Engaged Partnership
Pei Jacqueline

P3.04 Supporting Wellbeing Among Caregivers of Individuals with FASD
Pei Jacqueline

P3.05 Sentinel Resources: Partnership for a Multidisciplinary Training Program and a Better FASD Screening
Eglin Olga

P3.06 FASD and Addictions Propensity: Creating a Support Program Involving FASD Affected People and Professionals
Eglin Olga

P3.07 Needs of Professionals Working with Individuals with FASD in Catalonia (Spain)
Gomez Didac

P3.08 Life as we live it
Lepke Katrin

P3.09 Ireland's Silent Epidemic
Flynn Cillian

P3.10 "I want to learn about FASD": Voices of social workers from France. Challenges and hopes of a community of practice in child welfare
Gacem Karima

P3.11 FASD Support in Poland: Municipal Roles and Opportunities
Opasinska Silwia

P3.12 Ask me about Therapy! Designing qualitative research with children with PAE and parents to inform patient engagement and clinical practice
McDougall Stewart

P3.13 Science Communication Advocacy Strategy in Community Empowerment during Mental Health Emergencies in Uganda
Okaka Wilson

P3.14 Effectives of Interdisciplinary Communication Skills Policy Practice for by Junior Mental Health Clinicians for SDG 3 Acceleration in Uganda and Africa
Okaka Wilson

17:00

Plenary #3

Making youth justice aware of neurodevelopment and fetal alcohol

Moderation: **Roy-Doray Bérénice** and **Harrington Sophie**

Neurodevelopmental disorders are a documented source of vulnerability within the justice system. This is particularly true when they are linked to FASD. A justice system that is ill-informed on this subject will, unfortunately, be both less effective at protecting everyone, and unfair. Yet the needs are well documented and proposals do exist.

PL3.1 Behind Bars and Undiagnosed: Revealing the High Prevalence of FASD in French Youth Detention.
Roy-Doray Bérénice

PL3.2 FASD in youth justice: policy reform for prevention, diversion and rehabilitation
Robards Fiona and Elliott Elizabeth

PL3.3 The development of a Neurodevelopmental Practice Framework and Guidelines for the Youth Justice system in Queensland, Australia: integrating neurodevelopmental and trauma-informed care
Dawe Sharon

PL3.4 Facing collective resistance
Titran Benoît

Roundtable

18:15 Break

19:00 - 20:00 **EUFASD General Assembly***

**For members only*

TUESDAY 15 SEPTEMBER

8:30 - 10:00 **Parallel sessions B**

B1 / Brain, Cognition & Behavior: from altered neuronal balance to altered adaptative functioning

Moderation: **Gerstner Thorsten** and **Meintjes Ernesta**

The brain, substrate of our cognition and behaviour, is a prime target for the toxic effects of alcohol during pregnancy. This session explores the neurophenotype of FASD from the alteration of neuronal balance to that of adaptative behaviours, also investigating the ways and means of its variability among the range of NDDs.

B1.1 Altered brain excitation-inhibition balance in children with prenatal alcohol exposure

Long Xiangyu

B1.2 Motor performance and brain gray and white matter in young children with prenatal alcohol exposure

Kar Preeti

B1.3 From neuroanatomical signature to psychometric profile in a series of FASD: an attempt to predict recurrent cognitive deficits

Kerdreux Eliot

B1.4 Investigating the impact of the dose and timing of low-level prenatal alcohol exposure on adolescent development: An Adolescent Brain Cognitive Development Study

Devine Emma

B1.5 Cognitive and adaptive functioning in FASD across childhood, adolescence, and adulthood: Service evaluation study with 15+ years of UK clinic data

Carlisle Alexandra

B1.6 Adaptive Functioning in Children Prenatally Exposed to Illicit Drugs compared to children with FASD

Langseth Stine Urstad

B1.7 How does prenatal cannabis influence early brain development in offspring? Review of results from human studies.

Løhaugen Gro

B2 / Health & Care: useful sharings of experiences and practices

Moderation: **Skranes Jon** and **Garzon Pauline**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from being more thoroughly tailored and evaluated and in any case, form enhanced sharings of experiences and practices: pathway to and within care, (co-)design of interventions, differential diagnosis strategy...

B2.1 Pathfinder for FASD: How FASQ.online Reveals Complex Symptom Profiles
Theen Timm

B2.2 Prenatal alcohol exposure: an innovative program to improve the monitoring and children' outcomes
Souksi Isabelle

B2.3 When Language Fails: Understanding Speech and Communication in FASD
Spruit Manon

B2.4 Together towards INTERDEPENDENCE - Young Adults with FASD
Borkowska Magdalena

B2.5 Twenty-Five Years of Visual and Ocular Findings in Swedish Cohorts with FASD: Diagnostic Patterns and the Utility of the FASD Eye Code
Aring Eva and Andersson Grönlund Marita

B2.6 The "Double Hit" of Fetal Alcohol Spectrum Disorders (FASD): Systematic Genetic Testing Reveals Multivulnerability and Possible Alcohol-Mediated Clastogenic Effects
Roy-Doray Bérénice

B2.7 A Retrospective Central Nervous System Profile Analysis in Service Users with a Positive Genetic Diagnosis Seen in the UK National Fetal Alcohol Spectrum Disorder Clinic
Morris Freya

B3 / **Humanities & Social Science:** psychosocial barriers and facilitators to prevention and care
Moderation: **Toutain Stéphanie** and **Wielenga Froukje**

Beyond the validated and recommended strategies for prevention, diagnosis and intervention, the effectiveness of responses to the challenges posed by fetal alcohol is likely to depend, at all levels, on a number of obstacles and facilitating factors that the humanities and social sciences help to identify.

B3.1 An insight into the answers of danish pregnant women - and attitudes towards substance use screening, when asked anonymously. - A pilot study
Wedel Michela

B3.2 Knowledge and perceptions of alcohol use during pregnancy: what do the French say in 2025?
Quatremère Guillemette

B3.3 Beyond Demographics: The Psychological Experience of Pregnancy as a Predictor of Alcohol Use during pregnancy
Xavier Maria

B3.4 Foetal alcohol spectrum disorders and health literacy in Switzerland: identifying the factors limiting adoption of the precautionary principle
Notari Luca and Labhart Florian

B3.5 Understanding barriers to abstinence: evidence from qualitative studies on women's perceptions and experiences
Hammer Raphael

B3.6 Why diagnose FASD? Opinions in French parents and professionals
Simmat-Durand Laurence

B3.7 Caregivers' Experiences of Family-Based Trauma-Informed Interventions for Children with Prenatal Alcohol Exposure
Shepherd Ellie

10:00 Coffee break

10:30 **Poster session 2**

*P4 / **Health & Care***
Moderation: **Landgraf Mirjam**

P4.01 Therapist experiences of adapting Theraplay to better meet the needs of care experienced children with developmental trauma, attachment disruptions, and FASD
Purrington Jack

P4.02 SPECIFIC (Salford Parents and carers' Education Course for Improvements in FASD outcomes In Children: A qualitative interview study of participants' and facilitators' experiences of the programme
Perryman Katherine

P4.03 Therapy as a Tool, Relationship as the Goal: A Family-Based Intervention Approach in FASD
Malanowska Justyna

P4.04 Transformative Approaches in Fetal Alcohol Spectrum Disorder (FASD) Support: A Quarter Century Journey with the Lakeland Centre
Murphy Lisa

P4.05 Fetal Alcohol Spectrum Disorder (FASD). Care for young people and their families in the context of multidisciplinary care networks – structures, approaches and access routes in a European comparison
Brauer Erika

P4.06 Upcoming project – Can We Find Them Early and Predict Outcome? Including Children with High Risk of FAS/FASD in the Neonatal Follow-up Program –Opportunities for Early and Targeted Interventions
Malmberg Ebba

P4.07 FASD and Prematurity: A Double Burden of Vulnerability. Insights from the Reunion Island Cohort
Roy Doray Bérénice

P4.08 The La Réunion Model: A Territorial Strategy for Fetal Alcohol Spectrum Disorders (FASD) as a Blueprint for National Policy
Roy Doray Bérénice

P4.09 Interventions and service provision for individuals and families affected by FASD: A scoping review
Price Alan

P4.10 Developing FAS-Specific Growth Charts to Improve Clinical Monitoring and Differential Diagnosis
Dylag Katarzyna

P4.11 Prevention and detection of fetal alcohol spectrum disorders in general practice
Leruste Sébastien

P4.12 Campaign: too young to drink in Romania and Moldova
Smelik Inge Jose

P4.13 A Mobile Multidisciplinary Resource Team for FASD in Réunion Island: Coordinating Children's Care Pathways, A Unique French Structure, a Model to Follow?
Sileza Murielle

P4.14 Italian Guidelines for the diagnosis and treatment of Fetal Alcohol Spectrum Disorders
Fiore Marco

*P5 / **Scientific, Translational + Health & Care (prevention)***
Moderation: **Andreu Fernández Vicente**

P5.01 The Placenta as the "First Victim" of Alcohol: From Pathophysiology to High-Risk Pregnancy Management
Roy Doray Bérénice

P5.02 Epigenetic Signatures of Alcohol Toxicity: From Molecular Mechanisms to Diagnostic Biomarkers in Fetal Alcohol Spectrum Disorders
Roy Doray Bérénice

P5.03 Global analysis of the transcriptomic placenta–cortex expression profile reveals changes in several neuroactive ligands and/or receptors ratios after prenatal alcohol exposure
Falluel-Morel Anthony

P5.04 Ultrasound localization microscopy as a tool to detect early cerebrovascular alterations in non-syndromic fetal alcohol spectrum disorders?
Leroy Anais

P5.05 Impact of prenatal alcohol exposure on pericyte morphology around micro vessels in the developing neocortex
Legouez Lou

P5.06 Angiogenesis-Associated Epigenetic Signatures in Partial FASD
Cornillat Guillaume

P5.07 Live-advanced light imaging as a potential cellular screening tool for toxic exposure effects
Galas Ludovic

P5.08 How does prenatal cannabis influence early brain development in offspring? Review of results from animal studies
Skranes Jon

P5.09 FASD Research Australia: An NHMRC Centre of Research Excellence
Elliott Elizabeth

P5.10 Appraisal of international and Australian policies for preventing alcohol harms in pregnancy and FASD
Robards Fiona

P5.11 An international and Australian appraisal of guidelines for preventing alcohol harms in pregnancy and FASD
Robards Fiona

P5.12 A Pilot Approach to the Prevention of Prenatal Alcohol Exposure in Republic of Moldova
Siscanu Dumitru

P5.13 Ocular Biomarkers Driven by Artificial Intelligence for Early, Scalable Screening of Fetal Alcohol Spectrum Disorders: A Systematic Review
Mirahi Afrooz

P5.14 Reducing alcohol-exposed pregnancies in Slovenia
Roskar Maja

P5.15 Promoting Participation and Resilience in Children & Youth with FASD Through an Occupational Therapy Lens
Gharehptian Stefani

*P6 / **Humanities & Social Science***
Moderation: **Simmat-Durand Laurence**

P6.01 Perceptions Matter: Exploring the Emotional Impact of Being Understood or Misunderstood in Individuals with Fetal Alcohol Spectrum Disorder (FASD) and Their Caregivers
Rabbani Kanzah

P6.02 Advancing Human Rights Across the Lifespan for People with Fetal Alcohol Spectrum Disorder
Pei Jacqueline

P6.03 "Seeing the world differently": Barriers and Opportunities for Housing Solutions for Individuals with Fetal Alcohol Spectrum Disorder
Pei Jacqueline

P6.04 Care for children and adolescents with FASD in the Netherlands: barriers and facilitators from lived experiences
Wielenga Froukje

P6.05 Gaps Between Awareness and Practice in the Prevention of Prenatal Alcohol Exposure: Evidence from a Qualitative Study in Chisinau municipality
Cociu Svetlana

P6.06 French territorial disparities in the diagnosis of fetal alcohol spectrum disorders
Toutain Stéphanie

P6.07 Improving Justice Responses for Individuals with FASD: Lessons from Australia's Evolving System Reform
Harrington Sophie

P6.08 Navigating Complex Realities: Knowledge, Perspectives, and Practices on Alcohol Use During Pregnancy Among Portuguese Nurses and Physicians Working with Pregnant Women
Xavier Maria

P6.09 Where are the gaps? The prevention of FASD in Germany: mapping institutional structures, prevention approaches and individual projects
Schaub Stefan

P6.10 Navigating the Digital Maze: Online Information on Alcohol and Pregnancy Available in Switzerland
Notari Luca

P6.11 Expanding our understanding of the influences on perinatal alcohol use
Poole Nancy

P6.12 Alcohol Use Trajectories from Pre-Conception to Post-Pregnancy Recognition: Novel Data from Scottish Expectant Mothers
Brown Ruth

P6.13 Geolocation of Fetal Alcohol Spectrum Disorders (FASDs) in Reunion Island: territorial disparities between patient needs and healthcare provision
Roy Doray Bérénice

P6.14 What's Happening in Canada?
Pei Jacqueline

11:30

Plenary #4

Exploring the neurophenotype: longitudinal, multimodal, adaptive

Moderation: **Løhaugen Gro** and **Lebel Catherine**

The brain, substrate of our cognition and behaviour, is a prime target for the toxic effects of alcohol during pregnancy. The neurophenotype of FASD is particularly complex, likely due to multiple interacting factors. Beyond the classical categories of neurodevelopmental disorders described in FASD (ADHD, IDD...), the longitudinal and multimodal study of this neurophenotype and its associated adaptive behaviours is likely to inform clinical practice and care interventions.

PL4.1 Keynote: Multimodal neuroimaging phenotype of FASD: what do we learn from longitudinal birth cohorts?
Meintjes Ernesta, University of Cape Town

PL4.2 Early identification of children at risk of FASD; an innovative model of care for children aged 0-3 years with confirmed PAE
Stevens Penelope

PL4.3 Multi-Informant Behavior Rating Inventory of Executive Function (BRIEF) Profiles in Norwegian Children with Fetal Alcohol Spectrum Disorder (FASD)
Tveiten Anne Cecilie

PL4.4 Seizures in fetal alcohol spectrum disorder (FASD): evaluation of clinical, electroencephalographic, and neuroradiologic features in a large sample of Norwegian children
Gerstner Thorsten

13:00 Lunch break

14:00 **Authority's talk**

14:30 - 16:00 **Plenary #5**

Advancing care and support: individualized, integrated and inclusive

Moderation: De Vries Jan and Lunderød Silje

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from being more thoroughly tailored and evaluated. In any case, research and practical experience support an approach seeking personalization, the integration of interventions both with one another and within the community, inclusion and empowerment.

PL5.1 Keynote: Whole-person Whole-Community: Advancing comprehensive care and support for people with FASD
Reid Natasha, University of Queensland

PL5.2 A co-designed online parenting programme for families affected by FASD (SPECIFiC): Findings from a large, randomised feasibility trial
Cook Penny

PL5.3 The Neurowise Model: Reframing therapeutic caregiving through a brain-based, dual-track approach for supporting caregivers, practitioners, and young people with FASD.
Webster Anna & Govan Rebecca

PL5.4 Empowering Recovery: 2nd Floor Women's Recovery Centre
Murphy Lisa

16:00 Coffee break

16:30 **Parallel sessions C**

C1 / Scientific & translational: from understanding mechanisms to new markers and targets (II. neurones, placenta and vasculature)

Moderation: **Pierrefiche Olivier** and **Navarro-Tapia Elizabet**

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, a better understanding of involved mechanisms paves the way for the

identification of new biomarkers and targets to improve the diagnosis and management of FASD. Second session: focusing on neural, placental and vascular development and function.

C1.1 Prenatal alcohol exposure remodels cortical glutamatergic synapses and disrupts cognition in adolescent mice
Caffino Lucia

C1.2 Modulating alcohol-induced cellular stress in neuronal and placental cell lines: therapeutic perspectives
Navarro-Tapia Elizabet

C1.3 Dysregulation of placental CD146 by PAE is associated to oligo-vascular damages and neonatal troubles
Gonzalez Bruno

C1.4 Endocannabinoid system as a potential therapeutic target against alcohol's deleterious effect on fetal cerebral arteries
Bukiya Anna

C1.5 Retinal Microvascular Alterations as a Quantifiable Biomarker of Brain Abnormalities in Fetal Alcohol Spectrum Disorders
Brasse-Lagnel Carole

C1.6 3D Imaging of Cerebellar Vascular Alterations in FASD
Racine Camille

C1.7 Phosphatidylethanol quantification in dried blood spot samples from three-day-old newborns: a preliminary study in Normandy for neonatal screening of fetal alcohol exposure during late pregnancy
Coulbault Laurent

C2 / **Health & Care:** from multiple environmental risk factors to mental health issues
Moderation: **Mukherjee Raja** and **Pei Jacqueline**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. This course is often characterised by the presence of neurodevelopmental and psychosocial risk factors that are comorbid with foetal alcohol, and ultimately by the manifestation of mental health issues that go beyond the strict scope of NDDs. Taking this complexity into account is likely to be a key factor in improving their health and well-being.

C2.1 Polysubstance exposure in children with Fetal Alcohol Spectrum Disorder (FASD): Results from a national surveillance conducted by the Australian Paediatric Surveillance Unit (APSU).
Nunez Miranda Carlos

C2.2 Challenges in Supporting Biological Mothers of Infants with Confirmed PAE in Adoptive Families Foundation's Intervention Preadoptive Center (Otwock, Poland) analysis of 48 cases
Sawionek Iwona

C2.3 Adoptees and special needs: FASD compared with other clinical difficulties and the impact across quality of life domains
Bazzo Stefania

C2.4 Maltreatment and placement stability predict neurocognitive functioning in children assessed for Fetal Alcohol Spectrum Disorder (FASD)
Dawe Sharon

C2.5 Failures in Child Protection Measures as a result of misdiagnosis of FASD
Linares Alonso Ana Maria

C2.6 What predicts and protects against mental health disorders in adolescents with FASD in remote Australian Aboriginal communities? The Bigiswun Kid (adolescent) Project
Elliott Elizabeth

C2.7 Suicidality and Fetal Alcohol Spectrum Disorder: Challenges and Recommendations in Identification and Assessment
Nania Cara

C3 / **Miscellaneous:** from feelings about PAE tests… to feelings of pain in FASD
Moderation: **Borkowska Magdalena** and **Berquin Patrick**

A session to cover micellaneous but important issues, from acceptance of screening for prenatal alcohol exposure, to characteristics of pain in people with FASD, or the role of FASD in relation to psychosocial and justice issues in adulthood.

C3.1 Understanding Pain in Individuals with FASD: Prevalence, Impact, and Care
Nania Cara

C3.2 FAS vs pFAS: Do Children with pFAS Require Less Support? Developmental Outcomes and Classification Challenges in Children Diagnosed at Adoptive Families Foundation's Diagnostic Center Fasada in Warsaw, Poland
Sawionek Iwona

C3.3 ADHD in Children with Fetal Alcohol Spectrum Disorders: Epidemiology, Diagnostic Challenges, and Therapeutic Implications — A Narrative Review
Berquin Patrick

C3.4 The Role Of Fetal Alcohol Spectrum Disorder (FASD) in the Overincarceration of Indigenous Women: Psychologists' and Psychiatrists' Perspectives
Asghar Rina

C3.5 UK birth parents experiences of pregnancy and caring for children with FASD: Results from a multi-phase qualitative study
Macdougall Stewart

C3.6 From denial to action? Reactions to biomarker-based research on alcohol drinking among pregnant women
Okulicz-Kozaryn Katarzyna

	C3.7 Would You Get Tested? A Co-created Public Opinion Poll of Society's Views on the Potential Development of Molecular Biomarkers for Prenatal Alcohol Exposure **Cook Penny**
18:00	Break
19:30 - 23:00	Conference Dinner

WEDNESDAY 16 SEPTEMBER

9:00

Plenary #6

New ways of tackling persistent challenges: surveillance, prevention, education

Moderation: **Landgraf Mirjam N.** and **Chanal Corinne**

Addressing the issue of fetal alcohol involves tackling a range of challenges for which there are often no optimal or definitive solutions – for example, in the areas of epidemiological surveillance, prevention or professional training – but which innovation enables us to revisit with a view to improving tools and practices and eventually scaling-up.

PL6.1 Results of the First National Cross-Sectional Study on the Prevalence of Alcohol and Cannabis Use Among Pregnant Women in Slovenia Based on Meconium Biomarker Analysis
Velkavrh Manca

PL6.2 Prevalence and characteristics of heavy prenatal alcohol exposure in France 2015-202(4) Mining the French national healthcare insurance (SNDS) database
Crassous Agnès

PL6.3 Preventing Fetal Alcohol Spectrum Disorders (FASD) on Reunion Island: Effectiveness of a Targeted and Innovative School-Based Educational Program for Middle- and High-School Students
Nekaa Meïssa

PL6.4 Interactive Self-Learning in Alcohol Prevention and Care for FASD: An Evidence-Based, Target-Group-Specific Digital Education Framework
Landgraf Mirjam N.

10:30 Coffee break

10:50

Plenary #7

Turning knowledge into action: from mixed experiences towards new policies

Moderation: Ciolompea Teodora and Nguyen-Than Viet

Although it is difficult to carry out epidemiological monitoring of fetal alcohol and to assess the associated burden of disease, there is now compelling and consistent evidence available on the scale of the global public health problem that FASD represents. Nevertheless, across Europe and the world, there is still a struggle to acknowledge this reality, learn from experiences and take effective actions.

PL7.1 Keynote: Burden of disease associated with FASD: methodological considerations and first results
Rehm Jürgen, CAMH, Toronto

PL7.2 From Evidence to Care Pathways: Australia's Evolving National Response to Fetal Alcohol Spectrum Disorder
Harrington Sophie

PL7.3 FASD in South Africa, 29 years of impact, a legacy of changing lives
Olivier Leana

PL7.4 50 years of campaigning to raise awareness of FASD in France
Metelski Catherine

Roundtable

12:20 **Results elected Board**

12:30 **Announcement EUFASD 2028**

12:40 - 13:00 **Conference Closing**

Plenary #1: Understanding pathogeny and individual sources of variability

Monday 14 September 9h30-11h00
Moderation: **Gonzalez Bruno** and **Andreu Fernández Vicente**

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, it sheds light on our understanding of the variability in clinical manifestations beyond differences in alcohol exposure, by elucidating the interaction between ethanol and genetic predisposition, via epigenetic mechanisms or the reprogramming of brain development.

PL1.1 Keynote: From individual susceptibility to common mechanisms: how genetics and epigenetics shed light on our understanding of FASD

Kaminen-Ahola Nina, University of Helsinki

The consequences of prenatal alcohol exposure (PAE) for the developing individual depend not only on genetic background but also on the timing of the exposure. To elucidate the effects of PAE on embryonic development and lifelong health, we use both human cell models and biological samples collected at birth. We are particularly interested in epigenetics—how alcohol alters epigenetic marks that regulate gene function and, consequently, developmental trajectories. Our focus is on early pregnancy when cell type–specific epigenetic profiles are established. This period is especially sensitive to environmental influences, and some alterations may become permanently fixed in the cells as marks of exposure. This epigenetic memory may help us understand the mechanisms underlying developmental disorders and provide biomarkers for diagnosis.

We have investigated the effects of PAE on gene regulation in the placenta and identified alterations in genes involved in neurodevelopment and synaptic function. These genes have previously been associated with ADHD, autism spectrum disorders, schizophrenia, and addiction. We also observed associations between placental molecular changes and the neuropsychological and dysmorphological features of the same children assessed at six years of age. These findings suggest that the placenta provides insight into the etiology of alcohol-induced developmental disorders as well as raises important questions about epigenetic memory and the placenta–brain axis.

PL1.2 Genetic Factors Contributing to Fetal Alcohol Syndrome

Parnell Scott (1), Lapham Ruby (1), Sadritabrizi Taraneh (1), Eberhart Johann (2)

(1) University of North Carolina (United States), (2) University of Texas at Austin (United States)

While the timing and amount of alcohol exposure play large roles in the precise effects of prenatal alcohol exposure, genetics also modify susceptibility to alcohol. In our mouse model of Fetal Alcohol Syndrome, which phenocopies many of the brain and craniofacial features

observed in humans with FAS, we typically use the C57BL/6J (C57) strain of mice. However, we have recently discovered numerous other mouse strains with varying susceptibility to a similar gastrulation-stage exposure. We have recently reported on the 129S1/SvImJ (129S1) strain, which is completely resistant to the effects of alcohol during gastrulation. More recently, we performed a transcriptomic (RNA-Seq) comparison of gastrulation-stage embryos from the C57 and 129S1 strains to determine genes that are differentially expressed between the two strains in order to identify candidate genes that may modify susceptibility to alcohol. Among the many genes that are differentially expressed between these two strains, many genes in the planar cell polarity (PCP) pathway, primary cilia genes, and apoptosis pathways were identified. Follow up screens using CRISPR/Cas9 in zebrafish of the genes dysregulated in the PCP pathway revealed gene/ethanol interactions in Fzd5 and Dkk2, which are being followed up in mouse transgenic knockout lines. In a separate, but related, experiment, the 129S1 line was backcrossed successively onto the C57 strain for five generations to gradually add in more C57 susceptibility genes. Over the course of these five generations, the backcrossed lines have become progressively more susceptible to the effects of a gastrulation-stage alcohol exposure. Examination of the DNA of the affected and unaffected embryos allows us to identify candidate genes that may modify susceptibility to prenatal alcohol exposure. Together, these data will provide for a better understanding of the genes and pathways involved in FAS and the underlying mechanisms of how prenatal alcohol exposure disrupts early embryonic development.

PL1.3 Early Ethanol Exposure Reprograms Brain Development: Mechanistic and Behavioral Insights into Fetal Alcohol Spectrum Disorders

Gerace Elisabetta (1), Rizzi Beatrice (2), Resta Francesco (1), Polverini Federica (3), Mottarlini Francesca (2), Curti Lorenzo (3), Costa Alessia (3), Scianaro Valentina (3), Leggieri Glenda (3), Scaglione Alessandro (1), Fumagalli Fabio (2), Pavone Francesco Saverio (1), Mannaioni Guido (3), Caffino Lucia (2)

(1) European Laboratory for Non-linear Spectroscopy and Department of Physics and Astronomy, University of Florence, Florence, Italy. (Italy), (2) Department of Pharmacological and Biomolecular Sciences 'Rodolfo Paoletti', University of Milan, Milan, Italy. (Italy), (3) Department of Neurosciences, Psychology, Drug Research and Child Health, University of Florence, Florence, Italy. (Italy)

Prenatal alcohol exposure (PAE) leads to a wide spectrum of neurodevelopmental alterations collectively referred to as fetal alcohol spectrum disorders (FASD), often characterized by cognitive and social deficits. The prefrontal cortex (PFC), a key region involved in executive function and social behavior, is particularly vulnerable to early alcohol exposure. However, the mechanisms linking synaptic alterations in the PFC to large-scale circuit dysfunction and behavioral impairments remain poorly understood. Objective: To investigate the molecular, circuit-level, and social behavioral consequences of early PAE, with a focus on PFC synaptic alterations and their impact on cortical network connectivity.

METHODS
An in vivo model of PAE was established by exposing pregnant C57BL/6 mice to 10% ethanol during early gestation. Offspring were analyzed for protein expression in PFC postsynaptic density fractions, focusing on molecules involved in synaptic plasticity, vesicular trafficking, and autophagy pathways. Functional cortical connectivity was assessed using wide-field calcium imaging combined with optogenetic stimulation. Based on connectivity findings, whole-cell patch-clamp recordings were performed in neurons of the retrosplenial cortex. Social behavior was evaluated using standardized tests of sociability and social memory.

RESULTS
PAE significantly reduced the expression of the neurotrophin BDNF and its receptor TrkB in the PFC, indicating impaired cortical neuroplasticity. These alterations were associated with disruptions in vesicular trafficking and autophagy-related pathways, including altered expression of Rab proteins involved in synaptic transport and vesicle recycling, as well as dysregulation of key regulators of protein synthesis and autophagy such as mTOR and S6. Functional connectivity analysis revealed a reorganization of cortical networks across distinct regions of the dorsal cortical mantle, with prominent alterations involving the retrosplenial cortex. Electrophysiological recordings in this region confirmed synaptic dysfunction, characterized by a reduced frequency—but unchanged amplitude—of spontaneous excitatory postsynaptic currents, suggesting diminished excitatory input. Importantly, these molecular and circuit-level alterations were accompanied by reduced sociability and impaired social memory.

CONCLUSIONS
Early PAE induces persistent molecular and synaptic alterations that reshape cortical network connectivity and lead to social behavioral deficits. These findings provide mechanistic insight into the neurobiological basis of FASD and contribute to a better understanding of its pathogenesis

Plenary #2 Improving etiological diagnosis, especially FAS-less: biomarkers and newtech

Monday 14 September 14h00 – 15h30
Moderation: **Germanaud David** and **Mukhopadhyay Arijit**

Efforts to formalise the diagnosis of FASD have led to a high degree of consensus on clinical recommendations. However, the diagnosis of non-specific forms – those not presenting with FAS – remains probabilistic and more challenging if a high degree of aetiological confidence is to be achieved. The development of diagnostic markers and newtechs to complement clinical assessment offers a realistic prospect of improving the situation.

PL2.1 Discovery of a DNA methylation episignature as a molecular biomarker for fetal alcohol syndrome

Henneman Peter (1), Van Der Laan Liselot Valenzuela Irene, Mul Adri, Alders Mariëlle, Levy Michael A, Kerkhof Jennifer, Jessica Rzasa, Cueto-Gonzalez Anna M, Lasa-Aransasti Amaia, Cea-Arestin Cristina, Mannens Marcel M.a.m., Van Haelst Mieke M., Tizzano Eduardo F., Sadikovic Bekim

(1) Amsterdam University Medical Centers (Netherlands)

Foetal Alcohol Spectrum Disorder (FASD) encompasses a range of clinical features and neurodevelopmental disorders resulting from prenatal alcohol exposure (PAE). Globally, FASD is estimated to affect up to 0.5–2.0% of the population, with regional prevalence estimates reaching as high as 8%. Despite this global public health impact, FASD diagnosis remains challenging due the lack of reliable information on PAE and/or non-specific clinical findings. Here we report on a peripheral blood DNA methylation (DNAm) profile as a diagnostic biomarker for Foetal Alcohol Syndrome. Genomic DNA methylation (DNAm) profiles from 93

individuals with suspected or confirmed FAS(D), including a clinically diagnosed FAS subgroup, were analyzed and compared with a large database of control and patient cohorts with previously reported DNAm episignatures. In this study, using a support vector machine (SVM) based approach, we detected a unique DNAm profile providing a robust episignature biomarker for FAS. These findings may contribute to the molecular understanding of FAS, but more importantly, contributes to (clinical) diagnostic accuracy for this complex disorder. The newly identified FAS episignature will be incorporated into the EpiSign panel v6 (release expected in 2026), which will include more than 200 condition-specific episignatures. Use of this comprehensive panel as a tier-1bimarker tool within the clinical diagnosis is expected to shorten the often-lengthy diagnostic journey for these patients and thereby contribute to improved patient well-being and reduced healthcare costs.

PL2.2 Metabolomic signatures coupled with predictive analytics for early fetal alcohol spectrum disorder diagnosis

Navarro-Tapia Elizabet (1), Ramos Triguero Anna (1), Vieiros Melina (1), Garcia-Algar Oscar (2), Andreu-Fernández Vicente

(1) Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS) (Spain), (2) Neonatology Unit, Hospital Clinic-Maternitat (Spain)

Individuals with FASD show increased vulnerability to substance use disorders, suggesting persistent dysregulation of reward-related neural circuits. Emerging evidence indicates that PAE induces stable epigenetic modifications affecting genes involved in neurotransmission, synaptic plasticity, and neuronal adaptation. This study aimed to evaluate DNA methylation alterations in promoter regions of genes associated with the reward system and synaptic plasticity in children diagnosed with FASD.

A total of 93 bisulfite-treated DNA samples were analyzed, including 63 children with FASD and 30 age-matched controls. Methylation-specific PCR (MS-PCR) was performed targeting promoter regions of genes involved in dopaminergic, glutamatergic, serotonergic, opioid, and cannabinoid signaling, as well as genes regulating synaptic plasticity, transcriptional activity, and cytoskeletal dynamics. Primer specificity was validated using fully methylated and unmethylated controls. PCR products were resolved by agarose gel electrophoresis, and band intensities were quantified using image analysis software to calculate methylation ratios. Group comparisons were conducted to identify differentially methylated regions, which were selected for further sequencing-based validation.

Children with FASD exhibited distinct DNA methylation patterns compared to controls in multiple genes related to reward processing and synaptic plasticity. Alterations were observed in genes regulating dopamine transport and receptor signaling, glutamatergic neurotransmission, and opioid and cannabinoid pathways. Additionally, several plasticity-related genes involved in neurotrophic support, synaptic remodeling, and activity-dependent transcription showed differential promoter methylation in the FASD group. These findings suggest coordinated epigenetic dysregulation affecting reward circuitry and neuronal adaptability following PAE.

PAE is associated with persistent epigenetic alterations in key genes governing reward signaling and synaptic plasticity in children with FASD. This epigenetic reprogramming may contribute to impaired reward regulation, reduced neural adaptability, and increased vulnerability to addictive behaviors. Identifying methylation signatures in these pathways may

provide mechanistic insight into FASD neurobiology and support the development of targeted preventive and therapeutic strategies.

PL2.3 Beyond face in FASD: leveraging additional anatomical markers to improve the likelihood of causal link with alcohol in non-FAS forms of the disease

Germanaud David (1), (2), (3)

(1) Unité de recherche en neuroimagerie appliquée, clinique et translationnelle (France), (2) InDEV team, NeuroDiderot UMR (France), (3) Centre de Référence Maladies Rares Déficiences Intellectuelles et Troubles du Neurodéveloppement (DéfiScience) / Rare Disease Reference Center for Intellectual Disability and Neurodevelopemental Disorders [CHU Robert-Debré, AP-HP] (France)

Alcohol-induced developmental disease gets translated into nosography and clinical practice through fetal alcohol spectrum disorder (FASD) diagnosis. From a functional (cognitive and behavioral) perspective, patients present with a diverse and often particularly complex combination of neurodevelopmental disorders (NDD) that fit the same clinical description and definition as in other aetiological contexts than fetal alcohol. From an aetiological perspective, a distinction is made between forms with a positive diagnosis, associated with fetal alcohol syndrome (FAS) and its specific facial phenotype, and forms with a more-or-less likely probabilistic diagnosis in the absence of complete or partial FAS, which epidemiology strongly suggests are the most numerous.

Few proposals have been made adn tested to try to strengthen the robustness of the diagnosis of these non-syndromic forms (NS-FASD), beyond the strong but rather poorly specific argument of an epidemiologically grounded association. However, it is likely that this uncertainty is an obstacle to their better recognition and widespread diagnosis, even though a number of complementary (may-be alternative) anatomical markers to facial features have been described that could find clinical use.

Based on the work of our team in neuroimaging, as well as ophthalmological and bone imaging, and a review of the literature on non-facial anatomical features in FAS and FASD, it appears that a number of proven non-facial anatomical markers of fetal alcohol observed at relatively high frequencies in FAS, are found in patients with NS-FASD but at lower ones. It is therefore conceivable to establish associations between these markers that would constitute a relatively specific fetal alcohol anatomical signature that would be characterized in FAS (scores or trained classifiers), but also observed in a significant number of patients with NS-FASD, then likely to be useful in clinical practice to improve the likelihood of causal link with alcohol in the laters.

Other approaches exist that aim to improve positive and differential aetiological diagnosis in FASD (omics...), but the syndromic approach, which includes the neuroanatomical phenotype in a broader morphological signature, going beyond face and learned in patients with FAS, is promising in light of the literature and would be worthy of a multicentre clinical trial effort.

PL2.4 Quantitative Three-Dimensional Characterization of Facial Dysmorphism in African American Individuals with Prenatal Alcohol Exposure

Li Qing (1) (2) (3), Mozaffarian Zahra (1) (2), Moghaddasi Hanie (1) (2), Wetherill Leah (4), Coles Claire (5), Kable Julie (5), Mattson Sarah (6), Wozniak Jeffrey (7), Del Campo Miguel (8) (9), Suttie Michael (1) (2)

(1) Nuffield Department of Women's & Reproductive Health, University of Oxford (United Kingdom) ((2) Big Data Institute, University of Oxford (United Kingdom), (3) Department of Orthopedic Surgery, State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College (China), (4) Department of Medical and Molecular Genetics, Indiana University School of Medicine (United States), (5) Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine (United States), (6) Department of Psychology, San Diego State University (United States), (7) Department of Psychiatry, University of Minnesota (United States), (8) Division of Dysmorphology and Teratology, Department of Pediatrics, University of California San Diego (UCSD) (United States), (9) Division of Genetics, Rady Children's Hospital San Diego (United States)

Prenatal alcohol exposure (PAE) causes a spectrum of developmental abnormalities known as fetal alcohol spectrum disorders (FASD), including characteristic craniofacial dysmorphology. The most recognisable form, fetal alcohol syndrome (FAS), is defined by growth restriction, neurodevelopmental impairment, and distinctive facial features. However, objective and quantitative assessment of facial morphology remains limited, particularly in underrepresented populations such as African American children.

METHODS
We analyzed 3D facial images from 307 African American children classified as controls, PAE, or PAE with physical features consistent with fetal alcohol syndrome (PAE-FAS). Facial morphology was assessed using volumetric and measurement-based approaches, complemented by statistical shape modeling to enable surface-based analysis, regional characterization, and group-level comparisons.

RESULTS
Facial growth was significantly reduced in the PAE-FAS group compared to controls. A subset of PAE individuals without clinically defined FAS features exhibited morphological similarity to the PAE-FAS group in unscaled models, suggesting subclinical dysmorphology. Sex-stratified analyses revealed alcohol-associated alterations in facial sexual dimorphism, with stronger growth deficits observed in females than in males. In addition, distinct patterns of dysmorphology were identified in the PAE group, including underdevelopment of the zygomatic region and region-specific shape variation.

CONCLUSIONS
Three-dimensional facial analysis enables detection of both overt and subtle morphological effects associated with prenatal alcohol exposure in African American children, a population underrepresented in current clinical literature. These findings support the use of quantitative facial phenotyping as a complementary tool to improve characterization of FASD and enhance diagnostic accuracy, particularly in individuals without overt clinical features.

Plenary #3: Making youth justice aware of neurodevelopment and fetal alcohol

Monday 14 September 17h00 – 18h15
Moderation: Roy-Doray Bérénice and Harrington Sophie

Neurodevelopmental disorders are a documented source of vulnerability within the justice system. This is particularly true when they are linked to FASD. A justice system that is ill-informed on this subject will, unfortunately, be both less effective at protecting everyone, and unfair. Yet the needs are well documented and proposals do exist.

PL3.1 Behind Bars and Undiagnosed: Revealing the High Prevalence of FASD in French Youth Detention.

Roy-Doray Bérénice (1) (2) (3) (4), Morin Clémentine (5), Portelette Miléna (5), Dejoux Florentin (2), Bagard Maïté (2), Durand Frédéric (6), Albert Alexandra (7), Bertin Franck (8), Spodenkiewicz Michel (9), Nekaa Meïssa (10)

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FASD is the leading non-genetic cause of neurocognitive disorders and social maladjustment. The resulting deficits in executive functioning and adaptive behavior drastically predispose youth to legal conflicts, increasing the risk of incarceration by 19-fold compared to the general population. While Reunion Island is a pioneer in France for FASD support, epidemiological data within the national justice system remains non-existent. The objective of this study was to estimate FASD prevalence among youths in detention in Reunion Island.

METHODS AND PARTICIPANTS
A multidisciplinary action-research project was conducted within the sole youth detention facility in Reunion Island during the 2022–2024 period. The comprehensive assessment protocol involved a medical geneticist, a psychologist, and psychiatric evaluations for adolescents aged 14 to 18. Diagnoses were strictly established according to the Australian Guide to the Diagnosis of FASD. Uniquely, this study also investigated neurodevelopmental phenotypes associated with confirmed preconception paternal alcohol exposure, an emerging field of research. Fifty-three adolescents were initially recruited. Seventeen were excluded due to refusal, early release, or incomplete data. Consequently, 36 young people (94% male) completed the full assessment.

RESULTS
The study revealed that 83% of participants suffered from severe neurodevelopmental impairment in at least one domain. Typical FASD linked to maternal exposure was identified in 10 cases (28%), comprising 4 cases of Fetal Alcohol Syndrome (FAS) and 6 cases of

Alcohol-Related Neurodevelopmental Disorder (ARND). When including 6 additional cases linked to confirmed paternal preconception exposure, the prevalence of alcohol-associated neurodevelopmental disorders rose to 44% (16/36). Significantly, the vast majority of these youths displayed co-occurring addictions to psychoactive substances, complicating their clinical profiles. These findings are fully concordant with prevalence rates observed in Canadian and Australian correctional systems (11%–36%).

CONCLUSIONS
This pioneering French study reveals a critical overrepresentation of previously undiagnosed FASD among detained youths in Reunion Island. These findings highlight the extreme vulnerability of this population. There is an urgent need for systematic screening to identify specific cognitive deficits. Recognizing these disorders is essential to adapt judicial sentencing and tailor socio-educational rehabilitation strategies, moving beyond simple incarceration to effectively reduce recidivism."

PL3.2 FASD in youth justice: policy reform for prevention, diversion and rehabilitation

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Internationally, youth justice systems are under pressure to respond more effectively to neurodevelopmental disability and reduce avoidable detention. Fetal alcohol spectrum disorder (FASD) intersects with child protection, out-of-home care and juvenile justice, contributing to heightened child vulnerability and preventable justice contact and incarceration. Australian evidence illustrates the scale of this intersection: 75% of children and young people with FASD have contact with child protection, and in one Western Australian youth detention centre, 36% of young people met criteria for FASD. In New South Wales, young people with disability have higher youth justice contact than those without. Australian Aboriginal children are over-represented in both FASD cohorts and juvenile justice. We aimed to translate this evidence into policy-relevant advocacy to improve outcomes for adolescents with FASD in contact with the youth justice system.

APPROACH
We undertook targeted advocacy to strengthen recognition of FASD as a neurodevelopmental disability within youth justice policy and practice, and to promote reforms that prioritise prevention, diversion and rehabilitation. Key messages for policy reform (tri-fold action): Invest in the prevention of prenatal alcohol exposure and strengthen screening, early identification of FASD and early intervention supports that reduce contact with youth justice. Reform youth justice to minimise incarceration—particularly for young people with cognitive and other disability—through expansion of evidence-informed diversion programs that address children's underlying needs, and by raising the minimum age of criminal responsibility in Australia. Invest in workforce capability, including mandatory training for police, courts and custodial staff to recognise FASD, communicate effectively, and implement reasonable adjustments.

IMPLICATIONS
Opening up FASD, in the youth justice context, involves creating pathways for early diagnosis and intervention, rehabilitation, and diversion programs that respect the rights and dignity of young people with FASD, rather than perpetuating cycles of disadvantage. Community-based,

culturally safe supports can mitigate behavioural and social difficulties by promoting inclusion, stability and access to services. Meaningful change requires coordinated, cross-sector policy action with clear accountability, resourcing, implementation timelines and monitoring indicators. These recommendations are relevant beyond Australia for jurisdictions seeking disability-informed youth justice systems that reduce re-offending and prevent lifelong harm.

PL3.3 The development of a Neurodevelopmental Practice Framework and Guidelines for the Youth Justice system in Queensland, Australia: integrating neurodevelopmental and trauma-informed care

Dawe Sharon (1) (2), Chandler Mather Ned (2), Shanley Dianne (2), Hawkins Erin (2), Ogilvie James (2), Spall Tim. (3), Russell Kerry (3), Harnett Paul (2), Shelton Doug (4)

(1) Griffith University [Brisbane] (Australia), (2) Griffith University [Brisbane] (Australia), (3) Beyond the Pale Indigenous Corporation (Australia), (4) Queensland Health (Australia)

There is widespread recognition of the significant overrepresentation of young First Nations people with neurodevelopmental disabilities and histories of trauma in Australian and international youth justice systems. Of particular concern is Fetal Alcohol Spectrum Disorder (FASD); with widespread concerns regarding the misdiagnosis and underdiagnosis of FASD in particular, alongsider and other neurodevelopmental disabilities within youth justice contexts. In response, the Queensland Department of Youth Justice engaged a consortium of researchers, clinicians, and First Nations representatives to co-develop a Framework and Practice Guidelines to support staff working with young people in the youth justice system. Central to this work was extensive stakeholder engagement with Elders and Respected Persons from First Nations communities, family members, and young people with lived experience of youth justice, alongside Indigenous peak bodies (e.g., QATSIPP) and Aboriginal and Torres Strait Islander legal services (ATSILS). Consultation occurred across metropolitan, regional, and remote Queensland locations, including Mt Isa, Palm Island, Cairns, Townsville, and Cherbourg, commencing at project inception and continuing throughout development. In total, more than 200 stakeholder meetings were conducted. A comprehensive review of academic and grey literature was also undertaken to examine current policies and practices relating to the assessment and accommodation of neurodevelopmental disabilities in youth justice settings. Using content analysis, 939 practice and policy recommendations were extracted from 84 publications. These recommendations were categorised into four domains: (i) individual needs and clinical services; (ii) broader system-level responses; (iii) agency and practitioner context; and (iv) First Nations-specific considerations. Findings from the consultations and literature review informed the development of the Framework and Practice Guidelines, comprising five overarching principles to shape organisational culture and policy, and thirteen workforce competencies with associated sub-standards to guide practice. The Framework aims to support early identification of possible neurodevelopmental disability, provide strategies for responding to behaviours often misinterpreted as non-compliance, address the intersection of trauma and neurodevelopmental disability, and promote respectful, culturally-safe engagement with First Nations communities. This paper outlines the development process, key findings, and final Framework, with particular attention to trauma-informed, cross-system coordination across youth justice, child safety, and residential care, and discusses implications for policy, practice, and implementation.

PL3.4 Facing collective resistance

Titran Benoit, avocat (France)

Despite the consolidation of scientific knowledge on FASD and its social consequences over the past 30 years, in 2023 in France, 27% of women who have been pregnant in the last three years report having consumed alcohol during pregnancy. While we thought such a paradox was unprecedented and unique, we have been discovering these past 10 years other health/social issues suffering from the same collective resistance to adapt our individual, family and collective behaviors to a well-documented scientific reality. Climate, biodiversity, our documented scientific knowledge of the severity of the consequences of our lifestyles on our health, our unborn children's health and on our habitats do not lead us to change our behavior, exactly what we have been facing with FASD since 30 years. This parallel deserves to be deepened, both to better understand the collective processes and biases that hinder our adaptation to risks that are clearly identified as avoidable, but also to identify citizen's means of action for change, first and foremost by taking legal action. In the fight against climate inaction, several legal actions have been brought in the last 10 years in different European countries with effectiveness. These legal actions are conducted according to the same procedural model that has been used since 2002 in France to highlight the responsibility of the state for its inaction in the prevention of FASD and concerned person care. At the time, these legal actions led to significant progress on the recognition of FASD, prevention and the needs of concerned people including adoption of a legal obligation for initial and continuing training for professionals, adopted by the French Parliament in 2004. Legal concepts shape our vision of the world through what they name and designate. Questioning the responsibility of public authorities in Court, by reformulating in a binding framework the statement of risks, the extent of the damage and the offending nature of the authorities' inaction, helps to see the concerned people as victims and to integrate these realities into our vision of the world for a paradigm shift.

Plenary #4: Exploring the neurophenotype: longitudinal, multimodal, adaptive

Tuesday 15 September 11h30 – 13h00
Moderation: Løhaugen Gro and Lebel Catherine

The brain, substrate of our cognition and behaviour, is a prime target for the toxic effects of alcohol during pregnancy. The neurophenotype of FASD is particularly complex, likely due to multiple interacting factors. Beyond the classical categories of neurodevelopmental disorders described in FASD (ADHD, IDD...), the longitudinal and multimodal study of this neurophenotype and its associated adaptive behaviours is likely to inform clinical practice and care interventions.

PL4.1 Keynote: Multimodal neuroimaging phenotype of FASD: what do we learn from longitudinal birth cohorts?

Meintjes Ernesta, University of Cape Town

Longitudinal multimodal magnetic resonance (MR) imaging (MRI) of three Cape Town-based cohorts – two prospective cohorts whose mothers were recruited during pregnancy (between 1999 and 2002, and 2011 and 2013, respectively) and one cross-sectionally recruited cohort of 8- to 12-year-old children – has revealed a complex and heterogeneous pattern of prenatal alcohol exposure (PAE)-related changes rather than a single defining lesion. On structural MRI we find regional changes in brain volume already evident in infancy, caudal and hippocampal shape differences, and dose-dependent cortical thinning and sulcal widening. Functional MRI (fMRI) reveals altered brain activity on various functional domains, including working memory and memory formation, eyeblink conditioning, number processing, response inhibition, spatial navigation, and interpretation of facial affect, as well as localized reductions in resting state functional connectivity. Overall, our results suggest that white matter is particularly vulnerable to the neurotoxic effects of alcohol, and that these deficits mediate effects of PAE on cognitive development. Notably, some PAE-related changes are dose-dependent, while others demonstrate threshold effects, being evident only in the most severely affected children diagnosed with fetal alcohol syndrome.

PL4.2 Early identification of children at risk of FASD; an innovative model of care for children aged 0-3 years with confirmed PAE

Harris Katrina (1), Kerr Rachel (1), Kour Rachel (1), **Stevens Penelope** (1)

(1) Monash Medical Centre (Clayton, Australia)

BACKGROUND
Children exposed to alcohol in utero are at increased risk of neurodevelopmental disorders, including Fetal Alcohol Spectrum Disorder. The challenges of identifying alcohol exposed children in the first 3 years of life, engaging biological families, and providing early neurodevelopmental assessment are barriers to care. Potential advantages of recognising

neurodevelopmental disorders associated with alcohol in early childhood are far-reaching for the child, family and community. There is a known associated increased risk of FASD and/or neurodevelopmental impairment for infants and children with moderate to heavy levels of prenatal alcohol exposure (PAE).

METHOD
This study describes an innovative model of care, providing neurodevelopmental assessment for 125 children aged 0-3 years exposed to alcohol in utero. This study describes the feasibility of the model with description of referral information, clinic attendance and participation, and assessments conducted. The clinical characteristics of the cohort and assessment diagnostic outcomes will be described with particular emphasis on the infants assessed in the clinic with moderate to heavy levels of PAE, which is associated with medium to high risk of FASD.

RESULTS
One hundred and twenty-five alcohol exposed children aged 0-3 years completed neurodevelopmental assessment using age-appropriate assessment tools, including the Bayley Scale of Infant and Toddler Development 4th Edition. The majority of children were living in out-of-home care, and one third were of aboriginal BACKGROUND. Birth mothers participated in the clinic in 53% of cases despite multiple psychosocial stressors complicating involvement. Of 125 assessed children, 108 (86%) children had moderate to heavy levels of prenatal alcohol exposure. 42% of children at moderate to high exposure met Australian criteria for diagnosis of FASD, with a further 58% designated as “At Risk”.

CONCLUSION
Infants and young children aged 0-3 years can be assessed for possible FASD using a tailored assessment approach, in alignment with Australian FASD guidelines. The potential benefits for biological parents, carers and for the child in enabling early identification, early intervention and timely family supports are far reaching.

PL4.3 Multi-Informant Behavior Rating Inventory of Executive Function (BRIEF) Profiles in Norwegian Children with Fetal Alcohol Spectrum Disorder (FASD)

Tveiten Anne Cecilie (1) (2), Løhaugen Gro (1), Skranes Jon (1), Gerstner Thorsten (1), Eikeland Randi (1) (2)

(1) Sorlandet Hospital HF, Arendal. (Norway), (2) University of Agder (Norway)

Executive function (EF) difficulties are common in children and adolescents with Fetal Alcohol Spectrum Disorder (FASD), yet Scandinavian evidence describing everyday EF across home and school environments remains limited. We characterized EF profiles in a Norwegian clinical cohort using scores from the Behavior Rating Inventory of Executive Function (BRIEF).

METHODS
Participants were 114 children and adolescents (2–18 years) referred to the Regional Competence Centre for Children with Prenatal Alcohol/Drug Exposure (RK-MR), Sørlandet Hospital, Arendal (Norway) with confirmed prenatal alcohol exposure and an FASD based on the 4-Digit Diagnostic Code in accordance with the Norwegian clinical guideline for diagnostic assessment of FASD. EF in home and school contexts was assessed with BRIEF parent and teacher forms (and BRIEF-P for preschoolers). Cognitive function was measured using the Wechler Intelligence Scale for Children (WISC-IV/V) and the Wechler Adult Intelligence Scale (WAIS IV) for those over 16 years. Adaptive functioning was assessed with the parent-reported Vineland-II.

RESULTS
Parents reported broadly elevated EF with high means on Flexibility (mean = 72.7) and Working Memory (mean = 72.7), as well as elevated indices (Behavioral Regulation Index (BRI) mean = 71.9; Metacognition Index (MI) mean = 69.9; Global Executive Composite (GEC) mean = 72.1). Teachers indicated even more pronounced school-based difficulties, especially Working Memory (mean = 76.6) and Flexibility (mean = 73.8), with elevated indices (BRI mean = 74.8; MI mean = 73.0; GEC mean = 75.6). In preschoolers, both informants showed marked elevations. Children above the BRIEF cut-off (T >65) tended to be older than those below (126.6 vs 111.4 months, p = .054), IQ did not differ (82.7 vs 82.1, p = .829), and adaptive functioning was significantly lower among those above the cut-off (Vineland 62.35 vs 68.94, p = .018). ADHD diagnosis was not associated with BRIEF elevation (83.3% vs 80.5%; p = .708).

CONCLUSIONS
Executive function deficits in Norwegian children and adolescents with FASD are severe and cross-contextual, more prevalent among older participants, independent of IQ and ADHD status, and co-occur with reduced adaptive functioning. Disclosures: None.

PL4.4 Seizures in fetal alcohol spectrum disorder (FASD): evaluation of clinical, electroencephalographic, and neuroradiologic features in a large sample of Norwegian children

Thorsten Gerstner (1), Skranes Jon (2) (3)

(1) Department of Pediatrics, Sørlandet Hospital, Arendal (Norway), (2) Regional resource center for children with prenatal alcohol/drug exposure, Sørlandet sykehus Arendal HF (Norway), (3) Neurorehabilitation unit, Department of Pediatrics, Sørlandet Hospital Arendal (Norway)

Fetal Alcohol Spectrum Disorder (FASD) encompasses a range of developmental, cognitive, and behavioural impairments caused by prenatal alcohol exposure. Previous studies have reported an increased prevalence of epilepsy among individuals with FASD; however, clinical characteristics, neuroimaging findings, and electroencephalography (EEG) profiles remain insufficiently described. This study aimed to determine the frequency of EEG abnormalities and epilepsy in a large Norwegian FASD cohort and to assess whether identified epilepsies might have etiologies unrelated to FASD. We further discuss how such findings could influence the diagnostic process leading to an FASD diagnosis.

METHOD
We conducted a cross-sectional study of 103 children diagnosed with FASD through a multidisciplinary assessment protocol, including a standardized 120-minute EEG recording. Epileptic disorders and EEG abnormalities were classified, and comprehensive clinical, neurodevelopmental, treatment-related, and MRI data were collected. Results: Epilepsy was diagnosed in 7.8% of the cohort, markedly higher than the national prevalence of 0.7% in Norway. EEG abnormalities were identified in 16.5% of participants, including all individuals with epilepsy. Among the eight children with epilepsy, three displayed features consistent with genetic or idiopathic epilepsy, and one child had a structural lesion evident on MRI.

INTERPRETATION
Both the Institute of Medicine (IOM) guidelines and the four-digit diagnostic code consider epilepsy a potential contributing feature in FAS/FASD classification. Although epilepsy occurred more frequently in our cohort, three cases were more suggestive of genetic or

idiopathic origins rather than FASD-related mechanisms. These findings raise the question of whether epilepsy with a likely genetic BACKGROUND should be incorporated into the diagnostic evaluation for FASD and whether routine genetic testing should be recommended in such cases.

Plenary #5: Advancing care and support: individualized, integrated and inclusive

Tuesday 15 September 14h30 – 16h00
Moderation: De Vries Jan and Lunderød Silje

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from being more thoroughly tailored and evaluated. In any case, research and practical experience support an approaches seeking personalization, the integration of interventions both with one another and within the community, inclusion and empowerment.

PL5.1 Keynote: Whole-person Whole-Community: Advancing comprehensive care and support for people with FASD

Reid Natasha, University of Queensland, Brisbane, Australia

BACKGROUND
Fetal Alcohol Spectrum Disorder (FASD) is a complex, lifelong, whole-body condition shaped by biological, psychological, social, cultural, and environmental factors. Despite increasing awareness, individuals with FASD and their families continue to experience delayed diagnosis, fragmented service systems, limited access to evidence-informed interventions, and insufficient development and uptake of effective, widespread prevention approaches.

AIM / OBJECTIVE
This presentation explores how a whole-person, whole-community approach can advance comprehensive FASD care across assessment and diagnosis, tailored supports, and prevention.

METHODS
Drawing on research evidence, service development experience, and the development and dissemination of the new Australian guidelines for the assessment and diagnosis of FASD, this presentation synthesises key principles that support comprehensive care across assessment and diagnosis, support, and prevention.

RESULTS
The Australian guidelines for assessment and diagnosis of FASD highlight a clear shift from diagnosis-centred models toward whole-person, functional assessment approaches. Comprehensive assessment processes that integrate neurodevelopmental, physical health, psychosocial, and cultural domains enable more accurate formulation and more meaningful care planning.

Embedding assessment and diagnosis within mainstream health, education, and justice services has the potential to improve equity, accessibility, and sustainability, particularly for individuals and families under-served by specialist models. Interprofessional, collaborative support frameworks further facilitate coordinated practice, supporting strengths-based and participation-focused approaches for people with FASD and their families.
In addition, broadening how prenatal alcohol exposure is communicated and prevented—by recognising social, cultural, and structural contexts—supports more community-led, relevant, and effective prevention approaches.

CONCLUSIONS / PERSPECTIVES
A whole-person, whole-community approach offers a unifying framework for responding to the complexity of FASD across assessment, diagnosis, support, and prevention. Contemporary practice is increasingly moving beyond diagnosis alone toward integrated, functional assessment models that recognise the interrelated neurodevelopmental, physical, psychosocial, cultural, and environmental factors influencing outcomes.
When assessment and diagnosis are embedded within mainstream systems and supported by interprofessional collaboration, access and equity are strengthened and pathways to meaningful supports are improved. Broadening prevention efforts and supporting community-led health promotion further enhance accessibility and effectiveness. Together, these approaches highlight the need for collaborative, holistic, system-level responses that centre living/lived experience and promote long-term participation, health, and wellbeing.

PL5.2 A co-designed online parenting programme for families affected by FASD (SPECIFiC): Findings from a large, randomised feasibility trial

Cook Penny A (1), Price Alan (1), Perryman Katherine (1), Bennett Kate (2), Earl Paul (1), Webster Anna (1), Gage Heather (3), Williams Peter (4), S Allely Clare (1), Shields Jen (5), A S Mukherjee Raja (1) (3)

(1) School of Health, Community and Life Sciences, University of Salford (United Kingdom), (2) Wolfson Institute of Population Health, Queen Mary University of London (United Kingdom), (3) Faculty of Health and Medical Sciences [University of Surrey] (United Kingdom), (4) Faculty of Engineering and Physical Sciences, University of Surrey (United Kingdom), (5) School of Health in Social Science, University of Edinburgh (United Kingdom)

Children with Fetal Alcohol Spectrum Disorder (FASD) experience significant difficulties in daily functioning, emotional regulation and behaviour, and caregivers commonly report high levels of stress. Despite this, evidence for FASD-specific parenting interventions remains limited, with no published randomised trials. We report findings from one of the largest randomised intervention studies in FASD conducted globally, and the first trial of a group-based, online parenting programme. The Salford Parents' and Carers' Education Course for Improvements in FASD outcomes in Children (SPECIFiC) is a co-designed, seven-session psychoeducation programme delivered online. The study aimed to assess feasibility (recruitment, retention, acceptability) and explore candidate efficacy outcomes to inform a definitive trial.

METHODS
A two-arm randomised feasibility trial compared SPECIFiC with treatment as usual (TAU). Parents or carers (n=119) of children (4–16y) with a confirmed or probable FASD diagnosis were randomised 1:1 to intervention or TAU. Outcomes included parenting stress (Parenting Stress Index Short Form, PSI-SF), parenting self-efficacy (Tool to Measure Parenting Self-Efficacy, TOPSE), child behavioural difficulties (Strengths and Difficulties Questionnaire, SDQ), and parent mental health (DASS-21, CORE-OM). Health economic analysis used the Client

Service Receipt Inventory (CSRI) and quality of life using EuroQol (EQ-5D-5L). Analyses followed an intention-to-treat principle. The trial is registered at www.isrctn.com (ISRCTN14483801).

RESULTS
Recruitment (41%) and retention (85%) met pre-specified feasibility criteria, and satisfaction with the programme was high. Parenting self-efficacy improved significantly (adjusted mean difference +24.9, p=0.01; d=0.8). Parenting stress and child behaviour outcomes showed small, non-significant trends favouring SPECIFiC. No group differences were observed in quality of life. The cost per participant (£227–£302) indicates potential for scalable delivery. Fidelity checks confirmed consistent implementation.

CONCLUSIONS
SPECIFiC is a feasible, acceptable, and scalable parenting intervention for families affected by FASD and shows promising effects on parental self-efficacy. Findings support progression to a definitive randomised controlled trial to establish clinical and cost-effectiveness. Our findings are important given the absence of FASD-specific support in routine practice, where families are typically offered generic programmes that do not address FASD's distinct neurodevelopmental profile. SPECIFiC therefore fills a critical gap by providing a tailored, co-designed intervention aligned with the needs of this population."

PL5.3 The Neurowise Model: Reframing therapeutic caregiving through a brain-based, dual-track approach for supporting caregivers, practitioners, and young people with FASD.

Webster Anna (1) (2), Govan Rebecca (3)

(1) Neurowise Coaching and Training (United Kingdom), (2) The University of Salford (United Kingdom), (3) Birmingham City University (United Kingdom)

Testing of SPECIFiC, a psychoeducation programme for caregivers of children with FASD, demonstrated positive effect sizes in parenting self-efficacy. Building on this work, programme co-author and facilitator Anna Webster conducted qualitative research into the wellbeing needs of FASD caregivers. Findings indicated that caregivers frequently struggle to recognise or prioritise their own needs and commonly experience stigma, blame, and shame when trauma and attachment-informed parenting approaches prove ineffective for children with FASD. These findings, together with Rebecca Govan's doctoral research into post-adoption social work support for FASD families and the authors' combined lived experience of FASD caregiving, informed the development of the Neurowise Model—an integrative psychoeducation and therapeutic coaching approach for FASD care. The Neurowise model is an innovative six-week intervention combining group workshops with individual coaching at the start, midpoint and end. The programme develops caregiver understanding and skills related to FASD's spiky profile, sensory and emotional regulation, executive functioning, attachment and relationships, and advocacy. Building on and adapting trauma and attachment-informed models like PACE and Secure Base, Neurowise introduces a brain-based, dual-track model that reframes pre-birth factors and brain differences as central to understanding attachment, relational patterns, and emotional needs in FASD. Drawing on Self-Determination Theory, Acceptance and Commitment Therapy, Psychodynamic Therapy, and contemporary neuroscience, the dual-track design explicitly supports the biopsychosocial wellbeing of caregivers alongside those they support. Evaluation findings indicate reductions in caregiver experiences of blame, shame, and isolation, alongside increased validation and confidence. Participants consistently report the intervention as the most useful and affirming

post-adoption support they have accessed. The Neurowise Model offers a novel paradigm for therapeutic caregiving in FASD by integrating and reframing trauma and attachment approaches within a brain-based framework that includes an innovative focus on the therapeutic needs of caregivers. It has the potential to spark research collaboration with similar global interventions and to transform the lives of those with FASD and their families.

PL5.4 Empowering Recovery: 2nd Floor Women's Recovery Centre

Murphy Lisa, Lakeland Centre for FASD (Canada)

Women with problematic substance use who are pregnant, parenting, or at risk of pregnancy often face intersecting barriers related to trauma, systemic involvement, and neurodevelopmental differences, including FASD. This 9-minute oral presentation examines Empowering Recovery, an evidence-informed, gender-specific intervention model delivered through the 2nd Floor Women's Recovery Centre, operated by the Lakeland Centre for Fetal Alcohol Spectrum Disorder, in Cold Lake, Alberta, Canada. Grounded in harm reduction, relational theory, and trauma-informed practice, the 2nd Floor provides a structured yet flexible residential treatment environment for women aged 15 and older who identify as female, with priority given to those who are pregnant or at risk for becoming pregnant. While FASD diagnosis is not a requirement for admission, a significant proportion of participants are diagnosed or suspected of having FASD, requiring adaptations to traditional treatment approaches. The presentation will outline how FASD-informed interventions—such as routine, repetition, consistency, and strengths-based planning—are integrated into all aspects of care, from intake and individualized recovery planning to discharge and long-term follow-up. Emphasis is placed on relational care, recognizing connection and trust as central mechanisms for engagement, retention, and recovery. The model challenges punitive or time-limited treatment paradigms, instead prioritizing safety, individualized pacing, and coordinated system navigation across health, child welfare, housing, and justice systems. Program outcomes and lessons learned since the Centre's inception in 2012 will be highlighted to demonstrate how tailored, gender-responsive interventions can reduce risk, improve stability, and support sustained recovery. This presentation contributes to the broader discourse on effective interventions and care by illustrating how integrated, FASD-informed treatment models can better meet the complex needs of women and families, ultimately supporting both prevention and long-term wellbeing.

Plenary #6 New ways of tackling persistent challenges: surveillance, prevention, education

Wednesday 16 September 9h00 10h30
Moderation: Landgraf Mirjam N. and Chanal Corinne

Addressing the issue of fetal alcohol involves tackling a range of challenges for which there are often no optimal or definitive solutions – for example, in the areas of epidemiological surveillance, prevention or professional training – but which innovation enables us to revisit with a view to improving tools and practices and eventually scaling-up.

PL6.1 Results of the First National Cross-Sectional Study on the Prevalence of Alcohol and Cannabis Use Among Pregnant Women in Slovenia Based on Meconium Biomarker Analysis

Velkavrh Manca (1), Rados Krnel Sandra (2) (3), Levičnik Gorazd (2), Zupanič Tina (2), Kristl Anja (4), Stopar Tjaša (4), Lozar Krivec Jana (1) (3)

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Alcohol consumption and use of cannabis during pregnancy can have severe negative impact on developing foetus. So far, there is no known data on their use among Slovenian pregnant women.

OBJECTIVES
To assess the prevalence of alcohol and cannabis use among Slovenian pregnant women by analysing meconium biomarkers of alcohol and cannabis consumption.

METHODS
Meconium samples were analysed as part of a broader cross-sectional national study. Postpartum women in all 14 Slovenian maternity hospitals were invited to complete anonymous structured questionnaire addressing lifestyle factors during pregnancy, including self-reported alcohol, tobacco, and cannabis use. Meconium samples were collected randomly, with the sample size calculated based on the population size, fertility rate, and estimated prevalence of alcohol and cannabis use during pregnancy reported in European countries. In accordance with Slovenian legislation, diapers are classified as medical waste and managed under hospital responsibility; therefore, they were collected and processed anonymously. The use of an anonymous cross-sectional meconium diaper sampling without parents' consent was intended to minimize selection bias, thereby improving the representativeness of the cohort, particularly by capturing cases of maternal alcohol or cannabis exposure that might otherwise have been excluded due to non-participation. Meconium samples were analysed for the presence of ethyl glucuronide (EtG), ethyl sulfate (EtS), delta-9-tetrahydrocannabinol (THC), 11-nor-9-carboxy-THC (THC-COOH) and 11-hydroxy-THC (THC-OH) with liquid chromatography coupled with tandem mass spectrometry. The study was approved by the National Medical Ethics Commitee.

RESULTS
Overall, 654 meconium samples were collected, of which 633 were suitable for analysis. EtS was present in only one sample, while 6.1% of samples were positive for EtG. When borderline values were considered (i.e., concentrations just below the 30 ng/g cut-off), the proportion increased to 8.7%. Cannabis exposure was assessed via THC-COOH (cut-off 10 ng/g), with a prevalence of 0.95% positive samples. Conclusion: The first national study on the prevalence of alcohol and cannabis use among pregnant women in Slovenia indicates that alcohol consumption is lower than the WHO European Region's estimated prevalence of 25.2%, and cannabis use is lower than the 3–4% reported for Southern Europe.

PL6.2 Prevalence and characteristics of heavy prenatal alcohol exposure in France 2015-2024: Mining the French national healthcare insurance (SNDS) database

Crassous Agnès (1) (2), Barry Yaya (3), Demiguel Virginie (3), Alla François (1) (2), Schwarzinger Michaël (1) (2)

(1) Bordeaux Population Health UMR 1219 – PHARes – EVIDANS (France), (2) Department of Methodology and Innovation in Prevention (France), (3) Non-Communicable Diseases and Trauma (France)

CONTEXT
Population surveys suggest that prenatal alcohol exposure (PAE) sharply decreased over time in France. However, women with heavy PAE (hPAE) barely participate to surveys and hPAE may be misdiagnosed. Objective: To assess the characteristics and potential misdiagnosis of hPAE in France.

METHOD
Our data source was the French national healthcare insurance (SNDS) database that covers nearly all births in France. We selected all singleton livebirths administratively linked to their mother in 2015-2024. hPAE was identified from newborn records in the neonatal period (ICD-10-FR Q86.0 or P04.3 for “newborn affected by maternal alcoholism”) and/or mother records during pregnancy and the year before (mostly F10.2 for alcohol dependence). Maternity wards were grouped into five quintiles according to recorded hPAE rate among total livebirths. The first quintile with highest hPAE rate was considered a reference group due to e.g., more active surveillance and/or greater awareness of alcohol risks rather than true epidemiological differences. A predictive model of hPAE was estimated in this reference group using a large set of pregnancy characteristics and then applied to other maternity wards.

RESULTS
hPAE was identified in 11,182 (0.18%) of 6,314,993 singleton livebirths in 2015-2024. hPAE was marked by a high-risk profile for all pregnancy characteristics including maternal age, co-use of tobacco and illicit drugs, preexisting chronic conditions, and adverse birth outcomes. In the reference group with highest hPAE rate (0.44% of 1,282,889 livebirths), the predicted rate of hPAE was the same with the model (0.44%, CI 95% 0.36-0.52). Potential misdiagnosis of hPAE assessed by the difference between predicted and recorded rates of hPAE increased in other quintiles to reach a maximum in the last quintile (0.16%, CI 95% 0.13-0.18 vs. 0.03% of 1,241,339 livebirths). Potential misdiagnosis rate varied across French regions (maximum in Guadeloupe island with 0.28%, CI 95% 0.23-0.33 vs. 0.13% of 31,775 livebirths), was similar across deprivation index quintiles, and decreased over time (0.27%, CI 95% 0.23-0.32 vs. 0.16% of 691,172 livebirths in 2015 and 0.29%, CI 95% 0.24-0.34 vs. 0.23% of 558,782 livebirths in 2024). Conclusion: hPAE recording increased in France over 2015-2024, though it remains largely misdiagnosed in most French regions.

PL6.3 Preventing Fetal Alcohol Spectrum Disorders (FASD) on Reunion Island: Effectiveness of a Targeted and Innovative School-Based Educational Program for Middle- and High-School Students

Roy-Doray Bérénice (1) (2) (3) (4), **Nekaa Meïssa** (2), Rios Isabelle (5), Voisin Sandrine (5), Menard Emmanuel (5), Hoarau Frédéric (2), Bagard Maïté (6), Sennsfelder Laëtitia (3), Lorrain Simon (1), Iacobelli Silvia (1)

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BACKGROUND
Fetal Alcohol Spectrum Disorders (FASD) represent a public health and educational challenge on Reunion Island. Prevalence exceeds 1% of births, significantly surpassing the national average. Given the severe long-term neurodevelopmental and social consequences, primary prevention targeting adolescents is an urgent priority. Our FASD Resource Center aims to bridge the gap between medical knowledge and educational practice by supporting schools with evidence-based tools. We assessed the impact of a targeted prevention program delivered during the September 2024 FASD Awareness Week.

METHODS
This evaluation involved 8th- and 10th-grade students from 16 schools. We collected 4,383 questionnaires; after cleaning, 4,151 were analyzed (2,134 pre-test; 2,017 post-test). Students first completed a 10-item baseline quiz covering FASD terminology, prevalence, and alcohol-related harm mechanisms. School staff, trained by a multidisciplinary team, implemented a standardized intervention using three video capsules: a medical presentation, a self-advocate's testimony, and a mother's perspective. A structured classroom discussion followed, ending with the same post-test quiz to measure immediate knowledge acquisition.

RESULTS
Baseline knowledge was relatively high, with a median score of 7/10. Post-intervention scores increased significantly ($p < 0.001$), reaching a median of 9/10, with 80% of students scoring between 8 and 10. Stratified analyses suggested learning gains varied by academic track: general education students showed substantial improvement, whereas vocational students exhibited smaller gains. This finding highlights an urgent need to develop interactive, tailored approaches for vocational-stream students to ensure equitable impact across student populations.

CONCLUSION
This program effectively strengthened adolescents' understanding of FASD by combining clinical data with lived experiences. Results support integrating prevention into routine curricula. To consolidate these initial findings, the evaluation is currently being expanded to approximately double the sample size. A major strategic partnership was signed in April 2025 between the Père Favron Foundation, the University Hospital (co-managing the FASD Resource Center), and the Academy of Reunion Island. This collaboration aims to continue raising awareness among all Academy staff and to co-construct tools interventions such as 'A Brain is Built Without Alcohol.' The aim is to explain the risks of alcohol on brain development during pregnancy, as well as throughout childhood, adolescence, and young adulthood.

PL6.4 Interactive Self-Learning in Alcohol Prevention and Care for FASD: An Evidence-Based, Target-Group-Specific Digital Education Framework

Strieker Sonia (1), Heininger Hannah (1), A. Schlüter Julia (1), **N. Landgraf Mirjam** (1)

(1) German FASD Competence Center Bavaria, Department of Paediatric Neurology and Developmental Medicine, Dr. von Hauner Children´s Hospital, Ludwig-Maximilians University, Munich, Germany (Germany)

Fetal alcohol spectrum disorder (FASD) represents one of the most common preventable causes of lifelong neurodevelopmental disability worldwide. Nevertheless, FASD remains substantially under-recognized, under-diagnosed, and insufficiently addressed across healthcare, education and social service systems. Persistent misconceptions regarding alcohol use during pregnancy, limited awareness of early clinical signs, and inadequate intervention strategies contribute to lacking prevention, delayed diagnosis, and fragmented care pathways. Scalable, evidence-based educational strategies tailored to different populations are therefore essential to strengthen both prevention and the quality of FASD-related care. This project aims to develop and implement interactive digital self-learning modules for alcohol prevention and FASD care that are systematically tailored to the distinct needs of three target groups: (1) the general population, (2) clinically active health and social care professionals, and (3) physicians involved in prevention, diagnostics, and treatment. A literature review was conducted, and interdisciplinary expert input was gathered to identify target-group-specific knowledge gaps, preferred learning formats, and contextual requirements. In parallel, digital tools for creating multimedia and interactive learning content were systematically evaluated. The evaluation revealed knowledge gaps across all target groups, with distinct profiles: the general population primarily requires low-threshold, myth-correcting and motivational content; health and social care professionals require practice-oriented information on functional disabilities of the child affecting everyday life participation, and on counselling and support strategies; and pediatricians require concise, guideline-based training focusing on diagnostics, differential diagnostics, and evidence-based interventions. All groups have a high acceptance of digital learning formats and a strong preference for visual materials, interactivity and case-based learning. Based on these findings, core didactic principles were defined, including multimedia presentation, interactive elements, simulation exercises, and formative self-assessment. An evidence-based, modular content based on the current German S3 guideline, additional scientific evidence, and clinical expertise was developed. This presentation will summarize the evaluation results, describe the resulting educational modules, and discuss how interactive self-learning can support population-level prevention, enhance professional competencies, and contribute to sustainable improvements in FASD care.

Plenary #7: Turning knowledge into action: from experience feedbacks towards new policies

Wednesday 16 September 10h50 – 12h20
Moderation: Ciolompea Teodora and Nguyen-Than Viet

Although it is difficult to carry out epidemiological monitoring of fetal alcohol and to assess the associated burden of disease, there is now compelling and consistent evidence available on the scale of the global public health problem that FASD represents. Nevertheless, across Europe and the world, there is still a struggle to acknowledge this reality, learn from experiences and take effective actions.

PL7.1 Keynote: Burden of disease associated with FASD: methodological considerations and first results

Rehm Jürgen (1) (2) (3) (4)

(1) Institute for Mental Health Policy Research & Campbell Family Mental Health Research Institute, Centre for Addiction and Mental Health (CAMH), Toronto, Canada
(2) Dalla Lana School of Public Health; Institute of Health Policy, Management and Evaluation; Institute of Medical Science & Department of Psychiatry, University of Toronto (UofT), Toronto, Canada
(3) PAHO/WHO Collaborating Centre at CAMH, Toronto, Canada & WHO European Region Collaborating Centre at Public Health Institute of Catalonia, Barcelona, Spain
(4) Zentrum für Interdisziplinäre Suchtforschung der Universität Hamburg (ZIS), Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany

Alcohol use has not only effects on the drinker but also on others. National cost studies indicate that the latter impact may have about the same magnitude as the effect on the drinkers themselves. However, these preliminary results are mainly based on surveys, but they indicate that FAS and FASD may play an important part of these costs. Results would be more precise, if there were more reliable burden of disease estimates for FAS and FASD.
However, there are few burden of disease estimates in standard methodology on FASD to date. This presentation will lay out the methodologies needed for such estimates, especially considerations about the distribution of disability weights. It will also present first results of national burden of disease studies for FASD, and discuss the strength and weaknesses of the approaches used.

PL7.2 From Evidence to Care Pathways: Australia's Evolving National Response to Fetal Alcohol Spectrum Disorder

Harrington Sophie, NOFASD Australia (Australia)

Over the past decade, Australia has made significant progress in recognising Fetal Alcohol Spectrum Disorder (FASD) as a lifelong neurodevelopmental disability requiring coordinated prevention, diagnosis, and support across systems. This presentation explores Australia's evolving national response to FASD, with a particular focus on the development of care pathways, system navigation, and the role of lived experience and international knowledge exchange in translating evidence into practice. Drawing on policy reform, program development, and practice-based insights from NOFASD Australia, the presentation traces key developments from early national inquiries through to more recent advances in prevention frameworks, diagnostic guidelines, workforce capability, and cross-sector engagement. It highlights how international learning, particularly from established prevention and system-response models, has informed Australian approaches, while being adapted to local cultural, geographic, and service-system contexts. The presentation also reflects on early implementation considerations from an emerging national initiative focused on improving navigation and continuity of care for individuals with FASD and their families. This initiative seeks to strengthen pathways across health, education, disability, and justice systems, with an emphasis on peer-informed guidance, workforce capacity building, and reducing fragmentation in support. Early reflections underscore both opportunities and challenges in embedding FASD-informed practice at scale, particularly for individuals with non-syndromic presentations, delayed diagnosis, and complex, lifelong support needs. This presentation emphasises system-level alignment, including the importance of shared language, consistent diagnostic and referral pathways, cross-sector training, and meaningful involvement of people with lived experience in policy and program design. The Australian experience offers transferable insights for other jurisdictions seeking to move beyond awareness toward coherent, equitable, and trauma-informed care pathways for people with FASD across the lifespan.

PL7.3 FASD in South Africa, 29 years of impact, a legacy of changing lives

Olivier Leana, Foundation for alcohol related research (South Africa)

For nearly three decades, the Foundation for Alcohol Related Research (FARR) has stood as a pioneer and leader in the field of Fetal Alcohol Spectrum Disorders (FASD) in South Africa. With the country recording the highest documented prevalence rates worldwide, ranging from as low as 26 to 282 and 331 per 1,000 in certain high-risk communities, ARR's work has been critical in shaping national awareness and responses. Since its inception in 1997, the organization has conducted 20 prevalence studies and established 24 holistic community centres, building an unparalleled body of expertise in prevention, diagnosis, and management of FASD.

CONTENT
This presentation will provide an overview of FARR's groundbreaking research, large-scale prevalence studies, and innovative community projects that have significantly advanced understanding and prevention of FASD. It will highlight the successes and challenges encountered in implementing evidence-based interventions, prevention and harm-reduction programmes across high-risk populations. The impact of these initiatives, ranging from improved community awareness to measurable changes in health outcomes, will be discussed, alongside the lessons learned from nearly three decades of dedicated work. The

presentation will also clarify the reasons behind FARR's official closure in 2026 and outline the implications for South Africa's ongoing fight against FASD. Mechanisms put in place to support other institutions in continuing aspects of FARR's work will be described, ensuring that its legacy remains a foundation for future progress.

CONCLUSION
As FARR concludes its journey, including its final attendance at the EUFASD Conferences, this presentation serves both as a reflection on its remarkable contributions and as a call to sustain momentum in addressing FASD. By sharing its experiences, achievements, and challenges, FARR aims to inspire continued collaboration, innovation, and commitment to reducing the burden of FASD in South Africa and beyond.

PL7.4 50 years of campaigning to raise awareness of FASD in France

Metelski Catherine, VALSAF (France)

Recognizing the serious consequences of prenatal alcohol exposure has not been easy in France. Wine is considered a cultural treasure and an economic asset. Since 1968 (when FASD was discovered by Dr. Paul Lemoine), public opinion and governments have been slow to recognize the dangers of alcohol for unborn children. It was not until 2007 that a group of doctors called to take action and a prevention pictogram was made mandatory on all alcohol bottles. Daring to talk about alcohol consumption during pregnancy remains taboo, both among women and many untrained professionals who fear stigmatization. Structures were created in the 2000s to address the combined issues of pregnancy and addiction. Professionals created tools to identify and care for mothers and newborns at risk. The identification and diagnosis of FASD have progressed thanks to civil society, with the creation of the association Vivre avec le SAF in 2012. It has raised awareness among families, children, and affected adults, and opened the eyes of many doctors to the scale of the problem. In the 2010s, only a handful of doctors were trained in diagnosis. Today, we know of several dozens, but we need to increase clearly defined multidisciplinary teams. In terms of support, France has many excellent medical and social assistance structures, from newborns to adults. For adults, who are too often undiagnosed, identifying their specific needs would allow for more appropriate support. In 2016, the Academy of Medicine solemnly called for collective awareness, and the FASD Resource Centers in Réunion and Nouvelle Aquitaine were created with government help. A new step in 2019 was to include FASD into the national strategy for neurodevelopmental disorders, which enabled affected children to benefit from the measures put in place. French research is dynamic, both in terms of pathophysiology and imaging tools, as well as biomarkers. In 2020, the TSAF-R group brought together researchers, clinicians, and associations in a cross-disciplinary research project. However, much remains to be done to: • Give FASD its rightful place in NDD centers of excellence; • Integrate it into university curricula; • Expand diagnosis and support for adults.

Parallel Sessions A

Monday 14 September 11h30 – 13h00

A1 / Scientific & Translational: from understanding mechanisms to new markers and targets (I. epigenetics, genetics and immune regulation)

Moderation: **Dournaud Pascal** and **Kaminen-Ahola Nina**

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, a better understanding of involved mechanisms paves the way for the identification of new biomarkers and targets to improve the diagnosis and management of FASD. First session: focusing on epigenetic, genetic mechanisms and (neuro)immune regulation.

A1.1 Epigenetic Dysregulation of Reward and Synaptic Plasticity Pathways in Children with Fetal Alcohol Spectrum Disorders

Navarro-Tapia Elisabet (1), Ramos Triguero Anna (1), Vieiros Melina (1), Garcia-Algar Oscar (2), Andreu-Fernández Vicente

(1) Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS) (Spain), (2) Neonatology Unit, Hospital Clinic-Maternitat (Spain)

"Individuals with FASD show increased vulnerability to substance use disorders, suggesting persistent dysregulation of reward-related neural circuits. Emerging evidence indicates that PAE induces stable epigenetic modifications affecting genes involved in neurotransmission, synaptic plasticity, and neuronal adaptation. This study aimed to evaluate DNA methylation alterations in promoter regions of genes associated with the reward system and synaptic plasticity in children diagnosed with FASD.

A total of 93 bisulfite-treated DNA samples were analyzed, including 63 children with FASD and 30 age-matched controls. Methylation-specific PCR (MS-PCR) was performed targeting promoter regions of genes involved in dopaminergic, glutamatergic, serotonergic, opioid, and cannabinoid signaling, as well as genes regulating synaptic plasticity, transcriptional activity, and cytoskeletal dynamics. Primer specificity was validated using fully methylated and unmethylated controls. PCR products were resolved by agarose gel electrophoresis, and band intensities were quantified using image analysis software to calculate methylation ratios. Group comparisons were conducted to identify differentially methylated regions, which were selected for further sequencing-based validation.

Children with FASD exhibited distinct DNA methylation patterns compared to controls in multiple genes related to reward processing and synaptic plasticity. Alterations were observed in genes regulating dopamine transport and receptor signaling, glutamatergic neurotransmission, and opioid and cannabinoid pathways. Additionally, several plasticity-related genes involved in neurotrophic support, synaptic remodeling, and activity-dependent transcription showed differential promoter methylation in the FASD group. These findings suggest coordinated epigenetic dysregulation affecting reward circuitry and neuronal adaptability following PAE.

PAE is associated with persistent epigenetic alterations in key genes governing reward signaling and synaptic plasticity in children with FASD. This epigenetic reprogramming may

contribute to impaired reward regulation, reduced neural adaptability, and increased vulnerability to addictive behaviors. Identifying methylation signatures in these pathways may provide mechanistic insight into FASD neurobiology and support the development of targeted preventive and therapeutic strategies."

A1.2 A large maternally imprinted microRNA cluster on Human chromosome 14 can potentially aid diagnosis of prenatal alcohol exposure

Mukhopadhyay Arijit (1), Burgess Phillip (1), Aarons Toby (1), Sayan Berna, Mukherjee Raja (1) (2), Cook Penny (1)

(1) University of Salford (United Kingdom), (2) Faculty of Health and Medical Sciences [University of Surrey] (United Kingdom)

Prenatal alcohol exposure (PAE) is a major cause of neurodevelopmental abnormalities and can result in conditions such as Foetal Alcohol Spectrum Disorder (FASD). FASD affects an estimated 2–4% of the general population in the UK and up to 27% in specific groups such as children in care, and is associated with lifelong physical, cognitive, and mental health challenges. This study aims to identify non-invasive biomarkers of PAE to enable earlier diagnosis and improved clinical management of FASD, focusing on a large microRNA cluster located on human chromosome 14 (C14) that has been implicated in key neurodevelopmental processes. Using an in vitro model, SH-SY5Y cells were induced to undergo neuronal differentiation and exposed to 100 mM ethanol for seven days, after which ethanol was withdrawn, and cells were cultured for a further seven days to detect ethanol-induced changes persisting beyond the exposure period. Expression levels of 20 candidate C14 microRNAs were analysed by quantitative PCR (qRT-PCR) in both cells and small extracellular vesicles (sEV) and compared with untreated counterparts. The results demonstrate that ethanol exposure induces significant and lasting alterations in members of the C14 microRNA cluster. As a representative example, ethanol-induced changes in hsa-miR-409-3p persisted beyond the exposure period and showed consistent patterns in both cells and sEVs, whereas other cluster members, including miR-134-5p, miR-541-5p, and miR-379-5p, exhibited marked perturbations during ethanol exposure but reverted to baseline levels following withdrawal. Together, these findings provide early evidence that C14 microRNAs may serve as potential biomarkers of PAE in humans and may aid the current diagnosis and management options for individuals with FASD.

A1.3 NR2F1 is a Cross-Species Mediator of Cerebral Cortex Defects Induced by Fetal Alcohol Intoxication

Laguesse Sophie (1), Charlet-Briart Manon (1), Van Hees Laura (1), Oskera Lea (1), Boutsen Anais (1), Bonafina Antonella (1), Close Romann (1), Epifanova Ekaterina (1), Studer Michèle (2), Nguyen Laurent (1)

(1) GIGA-Neurosciences [Université Liège] (Belgium), (2) Institut de Biologie Valrose (France)

Prenatal alcohol exposure (PAE) remains the leading preventable cause of neurodevelopmental disorders, contributing to a spectrum of cognitive, sensory, and behavioral deficits collectively known as Fetal Alcohol Spectrum Disorders (FASD). To date, the precise mechanisms by which PAE disrupts brain development remain unclear, limiting the development of targeted therapies and effective prevention strategies. Alcohol is particularly harmful to the cerebral cortex, and individuals with FASD frequently exhibit impaired

sensorimotor function, including deficits in tactile perception. Using a mouse model of voluntary binge-like alcohol consumption during gestation, we demonstrate that PAE disrupts the migration and connectivity of callosal projection neurons in the developing somatosensory cortex and induces long-lasting sensory deficits. We identified NR2F1, a key transcription factor involved in neuronal migration and cortical patterning, as a novel alcohol-sensitive target mediating these effects. Mechanistically, PAE leads to upregulation of NR2F1, together with downregulation of its direct targets Lis1 and Kif1b, which are essential for neuronal migration and differentiation. Importantly, these molecular alterations are conserved in the developing cortex of human fetuses with documented prenatal alcohol exposure, as well as in human cerebral organoids engrafted into ethanol-exposed mice. Together, our findings reveal a conserved molecular and cellular pathway disrupted by PAE, highlight NR2F1 as a key regulator in the pathogenesis of FASD, and suggest new avenues for potential novel therapeutic intervention targeting alcohol-induced neurodevelopmental impairments.

A1.4 The Histone Acetyltransferase Kat6a modulates outcomes of embryonic alcohol exposure.

Eberhart Johann (1), Swartz Mary (1), Ghosal Ritika (1)

(1) University of Texas at Austin (United States)

Prenatal alcohol exposure causes Fetal Alcohol Syndrome (FAS), which has characteristic neural and facial phenotypes. The facial structures most sensitive to ethanol include the lower jaw and are generated from neural crest cells that reside in the first pharyngeal arch. The outcome of alcohol exposures is modulated by genetics, yet much remains to be understood about the genetics of FAS. We have used zebrafish genetic screens with a dose of ethanol that does not disrupt wild-type development to identify sensitizing mutations. In this screen, we recently found that the histone acetyltransferase Kat6a modulates the outcome of alcohol exposure. In unexposed embryos kat6a regulates posterior patterning of neural crest cells and is not required for development of the first pharyngeal arch. Intriguingly, we found that ethanol-exposed kat6a mutants and heterozygotes have a dorsal-ventral patterning defect specific to the first pharyngeal arch. In exposed mutants and heterozygotes, the lower jaw and jaw joint are reduced or absent. This effect is seen even at doses that would be equivalent to a low to moderate exposure. The signalling pathways regulating ventral specification, Edn1 and Bmp, appear normal. However, the expression of many genes specifying ventral fates, such as hand2, is lost in these embryos. The transcription factor Mef2ca also regulates the expression of ventral specifying genes in a manner similar to what we observe in ethanol-exposed kat6a mutants and heterozygotes. However, the function of mef2ca is not normally specific to the first pharyngeal arch. We find a first arch specific loss of mef2ca expression in exposed kat6a mutants and heterozygotes. Mutants and heterozygotes injected with mef2ca CRISPR phenocopy the effect of alcohol, verifying a mechanistic interaction. Interestingly, heterozygosity for KAT6A or MEF2C cause rare human syndromes that have phenotypic overlap with FAS. Collectively, our results reveal multifactorial interactions resulting in synergistic effects regulating lower jaw development. Our work provides mechanistic insights into not only FAS but also rare diseases.

A1.5 The long-term impacts of prenatal alcohol exposure on the adult gut microbiota and mental health in adults with FASD

Garrett Ainsworth-Cruickshank (1) (2) (3), Howatt kennedy (1) (2) (3), Raineki charlis (4), Bodnar tamara (1) (2) (3)

(1) Department of Biological Sciences [Calgary] (Canada), (2) Alberta Children's Hospital Research Institute (ACHRI) (Canada), (3) Hotchkiss Brain Institute (HBI) (Canada), (4) Brock University [Canada] (Canada)

The gut microbiota plays a critical role in overall health, physiology, and neurodevelopment, influencing metabolic, immune, and neural processes across the lifespan. Growing evidence highlights the gut-brain axis as a key bidirectional communication pathway through which the gut microbiome contributes to shaping brain function and behavioural outcomes. However, no research has explored the role of the gut microbiome in Fetal Alcohol Spectrum Disorders (FASD), particularly into adulthood. Addressing this gap, the current national virtual study across Canada provides the first characterization of the adult gut microbiota in adults with FASD and its association with mental health outcomes.

METHODS

Adults (19+) with an FASD diagnosis living in Canada and age- and gender-matched unexposed adults' group were enrolled. Participants completed a demographic survey and completed self-reported mental health and stress questionnaires [Beck Depression Inventory II (BDI-II), Beck Anxiety Inventory (BAI), Perceived Stress Scale (PSS), and Penn State Worry Questionnaire (PSWQ)] by phone and returned a fecal sample by mail. Fecal samples underwent 16s rRNA sequencing to profile the microbiota.

RESULTS

Adults with FASD experienced higher mental health and stress symptom severity compared to the unexposed group. Additionally, more individuals with FASD surpassed a clinical risk threshold for severe depression, anxiety, stress, and worry, compared the unexposed group. Next, analysis of the microbiota identified significant differences in community composition between adults with FASD and unexposed group, in a sex dependent manner. Furthermore, differential abundance of specific taxa was identified in men and women with FASD, compared to unexposed adults, and notably, sex differences were again identified, with the only overlap between sexes being an increased in Mycobacterium massilienses. Ongoing work is currently investigating the association between mental health symptoms and microbiota dysbiosis, with the goal of advancing our understanding of gut-brain axis interactions.

CONCLUSION

Together, these findings provide the first evidence that prenatal alcohol exposure is associated with long-term alterations on the microbiota, underscoring the importance of further investigation the microbiome's role in the pathophysiology of FASD. This work lays the foundation for future studies exploring microbiome-informed approaches to supporting health in individuals with FASD.

A1.6 Immune Dysregulation as a Driver of Mental Health Challenges in Adults with Fetal Alcohol Spectrum Disorder

Sadler Kyla (1) (2) (3), Giglio Emma (1) (2) (3), Fraser Madeline (1) (2) (3), Tjostheim Erika (1) (2) (3), Ainsworth-Cruickshank Garrett (1) (2) (3), Bodnar Tamara (1) (2) (3)

(1) University of Calgary (Canada), (2) Alberta Children's Hospital Research Institute (Canada), (3) Hotchkiss Brain Institute (Canada)

Fetal Alcohol Spectrum Disorder (FASD), which occurs as a result of prenatal alcohol exposure (PAE), is recognized as a lifelong health condition, with individuals experiencing a range of behavioural, physiological, and health challenges. In particular, individuals with FASD experience disproportionately higher rates of mental health conditions, such as anxiety and depression. Despite this well-documented clinical burden, the biological mechanism(s) driving this increased rate of vulnerability to mental health problems in adults with FASD remains poorly understood. One promising mechanistic pathway that has begun to receive attention is immune system dysregulation. Emerging evidence has demonstrated that PAE disrupts immune development and function, with alterations documented in children and infants with FASD. However, whether PAE-associated immune dysregulation persists into adulthood and increases the risk of mental health problems remains unexplored, representing a key knowledge gap that this research aims to address.

METHODS
Adults with FASD (19 years+), and age- and gender-matched unexposed adults were recruited across Calgary, Canada. Participants completed demographic and mental health questionnaires (Beck Anxiety Inventory and Beck Depression Inventory), while blood samples were collected to measure a range of immune biomarkers, including cytokines, chemokines, and related proteins. Analyses compared the rates of mental health problems and levels of immune biomarkers between groups, while further analysis examined the relationship between immune dysregulation and mental health outcomes.

RESULTS
Preliminary results suggests that individuals with PAE experience elevated rates of peripheral immune dysregulation, particularly in pro- and anti-inflammatory cytokine levels. In addition, preliminary analyses of the mental health data confirm that adults with FASD are experiencing high rates of mental health problems, compared to unexposed adults. Ongoing analyses will explore the relationship between immune dysregulation and mental health outcomes in adults with FASD.

CONCLUSION
Overall, our preliminary findings suggests that immune dysregulation persists into adulthood and is associated with elevated rates of mental health challenges, including anxiety and depression. This work addresses a critical knowledge gap in an under-researched population, and has the potential to inform more effective, lifespan-oriented approaches to support both physical and mental health. Funding: This work is supported by: CIFASD NIH/NIAAA U01 AA026101.

A1.7 Moderate prenatal alcohol exposure: focus on the neuroimmune axis

Hermann Lacoste Léa (1), Csaba Zsolt (1), Faivre Valérie (1), Van Steenwinckel Juliette - (1), Gonzalez Bruno (2), Dournaud Pascal (1), Gressens Pierre (1)

(1) Maladies neurodéveloppementales et neurovasculaires (France), (2) Cancer and Brain Genomics (France)

Prenatal alcohol exposure (PAE) is a major cause of fetal alcohol spectrum disorders (FASDs) and is associated with long-lasting neurodevelopmental impairments. Although alcohol can induce neuroinflammatory responses, whether neuroinflammation contributes to brain alterations induced by PAE remains largely unexplored. Using a well-established mouse model, this study investigates early neuroinflammatory-related changes in the developing brain of male and female embryos. The results suggest that early alcohol exposure is associated with impaired blood–brain barrier integrity, characterized by delayed barrier closure and dysregulation of tight junction protein expression (ZO-1, Occludin). In addition, microglial morphology and the expression of key microglial markers (Iba-1, P2RY12 and CX3CR1) are altered as early as embryonic day E17, suggesting disrupted microglial maturation and homeostasis. These findings support the central hypothesis that PAE has a major effect on the neuroimmune axis, which may contribute to the cognitive and behavioral impairments observed in fetal alcohol spectrum disorders.

A2 / Health & Care: don’t forget fathers, teachers and… employers

Moderation: **Maillard Thierry** and **Reid Natasha**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from not forgeting about certain actors who are sometimes overlooked, yet who play a vital role in their health and well-being: fathers, teachers… and even employers.

A2.1 Fetal Alcohol Spectrum Disorders (FASD): Not Only a “Women's Matter”!

Roy-Doray Bérénice (1) (2) (3) (4), Nekaa Meïssa (5), Iacobelli Silvia (1)

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Historically, FASD diagnosis and prevention have focused exclusively on maternal alcohol consumption. This perspective places the sole burden on women, often leading to counterproductive stigmatization. While paternal drinking is traditionally viewed merely as a social cofactor—reinforcing maternal habits or correlating with domestic violence—its direct biological consequences on the fetus are frequently ignored. This presentation aims to

demonstrate that paternal preconception alcohol exposure (PPAE) has independent, deleterious impacts on offspring development.

METHODS
We conducted a comprehensive literature review regarding the epigenetic and morphological effects of PPAE. Concurrently, we analyzed clinical data from the Reunion Island FASD cohort.

RESULTS
Current research indicates PPAE induces epigenetic sperm abnormalities (DNA methylation, histone modification), altering genes essential for placental function and morphogenesis, especially of brain. Murine models (Thomas et al., 2023) demonstrate PPAE causes craniofacial dysmorphology often exceeding the severity of maternal exposure. A meta-analysis (Zhang et al., 2020) showed that PPAE increases congenital heart defect risks by 44%. Recently, it was displayed that paternal alcohol consumption was associated with an independent, negative influence on child height, head circumference, and verbal IQ and that maternal drinking, when combined with heavy male drinking, was associated with more severe FASD outcomes (May et al., 2025) In our series of over 370 patients diagnosed with FASD, preconception paternal substance use was reported in 42% of cases. Five children born to chronic daily-drinking fathers and strictly abstinent mothers had FASD, including two boys with FAS: both exhibit characteristic FASD sentinel facial features (short palpebral fissures, smooth philtrum, thin upper lip) and significant neurodevelopmental impairment, including executive function disorders and behavioral instability. One boy had also microcephaly. Genetic screening was negative. These cases provide clinical arguments that paternal alcohol alone can induce phenotypic expression comparable to maternal exposure, independent of any maternal intake.

CONCLUSION
Paternal alcohol consumption acts as an independent teratogen affecting fetal morphology, growth, and neurodevelopment. These findings necessitate a paradigm shift in public health strategies. Prevention messages must extend beyond pregnant women to target the couple. The guideline "Zero Alcohol" is crucial for both partners starting from the pregnancy planning phase.

A2.2 Characteristics of fathers of children with fetal alcohol spectrum disorder in Reunion Island

Auperin Vanille (1), Maillard Thierry (2), **Leruste Sébastien (3)**

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Fetal alcohol spectrum disorder (FASD) is the leading cause of non-genetic neurodevelopmental disability worldwide and represents a major public health challenge for primary healthcare systems. Prevention strategies have historically focused on maternal alcohol use during pregnancy, while paternal factors remain largely underexplored. Yet fathers may influence maternal alcohol consumption, family dynamics, engagement with healthcare services, and long-term child outcomes. Understanding paternal characteristics, perceptions, and involvement is therefore essential to develop more inclusive, family-centered prevention strategies in primary care. This study aimed to describe the sociodemographic characteristics, substance use patterns, levels of involvement, and perceptions related to fatherhood and FASD among fathers of children diagnosed with FASD. A cross-sectional descriptive study was conducted on Reunion Island among biological fathers of children diagnosed with FASD.

Eligible participants were recruited through specialized care pathways and agreed to participate in an interviewer-administered assessment. Data were collected using a semi-structured questionnaire exploring sociodemographic characteristics, health status, alcohol and substance use, paternal involvement, and perceptions of FASD and prevention. Quantitative data were analyzed using descriptive statistics, while qualitative responses were subjected to thematic analysis to identify recurring representations and experiences. Ten fathers participated in the study. Most experienced social vulnerability, characterized by low educational attainment, unstable employment, and limited access to health information. Alcohol consumption prior to pregnancy was frequent, with several fathers reporting regular use. Following the child's birth, many described a reduction in alcohol consumption, often associated with increased parental responsibility. Levels of paternal involvement varied according to relationship status and family context; however, a strong willingness to support both the child and the mother was consistently expressed. While general awareness of the risks associated with alcohol use during pregnancy was high, knowledge of FASD as a specific clinical condition remained limited. Fathers of children with FASD present both social vulnerability and adaptive behavioral changes following parenthood. The discrepancy between general prevention messages and fathers' understanding of FASD highlights an unmet need for targeted, father-inclusive education in primary care. Systematically involving fathers in prevention, counseling, and follow-up may strengthen family-centered approaches to fetal alcohol exposure and improve equity in FASD prevention strategies.

A2.3 Tool Time for Dads: Addressing the unique needs fathers have when parenting a child from a hard place, including FASD

Troutt Chris (1), Legg Joshua (1)

(1) Papillion Center for FASD (United States)

Parenting children from hard places, including FASD, is uniquely challenging. Divorce rates in families with children with disabilities may reach 87%. Fathers are often overlooked in family support systems. Many services are geared towards the mother as the primary caregiver. While the mother may be the primary caregiver, we recognized that the impact and needs of the father were often being overlooked and leaving a hole in helping the family have the highest levels of success possible. Parenting a child from hard places presses on every crack we carry, and men often carry their wounds silently and begin to breakdown in the areas that should be the strongest, their roles as husbands and fathers. Financial strain, caregiving demands, and isolation amplify the impacts on the overall family unit. Within the home family dynamics begin to shift, spouse feels unsupported, children absorb tension and behaviors increase. Families living with the effects of FASD already have additional needs making the personal needs of the father feel selfish and overwhelming. Tool Time for Dads help identify areas that the fathers are struggling in and develop parenting plans to create structure and reassurance. Support networks help fathers carry the weight differently, helping them learn connection practices to turn trauma's clang into daily rhythm of joy, teaching them felt safety and presence as a gift their family longs for. This presentation is an overview of the five-week program. Week 1: How do I create Felt Safety? Understanding Brain-based parenting. Week 2: Understanding what I bring to the table; Reviewing historical impacts. Week 3: Raising Self-Awareness; How identity impacts the lens I look through, my partner & children. Week 4: Roadblocks & Road signs; Learning to read the map and catch it low. Week 5: Wrapping it up; Priorities, where do I go from here?

A2.4 Parent Psychoeducation in Fetal Alcohol Spectrum Disorder (FASD): Preliminary Outcomes from a Norwegian Follow-Up Program

Tveiten Anne Cecilie (1) (2), Lohaugen Gro Cc (1), Skranes Jon (1), Eikeland Randi (1) (2)

(1) Sorlandet Hospital HF, Arendal. (Norway), (2) University of Agder (Norway)

Psychoeducational follow-up for parents is considered a key strategy for strengthening caregivers' understanding of the neurodevelopmental challenges associated with Fetal Alcohol Spectrum Disorder (FASD). Drawing on evidence-based practice and elements from established international psychoeducational and parent-training programs, a Norwegian digital follow-up program was developed to improve parents' understanding and how they respond effectively to their child's neurodevelopmental disabilities.

AIMS
This abstract presents preliminary pilot findings from the first implementation of the Norwegian program. We hypothesized that participation would increase parental competence, reduce parenting stress, and improve child behaviour and self-regulation relative to pre-intervention assessments.

METHODS
In this prospective cohort study, families of children aged 6–18 years with an FASD (based on the FASD 4-Digit Diagnostic Code) were recruited at referral to the Regional Competence Centre for Children with Prenatal Alcohol/Drug Exposure (RK-MR), Sørlandet Hospital, Arendal (Norway). Two assessment points were included: pre- and post-intervention. Child outcomes included behavioural difficulties (frequency and severity), social and communication challenges, and everyday executive functioning based on caregiver reports. Parent outcomes included empowerment in supporting their child's needs, parenting stress, and overall quality of life. The follow-up program was developed by a multidisciplinary team and delivered as a standardized, manual-based digital intervention featuring six interactive psychoeducational sessions, each supplemented by a 45–60-minute individual digital guidance with a professional.

RESULTS AND CONCLUSIONS
As expected for a pilot with a very limited sample (n = 5), paired-samples t-tests revealed no statistically significant changes across assessment points. Importantly, no findings indicated harm or adverse effects. A small improvement in parental quality of life was observed, although this trend did not reach statistical significance (p = .056). While limited by sample size, these preliminary findings support the feasibility and acceptability of the Norwegian psychoeducational follow-up program. Data collection and evaluation of the program are ongoing. Disclosures: None

A2.5 Learning with FASD: Evaluation of a research translation initiative to disseminate evidence-based resources on FASD for secondary school teaching and support staff

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Learning with FASD is a research translation website that houses high-quality evidence-based resources that help educators understand and support children with FASD in schools. To date, Learning with FASD has had over 87,000 site users, 177,000 page views and 12,000 resource downloads. Users are based in Australia (65%) and internationally (35%). We conducted an evaluation with Australian secondary school staff to assess the impact of the resources. We used mixed effects logistic regression to investigate changes over time in educators' knowledge, confidence and behaviours with respect to supporting students with FASD. For knowledge and confidence, we investigated changes over time in those who said they were "confident" or "very confident" compared with those who said they were "not confident at all", "not very confident", or "somewhat confident". For behaviours, we compared changes over time in those who said they had performed a particular behaviour, compared with those who had not. 112 participants completed the baseline survey (79% female) and 97 completed the follow-up survey three-months post-baseline (retention rate: 87%). Learning with FASD was effective in increasing both knowledge and confidence. From baseline to three-month follow-up, the odds of being "confident" or "very confident" significantly increased. For example, at follow-up participants were 4.5 times more confident in their knowledge of the presentation of FASD (95% CI: 2.61 to 11.49) and 4.3 times more confident in their ability to recognise a student displaying behaviours or problems consistent with FASD (95% CI: 2.43 to 10.45). The website also increased the implementation of supportive behaviours. The odds of implementing FASD-informed strategies to manage behaviour in the classroom increased 2.6 times from baseline to three-month follow-up (95% CI: 1.24 to 4.52). Participants were also 7.2 times more likely to have communicated with a colleague about Learning with FASD (95% CI: 5.74 to 21.52). A nine-month follow-up survey is currently underway to assess the longer-term impact of the website. Data collection and analysis will be finalised by mid-2026. Learning with FASD is an effective tool to increase knowledge and confidence and build capacity in educators to better support children with FASD in the school environment.

A2.6 The Animation Curriculum: Findings from a phase one feasibility study of a novel and inclusive classroom intervention for children with FASD

Price Alan (1), Rutherford Jessica (1)

(1) University of Salford (United Kingdom)

There is limited availability internationally of classroom interventions tailored for children with FASD and none that are available in the UK. Children with FASD are at risk of falling behind their peers in school and being isolated due to behavioural difficulties or for placement into special educational needs provision. They would likely benefit from a classroom intervention that is tailored to their neurodevelopmental profile, provides helpful sensory stimulation and creative, play-based learning, and which can be delivered to mixed groups without segregation. The

Animation Curriculum (TAC) is a seven-module, cross-curricular programme acting as a mode of delivery through which a whole class of students completes a series of tasks and actions producing a series of outputs. This approach is multi-sensory, tactile and multimodal with a strengths-based approach for those with FASD. Between April and July 2025, TAC was delivered in two mainstream primary school classes (students aged 7-10 years), one in North-East England, and one in British Columbia, Canada. Teachers chose which topics they would cover and were trained in how to use TAC for delivering their existing curriculum. Teachers completed a measure of classroom engagement for the class as a whole, and separately for students with FASD. Teachers and other staff took part in interviews. The overall average engagement score across all modules and all students was 2.85 out of 4, which indicates engagement levels tended to be "mostly sustained", leaning towards being "partly sustained". Students with and without FASD scored equally high on engagement. Students were most engaged during the animation module (3.79 out of 4), and least engaged during the storyboarding module (1.86 out of 4). Teachers described TAC as being easy to use, student led, and more useful than they had expected. They also reported that students with other forms of neurodivergence seemed just as engaged as the students with FASD and neurotypical students. The Animation Curriculum appears to be an acceptable and feasible classroom intervention that is not only engaging for primary school students with FASD, but for mixed groups. Progression to a phase two feasibility trial appears warranted and a funding application is underway.

A2.7 Supporting Employment Success for Individuals with FASD: Lessons from a 15-Year Integrated Community Program

Murphy Lisa, Lakeland Centre for FASD (Canada)

Since 2009, the Lakeland Centre for Fetal Alcohol Spectrum Disorder (LCFASD) has delivered an employment program designed to support youth and adults with FASD to engage in meaningful work, build career readiness skills, and participate fully in their communities. Individuals with FASD face unique barriers related to executive functioning, adaptive skill development, social communication, and system navigation that can significantly impact employment stability and long-term success. Employment outcomes for this population remain low across Canada, with research demonstrating high rates of job turnover, limited workplace accommodations, and challenges sustaining competitive employment without ongoing support. Drawing on 15 years of implementation experience, this presentation will highlight key learnings, program successes, and system-level challenges encountered in delivering employment-focused supports in a rural and regional context. Program successes have included: increased employer engagement; improved employment readiness and confidence among participants; strengthened life and adaptive skills; and tangible employment outcomes in both competitive and modified settings. Integration with housing, mental health, addictions, transportation, and court-related supports has been critical, as success in employment is often contingent on broader determinants of stability. Challenges will also be examined, including gaps in funding for ongoing supports; limited transitional pathways for youth aging out of school systems; rural labour market constraints; stigma and misunderstanding of disability-related needs; and the reliance on relationship-based, long-term supports that fall outside conventional employment program models. These challenges mirror findings in emerging research, including studies emphasizing the need for individualized supports, strength-based approaches, and workplace accommodations informed by neurodevelopmental disability literature. Finally, the presentation will situate the program within current evidence and research, including literature demonstrating improved employment outcomes when supports are contextual, predictable, trauma-informed, and relationship-based—core elements of the LCFASD model. Implications for system design,

policy, and future research will be explored, with recommendations for expanding employment pathways, enhancing cross-sector collaboration, and reinforcing the economic and social value of sustained participation in the workforce for individuals with FASD.

A3 / People & Community Perspective: life as it is, self-advocacy and participatory involvement

Moderation: **Bourely Antoine** and **Michalowski Gisela**

Considering the issues from multiple perspectives seems essential to gain a meaningful understanding of the challenges posed by fetal alcohol. This includes the perspectives of, and on, carers and the community. More importantly, it includes the perspectives of those most directly affected, as a true reflection of their aspirations and their power to make a difference.

A3.1 Day-to-Day Parenting in Caregivers of Adolescents with Fetal Alcohol Spectrum Disorder: Links Between Parenting Behaviours, Child Behaviour, and Caregiver Affect

Mcmorris Carly (1) (2), Friesen-Burritt Kelsey (3) **Jacqueline Pei** (4)

(1) The University of Calgary (Canada), (2) Werklund School of Education (Canada), (3) University of Calgary; Werklund School of Education (Canada) (4) Department of Educational Psychology, University of Alberta, Edmonton, AB (Canada)

There is a dearth of research examining the parenting characteristics and practices of caregivers of children with fetal alcohol spectrum disorder (FASD). To meaningfully support caregivers, it is essential that we understand the factors that promote positive caregiver–child interactions in daily life. Despite growing awareness of the complex challenges involved in parenting a child with FASD (e.g., emotional, behavioural, and social difficulties) relatively little is known about how parenting behaviours unfold in everyday contexts or how caregiver and child characteristics interact to shape these behaviours This is the first study to utilize daily diaries to examine both parenting dimensions and day-to-day fluctuations in parenting behaviours in caregivers of adolescents with FASD. Objectives: We examined daily variability in autonomy support and psychologically controlling parenting behaviours in caregivers of adolescents with FASD, as well as to explore associations with child behaviour and caregiver affect. Method: 20 caregivers and sixteen adolescents with FASD (12-18 years of age) completed 14 consecutive days of daily diaries. Caregivers of adolescents with FASD completed daily electronic assessments of their mood, their child's behaviour, their parenting behaviours, as well as both their own and their child's sleep through Qualtrics using their own web-enabled device. Adolescents were also asked to complete brief daily questionnaires measuring their mood and their sleep the night before. Results: Data from the daily diaries revealed substantial within-person variability in parenting behaviours. Specifically, on days when caregivers perceived more conduct problems or hyperactivity in their child, they reported less autonomy support and greater psychological control. Caregiver mood was also linked to parenting behaviours, such that more positive mood was associated with greater autonomy support, while negative mood was linked to increased psychological control. Implications: Understanding developmental factors that are associated with positive outcomes for children and adolescents has been highlighted as a critical area for research), and the findings from this study underscore the dynamic, transactional nature of caregiving in families affected by FASD, highlighting important targets for family-based intervention. Findings from this study

may help guide the development of strengths-based interventions that promote caregiver well-being and facilitate supportive parenting practices.

A3.2 Quality of Life and Needs Assessment in Children and Young People with FASD: Preliminary Results from a Community-Based Observational Study in Spain

Marta Astals-Vizcaino (1), Andreu-Fernández vicente, Garcia-Algar oscar

(1) Universitat de Barcelona. Neonatology Unit, ICGON, IDIBAPS, Hospital Clínic-Maternitat, BCNatal. (Spain)

Fetal Alcohol Spectrum Disorders (FASD) are lifelong neurodevelopmental conditions associated with significant cognitive, emotional, and social impairments, generating a substantial burden for affected individuals, families, and support systems. Despite an estimated prevalence of 1–5% globally and around 1% in Spain, there is a critical lack of validated instruments to systematically assess quality of life (QoL) and unmet needs in this highly vulnerable population, particularly from both self- and caregiver perspectives. Methods: We conducted a cross-sectional observational study in collaboration with a national family-based organization (VisualTEAF Foundation). The project includes two complementary components: (1) the contextual adaptation and validation of the Camberwell Assessment of Need – Research version (CAN-R) for FASD through expert consensus (Delphi methodology), family involvement, and methodological approval from the original author; and (2) the administration of validated QoL instruments (KIDSCREEN-52 and INICO-FEAPS, self- and proxy versions) to children, adolescents, and young people diagnosed with FASD and their caregivers, using a digitally supported and assisted data collection strategy. Results: Preliminary analyses (data collection ongoing) show a consistent pattern across instruments. Both self-reports and caregiver reports indicate relatively preserved domains related to family support, interpersonal relationships, and social inclusion. In contrast, lower scores are observed in emotional well-being, self-determination, autonomy, and school-related functioning. Caregivers systematically report greater difficulties than patients in emotional regulation and autonomy, while patients tend to perceive their own functioning more positively, highlighting the added value of multi-informant assessment. Gender-disaggregated exploratory analyses suggest clinically relevant trends in autonomy and emotional well-being, although current sample sizes limit inferential conclusions. Conclusions: These findings underscore the importance of combining validated QoL measures with a needs-based approach tailored to FASD. The adapted CAN-R-FASD instrument and the dual-perspective assessment provide actionable data to inform individualized interventions, support planning, and policy development aimed at preventing secondary disabilities and improving long-term outcomes for people living with FASD.

A3.3 Prevention project for pupils aged 12 and over

Michalowski Gisela (1), Lepke Katrin

(1) ngo (Germany)

As a patient advocacy group, FASD Deutschland e.V. is closely involved daily with the concerns and challenges faced by people with FASD and their support networks. We would like to share our experiences and present our support and prevention initiatives. For adolescents and young adults, FASD Deutschland e.V. has developed the prevention project “Hannah's Quest – Game of Life” in the form of a graphic novel. Readers accompany Hannah on an exciting day. She

battles a formidable opponent in a computer game, and in real life she also faces many challenges. Hannah's story illustrates that friends, family, and a sense of togetherness are extremely important. Only with their support can one successfully complete the “game of life”, especially when – like Hannah – living with an invisible disability. This booklet was created particularly for schools, youth centres, youth welfare institutions, and for anyone who supports adolescents and young adults, such as in school, at work, or during leisure activities. Its aim is both to highlight the difficulties faced by people with FASD and to draw attention to the fact that this often-invisible disability is preventable. The comic has been adapted into a film and is now also available in English.

A3.4 Talk to us and give us a voice! We want to share information about ourselves and advocate for our rights.

Hoff-Emden Heike, SPC -Child and Youth outpatient care Lebenshilfe-Berlin Prenzlauer Berg (Germany)

The final contribution at the EUFASD Conference in Madrid in 2024, presented by a young adult with FASD, was: Don't talk about us, talk with us. There is much discussion about people with FASD, and multi-professional networks and therapeutic methods are being developed. However, the aspirations, personal experiences, and daily struggles of individuals with FASD are often overlooked.

METHODS
In over 30 years of diagnosing and supporting more than 2,000 people with FASD, these individuals were occasionally asked to create a drawing or write a letter about their lives with FASD, or to provide a corresponding statement as part of their transition to adulthood.

RESULTS
The collection of self-drawn pictures by people with FASD, aged 8-18, reveals the emotions and challenges they face in everyday life, as well as their creative talents, desire for normalcy, and their process of coming to terms with their disability. The drawings particularly highlight the tension between their own expectations, their actual experiences, and the overwhelming demands of their environment. Some children and young people specifically asked me to use their drawings in presentations to illustrate their situation to professionals. With great confidence, young people also spoke about FASD and themselves at school.

IMPLICATION
Children and young people with FASD should be encouraged to express their feelings and problems through drawing, utilizing their creative talents in the process. This approach allows us to engage in conversation with them, helps them feel better understood, and enables us to provide more tailored support. Their role as prevention ambassadors should be utilized even more effectively in this context.

A3.5 Hidden in Plain Sight: FASD in Ireland and the Sociological Imperative for Change

Flynn Cillian (1), Burke Jolanta (2), **Casson-Rennie Tristan** (1), Harper Angel (3), Sharif Professor Farhana (4)

(1) FASD Ireland (Ireland), (2) Centre for Positive Health Sciences at RCSI University of Medicine and Health Sciences (Ireland), (3) Royal College of Surgeons in Ireland, (Ireland), (4) Health Service Executive (Ireland)

Foetal Alcohol Spectrum Disorder (FASD) remains a largely unrecognised neurodevelopmental condition in Ireland, despite the country having one of the highest estimated prevalence rates globally (2.8–7.4%). This research, commissioned by FASD Ireland and conducted by the Centre for Positive Health Sciences at RCSI, explores the lived experiences of individuals and families affected by FASD, revealing systemic gaps in diagnosis, education, healthcare, and public awareness. Through narrative interviews and policy analysis, the study highlights how stigma, misdiagnosis, and institutional neglect compound the challenges faced by this community, often resulting in adverse life outcomes including mental illness, substance misuse, and criminal justice involvement. Yet, amid these challenges, the research uncovers profound strengths—resilience, advocacy, creativity, and community-building—that flourish when individuals are supported. The findings call for a national FASD clinic, cross-sectoral collaboration, and strengths-based interventions that promote wellbeing and inclusion. This paper situates FASD within the broader sociological themes of conflict, change, and solidarity, arguing that Ireland's response to FASD reflects deeper tensions in disability recognition, healthcare equity, and cultural attitudes toward alcohol. It proposes a sociological framework for understanding FASD not only as a medical issue but as a social justice concern, demanding urgent policy reform and collective solidarity.

A3.6 Creation and Animation of a Peer Support Group for Adults With FASD

Eglin Olga, Vivre Avec Le SAF (France)

We have been contacted by adults with FASD, usually very lonely, with poor self-esteem and difficult lifepaths. They had no idea other people were having similar troubles. The initial group was mostly made of adopted children, and thanks to social media we added more and more adults from foster and biological families.

AIM
To give them the opportunity to meet despite geographical and BACKGROUND distance, understand better FASD, share their experiences to find their strengths and improve self-esteem. Can group effect help adults at any age?

METHODS
Experimental research Creation of the group “concerned by FASD”: 1/ individual phone calls to understand situation and needs 2/ proposals depending on age, vulnerability, needs and capacities. 3/ “Zoom” talking groups, WhatsApp community, shared projects of testimonials. 4/ Interviews completed before experiment, to be renewed one year after (qualitative study). Animation / organization of the group: I focused on each member special needs, skills and personal aims to find and distribute a task or situation which could both fill needs of projects and personal challenge. For instance, improve adaptive functions with group work, creative tasks for isolated profiles, talking in public for shy profiles... This is personal coaching without naming it. The next step was to meet in real life. They were very motivated and saved up to pay

for their trips, and the result was amazing: a new energy for the group, a sense of solidarity, and a feeling of belonging to a family.

LIMITS
Adults within that group don't represent the whole spectrum (more autonomous, no close support, probably in search of help, involved and ready to change). Results: They realized they are not alone with FASD. Sharing their experience of dealing with emotion management or executive functions helped them feel “normal” and supported by neuroatypical friends and improve their lives.

CONCLUSIONS
Peer support does no longer need to prove its usefulness, but in the field of FASD which is still linked to “shame” or “rare and stigmatized” in France, being part of a group with projects can help to change the view of society, opening up FASD!

A3.7 Tītoki: An Innovative Global-First Initiative Empowering Adolescents and Adults with FASD Through Connection, Confidence, and Advocacy in Aotearoa New Zealand

Anna Gundesen, FASD-CAN Inc (New Zealand)

In Aotearoa New Zealand, adolescents and adults with FASD face systemic barriers, including low awareness, limited access to diagnosis, inadequate support, and minimal representation in policy discussions. This limits individuals' spheres of influence and opportunities for self-advocacy. The Tītoki project, under FASD-CAN NZ was developed to address these challenges by creating culturally grounded, strengths-based opportunities for empowerment. Guided by the indigenous Māori concept of whakamana (empowerment), Tītoki fosters connection, self-awareness, advocacy, and prosocial engagement. The programme integrates holistic support through residential camps and ongoing community engagement. Key components include embedding whakamana principles, providing safe spaces to learn about FASD and individual rights, and facilitating peer led activities and leadership development. Progress indicators were co designed with participants, focusing on empowerment threads such as relationships, cultural identity, mental health, and advocacy platforms. Tītoki camps demonstrate measurable gains in empowerment and advocacy. Participants collaboratively developed eight Key Messages calling for systemic change, including mandatory FASD training for professionals, timely and affordable diagnosis, enhanced family support, specialist services for co-existing conditions, and improved educational understanding. They also asserted their right to representation in policy decisions, affirming, “We are the experts.” Growth emerged across four areas: Knowledge – understanding FASD as a disability and associated rights. Skills – communicating lived experiences and advocating publicly. Confidence – expanding social networks and strengthening family and cultural ties. Network – engaging with community, services, and policymakers. The Tītoki model shows that empowerment begins with connection and belonging and scales to systemic advocacy. Embedding indigenous values such as manaakitanga (care), whanaungatanga (relationships), and kotahitanga (unity) strengthens holistic wellbeing for individuals with FASD and their families. By centring lived experience and co design, Tītoki addresses system gaps while reducing stigma. Participant led messages demonstrate a shift from passive service use to active leadership. Tītoki offers a replicable framework for integrating cultural principles, holistic support, and advocacy development in FASD interventions. By strengthening self-belief and confidence, participants exercise their inherent mana and influence change. As the Tītoki tree blooms in its own time, so too do individuals with FASD - given the right conditions, their potential flourishes.

Parallel sessions B

Tuesday 15 September 8h30 – 10h00

B1 / Brain, Cognition & Behavior: from altered neuronal balance to altered adaptative functioning

Moderation: **Gerstner Thorsten** and **Meintjes Ernesta**

The brain, substrate of our cognition and behaviour, is a prime target for the toxic effects of alcohol during pregnancy. This session explores the neurophenotype of FASD from the alteration of neuronal balance to that of adaptative behaviours, also investigating the ways and means of its variability among the range of NDDs.

B1.1 Altered brain excitation-inhibition balance in children with prenatal alcohol exposure

Long Xiangyu, Lebel Catherine (1) (2) (3)

(1) University of Calgary (Canada), (2) Alberta Children's Hospital Research Institute (Canada), (3) Hotchkiss Brain Institute (Canada)

Excitation-inhibition (E/I) balance is a crucial neurophysiological mechanism and plays a pivotal role in typical brain development. Animal models indicate neuronal hyperexcitability in hippocampus subregions in mice with prenatal alcohol exposure (PAE); however, it is unclear if this balance is also different in humans with PAE. The Hurst exponent, which is calculated from the resting-state functional magnetic resonance imaging (fMRI) signals, can be used as index of the E/I balance, and has shown important brain differences in other disorders such as autism. The aim of our study was to investigate the E/I balance associated with PAE using the Hurst exponent in children with and without PAE.

METHODS
75 participants with PAE (37 female/38 male, age range from 3.35 to 18.79 years old) and 204 typical controls (105 female/99 male, age range from 1.95 to 18.58 years old) were included from multiple projects in Canada. In total, 107 MRI datasets from participants with PAE and 456 MRI datasets from typical controls were included. T1-weighted anatomical images were segmented and provided 116 brain regions. fMRI data were preprocessed. The Hurst exponent was calculated from the averaged fMRI time series of each region. Linear mixed-effect models were performed to examine the group-level differences.

RESULTS
Children with PAE showed higher Hurst exponents (i.e., lower E/I ratio) at the right amygdala, the bilateral hippocampus and the right middle cingulate gyrus compared to typical controls (Table 1, Figure 1). In general, brain regions showed increasing Hurst exponents with age (i.e., decreasing E/I balance with age) in both groups. No regions showed developmental differences between groups.

CONCLUSIONS
Our results provide novel evidence of alterations in the excitation-inhibition balance associated with PAE at the macroscale level and suggest that these differences are stable with age. Lower E/I balance implies that children and youth with PAE have lower excitation and/or higher inhibition in neuronal circuitry dynamics. We hope our results will inspire more studies in neurophysiological mechanisms and their applications associated with PAE.

B1.2 Motor performance and brain gray and white matter in young children with prenatal alcohol exposure

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Prenatal alcohol exposure (PAE) can lead to widespread brain alterations and neurodevelopmental challenges. Motor function is among the earliest affected domains, with difficulties identified even in neonates. However, the neurological underpinnings of motor challenges in children with PAE remain unclear. Neuroimaging studies demonstrate reduced volumes and connectivity in brain motor regions and white matter pathways, but few studies have specifically investigated associations between brain structure and motor performance in children with PAE. This study investigated how motor performance relates to gray matter volume of motor regions and white matter microstructure of motor tracts in young children with PAE. 53 children aged 2-7 years with PAE (5.3±1.0 years; 26 males) and 72 unexposed children (5.1±1.0 years; 33 males) underwent neuroimaging, including T1-weighted and diffusion tensor imaging. The Movement Assessment Battery for Children-2nd edition assessed motor performance. Fractional anisotropy (FA) and mean diffusivity (MD) were calculated for the bilateral corticospinal tracts and the corpus callosum. Total gray matter volume was calculated for the bilateral primary and supplementary motor cortices. Linear regression models tested group differences in brain measures (cortical volume, FA, MD), with age and sex as covariates. Young children with PAE showed significant motor impairments overall ($p = 0.002$), especially in fine motor ($p = 0.019$) and balance skills ($p = 0021$). PAE significantly moderated associations between MD of the corpus callosum and balance ($p = 0.044$) and total motor scores ($p = 0.013$), with significant associations observed in unexposed children but not children with PAE (Figure 1). Similar moderation effects were observed between FA of the right corticospinal tract and manual dexterity, as well as volumes of the supplementary motor cortex and primary motor cortex with balance. Typical brain-motor function associations appear to be disrupted by PAE. This may suggest that children with PAE rely more on alternative or compensatory brain networks for motor skills and deviate from typical developmental trajectories. Further research can examine longitudinal associations, as well as how cerebellar regions may support motor performance.

B1.3 From neuroanatomical signature to psychometric profile in a series of FASD: an attempt to predict recurrent cognitive deficits

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In foetal alcohol spectrum disorders (FASD), neuroanatomical impairments extend beyond total brain volume (TBV) reduction to disproportionate regional vulnerabilities, particularly in the cerebellum, deep grey matter, and corpus callosum. In parallel, cognitive and behavioural impairments are variable and multidomain, often affecting global cognitive functioning as

indexed by Full-Scale IQ (FSIQ) while reasoning abilities are often spared. We aimed to link these dimensions by building predictive models of cognitive impairment, assessed with Wechsler scales, from neuroanatomical markers expressed as deviations from normative scaling models (non-linear relations between regional and global volumes), while enforcing model parsimony through comparisons of regularisation methods. We analysed T1-weighted MRI (1.5T) from 71 individuals with FASD and 94 controls aged 6-20 years (40 scanner-matched; 54 acquired at 3T at another site). Segmentations included TBV, cerebellar volumes, deep grey matter volumes, and callosal thickness and length. Each regional volume was expressed as a z-score deviation from control-derived scaling models using either TBV as reference (ZTBV) or a nested reference to cerebellar volume and total deep grey matter volume (ZNEST). After checking multicollinearity, we trained logistic regression models with nested cross-validation to classify "impaired" versus "preserved" performance on three Wechsler intelligence indicators (FSIQ, General Ability Index, highest reasoning scaled score) and three specific measures (Working Memory Index, Digit Span, Coding). We compared raw versus ZTBV versus ZNEST features, penalties (none, Lasso, Ridge), and the added value of including diagnosis as a predictor. Normative scaling reduced inter-predictor redundancy. Among structures, the caudate nucleus correlated most strongly with FSIQ. Only models predicting global impairment (FSIQ) performed above chance, and neither feature engineering, penalisation nor diagnosis improved performance (Accuracy 63.1-69.1%; AUCs 0.67-0.72 across models; all $p < 0.05$). Significant predictors ($p < 0.05$), in descending importance, were: caudate, accumbens, posterior vermis, TBV, callosal length, splenial thickness, inferior cerebellar hemispheres, putamen, and thalamus. This is the first study to show that global cognitive impairment (borderline-to-deficient FSIQ) in FASD can be predicted from MRI-derived neuroanatomical features. Although no gains emerged across feature-engineering or regularisation approaches, these findings support the prospect of earlier functional prognostication in FASD, potentially before clinical difficulties are overtly expressed.

B1.4 Investigating the impact of the dose and timing of low-level prenatal alcohol exposure on adolescent development: An Adolescent Brain Cognitive Development Study

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Globally, 9.8% of women consume alcohol during pregnancy, with this prevalence being variable and higher in some regions (e.g., Europe, North America). Existing research has tended to focus on the impacts of heavy prenatal alcohol exposure (PAE) during pregnancy and linked it to a host of adverse outcomes, the most disabling of which is FASD. However, less is known about the impacts of low levels of exposure, despite this being the most common form of alcohol consumption during pregnancy. Moreover, there is a lack of research investigating how PAE impacts development across adolescence, a period characterised by dynamic biological and psychosocial change. The Adolescent Brain Cognitive Development (ABCD) Study provides a unique opportunity to address these research gaps.

METHODS
Participants were a demographically matched sample of 4,840 adolescents from the ABCD Study (6.0 release). PAE was conceptualised as 1) a binary categorical variable reflecting any alcohol use at any time during pregnancy, 2) the total number of drinks consumed during pregnancy, and 3) PAE exposure patterns, including abstainers, use throughout pregnancy, and use early in pregnancy only. Using a series of Generalised Additive Mixed Models (GAMMs), we investigated the impact of PAE on the following outcomes across adolescence (ages 9-17): structural neurobiology, psychopathology, motivation, impulsivity, cognitive assessments of memory, attention, and executive functioning, and school grades.

RESULTS
Overall, there was a trend for those with any PAE to present with distinct developmental trajectories across the neurobiological, psychopathological, motivational, impulsivity, and cognitive outcomes, when compared to those without PAE. Interestingly, our dose response hypothesis, which stated that PAE would be associated with attenuated or poorer outcomes in a dose response manner, was not consistently supported. Instead, the timing of PAE had the greatest impact, particularly exposure early in pregnancy which occurred prior to knowledge of pregnancy.

DISCUSSION
PAE, even at low levels, is associated with altered developmental trajectories across adolescence, with our findings also indicating that those exposed to PAE early in pregnancy may be particularly susceptible to these attenuated outcomes. This finding underscores the importance of PAE prevention efforts targeting the preconception period to optimise future population health.

B1.5 Cognitive and adaptive functioning in FASD across childhood, adolescence, and adulthood: Service evaluation study with 15+ years of UK clinic data

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Cognitive (intellectual) and adaptive functioning are key domains routinely assessed during FASD evaluations. Impairments in both are required to meet diagnostic criteria for Intellectual Disability (ID). Previous international research (Doyle et al., 2018) found that although higher intellectual functioning was associated with better adaptive ability in control groups, this relationship did not hold for individuals with prenatal alcohol exposure, who demonstrated reduced adaptive functioning regardless of cognitive level. This service evaluation examined whether these findings were reflected within the UK FASD Clinic dataset and explored cognitive and adaptive profiles to inform assessment selection and intervention planning.

METHODS
Data were drawn from the UK FASD Clinic database, which contains approximately 400 individuals. Those with a confirmed FASD diagnosis aged 6 years and above were included in the present sample. Retrospective descriptive and inferential analyses examined: (1) cognitive profiles using the Wechsler Intelligence Scale for Children (WISC IV/V) and Wechsler Adult Intelligence Scale (WAIS IV) Index scores and Subtest Scaled Scores; (2) adaptive functioning profiles using Vineland Adaptive Behaviour Scales (VABS) Standard Scores; and (3) associations between Full Scale IQ (FSIQ) and VABS Standard Scores.

RESULTS
Mean WISC and WAIS scores were significantly below the population mean across all Composite Indexes and Subtests, although none exceeded a two standard deviation deficit. In contrast, mean VABS scores were significantly lower across all domains, with most Composite and Major Subdomain scores falling more than two standard deviations below the mean. Significant correlations were found between FSIQ and all VABS scores except Socialization. When the sample was split by intellectual level (FSIQ ≤85 vs. ≥86), individuals with higher IQ showed no correlation between cognitive and adaptive functioning. In contrast, those with lower IQ demonstrated significant correlations across all adaptive domains, including Socialization.

CONCLUSION
Although the mean cognitive abilities of the UK FASD clinic sample were significantly lower than the general population, adaptive functioning impairments were more pronounced. Furthermore, average or higher intellectual ability in this sample does not reliably predict adaptive functioning. As this is consistent with existing evidence, it is essential comprehensive evaluation of adaptive functioning and tailored support is provided."

B1.6 Adaptive Functioning in Children Prenatally Exposed to Illicit Drugs compared to children with FASD

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FASD increases the risk of deficits in adaptive functioning. Aims of this study were to assess if this also applies to children with prenatal illicit drug exposure (PDE) and to compare adaptive functioning in children with FASD and PDE.

METHODS
25 children with PDE (non- confirmed alcohol) and 134 children with FASD (36% also had PDE exposure) were included. Mean age for both groups were 10 years. 72% of the children with PDE and 67% of the children with FASD were in foster care. The children underwent a multidisciplinary assessment including the Vineland adaptive behavior scale (VABS) 2nd edition parental interview and age appropriate Wechsler IQ test. The Hollingshead's Two Factor index of Social Position categorized socioeconomic status (SES) and was obtained in 36% of those with PDE and 80% of those with FASD. T-tests were applied to determine whether there was a statistical significant difference between the groups. The significance level was set to 0.05.

RESULTS
There were no significant difference between groups regarding SES, but missing data may influence the result. Preliminary results shows that there is no significant difference in the adaptive functioning level for children with PDE and FASD. In terms of general adaptive functioning (GAF), both the PDE and FASD group score more than -2 SD below average. Mean GAF in those with PDE was 60 and 61 in those with FASD. In addition, none of the VABS index scores fell within normal limits. The groups are comparable in terms of both living situation, socioeconomic status, age, and IQ level. Both groups show a striking discrepancy between

adaptive functioning level and IQ, with IQ being substantially higher than the adaptive functioning level.

CONCLUSION
Both children with PDE and children with FASD have lower adaptive functioning than expected based on their age and cognitive level. Children prenatally exposed to illegal drugs struggle with adaptive functioning at the same level as children with FASD. The study underscores the importance of assessing adaptive functioning when evaluating children with PDE.

B1.7 How does prenatal cannabis influence early brain development in offspring? Review of results from human studies.

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Increasing number of countries have legalized cannabis or are discussing to do so. Legalization has led to increased use also among pregnant women with numbers doubling in USA from 3,5% to almost 7% of all pregnancies. Cannabis is the most widely used illicit substance of abuse amongst pregnant women. “Marijuana” refers to parts of or products from the plant Cannabis sativa that contain substantial amounts of tetrahydrocannabinol (THC). Marijuana available today is more potent than ever, has a stronger effect on the brain, and leads to higher rates of dependency. The combination of increased potency and accessibility of cannabis creates the potential for increased harm to children. Marijuana use during pregnancy can affect the developing fetus. Aim of study: Establish a resource guide for medical doctors in Norway in the assessment of children with prenatal cannabis exposure (PCE).

METHOD
We performed a systematic literature search including reviews, meta-analysis and systematic reviews of childhood outcome following PCE published from 2010 to 2025. Thirty-four studies were identified.

RESULTS
PCE was associated with increased complication risk compared to non-exposed at birth (low birth weight, small for gestational age, preterm birth, infant death), and in childhood (ADHD diagnosis or symptoms, psychosis symptoms, deficits in attention and memory, internalizing and externalizing symptoms). Findings are similar to what is reported in animal studies. Unlike prenatal alcohol exposure, PCE does not seem to increase risk of intellectual impairment or autism spectrum disorder.

CONCLUSION
There are serious limitations to most of the studies included, especially related to polysubstance abuse, the use of self-report, and lack of information on dosage, timing and duration of PCE. The studies vary regarding what, if any, covariates are included in the analyses. In addition, most large, prospective studies are of older date and subsequently do not include prenatal exposure to more potent natural and synthetic cannabis. The full long-term neurodevelopmental consequences of PCE are therefore not clear and might be worse. The American Academy of Pediatrics (2018) recommended that “...it is important to advise all

adolescents and young women that if they become pregnant, marijuana should not be used during pregnancy."

B2 / Health & Care: useful sharings of experiences and practices

Moderation: **Skranes Jon** and **Garzon Pauline**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. Strategies to address these needs would certainly benefit from being more thoroughly tailored and evaluated and in any case, form enhanced sharings of experiences and practices: pathway to and within care, (co-)design of interventions, differential diagnosis strategy...

B2.1 Pathfinder for FASD: How FASQ.online Reveals Complex Symptom Profiles

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BACKGROUND
Fetal Alcohol Spectrum Disorders (FASD) are underdiagnosed in Germany, especially when children lack typical physical signs. The 38-item Fetal Alcohol Syndrome Questionnaire (FASQ/ 2008 Dr. Reinhold Feldmann GER/Münster) is a validated, low-threshold tool with 92% accuracy and is now available as an anonymized online version.

OBJECTIVE
To use FASQ.online to describe symptoms, existing diagnoses and current care of children and adolescents with suspected FASD, and to derive practical diagnostic recommendations.

METHODS
In 2025, caregivers and professionals completed FASQ.online for 197 children aged 8–17 years on a national-wide (but mostly from North Germany), free and anonymous platform. Item scores and age-specific cut-offs indicated whether further FASD assessment was recommended.

RESULTS
Children showed high symptom load despite normal physical development; on average, 43.3% of FASQ items per child were clearly abnormal. Core problems included poor understanding of consequences, lack of explanation for one's own behaviour, attention and concentration difficulties, social naivety and high need for structure. Most children already had a diagnosis (mainly ADHD) and were in treatment, but symptoms remained severe. In 77% of cases, FASQ.online indicated a need for comprehensive FASD diagnostics.

CONCLUSIONS
FASD is frequent but often hidden behind other diagnoses such as ADHD. FASQ.online is a simple, accessible screening tool that can support early, guideline-based clarification, reduce diagnostic delay and improve targeted care in Germany and beyond.

OUR PROPOSAL
Join us to raise FASD awareness Europe-wide through partnerships, cooperation, in your nation, locale, organizations, and language. Experience and validate the FASQ.online as pathfinder for FASD-Diagnostics.

B2.2 Prenatal alcohol exposure: an innovative program to improve the monitoring and children' outcomes

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"Prenatal alcohol exposure is well known to cause neurodevelopmental disorders. The French National Health Authority (HAS) recommends that these children be monitored and cared for by trained healthcare professionals. In France, newborns with neonatal vulnerabilities are follow up by regional perinatal networks, but few of these networks have been able to implement these recommendations. This work describes the methods of including children exposed to prenatal alcohol in these different networks and more specifically the follow-up in the three regions of southern France (Mediterranean, Nouvelle-Aquitaine, and Occitanie) where an experimentation (article 51) is being conducted offering early and coordinated follow-up and care for children at risk of neurodevelopmental disorder (defined according to HAS criteria): the COCON program Objective: To provide a national overview. To Describe the methods and results from the follow-up of these children in Occitanie.

METHOD
- Questionnaires collected from regional monitoring vulnerable children' networks.
- Questionnaires for maternity midwives in Occitanie.
- Analysis of data from children monitored for prenatal alcohol exposure. Data from the Cocon experimentation between 2023 to 2025.

RESULTS
The first results show that, among the French networks contacted, only a quarter of the networks monitoring vulnerable children had organized themselves to screen and monitor these children based on variable criteria. Analysis of data on children exposed to alcohol in the COCON experiment in Occitanie reveals an average gap of about 50% between the number of children identified and those included despite awareness-raising interventions, but also differences between the number of children included and those monitored, despite facilitated access to care. These differences can be explained by difficulties to adhere follow-up.

CONCLUSION
This is an innovative program that can demonstrate its full effectiveness provided that it exists a continuity of care between the prenatal and postnatal periods, and appropriate support in the postnatal period, which relies on the trust established between the family and health professionals, as well as on interprofessional communication."

B2.3 When Language Fails: Understanding Speech and Communication in FASD

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Speech and language difficulties are among the most prevalent yet heterogeneous neurodevelopmental features in individuals with Fetal Alcohol Spectrum Disorders (FASD). While cognitive and behavioral characteristics are widely acknowledged, communication impairments often remain insufficiently differentiated in clinical practice and are frequently misinterpreted as behavioral or motivational problems. Word-finding pauses, disorganized storytelling, limited abstract language, pragmatic breakdown, unclear articulation, and inconsistent performance are common but often misunderstood. Expressive and receptive language delays, narrative deficits, social-pragmatic vulnerabilities, speech sound disorders, and motor speech impairments may co-occur and interact with executive dysfunction and attentional regulation difficulties. Neurocognitive deficits such as reduced working memory capacity, slowed processing speed, and impaired inhibition significantly influence communication performance and may mask underlying structural language impairment. This interactive workshop provides a structured clinical framework for understanding speech and language profiles in FASD across the lifespan. Particular attention is given to distinguishing primary linguistic impairment from executive-function-related communication breakdown, a differentiation essential for accurate diagnosis and effective intervention planning. Participants will explore: Core linguistic and speech characteristics in FASD Differential diagnostic considerations (e.g., Developmental Language Disorder, ADHD-related communication profiles, autism spectrum conditions) Motor speech and speech sound vulnerabilities Assessment adaptations addressing fluctuating attention, working memory limitations, and regulation challenges Evidence-informed intervention strategies targeting language structure, narrative competence, pragmatic skills, and functional communication Practical tools include narrative scaffolding techniques, visual supports, structured vocabulary intervention, motor speech facilitation strategies, and caregiver guidance for everyday communication support. Through case-based discussion and structured clinical checklists, participants will gain immediately applicable strategies to enhance diagnostic clarity, improve functional communication outcomes, and reduce frustration in daily environments. The workshop aims to promote targeted, mechanism-informed intervention and strengthen interdisciplinary collaboration in supporting individuals with FASD.

B2.4 Together towards INTERDEPENDENCE - Young Adults with FASD

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Disorders resulting from prenatal alcohol exposure (PAE) affect an individual's cognitive, behavioral and social functioning throughout life. Deficits in the functioning of the individual with FASD include the challenges of everyday life such as educational failure, substance abuse, homelessness, employment difficulties, and a higher risk of conflict with the law. Research indicates that adequate diagnosis and support services can improve outcomes for individuals with FASD. This session includes the information on a development of the self-empowerment program for young adults (16+) with FASD.

OBJECTIVES
Describe the understanding the basis of existing deficits and the importance of adequate support. Describe the real benefits of a support program for young adults with FASD. Describe the potential risks resulting from the lack of adequate support for young adults with FASD.

Method Assesment of activities and services offered to young adults (16+) with FASD diagnosed by GDTC FASD, Poland was based on data analysis from 2010-2025. 590 participants were referred through family or community referrals in one geographic area of Gdynia, Poland between 2010-2025. Among 590 participants, 313 had FASD and 31 of them was 16+ years old. The age of participants was from 16 to 26 years old. 3 participants were from biological families, 6 from adoptive and 22 from foster care.

RESULTS
Overall, data resulting from the assessment and analysis provided insight into the powerful development of adequate services for young adults (16+) with FASD. The services included: home sharing support, access to mental health services, access to psychological support, career counseling, job training, access to a comfort person.

CONCLUSIONS
Despite the lack of systemic solutions, the supportive program for young adults with FASD is being successfully implemented and developed. There is a visible correlation between the impact of systemic support and the available caregiver on the functioning of a person with FASD. Important factors in providing support to young adults with FASD include understanding their situation, adapting communication, and building relationships with specialists.

B2.5 Twenty-Five Years of Visual and Ocular Findings in Swedish Cohorts with FASD: Diagnostic Patterns and the Utility of the FASD Eye Code

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Visual and ocular abnormalities are prevalent in individuals with Fetal Alcohol Spectrum Disorders (FASD) and often reflect central nervous system dysfunction. Over the past 25 years, our multidisciplinary research group has documented visual and ocular findings in Swedish cohorts with FASD to clarify their diagnostic and prognostic significance.

OBJECTIVE
To investigate ophthalmological manifestations in individuals diagnosed with FASD over a 25-year period, and to evaluate the clinical utility of the FASD Eye Code as a complementary tool for diagnosis and long-term management.

METHODS
Children and adolescents with suspected FASD underwent multidisciplinary assessments including pediatrics, neurology, psychology, ophthalmology, and orthoptics. Examinations covered visual acuity, refraction, binocular function, ocular alignment and fundus evaluation, and visual perception history. Control groups consisted of children with similar ocular abnormalities of other origins. A subset was followed from childhood into adulthood. The

FASD Eye Code was applied across four domains—visual acuity, refraction, binocular function, and structural abnormalities—generating cumulative severity scores.

RESULTS
Subnormal visual acuity was common and persisted in adulthood with minimal improvement. Refractive errors were prevalent, particularly astigmatism. Childhood hyperopia progressed toward a broader refractive distribution in adulthood. Impaired stereopsis and strabismus were consistent; defective stereoacuity affected two thirds, while strabismus remained stable at around 40%. Optic nerve hypoplasia, increased retinal vessel tortuosity, and thinning of the retinal nerve fibre layer (RNFL) were repeatedly documented. Adult RNFL thinning indicates long term neuro ophthalmological involvement due to prenatal alcohol exposure. More than half of young adults with FASD reported visual perception difficulties, compared with a minority of controls, with similar prevalence already present in childhood. Evaluation of the FASD Eye Code showed high specificity (94–100% at cut offs ≥8–10), stable scores over time, and good discriminative ability between FASD and controls. A recent illustrative case, which further highlights the Eye Code's diagnostic value, will be presented.

CONCLUSIONS
Individuals with FASD show a broad, consistent pattern of visual and ocular abnormalities that often persist in adulthood. The FASD Eye Code provides a standardized, clinically useful framework that strengthens diagnostic accuracy and supports long-term follow-up in FASD care."

B2.6 The "Double Hit" of Fetal Alcohol Spectrum Disorders (FASD): Systematic Genetic Testing Reveals Multivulnerability and Possible Alcohol-Mediated Clastogenic Effects

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FASD represent the leading non-genetic cause of neurocognitive impairment, affecting approximately 1% of births. Despite this prevalence, phenotypic heterogeneity creates significant diagnostic complexity, frequently resulting in under-recognition. Since 2016, Reunion Island has functioned as a pioneering pilot region for dedicated FASD management, facilitating the centralized, multidisciplinary assessment of a substantial clinical cohort. This unique setting provides an opportunity to investigate the prevalence of chromosomal anomalies and copy-number variations (CNVs) in this population.

METHODS
We conducted a retrospective analysis of 218 FASD patients. All subjects underwent a systematic genetic workup comprising karyotyping, high-resolution array-CGH, and Fragile X screening. The analysis revealed a high frequency of genomic anomalies, identified in 22% (48/218) of the cohort—a prevalence significantly exceeding rates typically reported in neurodevelopmental literature. Specifically, we characterized 3 aneuploidies and 45 Copy Number Variants (CNVs): 51% were classified as pathogenic or susceptibility factors,

including recurrent neurodevelopmental deletions at 15q13.3 and 16p11.2, whereas 41% were categorized as variants of uncertain significance requiring additional studies.

DISCUSSION
These findings underscore a critical concept of "multivulnerability." The complex clinical presentations observed support a pathogenic "two-hit model," wherein the phenotype emerges from the synergistic impact of direct alcohol teratogenicity and concurrent genetic imbalance. While ethanol exposure disrupts gene expression during critical embryogenesis windows, associated genetic anomalies—often affecting loci pivotal for brain function or epigenetic mechanisms—exacerbate the neurodevelopmental trajectory. This "double fragility" intensifies neuro-psychiatric symptoms and modifies physical dysmorphy. Furthermore, the elevated incidence of anomalies suggests a non-coincidental relationship; alcohol, as a genotoxic agent, could potentially catalyzing chromosomal breakage or nondisjunction events during meiosis or mitosis.

CONCLUSION
The prevalence of chromosomal anomalies confirms that FASD diagnosis cannot rely exclusively on clinical history. We argue that a systematic genetic workup is indispensable for identifying these cross-vulnerabilities. Integrating high-resolution genetic assessment into protocols for any Neurodevelopmental Disorder is imperative to uncover dual comorbidities. This rigorous approach ensures a precise etiological diagnosis, distinguishing between alcohol-induced deficits and intrinsic genetic factors. Ultimately, recognizing that alcohol may promote genomic instability is vital for refining personalized care strategies and providing families with accurate genetic counseling regarding recurrence risks and prognosis.

B2.7 A Retrospective Central Nervous System Profile Analysis in Service Users with a Positive Genetic Diagnosis Seen in the UK National Fetal Alcohol Spectrum Disorder Clinic

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UK FASD assessment guidance (e.g., SIGN 156, 2019 and NICE QS204, 2022) emphasise comprehensive neurodevelopmental evaluation and consideration of other potential aetiologies, but they do not go as far as mandating genetic testing. Historically, the UK National FASD Clinic routinely recommended genetic testing where feasible to exclude alternative aetiologies. However, recent updates to the National Genomic Test Directory (NGTD) introduce restricted assessment eligibility criteria, such as requiring unexplained moderate, severe, or profound intellectual disability, or clinical features strongly suggestive of a monogenic disorder, before genomic testing can be requested. These requirements may be restrictive for FASD populations, who frequently present with complex but less severe cognitive profiles. This audit examines the CNS profiles and dysmorphic features of those in the clinic sample with genetic abnormalities to identify any that may have been missed under current NHS genetic testing eligibility thresholds.

METHODS
Data was drawn from the UK National FASD Clinic database, focusing on a sample of 33 individuals, aged between 6 and 17 years (M = 9.55; SD = 2.77), who had any form of genetic

abnormalities, as established through completed genetic testing. These individuals represented 8.57% of the total database that, at the time of this audit, contained 385 individuals assessed at the UK National FASD clinic.

RESULTS
48.5% of this sample received a diagnosis of FASD without sentinel facial features. 33.3% did not receive a FASD diagnosis due to the presence of a clinically significant genetic variant, and 18.2% did not receive a diagnosis due to the presence of other excluding criteria. 36.4% had a FSIQ ≤ 70; 0% had a FSIQ < 50.

CONCLUSION
New NGTD guidelines mean that fewer individuals meet criteria for genetic testing needed to confirm FASD diagnoses, inform formulation, and individualise clinical management. With criteria requiring the presence of 'unexplained moderate/severe/profound intellectual disability', potentially none of this sample would meet current NHS genetic testing eligibility thresholds."

B3 / Humanities & Social Science: psychosocial barriers and facilitators to prevention and care

Moderation: **Toutain Stéphanie** and **Wielenga Froukje**

Beyond the validated and recommended strategies for prevention, diagnosis and intervention, the effectiveness of responses to the challenges posed by fetal alcohol is likely to depend, at all levels, on a number of obstacles and facilitating factors that the humanities and social sciences help to identify.

B3.1 An insight into the answers of danish pregnant women - and attitudes towards substance use screening, when asked anonymously. - A pilot study

Wedel Michela, Sygehus Lillebælt (Denmark)

"Building upon Danish healthcare practice, Sygehus Lillebælt (a hospital in the Region of southern Denmark) has initiated a pilot study to explore the perspectives of women in Levels 1-3, who do not have known substance use issues. The aim of our pilot study was to assess the acceptability of screening among pregnant women without known risk factors, expecting potential benefits in early identification and intervention.

We sought to understand whether these women would find it reasonable and beneficial if all pregnant women were routinely offered urine screening for substance use during their first midwifery consultation. The results from this pilot study are both fascinating and revealing, providing valuable insights into how expectant mothers perceive the potential benefits of drug- and alcohol screening.

In this presentation, we will share the findings from this pilot study, along with the data that emerged from asking pregnant women with none or few known risk factors. By examining both the acceptability and the potential impact of broader screening protocols, we aim to contribute to the ongoing dialogue about how best to safeguard maternal and child health. This session will offer a unique opportunity to explore a potential new healthcare practice, and patient perspectives, with the ultimate goal of improving outcomes for mothers and infants alike."

B3.2 Knowledge and perceptions of alcohol use during pregnancy: what do the French say in 2025?

Quatremère Guillemette (1), Guignard Romain (1), Andler Raphaël (1), Barry Yaya (2), Demiguel Virginie (2), Nguyen Thanh Viêt (1)

(1) Santé publique France - French National Public Health Agency [Saint-Maurice, France] (France), (2) Santé publique France - French National Public Health Agency [Saint-Maurice, France] (France)

To reduce the risks of fetal alcohol spectrum disorders and promote the “zero alcohol during pregnancy” guideline, several measures have been implemented in France, including health warnings (pictograms) on alcohol bottles and regular prevention campaigns. This study aims to describe the knowledge and perceptions of the French population regarding this issue in 2025.

METHOD
Data were collected through a cross-sectional telephone survey conducted in mainland France in 2025, using a quota sample of 1,001 individuals aged 15 and over.

RESULTS
In 2025, 88% of respondents reported awareness of the “zero alcohol during pregnancy” guideline, with no gender difference. Half (51%) believed there is a risk from the first drink, and 46% thought the risk is the same at any stage of pregnancy. Beer was perceived as less harmful than wine by 26% of respondents. Sociodemographic differences were observed in knowledge indicators: women and respondents from higher socioeconomic groups had slightly higher levels of knowledge than men and low socioeconomic status respondents. On the contrary, the heaviest drinkers had lower levels. Three-quarters of respondents found it shocking to see a pregnant woman drinking alcohol; 71% had noticed the pictogram on bottles and 86% supported making it more visible. For people who had an (right or wrong) opinion on the health precautions that pregnant women should take, the main sources of information on alcohol-related risks in pregnant women were relatives (61%), followed by media (38%) and healthcare professionals (32%). Three-quarters of respondents believe that the people around pregnant women (partner, relatives, wider social circle) should get involved to help them avoid drinking during pregnancy, and 45% believe that not drinking in front of a pregnant woman can help her avoid drinking.

CONCLUSION
A gap remains between awareness of the “zero alcohol during pregnancy” guideline and perceptions of risk levels for low alcohol consumption, but comparison with previous survey waves showed positive trends. Continued communication with a broad audience is necessary to improve awareness and perception of the alcohol-related risk during pregnancy even for small amount and to support pregnant women.

B3.3 Beyond Demographics: The Psychological Experience of Pregnancy as a Predictor of Alcohol Use during pregnancy

Xavier Maria (1), Correia Beatriz, Santos Maria Eugenia, Coelho Márcia

(1) Research Centre for Human Development (CEDH), Faculty of Education and Psychology - Universidade Católica Portuguesa (Portugal)

Studies examining the predictors of alcohol consumption during pregnancy (ACDP) are essential because they help us understand circumstances related to pregnant women drink. This is crucial for designing effective prevention strategies, strengthening prenatal screening and risk assessment, and supporting public-health decision-making. International research has identified a wide range of potential predictors of ACDP, consistently highlighting pre-pregnancy alcohol use as the most prominent risk factor. Other predictors identified include unplanned pregnancy, higher socioeconomic status, being older, smoking, having previous children, and relationship difficulties. However, findings across different studies often presenting contradictory conclusions. This study aims to characterize ACDP in a group of pregnant Portuguese women, considering predictors such as age, marital status, education, pre-pregnancy alcohol consumption, unplanned pregnancy, and the psychological experience of pregnancy - an innovative aspect in the international research landscape on this topic. The psychological experience of pregnancy is a profound developmental transition that reworks identity, relationships, and emotion regulation. It is a biopsychosocial revolution. A cross-sectional study was carried out using a random sample of 450 pregnant women, contacted through the research team's professional networks. Data were collected through an online questionnaire that included: the Sociodemographic and Pregnancy Questionnaire, the Alcohol Use Disorder Identification Test (AUDIT), and the Attitudes Towards Pregnancy and Motherhood Scale (EAGM). Data was analyzed using descriptive and inferential statistics, and logistic regression modeling. Approximately 20% of the pregnant women continued to consume alcohol, but there was a significant reduction compared to the pre-pregnancy period. Women with lower education, unemployed, and single had higher rates consumption. Pre-pregnancy alcohol consumption, unplanned pregnancies, and a great concern of being “Good Mother” (one of the psychological dimensions of pregnancy) were identified as significant predictors. Identifying the predictors of ACDP enables prevention strategies. When healthcare professionals understand which factors heighten vulnerability, they are better equipped to ask targeted, sensitive questions during antenatal visits and to detect risks that might otherwise remain hidden. Such insight improves early identification and supports the design of more effective fetal alcohol spectrum disorder (FASD) prevention strategies, ensuring interventions are timely, person-centred, and responsive to the demands of each pregnancy.

B3.4 Foetal alcohol spectrum disorders and health literacy in Switzerland: identifying the factors limiting adoption of the precautionary principle

Labhart Florian (1), **Notari Luca** (1), Köster Fiona (1)

(1) Addiction Suisse (Switzerland)

Despite longstanding recommendations for abstinence from alcohol during pregnancy, recent quantitative Swiss data on actual consumption remain scarce. This study provides updated estimates of alcohol use during pregnancy in Switzerland and explores individual and contextual predictors of alcohol consumption before and after pregnancy confirmation.

METHODS
Data were drawn from a study (December 2024-August 2025) involving 800 pregnant women recruited across linguistic regions via online platforms and health professionals. The questionnaire assessed alcohol use across three periods (prepregnancy, before, and after pregnancy confirmation with e.g. a urinary test), drinking motives, knowledge and beliefs about alcohol-related risks, health literacy, and the influence of social networks. Descriptive statistics, bivariate analyses, and logistic regression models were used to analyze the data.

RESULTS
Around 50% of participants reported alcohol consumption during pregnancy, though only 6% continued after confirmation. Preconfirmation drinking was significantly associated with being born in Switzerland, residing in French- or Italian-speaking regions, stronger social and taste-related drinking motives, misbeliefs about alcohol safety, and permissive attitudes among relatives. Fewer factors were associated with post-confirmation drinking, among which were lower digital health literacy, lower educational level and willingness to hide pregnancy.

CONCLUSION
Findings reveal persistent prenatal alcohol consumption in Switzerland, particularly in early pregnancy, driven by sociocultural norms, misinformation, and social influences. These results emphasize the need for multilingual, evidence-based public health campaigns and interventions targeting the preconception period and early gestation. Addressing misconceptions and improving digital health literacy may facilitate behavioral change and promote the full application of the precautionary principle."

B3.5 Understanding barriers to abstinence: evidence from qualitative studies on women's perceptions and experiences

Hammer Raphaël, Haute Ecole de Santé - Vaud / Haute Ecole Spécialisée de Suisse Occidentale (Switzerland)

Despite official recommendations promoting complete abstinence, a significant number of women consume alcohol during pregnancy, mostly occasionally or in moderate amounts, for which the risk of adverse effects on the fetus cannot be ruled out. In addition to quantitative studies identifying socio-demographic factors associated with alcohol consumption during pregnancy, qualitative studies focus on women's experiences and shed light on the contexts and reasons shaping alcohol use during pregnancy.

METHODS
Drawing on an international qualitative systematic reviews and empirical studies conducted in Switzerland, this study examines the main barriers pregnant women may encounter when attempting to reduce their alcohol consumption or abstain altogether.

RESULTS
First, the issue of the quality and quantity of information provided by healthcare professionals about alcohol-related risks contributes to uncertainty or confusion among pregnant women regarding their understanding of the abstinence recommendation. Divergent sources of information or advice may explain certain beliefs or misconceptions. Second, women may express critical attitudes toward abstinence advice conveyed through public health messages, based either on scientific uncertainty or on perceptions of these messages as paternalistic.Third, women's tolerant attitudes toward occasional drinking during pregnancy are based on several lay criteria defining the boundaries between safe and harmful alcohol consumption, including personal experience of risk. Finally, exceptions to the abstinence rule

are often related to social circumstances, social norms, and cultural context. In particular, drinking culture and peer pressure may be experienced as conflicting with abstinence messages.

CONCLUSION
Qualitative studies and social science frameworks highlight the complexity and diversity of reasons underlying the acceptability of occasional drinking during pregnancy. A better understanding of women's perspectives and risk perceptions is likely to inform prevention and health promotion strategies by improving risk communication, while taking into account women's views and the ways in which social context shapes their experiences."

B3.6 Why diagnose FASD? Opinions in French parents and professionals

Simmat-Durand Laurence, UFR Sciences humaines et sociales [Sociétés et Humanités] - Université Paris Cité (France)

Fetal Alcohol Spectrum Disorder is a set of outcomes for a child exposed in utero to alcohol. The international literature highlights the lack of consensus, the controversies, particularly on tests on women or newborns, and the ethical questions raised by the resulting stigmatization. A qualitative research by semi-structured interviews was conducted collecting the discourses of 50 professionals and 52 families concerned by this pathology, in France, in two main regions and through a self-support group of parents. A thematic analysis was conducted to analyze the data on the question of the usefulness of diagnosis. Five themes were identified: the first concerned the stories imputing disorders before diagnosis; the second the reluctance to diagnose; the third the ignorance of the diagnosis by their interlocutors and its search through other networks; the fourth explored the arguments in favor of diagnosis, as the best chance for the child's future; and last the fifth showed the protection that diagnosis provides for the transition to adulthood. The lack of training among professionals could explain their reluctance to talk about alcohol consumption to a pregnant individual, for fear of stigmatized them or making them feel guilty. In doing so, in the absence of a diagnosis, the child's disorders are attributed to educational deficiencies, a disturbed relationship, adoption or stays in institutions. This conviction that in any case the damage is done and that there is no care, makes affected children not receive the necessary help, especially at school level, and in turn bear guilt for their disabilities. The families interviewed often struggle for years to obtain the diagnosis and these aids, turning to associations for support.

B3.7 Caregivers' Experiences of Family-Based Trauma-Informed Interventions for Children with Prenatal Alcohol Exposure

Shepherd Ellie (1), Purrington jack, Kara Buket

(1) Lancaster University (United Kingdom)

Children prenatally exposed to alcohol often face a multitude of difficulties such as mental health difficulties and behavioural and cognitive impairments. A high percentage of children with prenatal alcohol exposure (PAE) have also experienced traumatic life events. Research suggests that interventions can help reduce the difficulties faced after trauma, particularly when involving the caregiver and child. Due to the cognitive difficulties often experienced by children with PAE, it is questioned whether typical trauma-informed interventions can be effectively used with this population. This study aimed to explore the experiences of caregivers whose children with PAE participated in a family-based, trauma-informed

intervention. Reflexive thematic analysis was employed to explore semi-structured interview data, with particular focus on perceived benefits and challenges, children's ability to engage in therapy, potential outcomes and mechanisms of change. This generated five interrelated themes: 1) Enduring the therapeutic journey to survive, 2) Engagement as fluid and negotiable, 3) The therapeutic relationship is the active ingredient, 4) “There's no magic button”: Caregivers are the agents of change, 5) Redefining success. Family-based therapy was positioned as a relational, effortful, and ongoing process that supports families to live with enduring complexity. Therapeutic change was primarily located within caregivers' development of understanding, responsiveness and ability to adapt the caregiving environment, as opposed to within the child. Engagement emerged as negotiated and developmentally contingent, with the therapeutic relationship as a central component. Therapy was shaped by the perceived permanence of PAE and trauma, and by wider systemic constraints. Clinical implications are discussed.

Parallel sessions C

Tuesday 15 September 8h30 – 10h00

C1 / Scientific & translational: from understanding mechanisms to new markers and targets (II. neurones, placenta and vasculature)

Moderation: **Pierrefiche Olivier** and **Navarro-Tapia Elizabet**

The study of the pathophysiology of FASD at various levels (molecular, cellular, animal models, humans) is essential to support improvements in the care of those affected. In particular, a better understanding of involved mechanisms paves the way for the identification of new biomarkers and targets to improve the diagnosis and management of FASD. Second session: focusing on neural, placental and vascular development and function.

C1.1 Prenatal alcohol exposure remodels cortical glutamatergic synapses and disrupts cognition in adolescent mice

Caffino Lucia (1), Rizzi Beatrice (1), Curti Lorenzo (2), Mottarlini Francesca (1), Taddini Sofia (1), Rapini Letizia (1), Fumagalli Fabio (1), Mannaioni Guido (2), Gerace Elisabetta (2)

(1) Department of Pharmacological and Biomolecular Sciences, University of Milan (Italy), (2) Department of Neurosciences, Psychology, Drug Research and Child Health, University of Florence (Italy)

Prenatal alcohol exposure (PAE) is a major cause of neurodevelopmental impairment and can negatively influence brain health across the lifespan within the spectrum of fetal alcohol spectrum disorders (FASD). The effects of PAE on brain development involve complex neurochemical alterations, reduced neuronal plasticity and changes in neuronal circuits, which may contribute to cognitive and behavioral deficits in adulthood. However, the mechanism by which PAE disrupts homeostatic balance and affects synaptic maturation and plasticity of the glutamatergic synapse within brain regions critical for cognitive and emotional regulation remain poorly understood.

OBJECTIVE

The present study aimed to determine whether PAE alters the molecular organization of glutamatergic synapses in the prefrontal cortex (PFC) of adolescent mice, and to evaluate its effects on memory, exploratory behavior, and reward-related responses.

METHODS
To model PAE, pregnant C57Bl/6 mice voluntarily consumed 10% ethanol during the first 10 days of gestation (GD0–10), corresponding to the first trimester of human pregnancy. In adolescent offspring, we analyzed 1) the postsynaptic expression of AMPA and NMDA receptor subunits and associated scaffolding proteins in the PFC using biochemical approaches focusing on the postsynaptic density fraction; 2) behavioral outcomes in the novel object recognition test, open field and sucrose preference test.

RESULTS
PAE induced a significant shift in AMPA receptor subunit composition toward GluA2-containing receptors, increased the expression of NMDA receptor subunits and altered their localization within the postsynaptic density of the PFC. These changes were accompanied by altered glutamate transporter expression, increased levels of key postsynaptic scaffolding proteins and reduced PSD95 levels, an index of postsynaptic integrity, suggesting the presence of PAE-induced unstable synapses. In addition, PAE offspring shows reduced recognition memory, without affecting locomotor activity and hedonic tone.

CONCLUSIONS
These findings indicate that prenatal alcohol exposure leaves a lasting molecular imprint on the developing PFC, reshaping the organization of glutamatergic synapses and the machinery controlling excitatory neurotransmission. Alterations in NMDA and AMPA receptor dynamics may help explain PAE-induced deficits in recognition memory, a behavioral domain frequently affected in FASD.

C1.2 Modulating alcohol-induced cellular stress in neuronal and placental cell lines: therapeutic perspectives

Navarro-Tapia Elisabet (1), Vieiros Melina (1), Ramos Triguero Anna, Garcia-Algar Oscar (2), Andreu-Fernández Vicente (1)

(1) Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS) (Spain), (2) Neonatology Unit, Hospital Clinic-Maternitat (Spain)

Prenatal ethanol exposure (PAE) induces neurodevelopmental and placental damage largely through oxidative stress, which increases reactive oxygen species (ROS), activates apoptotic pathways, and reduces cell survival. High ethanol concentrations impair cellular viability in vitro by overwhelming endogenous antioxidant defences. Polyphenolic antioxidants have been proposed as potential therapeutic agents to mitigate ethanol-induced damage by limiting oxidative stress and preserving cell viability. This study evaluated the capacity of several antioxidants to restore viability in ethanol-exposed neuronal and placental cell lines, establishing ethanol toxicity thresholds and identifying effective antioxidant doses relevant to PAE-related damage. Human neuronal (SK-N-SH and T98G) and placental (JEG-3) cell lines were cultured under standard conditions and exposed to increasing ethanol concentrations (50–400 mM) for 72 hours to determine cytotoxic thresholds. A concentration of 300 mM ethanol, which reduced cell viability below 60% in all models, was selected for intervention experiments. After ethanol exposure and medium renewal, cells were treated for 96 hours with different doses of antioxidants, including rosmarinic acid, ascorbic acid, trolox, quercetin, caffeic acid, epigallocatechin gallate (EGCG), retinoic acid, curcumin, and resveratrol. Cell

viability was assessed using MTT and Trypan Blue assays. All cell lines exhibited a dose-dependent reduction in viability following ethanol exposure. Antioxidant treatment significantly improved cell survival, although responses varied by compound, concentration, and cell type. In SK-N-SH cells, ascorbic acid, rosmarinic acid, quercetin, caffeic acid, and EGCG restored viability above 90% at specific concentrations. T98G cells showed the broadest responsiveness, with multiple antioxidants achieving recovery above 90%, including rosmarinic acid, quercetin, caffeic acid, EGCG, and uniquely resveratrol and curcumin. In contrast, JEG-3 placental cells displayed a narrower response profile, with effective rescue primarily observed for caffeic acid, EGCG, and retinoic acid, the latter being specific to this model. Overall, antioxidant treatment effectively mitigated ethanol-induced cytotoxicity across neuronal and placental models. Caffeic acid and EGCG consistently provided robust cytoprotection, supporting antioxidant-based strategies as promising approaches to counteract oxidative stress associated with prenatal ethanol exposure, while highlighting the need for cell type–specific selection of compounds and doses.

C1.3 Dysregulation of placental CD146 by PAE is associated to oligo-vascular damages and neonatal troubles

Sautreuil Camille (1), Cornillat Guillaume (1), Dalmasso Jessica (2), Janin François (3), Brasse-Lagnel Carole (1), Gil Sophie (2), Muller Jean-Baptiste (4), Marret Stéphane (4), Falluel-Morel Anthony (5), **Gonzalez Bruno** (6), Lecointre Maryline (3)

(1) INSERM U1245, Cancer and Brain Genomics, Université Rouen Normandie, Rouen (France), (2) Inserm UMR-S1144, Université Paris Cité, Paris, France (France), (3) INSERM U1245, Cancer and Brain Genomics, Université Rouen Normandie, Rouen (France), (4) Univ Rouen Normandie, INSERM U1245 and CHU Rouen Hospital, Department of Neonatal Paediatrics and Intensive Care-Neuropaediatrics (France), (5) INSERM U1245, Cancer and Brain Genomics, Université Rouen Normandie, Rouen (France), (6) INSERM U1245, Cancer and Brain Genomics, Université Rouen Normandie, Rouen (France)

Neuroplacentology has emerged as a new field of research focusing on the role of placenta on fetal brain development. Recent data showed that prenatal alcohol exposure (PAE) impairs a “placenta–brain” axis controlling fetal brain angiogenesis in both human and preclinical models. CD146, a partner of the VEGFR-1/2 signalosome, is involved in placental angiogenesis and exists as a soluble circulating form.

AIMS
Objectives of the present study were to investigate whether placental CD146 may contribute to i) brain vascular abnormalities described in FASD, ii) impair the vessel-associated positioning of differentiating oligodendrocytes and, iii) behavioral troubles.

METHODS
By using molecular and cellular approaches, we explored the expression profiles of the membrane and soluble forms of CD146 in both human and mouse placentas. Effect of PAE on oligovascular interactions was explored by imagery. Neonatal behavior deficits were explored after loss of function experiments targeting placental CD146.

RESULTS
At a physiological level, qRT–PCR experiments performed in human placentas showed that CD146 is expressed in developing villi and that membrane and soluble forms of CD146 are differentially expressed from the first trimester to term. In mouse placentas, a similar expression pattern of CD146 was found. CD146 immunoreactivity colocalized with endothelial

cells. Significant amounts of soluble CD146 were quantified by ELISA in the fetal blood. In mouse fetal brains, the membrane form of CD146 was the majority and colocalized with microvessels. At a pathophysiological level, PAE induced marked dysregulation of CD146 expression in mice. The soluble form of CD146 drastically decreased in both placenta and fetal blood, whereas it increased in the fetal brain. A targeted repression of placental CD146 by in utero electroporation decreased the density of cortical microvessels and reduced the density of oligodendrocytes populating the developing cortex. Neonates had significant behavioral deficits.

CONCLUSION
These data support that i) placental CD146 contributes to the PAE-induced dysregulation of a proangiogenic "placenta–brain" axis and ii) such dysfunction impairs the oligo-vascular cortical development with a possible contribution to behavioral deficits.

C1.4 Endocannabinoid system as a potential therapeutic target against alcohol's deleterious effect on fetal cerebral arteries

Bukiya Anna (1), Thapa Shiwani (1), Dopico Alex (1)

(1) The University of Tennessee Health Science Center (United States)

Alcohol consumption during pregnancy may result in a range of fetal developmental abnormalities which are collectively termed fetal alcohol spectrum disorders (FASD). FASD is the leading preventable cause of developmental delay without definitive cure. The lack of therapeutic interventions is largely attributed to complex pathophysiology of alcohol. While brain remains the main target, cerebral blood vessels constitute an emerging player in alcohol developmental toxicity. In the previous work, we documented that three alcohol exposure episodes during mid-pregnancy (80 mg/dL in maternal blood) in baboons were sufficient to trigger fetal morphometric delay. Notably, fetal cerebral arteries were dilated during maternal intoxication. Mixture of blockers targeting cannabinoid receptor types 1 and 2 ablated alcohol-induced dilation of fetal baboon cerebral arteries ex vivo.

OBJECTIVES
In the present work, we hypothesized that alcohol exhibits concentration-dependent effect on fetal cerebral artery diameter, with dilation being mediated by fetal cerebral artery endocannabinoid receptor of a specific type.

METHODS
Baboon fetuses were harvested at the end of second trimester-equivalent of human pregnancy. Alcohol was probed on ex vivo pressurized cerebral arteries. Quantitative PCR was used to determine the presence of transcripts of cannabinoid receptor-coding genes. Doppler evaluation of blood velocity in fetal baboon brain circulation in utero was used to probe therapeutic potential of low dose blocker of cannabinoid receptor 1 against alcohol effect on fetal cerebral arteries.

RESULTS
Ex vivo, alcohol induced dilation of cerebral arteries from male and female baboon fetuses in a concentration-dependent manner. Yet, concentration response data could only be fitted with multimodal functions. Alcohol-induced dilation of cerebral arteries in males and females was blunted by CB1R blocker AM251. Our pilot data indicates that maternal injection with low dose of clinically accepted CB1R inhibitor rimonabant blunts alcohol effect on blood velocity in fetal cerebral arteries in vivo.

CONCLUSIONS
Alcohol exhibits complex effect on fetal cerebral artery diameter, likely indicative of several molecular targets. However, block of cannabinoid receptor 1 is being evaluated in pre-clinical study in non-human primates as a potential therapeutic approach against alcohol effect on fetal cerebral artery diameter. Its potential to mitigate morphometric developmental delay is also being established."

C1.5 Retinal Microvascular Alterations as a Quantifiable Biomarker of Brain Abnormalities in Fetal Alcohol Spectrum Disorders

Brasse-Lagnel Carole (1) (6), Leroy Anaïs (1) (2), Carpentier Gilles (3), Julie Dégardin (2), Cornebois Marion (2), Valet Manon (4), Picaud Serge (5), Gonzalez Bruno (1)

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Normal angiogenesis within the central nervous system (CNS) is essential for proper neurodevelopment. Recent work from our laboratory has demonstrated a vascular contribution to neuronal abnormalities induced by prenatal alcohol exposure (PAE) in two CNS structures: the brain and the retina. Using a preclinical approach, we identified neuronal alterations associated with vascular defects, particularly affecting the cerebral and retinal microvasculature. We hypothesized that the retina, due to its common embryonic origin with the CNS, may reflect brain abnormalities observed in patients with Fetal Alcohol Spectrum Disorders (FASD) particularly in those with partial FASD (pFAS). The objective of this study was to determine whether retinal microvascular alterations could be detected using retinal imaging. Materials and

METHODS
In a murine model of pFAS, retinal microvessels were analyzed from retinal images obtained in mice aged 21 to 60 days. In vivo imaging included fluorescein angiography, optical coherence tomography (OCT), and electroretinography (ERG). Angiography image analysis required the development of a novel image-processing tool based on angiogenesis-related vascular network parameters.

RESULTS
Angiography image analysis revealed abnormalities in the vascular network of both juvenile and adult pFAS mice. Quantitative assessment of retinal neuronal layers showed a significant alteration in the thickness of neuronal cell layer notably of the ganglion cell layer in adult mice. However, ERG recordings did not reveal functional abnormalities. These results highlight the retina as a sensitive, non-invasive window into neurodevelopmental disruption, complementing previously published cerebral and behavioral deficits in this PAE model.

CONCLUSION
These findings, obtained using a mouse model of pFAS, demonstrate that fundus imaging can detect microvascular and neuronal alterations induced by prenatal alcohol exposure. By establishing quantifiable microvascular biomarkers, this work offers a novel preclinical tool for detection of PAE-induced neurodevelopmental alterations and provides the foundation for future clinical investigations aimed at validating retinal imaging as a non-invasive biomarker

in patients with FASD. This work was supported by INSERM (UMR1245), Métropole Rouen Normandie, and Région Normandie.

C1.6 3D Imaging of Cerebellar Vascular Alterations in FASD

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Fetal Alcohol Spectrum Disorders (FASD) represent the leading epigenetic cause of intellectual disability in France, affecting nearly 15,000 newborns each year. Although alcohol-induced neurodevelopmental damage is well known, recent studies have highlighted the contribution of neurovascular alterations to FASD pathology. Vascular abnormalities and disruptions in vessel-associated migration of nerve populations have been reported in the cortex and retina in both patients and mouse models. The involvement of the cerebellum in the FASD-induced motor and orthoptic impairments, has also been investigated but no study has addressed the potential contribution of neurovascular abnormalities in this pathology. To address this issue, pregnant mice received daily injections of either sodium chloride (0.9% NaCl) or ethanol (3 g/kg, 50% v/v) starting at embryonic day 12 (E12). Double labelling of cerebellar vascular networks and neural precursors was performed at E13, E15, and E17, followed by tissue clearing with an adapted iDISCO protocol and imaging by light-sheet microscopy. Three-dimensional reconstructions were generated using Imaris software, allowing detailed visualization of the major cerebellar afferent arteries and the microvasculature of the cerebellum. Preliminary results show that Lhx1- and calretinin-positive cells use vessels as a migratory scaffold during cerebellar development, and that a single prenatal alcohol exposure induces vessel dilatation at E13. Together, these findings suggest that alcohol-induced vascular disruptions may contribute to altered cerebellar neurodevelopment. This three-dimensional analysis of the cerebellar vascular component and its alteration by prenatal alcohol exposure provides a new approach for understanding the mechanisms underlying FASD. Importantly, it reintegrated the cerebellum into neurovascular investigations of this disorder.

C1.7 Phosphatidylethanol quantification in dried blood spot samples from three-day-old newborns: a preliminary study in Normandy for neonatal screening of fetal alcohol exposure during late pregnancy

Coulbault Laurent (1), Cabé Nicolas (2), Guenet David (3), Pitel Anne-Lise (4), Favrais Géraldine

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Despite extensive prevention campaigns and clear public health recommendations, fetal alcohol exposure remains a major public health concern. Self-reported screening is known to underestimate alcohol use during pregnancy, due to stigma, recall bias or inconsistent questioning by professionals. Therefore, efforts should be made to develop unbiased strategies to detect fetal alcohol exposure during pregnancy. The quantification of Phosphatidylethanol (POPEth), a new biomarker of alcohol exposure, could be, then, relevant. Material and Methods A method for quantifying POPEth in dried blood spot (DBS) samples was developed using liquid chromatography coupled with tandem mass spectrometry (LC-MS/MS). DBS samples (n = 63) were collected from three-day-old newborns as part of neonatal screening at the Normandy Neonatal Screening Center (CRDN), and the anonymized samples were then used for POPEth quantification. In adults, blood POPEth reflects the alcohol use level for the preceding 3 weeks with threshold values of 20 and 200 µg/L for significative and heavy drinking, respectively. Results POPEth was detected in 56% of neonatal DBS samples. More precisely, traces of POPEth (molecule detected but with a concentration below 20 µg/L) were observed in 29% of DBS samples and a POPEth concentration exceeding 20 µg/L was observed in 27% of them. Four DBS samples (6%) showed concentrations above 100 µg/L. Discussion These preliminary data indicate that alcohol consumption by pregnant women is greatly underestimated by declarative screening, and that in some cases, high fetal exposure in late pregnancy even exists and may be not suspected at birth. These results raise serious questions, in particular about the POPEth value meaning. To our knowledge, there is no data in the literature on the relationship between POPEth levels in newborns and maternal drinking patterns. Given fetal and neonatal immaturity, even a single recent alcohol consumption may be detected by this highly sensitive strategy without causing significant harm to the newborn. Further studies are therefore necessary to determine whether POPEth levels at birth correlate with newborn characteristics and presumed adverse neurodevelopmental outcomes.

C2 / Health & Care: from multiple environmental risk factors to mental health issues

Moderation: **Mukherjee Raja** and **Pei Jacqueline**

The needs of people affected by FASD are complex, diverse and change over the course of their lives. This course is often characterised by the presence of neurodevelopmental and psychosocial risk factors that are comorbid with foetal alcohol, and ultimately by the manifestation of mental health issues that go beyond the strict scope of NDDs. Taking this complexity into account is likely to be a key factor in improving their health and well-being.

C2.1 Polysubstance exposure in children with Fetal Alcohol Spectrum Disorder (FASD): Results from a national surveillance conducted by the Australian Paediatric Surveillance Unit (APSU).

Nunez Miranda Carlos (1) (2) (3), Elliott Elizabeth (1) (2) (4)

(1) The University of Sydney (Australia), (2) The Australian Paediatric Surveillance Unit (APSU) (Australia), (3) Fetal Alcohol Spectrum Disorder Australian Registry (FASDAR) (Australia), (4) on behalf of the Fetal Alcohol Spectrum Disorder Australian Registry Advisory group (Australia)

BACKGROUND
Preclinical research suggests that prenatal polysubstance exposure (PPE) - exposure to substances alongside alcohol - may compound fetal brain harm conferred by prenatal alcohol

exposure (PAE) alone, worsening severity of health and neurodevelopmental outcomes in FASD. Little research has addressed this issue.

OBJECTIVE
To assess and compare neurodevelopmental impairment and mental health comorbidities in school-aged children with FASD with PAE alone or PPE.
METHODS
Data on children aged <15 years newly diagnosed with FASD were collected monthly, from paediatricians nationally by the APSU (January 2015-December 2024). Associations between PPE and domains of neurodevelopmental impairment (DNI)(Australian Guide to Diagnosis of FASD-2020) or comorbidities were estimated using odds ratios (OR) and 95% confidence intervals (CI) derived from logistic regression models.

RESULTS
In the 10-year period, APSU received 1870 FASD notifications, confirming 1399 cases after exclusions. Of these, 1102/1399 (79%) were school children (aged 6-<15 years). Of the 1102, 7% had PAE only, 63% had PPE, and in 30% exposure to non-alcohol substances was unknown. For 768 with substance exposure data, median age at FASD diagnosis was 9.5 years, 65% were male; 56% were of Aboriginal/Torres Strait Islander descent, 41% lived in foster/adoptive care and 14% had 3 sentinel facial features. Cases originated from all Australian states/territories, 12% from remote/very remote regions. Of 768 children with known prenatal exposure to substances besides alcohol, 90% were exposed to ≥2 substances (median 2.5) and substances included nicotine (51%), cannabis (48%) and amphetamines (33%). In multivariable logistic regression models adjusted for potential confounders, children with PPE compared to PAE alone were more likely to have DSM-defined trauma, stress-related, or attachment disorders (aOR 3.56 [95% CI:1.67-7.56]p=0.001), motor disorder (aOR 3.70 [95% CI:1.07-12.83]p=0.04), weight restriction (aOR 5.04 [95% CI:1.40-18.06)p=0.01), or minor congenital anomalies (aOR 2.96 [95% CI:1.16-7.57]p=0.02). No significant difference emerged in DNI.

CONCLUSION
These findings highlight the potential compounding effects of PPE on neurodevelopmental and physical outcomes in children with FASD. Standardised preconception/pregnancy screening is required for PPE in addition to PAE. Children with PAE/PPE should be referred to child specialists for assessment/diagnosis to enable early childhood intervention and maternal support to enable future healthy pregnancies.

C2.2 Challenges in Supporting Biological Mothers of Infants with Confirmed PAE in Adoptive Families Foundation's Intervention Preadoptive Center (Otwock, Poland) analyze of 48 cases

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(1) Adoptive Families Foundation's Intervention Preadoptive Center in Otwock, Poland (Poland)

OBJECTIVES
Reducing the prevalence of FASD is not possible without providing support to pregnant women. There is no safe level of alcohol consumption during pregnancy. Effective prevention requires an understanding of the needs of the target population.

METHODS

In a retrospective study, the authors analyzed medical and social records from 2021–2025 concerning mothers whose children were placed in the Adoptive Families Foundation's Intervention Preadoptive Center (Otwock, Poland) due to maternal alcohol addiction.

RESULTS
The mean age of the mothers was 28.7 years (range: 22–41). Among them, 80% were multiparous. In approximately 20% of cases, prenatal alcohol exposure (PAE) had been documented in previous pregnancies, 60% had older children placed in foster care, and 80% of the mothers had not received prenatal medical care during the current pregnancy. Nearly 30% gave birth prematurely. More than 30% had experienced domestic violence, approximately 60% had a history of conflict with the law, and at least 23% came from families affected by alcohol dependence. All of them were alcohol addicted or engaged in heavy alcohol use; 27% were also dependent on drugs. Only 19% had attempted addiction treatment. Particular concerns include: a) the lack of prenatal medical care and the high rate of preterm births, despite prenatal care in Poland being provided free to all pregnant women regardless of insurance status; b) alcohol exposure in subsequent pregnancies – PAE in an older child did not result in protective support for the mother aimed at safeguarding subsequent children; c) the low rate of addiction treatment.

CONCLUSIONS
There is an urgent need to develop systemic support for women in order to reduce PAE. A major challenge is integrating this group into the prenatal healthcare system. A diagnosis of FASD in an older child should trigger targeted support for the mother to protect subsequent children from PAE. It is also essential to change the stereotype of biological mothers of children with PAE – from being perceived as "guilty" to being recognized as "in need."

C2.3 Adoptees and special needs: FASD compared with other clinical difficulties and the impact across quality of life domains

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Within out-of-home care populations, FASD is a common condition, yet it is often under-identified and overlaps with other neurodevelopmental difficulties. Evidence suggests that prenatal alcohol exposure and postnatal social-emotional adversity can compound risk and contribute to broader difficulties, including in cognitive and socio-emotional functioning. This is particularly salient in adoptive contexts, as adoptions increasingly involve children with special needs, an umbrella term often used to encompass a wide range of diverse conditions, potentially obscuring underlying heterogeneity and limiting tailored interventions. Accordingly, this study aims to examine heterogeneity among adopted children based on adoptive mothers' reports, by comparing three groups: adoptive families with children "without identified deficits" (1), "with FASD" (2), and "with other clinical conditions" (3). A total of 147 adoptive mothers completed an online questionnaire assessing child diagnoses and difficulty indicators across neurodevelopmental, behavioral, and emotional domains, as well as mother-reported child quality of life across multiple areas. Preliminary results delineate three distinct profiles of deficit manifestation and co-occurrence. Between-group comparisons also indicate significant differences in children's quality of life, both overall and across specific subscales, with the

FASD group showing the most severe impairment. Findings are expected to inform service planning by encouraging a shift from “special” to “specific” needs and promoting condition-informed, profile-specific assessment and support, prioritizing interventions in the domains most compromised for the child's quality of life.

C2.4 Maltreatment and placement stability predict neurocognitive functioning in children assessed for Fetal Alcohol Spectrum Disorder (FASD)

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A developmental history of prenatal alcohol exposure (PAE) is often entangled with a complex history of maltreatment and subsequent placement instability and household strain. Assessment for Fetal Alcohol Spectrum Disorder (FASD) requires careful weighing of these factors when determining the unique impact of PAE on neurocognitive outcomes, however, the extant literature on the effect of postnatal adversity on outcomes in children with or at risk of FASD is limited. The current study examined the impact of sentinel facial features of FASD, maltreatment, placement stability, and other characteristics of care on direct assessments of intellectual abilities, inhibitory control, and attentional functioning in 128 children who presented for FASD assessment at specialised diagnostic clinics. Results showed that exposure to maltreatment predicted poorer fluid reasoning and attention, while greater placement stability predicted better performance on tasks assessing working memory. Household demographics, including having a single carer and the number of children in the household, emerged as predictors of verbal comprehension and inhibitory control, respectively, suggesting a potential role of reduced parental capacity in neurocognitive performance. In addition, sentinel facial features significantly predicted poorer inhibitory control performance. The findings indicate that postnatal adversity and care factors can contribute to key neurocognitive outcomes associated with FASD. Clinicians should carefully consider postnatal experiences when weighing up the unique impacts of PAE on neurodevelopment.

C2.5 Failures in Child Protection Measures as a result of misdiagnosis of FASD

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(1) UCAV (Spain)

In 2021, Spain closed adoption procedures with Russia, citing medical irregularities of its minors. Behavioural problems and ADHD are diagnoses that accompany the development of this population, which is insensitive to the proposed intervention techniques, leading to school failure, addiction and criminal problems in adolescence. This study evaluates 143 adoptive families and their children over the age of 16 and under the age of 18 who request help from the psychological counselling teams at their educational centres, citing significant difficulties in cohabitation. Was applied a descriptive and inferential methodology based on the collection of information through questionnaires and interviews. The results indicate that 93.7% consider their experience at school and with teaching teams to have been poor or very poor, having to change schools in 93.7% of cases and suffering bullying in 96.5%. However, it is the problems of addiction affecting 87.5% of these adolescents, their promiscuous and toxic romantic relationships observed in 91.6% of cases, and complications with the law in 26.6% of adolescents. These are the concerns that most worry families and lead them to predict that 92.3% of their children will not be able to lead an independent, responsible, normalised and

lawful life, with 23.8% believing that their children will become homeless. Asked about the support they received, 97.2% said they had sought help from mental health professionals for their children, but in 95% of cases this had not been effective. Psychosocial rehabilitation centres were a resource for 65% of families, of whom 26.9% said that "it had not helped at all". 91.6% of families report that public mental health services have provided them with a definitive diagnosis for their child and that assessors disregard information regarding pregnancy, childbirth and early childhood development. The costs incurred by these families in seeking out private specialists exceed 150,000€ in 27.5% of cases. 88.8% of these families have not considered a disability assessment for their child. 81.8% of families wouldn´t adopt again and 90.2% feel they aren´t doing well as a family. 100% of adoptees feel their family is ashamed of them, and 78.3% have contemplated suicide.

C2.6 What predicts and protects against mental health disorders in adolescents with FASD in remote Australian Aboriginal communities? The Bigiswun Kid (adolescent) Project

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Remote Western Australian communities initiated the population-based Lililwan (children) study in 2009, partnering with the University of Sydney. Of children born in 2002-3, 55% had PAE and 19% had FASD at age 7-9 years. Concern that some adolescents were struggling led to the Bigiswun Kid (adolescent) study to follow this cohort 10 years later. The aim was to identify adolescent health/mental health needs to improve social emotional well-being (SEWB).

METHODS
Active case ascertainment of the Bigiswun Kid cohort. Aboriginal Participatory Action Research (Aboriginal leadership, community consent, research co-design, rapid translation). Interviews with 94 (83%) of all adolescents (17-19 years) and 101 (89%) parents. Validated tools (Revised ACE, Strong Souls Inventory, Hunter Opinion Personal Expectation Scale, HEEADSSS, and Child Behaviour Check List-Teacher Report Form (CBCL-TRF). Self-reported MH symptoms. Identified predictive/protective factors for MHD.

RESULTS
23% adolescents had FASD, 11% a psychiatrist-diagnosed MHD. Adolescents with FASD had more psychiatrist-diagnosed MHD [OR 5.33 (95% CI: 1.32-24.84) P=0.02] and less resilience [Mean difference -2.43 (95% CI: -4.76, -0.11) P=0.04]. No difference in ACE scores in adolescents with/without FASD (P>0.05), or self-reported anxiety, depression, PTSD, suicidal ideation, hopefulness, or life satisfaction. Risk of MHD was higher in those with: ‘no-one to go to when they were sad' [OR 4.85 (95% CI: 1.004-20.95)]; higher Total Behaviour Problem scores [Mean difference 1.04 (95% CI: 1.01-1.06)] or Externalising problem scores [OR 1.09 (95% CI: 1.03-1.16)] on at 7-9 years (CBCL-TRF). Protective factors for MHD were Living >100km from town [OR 0.43 (95% CI: 0.098-0.54), Strong parent attachment [OR 0.75 (95% CI: 0.59-0.92) P=0.007]. Strong peer attachment [OR 0.87 (95% CI: 0.75-0.99) P=0.033], Closeness to family/household members [OR 0.099 (95% CI: 0.01-0.49) P=0.003]. MHD was unrelated to sleep/exercise duration, alcohol/Ganja use, death/suicide of someone close, number of

homes lived in, Internalising problems at 7-9 years (CBCL-TRF), or impaired neurodevelopmental function.

IMPLICATIONS
Understanding protective/potentiating factors for MHD in FASD provides opportunities for action e.g. building resilience to overcome ACE; treating externalising/behaviour problems in childhood; strengthening family function and social skills; and facilitating engagement in traditional cultural activities.

C2.7 Suicidality and Fetal Alcohol Spectrum Disorder: Challenges and Recommendations in Identification and Assessment

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Individuals with FASD are at higher risk of suicide attempts and death by suicide than the general population. Despite this alarming prevalence, it is unknown if the risk assessment tools created for individuals in the general population are valid and reliable for use with people with FASD. Difficulties that are characteristic of FASD (e.g., difficulties with communication, abstract future thinking, emotion regulation, and impulsivity) may make suicide risk assessment especially challenging in this population.

OBJECTIVE
Using a community-based participatory research approach, we identified risk assessment tools that are commonly used with people with FASD and evaluated these tools for their appropriateness and methodological quality. We also determined ways to adapt these measures to reliably determine level of suicide risk in people with FASD.

METHODS
This study included: 1) systematically reviewing risk assessment tools; 2) surveying clinicians to identify tools used and adaptations; and 3) interviewing people with FASD to determine best practices in assessing risk.

RESULTS
Our systematic review determined that no risk assessment tools exist that are valid for people with FASD. 24 clinicians (Mage = 41.3 yrs; 96% cis-gender women) completed the survey and reported being somewhat confident in assessing suicide risk in people with FASD (M = 4.02/5) and primarily used clinical interviewing and judgement. Several challenges such as, impulsivity underemphasized in existing tools, changes in suicidal ideation, and abstract nature of measures, were noted. Recommendations from clinicians and people with living experience related to best practices for risk assessment will be provided.

Discussion
Accurately identifying individuals with FASD who are experiencing suicidality is an essential aspect in preventing premature mortality in this vulnerable population. Findings from this study provide critical information for clinicians and researchers in selecting appropriate risk assessment tools and recommendations for further development of valid and effective measures for people with FASD.

C3 / Miscellaneous: from feelings about PAE tests… to feelings of pain in FASD

Moderation: **Borkowska Magdalena** and **Berquin Patrick**

A session to cover micellaneous but important issues, from acceptance of screening for prenatal alcohol exposure, to characteristics of pain in people with FASD, or the role of FASD in relation to psychosocial and justice issues in adulthood.

C3.1 Understanding Pain in Individuals with FASD: Prevalence, Impact, and Care

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Individuals with fetal alcohol spectrum disorder (FASD) are disproportionately affected by pain, reporting high rates of chronic pain and atypical pain sensations (very high or low), which can fluctuate over time. Clinically, people with FASD frequently report chronic physical conditions, illnesses, and pain; however, very little is known about their pain experience. Untreated pain is associated with lifelong mental health issues, social challenges, reduced quality of life, and pain-related disability. Despite this, only two human studies have examined pain in individuals with FASD, with the proposed presentation filling a gap in existing knowledge and clinical practice.

OBJECTIVES
1. Characterize the pain experience of youth with FASD (i.e., location, frequency, and chronicity) as perceived by caregivers.
2. Determine the association between early life adversity and social and adaptive challenges on the caregiver-reported pain experience of youth with FASD.
3. Determine the association between healthcare utilization, caregiver ratings of the medical system, and pain outcomes of youth with FASD.

METHODS
Data will be leveraged from the “Caregiver approaches, resiliencies, and experiences (CARE) raising individuals with FASD across the lifespan (the CARE study)”, which captures extensive information from caregivers of individuals with FASD across Canada and globally. The sample includes 158 caregivers of individuals with FASD, with no restriction on age. Caregivers completed surveys pertaining to the individual(s) in their cares sociodemographics, early life adversity, physical health, pain, social and adaptive functioning, and health care utilization.

PRELIMINARY RESULTS
In the past 30 days, 63% of the individual(s) with FASD in their care experienced some form of pain. Of those, 22% reported that the individual(s) experienced daily pain, and 34% experience pain 2 to 3 times per week. Alarmingly, over 40% reported chronic pain, defined as pain lasting 3 months or more. On average, the individuals experienced 5 traumatic/adverse life events.

DISCUSSION
Research in this area is crucial for determining what contributes to pain in individuals with FASD, who is most vulnerable, and how the healthcare system can identify, respond to, and intervene with the complex pain experiences of people with FASD.

C3.2 FAS vs pFAS: Do Children with pFAS Require Less Support? Developmental Outcomes and Classification Challenges in Children Diagnosed at Adoptive Families Foundation's Diagnostic Center Fasada in Warsaw, Poland

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(1) Adoptive Families Foundation's Diagnostic Center Fasada in Warsaw, Poland (Poland)

The diagnosis of Fetal Alcohol Spectrum Disorders (FASD) in Europe is based on national standards that vary between countries. The primary goal of diagnosis is to identify a child's needs and provide appropriate developmental and educational support. According to the updated Polish diagnostic recommendations (2025), four diagnostic categories are distinguished: Fetal Alcohol Syndrome (FAS), partial FAS (pFAS), neurodevelopmental disorders associated with prenatal alcohol exposure, and a FASD risk group. Following the 2024 revision of the 4-Digit Diagnostic Code (4DDC), which removed the pFAS category, this study aimed to compare developmental outcomes of children with FAS and pFAS and assess the potential implications of the new classification for diagnostic practice in Poland.

METHODS
A retrospective analysis of diagnoses over the past 10 years was conducted at the Adoptive Families Foundation's Diagnostic Center Fasada. Among 1,029 diagnosed children, 164 children with FAS (n=84, age 5 months–13 years, mean 5.1 years) or pFAS (n=80, age 4 months–12 years, mean 5.9 years) were compared. Standardized assessment tools were used to evaluate speech and communication, executive functions, logical-mathematical reasoning, and overall cognitive functioning. Results were classified as low, below average, average, above average, or high.

RESULTS
Across all assessed domains, both groups achieved mainly low, below average, and average results. In speech and communication, 85% of children in both groups scored in the low and below average range. Executive functions were comparable in both groups Logical-mathematical reasoning outcomes were comparable in both groups. Children with pFAS showed slightly higher outcomes in other domains, especially in overall cognitive functioning. Occipitofrontal circumference (OFC) equal or below the 3rd percentile was observed in 78% of children with FAS and 60% of children with pFAS.

CONCLUSIONS
Children diagnosed with FAS and pFAS showed similar difficulties in key developmental domains. Although overall cognitive functioning was slightly better in the pFAS group, the expected level of educational adaptation and developmental support appears comparable in both groups. A combined FAS/pFAS classification, as proposed in the 2024 revision of the 4DDC, may support better recognition of the needs of children previously diagnosed with pFAS."

C3.3 ADHD in Children with Fetal Alcohol Spectrum Disorders: Epidemiology, Diagnostic Challenges, and Therapeutic Implications — A Narrative Review

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Fetal Alcohol Spectrum Disorders (FASD) are the leading preventable cause of neurodevelopmental disorders (NDD) worldwide, with a prevalence of 1–5% in school-age children. Attention-Deficit/Hyperactivity Disorder (ADHD) is the most frequent comorbidity: 50–94% of children with FASD meet DSM-5 criteria for ADHD. Yet a 2025 scoping review of eight major pediatric neurology journals found that only 3.3% of NDD publications addressed FASD versus 38.4% for ADHD. Misdiagnosis of FASD as idiopathic ADHD results in inappropriate treatment and preventable secondary disabilities. Objectives To synthesize evidence on (1) the epidemiological and neurobiological relationship between FASD and ADHD in children aged 0–18 years; (2) neuropsychological and neuroimaging markers differentiating FASD-associated from idiopathic ADHD; (3) therapeutic implications, with emphasis on pharmacological management.

METHODS
Narrative review using the PubMed search strategy: ("Fetal Alcohol Spectrum Disorders"[MeSH] OR "FASD"[tiab]) AND ("Attention Deficit Disorder with Hyperactivity"[MeSH] OR "ADHD"[tiab]) AND ("Child"[MeSH] OR "Children"[tiab]), restricted to ages 0–18 years. A total of 133 publications (1980–2025) were included: systematic reviews, meta-analyses, cohort studies, neuroimaging studies, and pharmacological trials.

RESULTS
Four key findings emerged. (1) Epidemiological overlap is substantial: a recent meta-analysis confirmed ADHD as the most prevalent co-occurring diagnosis in prenatal alcohol exposure (PAE). (2) Executive function deficits in FASD are broader than in idiopathic ADHD, especially in set-shifting, planning, and working memory. A specific attentional dissociation was identified: ADHD-combined type is impaired under understimulation, while FASD shows greater impairment under overstimulation. White matter abnormalities on DTI and MRS further differentiate ADHD+PAE from familial ADHD. (3) Pharmacological evidence remains limited; COMT and DRD2 polymorphisms influence methylphenidate response in FASD+ADHD, with some children requiring higher doses. Non-pharmacological approaches including trigeminal nerve stimulation are under investigation. (4) Unrecognized FASD+ADHD accumulates severe secondary disabilities: 90% lifetime mental health burden, 60% disrupted schooling, and elevated suicidality risk.

CONCLUSIONS
Systematic PAE screening is needed in all children presenting with ADHD. Diagnosis should integrate multimodal neurocognitive assessment and neuroimaging where available. Pharmacogenomic guidance should inform stimulant prescribing. Integrating FASD into NDD care pathways and medical training is a critical public health priority.

C3.4 The Role of Fetal Alcohol Spectrum Disorder (FASD) in the Overincarceration of Indigenous Women: Psychologists' and Psychiatrists' Perspectives

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The overrepresentation of federally sentenced Indigenous women (FSIW) in Canada is a critical social concern, reflecting longstanding structural and systemic injustices within the criminal justice system. Constituting approximately five percent of the female population, Indigenous female offenders are disproportionately represented, especially in maximum security facilities and Structured Intervention Units (SIUs). My research explored the perspectives of psychologists and psychiatrists specializing in FASD who work with Federally Sentenced Indigenous Women (FSIW) in Western Canada. My study sought to understand how FASD-related neurocognitive vulnerabilities intersect with systemic victimization and structural inequities to contribute to the overincarceration and reincarceration of this marginalized group. It examined the victim–offender continuum and its implications for the criminalization of FSIW, a population profoundly affected by trauma, discrimination, and the lack of culturally sensitive interventions. This study did not focus on proving causation but rather gathered insights to better understand systemic and individual factors at play. Using expert sampling, semi-structured interviews were conducted with psychologists and psychiatrists who work with FSIW to explore these complex issues in depth. Thematic analysis, grounded in a framework informed by Historical Trauma Theory and Attachment Theory, was used to identify key patterns and themes in the data. I also developed a new conceptual framework, the Multidimensional Indigenous Developmental Framework (MIDF), as a lens to better understand the issues surrounding my research topic. Findings are aimed at deepening understanding of how FASD may influence criminal behavior, informing prevention strategies, and supporting culturally appropriate care models within the criminal justice system. As my oral defense has been successful, I will be able to share the findings of my research. The purpose of these findings is to inform policy and practice, offering insights into improving prevention strategies and promoting trauma-informed care for Indigenous women with FASD. It is hoped that this study will provide a deeper understanding of the systemic and cultural factors contributing to the overincarceration of Indigenous women and the importance of culturally relevant interventions in criminal justice settings. Ultimately, this research has the potential to influence policy and practice by advocating for more trauma-informed and equitable approaches to justice.

C3.5 UK birth parent's experiences of pregnancy and caring for children with FASD: Results from a multi-phase qualitative study

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Birth parents of children with FASD are under-represented in the research literature. Many studies of caregivers raising children with FASD recruit a high proportion of foster and adoptive parents, and recent reviews have highlighted the under-presentation of birth parents in the corpus of FASD research (Rennie et al., 2024; Wilson et al., 2024). Birth parents may have unique experiences with FASD owing largely to FASD having a clear aetiological factor, namely alcohol exposure during pregnancy, so it is essential to understand their experiences of pregnancy and caring for children with FASD.

METHODS
A three-phase qualitative study was developed to explore (a) barriers to research participation, and (b) experiences of UK birth parents both during pregnancy and whilst caring for children with a diagnosis of FASD. The phases are 1) study of research barriers and facilitators, 2) formation of a lived experience advisory group, and 3) an interpretative phenomenological analysis (IPA) study of pregnancy and raising child/ren with FASD. This presentation will present results from the phase 3 study: IPA study of biological parents' experiences of pregnancy and raising children with FASD Birth parents were recruited by advertisements distributed through FASD support organisations across the United Kingdom. Birth parents participated in a semi-structured interview, developed incorporating feedback from the lived experience advisory group, exploring their experiences of pregnancy and of raising child/ren with FASD.

RESULTS
Provisional results will be presented. Thus far, participants discussed their varied experiences of pregnancy, including unanticipated pregnancies, alcohol as key part of social lives, and mixed messaging from health professionals and social circles. Participants also discussed challenges in accessing diagnosis, variability in support from services, and a process of coming to terms with the diagnosis.

DISCUSSION
Understanding biological parents' experiences is vital for ensuring that biological parents are provided with appropriate support. Given the under-representation of biological parents in the literature to date, a deeper understanding of biological parents' experiences is essential for improving the training offered to professionals supporting individuals with FASD and their families.

C3.6 From denial to action? Reactions to biomarker-based research on alcohol drinking among pregnant women

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The first Polish study based on the objective measure - ethylglucuronide (EtG) in maternal hair conducted in the Institute of Mother and Child (IMC) found that 50% of study participants drank alcohol during pregnancy. Two years later it is possible to analyse the study participants, media, society, medical experts and politicians perceive and respond to these results.

METHODS
Approximately two years after the postpartum study on alcohol use during pregnancy participants had the opportunity to learn about the results of their hair sample analysis for EtG concentration. Their reactions were recorded and the bottom-up approach to reveal categories from the data was applied to answer the research question “How do respondents react to information about the results of the analysis of their own hair sample?”. Desk research and content analysis were used to assess social and other stakeholder reactions to the IMC study results.

RESULTS
When informed about their positive hEtG results, participants presented various reactions classified into seven themes: disengagement and indifference; reassurance via child's health; rejection and denial; surprise and confusion; search for alternative explanations; concern over research validity; acceptance or ambiguous acknowledgment. Experts and the media emphasized the teratogenic effects of alcohol and the discrepancy between self-reported and biomarker-based data. They also called for increased education, prevention, and regulatory

changes. Parliament has begun work on introducing mandatory warnings on alcohol packaging about the harmful effects of alcohol consumption on pregnant and breastfeeding women. The main themes of discussion on social media and forums include shock and disbelief, discussions about "unconscious drinking", harsh judgment and the need to punish mothers who endanger their children's health, and criticism of doctors.

CONCLUSIONS
Maternal hair testing is a valuable tool for investigating prenatal alcohol exposure, but positive results are frequently questioned or denied by participants aware of the stigma associated with alcohol use during pregnancy. Nevertheless, research based on objective indicators is generating significant public interest, leading to increased awareness of FASD, and potentially contributing to the widespread adoption of preventive measures. Unfortunately, it also carries the risk of exacerbating negative social attitudes toward women who drank alcohol during pregnancy.

C3.7 Would You Get Tested? A Co-created Public Opinion Poll of Society's Views on the Potential Development of Molecular Biomarkers for Prenatal Alcohol Exposure

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Molecular biomarker research may make objective screening for prenatal alcohol exposure possible in the future. As this area develops, ethical, societal and acceptability considerations must be explored with care. Public perspectives are important for shaping responsible research and supporting transparency. Limited work has examined societal attitudes toward molecular biomarker use in relation to alcohol exposure during pregnancy. This study addresses this gap through a UK based survey co-created with members of the public.

AIM
To examine public attitudes, expectations and concerns about the development and potential use of biomarkers to screen for prenatal alcohol exposure.

METHODS
A survey was co-created with public contributors to ensure accessibility, and sensitivity. The final version was administered to UK adults on the Prolific survey platform. The anonymous 10-minute survey explored views on biomarker science, ethical principles, trust in research and opinions on acceptability, implementation and potential consequences. Quantitative items were analysed statistically, and optional free text responses underwent content analysis.

RESULTS (ANTICIPATED OR ONGOING)
Early findings indicate a balance between support for early identification and concerns about stigma, consent, privacy and unintended harms. Participants also expressed uncertainties about how results might be used and by whom. Public contributors who shaped the survey highlighted the importance of transparency, safeguarding, and avoiding judgmental language. These elements were incorporated into the wording and structure of the survey. Analysis of the findings reveals a detailed picture of societal values and opinion that is relevant to the development of biomarker-based approaches.

CONCLUSION

This study is the first UK based, co-produced investigations into societal perspectives on molecular biomarkers for prenatal alcohol exposure. Findings will inform ethical guidance, communication strategies and policy development as biomarker research evolves. The co-creation process demonstrates the value of incorporating public voices early in emerging areas of science and health research."

Posters Sessions

Poster session 1

P1 / **Health & Care**

Moderation: **Maillard Thierry**

P1.01 When Mealtimes Become a Challenge: Understanding Chewing and Swallowing in FASD

Spruit Manon, Logopädie & Stottertherapie (Germany)

Feeding and swallowing difficulties in individuals with Fetal Alcohol Spectrum Disorders (FASD) are frequently overlooked or misattributed to behavioral dysregulation. From a speech-language pathology perspective, however, atypical oral-motor development, impaired motor planning, sensory modulation differences, executive dysfunction, and structural craniofacial and anatomical anomalies may significantly affect chewing efficiency, bolus control, and safe swallowing. Individuals with FASD may present with midfacial hypoplasia, high-arched palate, dental malocclusion, altered oral cavity proportions, or other craniofacial differences that influence oral biomechanics. When combined with hypotonia, coordination deficits, and regulatory instability, these anatomical factors can increase the risk of inefficient mastication, prolonged mealtimes, food refusal, and in some cases dysphagia and aspiration vulnerability. Drawing on extensive clinical experience in assessing and treating children and adolescents with FASD, this interactive workshop presents a structured framework for identifying feeding and swallowing vulnerabilities across the lifespan. Particular emphasis is placed on differentiating motor-based dysphagia from feeding challenges primarily driven by sensory processing or executive dysfunction — a distinction essential for appropriate intervention. The session integrates interdisciplinary evidence with case-based clinical insights, focusing on: Neurodevelopmental and anatomical mechanisms underlying feeding difficulties Assessment adaptations considering attention and executive-function limitations Practical intervention strategies combining motor learning, environmental structuring, and caregiver coaching Participants will leave with structured clinical reasoning pathways and directly applicable tools for speech-language pathology practice. The workshop aims to strengthen early identification, improve mealtime safety, and promote interdisciplinary collaboration in FASD care.

P1.02 Sleep Disorders related to Orofacial Myofunctional Disorders (OMDs) in Children and Youth with Prenatal Alcohol Exposure

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BACKGROUND
OMDs consist of atypical patterns of rest and use in muscles of face and mouth, causing issues with speech, breathing, chewing, swallowing and dental development.This may present in several ways including, articulation or phonological disorders, mouth breathing related to nasal obstruction, an open mouth resting posture, feeding issues and dental malocclusion. OMDs may be related to structural issues (e.g. obstructed nasal passages and/or low body tone), muscle imbalances (e.g. incorrect resting tongue position), or to a combination of environmental and genetic factors. These factors directly contribute to snoring and OSA. Children with PAE have deficits in physical, cognitive and behavioural domains. Language deficits include receptive and expressive language, social communication, personal interactions, and critical thinking. They may have voice dysfunction and issues with articulation, fluency and rate. Embryologically, PAE may cause midface hypoplasia, flat nasal bridge and micrognathia. PAE can also lead to fetal alcohol myopathy that may present as hypotonia and flaccidity.

OBJECTIVE
To assess the frequency of OMDs in children with PAE and associated sleep disorders.

METHODS
Children were assessed for Language, speech disorders and OMDs. Disordered sleep was explored through interview and PSQ. 42 children were assessed. 55%) received an

RESULTS
42 children, ages of 5.5 to 18 years assessed:
No PAE: 4 (9.5 %)
No FASD: 1
At Risk: 14 (33.3 %)
23 (55%) FASD 22/42 had speech sound errors.
Signs/symptoms of an OMD in 25 (60%)
17/25 (68%) with OMDs had sleep difficulties (snoring and OSA)

CONCLUSIONS
OMDs are an important consideration in the management of children with PAE. SLPs play an important role in identifying language deficits in children with FASD; and our evidence suggests that SLP screenings for OMDs may identify and treat additional dysfunction in this population. OMDs presented with sleep difficulties, such as snoring and OSA, and showed challenges with day-to-day functioning through behavioural issues, decreased cognitive function and academic achievement, and reduced attention. Further investigation is needed to clarify the correlation and prevalence of OMDs. This retrospective analysis indicates attention in this area may contribute to success in this population through improved in speech skills and daytime functioning.

P1.03 Adapting the Model of FASD Assessment to Enhance Access to Care

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BACKGROUND
The Lakeland Centre for Care conducted its first Children's FASD Diagnostic clinic in 2000, assessing one patient/day, advancing to two/day. The rural model for FASD diagnosis was a mobile clinic, assessing children in/close to their communities to improve access. Subsequent variations included completing partial assessments completed ahead of time (psychoeducational). In Alberta, Telehealth (TH) was introduced/advanced in the 1990s and 2000s, enhancing access to care. In 2017, one FASD clinic began using TH for Team meetings and debriefing with the family. This was well received by team members and caregivers. It improved team attendance and decreased travel expense/time. In 2020, Virtual Model of FASD was developed and well received by teams and patients/caregivers. Virtual platforms together with acceptance and frequency of virtual visits/care increased significantly during and after Co-VID pandemic.
Objective
Improve access to FASD diagnosis in rural/remote communities

METHODS
There are about 20 FASD children's diagnostic teams in Alberta. Each team, after survey of their members and the clients, adapted their model to enhance access to care.

RESULTS
Since the pandemic, teams have developed flexibility in accommodating patients/caregivers 1. Complete In-Person assessment: seeing 2 patients a day 2. Assessment Day/Diagnosis Day: 4 patients are assessed by clinicians and team meetings and debriefs are completed virtually couple of weeks later 3. Complete Virtual Assessment: clinicians complete assessments; all meetings and debriefs are virtual 4. Mixed Model Assessments: Clinicians and patients are accommodated to optimize access

CONCLUSIONS
The original model of FASD assessment was in-person at a specified location to which team members and the client travelled. The mobile Rural Model improved access as the diagnostic process was completed in/close to the client's home community. The virtual model eliminated travel for everyone involved, while providing reliable diagnostic formulations. Each of these models have been acceptable to team members and caregivers, and provides reliable assessments Depending on the geographic location, the population served and the needs of the caregivers/team members the model can be adapted to enhance access to care, particularly where clients are long distance away. There are improved attendance and decreased travel expense/time, while enhancing access.

P1.04 Knowledge Sharing: The FASD Expert Platform as a Low-Threshold Professional Communication Tool

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INTRODUCTION
Prenatal alcohol exposure and fetal alcohol spectrum disorders (FASD) require effective interdisciplinary collaboration among professionals involved in prevention, diagnosis, and care. This project presents the implementation of a low-threshold FASD expert platform designed to facilitate professional knowledge sharing, interdisciplinary exchange and expert supervision.

METHODS
The platform targets professionals from various disciplines and promotes structured yet accessible communication through a moderated chat forum, in which content is reviewed by an expert team to prevent the publication of stigmatizing material. Dissemination and recruitment are conducted via the established FASD expert community, existing cooperation partners of the German FASD Competence Center, professional associations, scientific societies, conference presentations, and social media channels. Platform usage was regularly evaluated based on publicly available dashboard data. Metrics analyzed included monthly new registrations, visitor numbers, views of chat content, and the number of newly created posts and topics.

RESULTS
As of January 2026, the FASD expert platform comprised approximately 120 registered users: 26 experts, 109 interested professionals, and 13 team members, with possible overlap between categories. On average, 7 to 8 new posts are created per month, resulting in a total of approximately 200 posts currently available on the platform. Continuous monitoring of usage patterns indicated sustained engagement with chat content and interdisciplinary exchange.

DISCUSSION
To our knowledge, this low-threshold and innovative expert platform is unique and represents a practice-oriented tool to enhance interdisciplinary collaboration and knowledge transfer in FASD prevention and professional support. To ensure relevance and usability, the platform is subject to continuous evaluation. Future work, which will be presented at the conference, will include a network-wide survey using a separate questionnaire to systematically assess professionals' needs and preferences and to ameliorate further platform development.

P1.05 Interdisciplinary training in the diagnosis, prevention and management of Fetal Alcohol Spectrum Disorder (FASD)

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Fetal Alcohol Spectrum Disorder (FASD) is a prenatal-origin condition with high prevalence, but it is still underdiagnosed and undertreated in Catalonia. This lack of early detection and appropriate interventions affects individuals with FASD, as well as their families and the educational, health, social and judicial systems. This communication presents an interdisciplinary training programme for professionals in the fields of health, education, social

services, and justice, to improve knowledge, prevention, detection, diagnosis, and comprehensive management of FASD. It also presents the results of the programme implementation and professionals' satisfaction. The course was designed to respond to previously identified needs regarding prenatal alcohol exposure and FASD, both from the perspective of 101 adoptive parents of children with FASD and 322 professionals working in Catalonia in the fields of education, health, mental health and addiction, childhood and youth, disability, law enforcement and prison services. The training is structured in eight modules, covering topics from prevention to clinical and psychosocial interventions. It addresses the needs of people with FASD and their families, risk factors, prevention of alcohol consumption during pregnancy, diagnostic criteria and neuropsychological profile, as well as therapeutic, educational, social, and legal intervention strategies. Special emphasis is placed on preventing secondary disabilities and coordination between existing services and circuits in Catalonia. The programme incorporates an asynchronous self-learning methodology that includes video-based presentations, practical cases, reference materials, interactive activities and module assessment through multiple-choice tests. The course offers tutorials for answering queries. More than thirty experts from various institutions and organisations have participated in the course, which offers three pathways according to professional profile (health, education and social/justice). The first edition has generated considerable interest, with 759 professionals enrolled (495 in the health pathway, 157 in the social/justice pathway and 107 in the educational pathway). Several editions will be held over time to ensure broad professional participation. This training proposal aims to contribute to earlier, more coordinated care that is tailored to the complex needs of people with FASD and their families, promoting a comprehensive, evidence-based approach that improves the quality of life of those affected and their environment.

P1.06 Use of Alcohol, Tobacco, and Cannabis Among Pregnant Women in Slovenia

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BACKGROUND
Despite widespread knowledge that alcohol, tobacco and cannabis use during pregnancy pose significant risks to foetal and child health, varying levels of substance use among pregnant women continue to be reported.

OBJECTIVES
This prospective cross-sectional national study aimed to estimate the prevalence of alcohol, tobacco and cannabis use among pregnant women in Slovenian.

METHODS
An anonymous online questionnaire, accessible via QR codes, was shared to postpartum women in all fourteen Slovenian maternity hospitals. It collected self-reported data on maternal health behaviour during pregnancy, including alcohol, cannabis and tobacco use. The questionnaire was conducted as part of a broader national study that also involved meconium samples collection. The sample size was calculated based on the number of inhabitants, annual number of births and expected prevalence rates derived from the literature. The sampling strategy was designed to ensured population-level representativeness. Unadjusted preliminary prevalence estimates are reported.

RESULTS
A total of 744 completed questionnaires were collected. The majority of respondents were between 26 and 39 years of age, accounting for more than 80% of the sample. Preliminary results indicate that tobacco (any tobacco product) use was reported by 30,6 % of women in the period of three months preceding pregnancy, approximately 9 % during first trimester, and about 5 % during the remaining six months of pregnancy. Alcohol consumption (any type of alcohol) was reported in 43 % of participants in the three months prior pregnancy, by 6,7% during the first trimester of pregnancy, and around 3 % during the last six months of pregnancy. Regarding cannabis use, 14,3 % of women reported use in the three months before pregnancy, 3,8 % during the first trimester and 0,8 % in the last six months of pregnancy.

CONCLUSION
The self-reported prevalence of tobacco use during pregnancy is consistent with WHO European Region estimates, while prenatal alcohol and cannabis use appear to be reported at substantially lower rates among Slovenian women than expected. Using national-level data, this study addresses a significant gap in understanding prenatal fetal exposure based on mothers' self-reported substance use during pregnancy and supports targeted public health action.

P1.07 Fetal Alcohol Spectrum Disorder (FASD) in Australia: Results from 10 years of national surveillance conducted by the Australian Paediatric Surveillance Unit (APSU)

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BACKGROUND
Australia lacks national population-wide epidemiological data on FASD, which is required to inform clinical service development and practice, policy and prevention.

OBJECTIVE
To describe the epidemiology and clinical features of children with FASD.

METHODS
APSU gathered monthly data on new FASD diagnoses in children

P1.08 Heavy prenatal alcohol exposure and risk for adverse pregnancy outcomes in France 2015-2024

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CONTEXT
Heavy prenatal alcohol exposure (hPAE) may be associated with adverse pregnancy outcomes (APO). However, evidence from large cohort studies is scarce.

OBJECTIVE
To assess associations between hPAE and APO from a French national cohort study.

METHOD
Our data source was the French national healthcare insurance (SNDS) database that covers nearly all births in France. We included all viable singleton fetuses (≥22 weeks of gestation) administratively linked to their mother in 2015-2024. hPAE was identified from newborn records in the first 28 days (ICD-10-FR P04.3 “newborn affected by maternal alcoholism”) and/or mother records during pregnancy and the year before (mostly F10.2 for alcohol dependence). APO included (a) major congenital malformations assessed in the neonatal period according to EUROCAT classification (ICD-10-FR codes selected among Q00-Q85, Q87-Q89), (b) placental syndromes (excluding therapeutic terminations) : placental disorders (O43, P02.2); fetal hypoxia (O36.3); intrauterine growth restriction (O36.6); abruptio placentae (O45, O46, P02.1); preeclampsia (O11, O14, O15); preterm birth (<37 weeks of gestation); stillbirth; and small for gestational age (<10th percentile) among livebirths. Association between hPAE and APO was assessed in multivariate logistic regression controlling for year, French region, maternal age and parity, child sex, tobacco and illicit drug use during pregnancy, obesity, preexisting chronic conditions.

RESULTS
hPAE was identified in 11,339 (0.18%) of 6,362,619 viable singleton in France in 2015-2024. hPAE was independently associated with higher risks for any major congenital malformation (6.0% vs. 2.5%, adjusted odds-ratio [aOR]=1.82, p<0.0001) including any congenital brain defect (1.5% vs. 0.2%, aOR=3.92, p<0.0001), microcephaly (1.0% vs. 0.1%, aOR=5.80, p<0.0001) and any congenital heart defect (2.4% vs. 0.7%, aOR=2.26, p<0.0001). Among livebirths and stillbirths, hPAE was independently associated with higher risks for any record of placental syndromes (44.1% vs 18.0%; adjusted odds-ratio [aOR]=1.77, p<0.0001) including preterm birth (16.9% vs. 5.3%; aOR=1.77, p<0.0001), stillbirth (1.0% vs 0.4%; aOR=1.65, p<0.0001) and small for gestational age among livebirths (26.2% vs. 9.0%; aOR=1.63, p<0.0001). Associations were robust in subgroup analyses among livebirths or depending on maternal use of tobacco or illicit drugs.

CONCLUSION
hPAE increase the risk for APO including major congenital malformations and placental syndromes.

P1.09 Training objectives on neurodevelopment disorders for general medicine interns at the university of La Reunion

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INTRODUCTION
In France, pediatric follow-up of more than 85% of children is provided by a general practitioner. He therefore plays a decisive role in the identification and monitoring of neurodevelopmental disorders (NDD), which affect one in six patients. However, the lack of training on this subject is identified as a limiting factor in their management. The objective of this thesis was therefore to define training objectives for general medicine students on the subject of NDD.

METHOD
This was a qualitative, exploratory study, inspired by grounded theory. The data were collected via semi-directed, individual interviews with three populations: experts, interns and university internship supervisors.

RESULTS
As a primary care physician, the general practitioner must be able to define NDD, their risk factors and associated comorbidities in order to act in prevention. He must be able, during a dedicated consultation, to carry out systematic screening of all areas of child development and take into account the complexity specific to each patient. If necessary, he coordinates the patient's care with the various stakeholders in the sector. Finally, through a patient-centered approach, he supports the patient and his family in the inclusion process. The training could be organized in three parts: theoretical reminders, presentation of the network through clinical cases and then a role-play.

CONCLUSION
This study is preliminary work to the realization of a Delphi round which will make it possible to establish a consensus on the areas of work to be implemented during a teaching at the University of La Réunion.

P1.10 Building FASD-Informed Capability in the Alcohol and Other Drug Workforce: An Australian Practice-Based Approach

Harrington Sophie, NOFASD Australia

Alcohol and other drug (AOD) services frequently work with individuals who may have Fetal Alcohol Spectrum Disorder (FASD), yet FASD often remains unrecognised within substance use treatment settings. Neurodevelopmental differences associated with FASD can create additional barriers to engagement, retention, and treatment effectiveness, highlighting the need for FASD-informed workforce capability.

This poster presents an Australian practice-based approach to building FASD-informed capacity within the AOD workforce, drawing on the development and delivery of targeted professional education and resources led by NOFASD Australia. The approach emphasises neurodevelopmentally informed practice, strengths-based engagement, and practical adaptations to service delivery that support accessibility and reduce unintended exclusion.

The poster outlines key components of FASD-informed AOD training, including foundational knowledge of FASD, understanding brain-based differences, adapting communication and expectations, and recognising the importance of consistency, predictability, and supportive environments. Reflections from implementation highlight common workforce learning needs and the value of embedding FASD-informed principles across AOD practice rather than treating FASD as a niche or specialist issue.

By focusing on workforce capability as a core intervention, this poster contributes to broader discussions on evidence-informed, inclusive care for individuals with FASD within substance use services. The Australian experience offers transferable insights for other jurisdictions seeking to strengthen AOD responses to neurodevelopmental disability.

P1.11 Interventions to address stigma relating to alcohol use in pregnancy and FASD

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BACKGROUND AND AIM
Stigma directed at women who use alcohol during pregnancy and people living with fetal alcohol spectrum disorder (FASD) can deter disclosure of prenatal alcohol use; delay screening for and diagnosis of FASD; reduce engagement with supportive services; and undermine harm reduction and prevention. Reducing stigma is central to shifting narratives from blame and silence toward compassionate, rights-based healthcare and support. This review aims to explore approaches to address stigma relating to alcohol use in pregnancy and FASD and the outcomes of these approaches.

METHODS
We conducted a scoping review of peer-reviewed studies (January 2015–May 2025) that implemented an intervention with a stigma-reduction component targeting alcohol use in pregnancy or FASD. We extracted data on the study setting, population, intervention content, delivery mode and stigma-related outcomes.

RESULTS
Nine studies met inclusion criteria; all were conducted in the USA or Canada. Interventions clustered into three approaches: community programs (n=3), mobile health (mHealth) interventions (n=3) and healthcare provider training (n=3). Stigma reduction was the primary outcome in two studies and a secondary outcome in seven, typically embedded within broader educational or service provision interventions. Stigma-related improvements were predominantly qualitative, spanning self-stigma (n=5) and public stigma (n=4), with limited attention to structural stigma (n=1) and stigma by association (n=1). Standardised stigma measures were used infrequently, limiting comparability between studies and our confidence in intervention effectiveness.

CONCLUSIONS / IMPLICATIONS

Stigma-focused interventions for prevention or mitigation of harms from prenatal alcohol exposure and FASD are under-developed and geographically concentrated, highlighting a gap in evidence for regions with different maternity care systems, policy environments and social norms. Future interventions should be co-designed with people with lived experience, specify mechanisms of change, and use standardised measures of stigma to strengthen the assessment of effectiveness.

“Opening up FASD” means challenging silence and shame by fostering open conversations grounded in empathy and understanding. Interventions should normalise help-seeking, amplify voices of those with lived experience and dismantle harmful stereotypes. Opening up involves reframing narratives from blame to support, creating safe spaces for dialogue and promoting social attitudes that reduce stigma and encourage compassionate care.

P1.12 Organization and management by the pediatrician of fetal alcohol spectrum disorders (FASD): from prenatal to adulthood

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The consequences of alcohol consumption from the preconception period (affecting the co-parent) throughout pregnancy are well established. These consequences can range from fetal alcohol spectrum disorders (FASD), affecting 1 in 100 children, to fetal alcohol syndrome (FAS), affecting 1 in 1,000 children. Pediatricians play a crucial role in primary prevention, particularly from the moment alcohol consumption is detected during pregnancy, using a multidisciplinary approach. They must plan the birth, including hospitalization if necessary, and provide ongoing support throughout childhood, again in a multidisciplinary manner. Furthermore, they must prepare for the transition from pediatric to adult care and organize follow-up for mothers with FAS or FASD.

P1.13 The Fetal Fentanyl syndrome: spectrum of phenotypes in 56 infants

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BACKGROUND
Illicit fentanyl use is a major public health concern with increasing use among reproductive-aged women. The association between prenatal opioid exposure and congenital anomalies remains controversial. In 2023, fentanyl was identified as a possible human teratogen in ten infants with documented exposure and a consistent pattern of abnormalities, with abnormal cholesterol biosynthesis the proposed pathophysiology.

MATERIAL AND METHODS:
We evaluated 56 children ages 0-4 years with confirmed prenatal fentanyl exposure. We collected data on intrauterine exposures, dysmorphic features, major congenital anomalies, neonatal course, feeding, genetic testing, cholesterol synthesis studies, growth and development. We analyzed the role of co-exposures and specific features to predict health and developmental outcomes. Associations between dysmorphology categories and clinical outcomes were tested. Using diagnostic frameworks from fetal alcohol spectrum disorders, we evaluated criteria for a potential fetal fentanyl syndrome.

RESULTS
Among the 56 enrolled patients, microcephaly, failure to thrive, feeding difficulties, and gastrostomy placement were common. A distinctive pattern of craniofacial dysmorphology was identified. Developmental delays affected 47% of individuals, and autism or high risk was identified in 50% of those screened. Genetic testing was non-contributory. Elevated cholesterol precursors were seen in some when tested in the first weeks of life. Dysmorphology severity was associated with microcephaly, failure to thrive, hypotonia, and G-tube use. Thirty-two percent met all the four proposed fetal fentanyd syndrome criteria.

CONCLUSION
Prenatal fentanyl exposure was associated With a reproducible pattern of dysmorphology, growth restriction, impaired brain development and neurodevelopmental deficits, supporting fentanyl as a human teratogen producing the fetal fentanyl syndrome.

P1.14 Immune Mechanisms in Fetal Alcohol Spectrum Disorders: From Prenatal Programming to Lifelong Disease Risk

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OBJECTIVES
This paper aims to analyze the immunological mechanisms underlying Fetal Alcohol Spectrum Disorders (FASD), with particular emphasis on the impact of prenatal alcohol exposure (PAE) on immune system development and long-term immune function. The study seeks to determine how developmentally programmed immune reprogramming contributes to lifelong susceptibility to inflammatory, infectious, and autoimmune conditions.

METHODS
A critical review of experimental and clinical studies was performed to assess the effects of ethanol and its metabolites on immune system ontogeny. Additionally, a clinical case study was included to illustrate the clinical relevance of immune dysregulation associated with prenatal alcohol exposure (PAE).

RESULTS
Ethanol and its metabolites cross the placental barrier, disrupting the proliferation, migration, and maturation of immune-competent cells. These exposures induce oxidative stress, alter hypothalamic–pituitary–adrenal axis activity, and promote epigenetic modifications, leading to a persistent proinflammatory immune phenotype, impaired immune tolerance, and amplification of innate and adaptive immune responses. A central mechanism involves the programming of microglia toward chronic activation, characterized by increased pattern recognition receptor expression, elevated proinflammatory cytokine secretion (e.g., IL-1β, IL-6, TNF-α), and a reduced activation threshold. Sustained neuroinflammation interferes with myelination, synaptogenesis, and neuronal circuit maturation. PAE also disrupts T-cell homeostasis, including shifts in the Th1/Th2 balance and destabilization of the Treg/Th17 ratio, favoring excessive effector responses and reduced immunological tolerance.

CASE PRESENTATION
The author illustrates autoimmune disease development through the case of a 25-year-old female patient with a history of PAE and ACEs. Her symptoms were initially interpreted as psychosomatic; however, antibody testing led to a diagnosis of celiac disease with multiple extraintestinal manifestations. Implementation of appropriate treatment resulted in complete symptom remission.

CONCLUSIONS
Despite growing evidence of immune reprogramming associated with PAE, definitive data on its long-term clinical consequences remain limited. The precise role of PAE in shaping the risk of allergy, autoimmunity, and gut microbiota alterations influencing the gut–immune–brain axis has yet to be fully elucidated. Clarifying these relationships is essential for identifying reliable risk biomarkers and for developing targeted prevention and therapeutic strategies for individuals affected by FASD.

P2 / Brain, Cognition, and Behaviour

Moderation: **Germanaud David**

P2.01 Impact of Choline in the anterior Cingulate Cortex on Youth and Young Adults with FASD

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BACKGROUND
Individuals with Fetal Alcohol Spectrum Disorder (FASD) often experience cognitive and behavioural challenges and have an elevated risk of mental health concerns. Despite the significant impact of prenatal alcohol exposure (PAE), treatment options for individuals with FASD remain limited. Nutrition-based approaches are increasingly being explored as potential treatments for neurodevelopmental disorders due to their feasibility and adaptability to individual needs. Choline, an essential nutrient obtained primarily through diet, has demonstrated benefits in pre-clinical models, including improved cognitive performance, mental health outcomes, and reduced behaviours of concern. However, findings in children with FASD have been inconclusive. In this study, we examined the relationship between choline levels, behavioural function, and mental health in children with FASD.

METHODS
80 children and youth aged 7-18 years were recruited from Calgary and Edmonton, Alberta, Canada. This included 40 children/youth with confirmed PAE and 40 unexposed neurotypical children/youth (age- and gender-matched to the FASD group). Magnetic resonance spectroscopy (MRS) measured choline levels in the anterior cingulate cortex (ACC) - a region involved in emotion and cognition. Participants and/or caregivers completed the Behavior Rating Inventory of Executive Function (BRIEF; self-report for participants over 12, caregiver-report for participants12 and under) and Behavior Assessment System for Children (BASC), to assess behavioral regulation and cognition. Symptoms of depression and anxiety were assessed using the Children's Depression Inventory (CDII-2) and Multidimensional Anxiety Scale for Children (MASC-3).

RESULTS
Preliminary analyses indicate a significant age-by-exposure interaction in ACC choline levels. The relationship between age and central choline differed between groups, such that increasing age is associated with a more rapid decline in children/youth with PAE, compared to unexposed children/youth. Ongoing analyses are examining the relationship between ACC choline levels, behaviour, and mental health outcomes.

SIGNIFICANCE
These findings suggest distinct developmental trajectories of choline in individuals with and without PAE. Understanding how these differences relate to behaviour and mental health is critical and may inform whether dietary choline supplementation represents a viable intervention for individuals with FASD. Nutritional approaches are particularly important as they offer a feasible, accessible, and culturally adaptable targets for future interventions across diverse socioeconomic contexts.

P2.02 Characterization of Cardiac and Immune Function, Behavior, and Mental Health in Children with Fetal Alcohol Spectrum Disorder

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BACKGROUND
Fetal Alcohol Spectrum Disorder (FASD) is a neurodevelopmental disorder that affects approximately 5% of individuals worldwide. Despite its high prevalence, there remains a critical gap in understanding the whole-body impact of this disorder. Specifically, there is limited understanding of how behavior and mental health challenges may be shaped by underlying immune dysregulation, and how prenatal alcohol exposure (PAE) affects cardiovascular development and longer-term cardiac function in children with FASD.

METHODS
This study includes children with FASD or confirmed PAE, autistic children, and neurotypical children aged 7-12 (40/group, age- and gender-matched). Children complete cognitive tests (NIH toolbox), mental health questionnaires [Children's Depression Inventory-2 (CDI-2), Multidimensional Anxiety Score for Children-2 (MASC-2)], and their caregivers complete questionnaires assessing the child's behavior, and mental health [Behaviour Assessment System for Children-3 (BASC-3), CDI-2, MASC-2]. A venous blood sample is collected and to assess levels of inflammatory and cardiac proteins. Additionally, an electrocardiogram (ECG) is performed and resting blood pressure measured to assess overall heart health.

RESULTS
Preliminary data suggest that the children with FASD show increased symptoms of anxiety and depression compared to neurotypical children (higher scores on the CDI-2 and MASC-2). While cardiac and immune analyses are ongoing, based on the preclinical literature, we hypothesize that children with FASD will experience higher rates of ECG abnormalities and cardiac biomarkers, as well as greater concentrations of pro-inflammatory proteins, compared to the unexposed neurotypical control and ASD groups.

CONCLUSIONS
Overall, this study integrates health, behavior, and physiological data to identify for biomarkers enabling earlier detection of health problems that may affect children with FASD. By advancing biomarker-informed approaches for early identification of underlying health challenges, this work aims to support more timely and targeted interventions. Ultimately, these advances have the potential not only to improve symptom management but also to meaningfully enhance the overall quality of life for children with neurodevelopmental disorders.

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P2.03 Fetal Alcohol Spectrum Disorders (FASD): Clinical, socio-familial and Neurodevelopmental Profile of a Cohort in Reunion Island, A Multidisciplinary Approach

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BACKGROUND
Fetal Alcohol Spectrum Disorders (FASD) constitute the leading non-genetic cause of neurocognitive impairment and social maladjustment, affecting approximately 1% of births globally. Reunion Island serves as a pioneer region in France, having established the first dedicated FASD Resource Center in 2016 to address this major public health challenge. Despite established international criteria, accurate diagnosis remains complex due to variable phenotypic expression. This study aims to describe the clinical, socio-familial, and neurodevelopmental characteristics of affected children to improve early detection and targeted care.

METHODS
We conducted a descriptive, retrospective, single-center study involving children aged 0 to 18 diagnosed with FASD. These patients benefited from comprehensive, longitudinal follow-up by a multidisciplinary team (pediatricians, psychologists, social workers) at the Reunion University Hospital. While the preliminary statistical analysis presented here covers 147 children, it is crucial to note that the database is currently being actively updated and now includes nearly 400 patients, reflecting the significant and growing scale of this issue.

RESULTS
The analysis reveals severe prenatal exposure patterns: 59.5% of mothers reported daily alcohol consumption, predominantly beer (51.4%), with 50% consuming alcohol throughout the entire pregnancy. Notably, paternal pre-conceptional alcohol consumption was recorded in 42.9% of cases. Socio-familial vulnerability is acute, evidenced by 59.2% of children placed in foster care. Clinically, 44% presented with complete Fetal Alcohol Syndrome (FAS). Somatic comorbidities are frequent, including microcephaly (39.6%), specific brain malformations (27.7%), and genetic Copy Number Variations (22.6%). Neurodevelopmental assessments (mean age 9.5 years) highlight profound functional challenges: 75% show psychomotor delay, 72.4% suffer from attention disorders, and 69.7% exhibit emotional dysregulation, while intellectual disability affects 34.2% of the cohort.

CONCLUSION
Children with FASD face cumulative vulnerabilities, combining teratogenic damage, prematurity, complex social environments, and potential genetic factors. The neurocognitive profile—characterized by deficits in executive functions and behavioral regulation—remains a critical diagnostic indicator, particularly when facial dysmorphy is absent. These findings underscore the urgent necessity for strict "Zero Alcohol" prevention strategies and validate the importance of specialized, multidisciplinary support centers to optimize the developmental trajectory and quality of life for these families.

P2.04 Prenatal Alcohol Exposure and Adolescent Socio-Emotional Outcomes in Ireland: Evidence from a National Longitudinal Cohort

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BACKGROUND
Prenatal alcohol exposure (PAE) is a leading preventable cause of neurodevelopmental difficulties, yet its longer-term mental health and behavioural impacts in adolescence remain underexplored, particularly in high-prevalence settings such as Ireland. Evidence on non-syndromic forms of PAE is especially limited, contributing to under-recognition of associated risks.

AIM
To examine associations between PAE and socio-emotional outcomes in early adolescence using data from a nationally representative Irish cohort.

METHODS
Data were drawn from the infant cohort of the Growing Up in Ireland longitudinal study. PAE was assessed retrospectively at 9 months via maternal self-report and categorised as unexposed, light (≤2 drinks/week), moderate (3–6 drinks/week), or heavy (≥7 drinks/week). Socio-emotional outcomes at age 13 were measured using the parent-reported Strengths and Difficulties Questionnaire (SDQ). Multivariable linear regression models estimated associations between PAE categories and SDQ total and subscale scores, adjusting for key sociodemographic and maternal factors.

RESULTS
The analytic sample included 6,420 adolescents, of whom 22.0% were classified as prenatally exposed to alcohol. Compared with unexposed peers, light PAE was associated with higher total difficulties scores and poorer outcomes across conduct, hyperactivity, and prosocial behaviour domains. Associations for moderate and heavy PAE were not statistically significant, consistent with challenges in detecting higher exposure effects in population-based samples and the influence of confounding and sample size limitations. Socioeconomic and maternal characteristics differed significantly across exposure groups.

CONCLUSIONS
Findings suggest that even low levels of prenatal alcohol exposure may be associated with adverse socio-emotional outcomes in adolescence. These results highlight the potential hidden neurodevelopmental burden of non-syndromic PAE and underscore the importance of prevention, routine antenatal enquiry about alcohol use, and improved identification strategies in high-prevalence settings such as Ireland

P2.05 Fetal alcohol spectrum disorder: biometry and optic nerve affections in a multicentric cohort study

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PURPOSE
Fetal alcohol disorder spectrum (FADS) regroups a spectrum of medical conditions caused by prenatal alcohol exposure. FADS diagnosis relies on a probability after considering clinical characteristics such as facial dysmorphia. The spectrum can be complete or incomplete and can be difficult to detect. Few cohort studies showed the existence of vascular tortuosity and thinning of retinal nerve fiber layer (RNFL). We aim at describe more precisely retinal and optic nerve affections of FADS as well as their evolution in order to develop more sensitive tools to facilitate the diagnosis of this spectrum and the management of those patients.

SETTING/VENUE
Multicentric prospective cohort study implying three tertiary centers in France

METHODS
Patients were addressed to the different ophthalmology tertiary centers by a specialized pediatric neurologist. Ophthalmologic evaluation comprising best corrected visual acuity (BCVA), intraocular pressure (IOP), refraction, optical coherence tomography (OCT; Spectralis, Heidelberg Engineering) and fundus infrared reflectance was performed depending on the age of the patient.

RESULTS
32 patients were included and got ophthalmologic evaluation. Mean age was 12,0 (+/-4,6) years (age range 6-22 years). Mean axial length was 22,3 (+/-1.3) mm. Mean BCVA was 0.07 (+/-0.11) LogMar. Mean RNFL thickness was significantly lower than in general pediatric population 81,7 (+/-16,5) µm vs 112µm ($p<0.001$), as well as mean GCC volume (0,95 (+/-0.17) µm2 vs 1.03 µm2; $p<0.05$). IOP was normal (17,7 (+/-2.8) mmHg). There was no evolution in the RNFL and GCC layer thickness when examinations were repeated one year apart.

CONCLUSIONS
As far as we know, this is the largest multicentric cohort study of patients with FADS, either in their complete or incomplete clinical form, with follow-up. Compared to normative data published in literature, RNFL, GCC and foveal retinal thickness are thinner in patients affected by FASD and seemed to be correlated with the FASD severity. Patients are more often hyperopic than in normal children population. Fetal alcohol exposure may therefore affect the entire eye and optic nerve development in utero, and ophthalmic examination can bring further arguments for the positive diagnosis.

P2.06 Investigating the impact of low levels of prenatal alcohol exposure on sleep outcomes in young adolescents: An Adolescent Brain Cognitive Development (ABCD) Study

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BACKGROUND
Sleep problems are a commonly reported concern for children and adolescents with FASD, with some studies indicating that as many as 58%-85% of those with FASD may be impacted, compared to rates of about 40% among typically developing children. However, less is known about the impacts of low and moderate levels of PAE on sleep outcomes, despite this being the most common form of alcohol consumption during pregnancy. This study sought to address this research gap.

METHODS
Participants were 10,336 adolescents (aged 12-13) from the fourth assessment wave of the Adolescent Brain Cognitive Development Study (5.1 release). PAE was conceptualised as 1) a binary categorical variable reflecting any alcohol use at any time during pregnancy, 2) the total number of drinks consumed during pregnancy, and 3) PAE exposure patterns including abstainers, use throughout pregnancy, and use early in pregnancy only. Sleep was assessed using the parent-report Sleep Disturbance Scale for Children, which assesses seven dimensions of sleep: i) disorders of initiating and maintaining sleep, ii) sleep breathing disorders, iii) disorders of arousal, iv) sleep-wake transition disorders, v) disorders of excessive somnolence, vi) sleep hyperhidrosis (sweating), and vii) overall sleep problems. Cross sectional generalised linear models and generalised additive mixed models were used to investigate the impact of PAE on sleep outcomes.

RESULTS
Adolescents with PAE, compared to those without, experienced worse sleep outcomes. This impact was localised, with sleep-wake transitions and excessive somnolence emerging as those most affected by PAE. Interestingly, our hypothesis that higher doses of PAE would be associated with worse sleep outcomes was not supported. Instead, we see that the timing of PAE had the greatest impact. Those who were exposed to alcohol early in pregnancy only, prior to pregnancy knowledge, experienced greater problems with sleep-wake transitions and excessive somnolence.

DISCUSSION
PAE, even at low levels, is associated with worse sleep outcomes, specifically sleep-wake transition problems and excessive somnolence, in early adolescence. Future work should prioritise the prevention PAE, particularly during the preconception period, and the development of interventions aimed at improving sleep in populations with low PAE.

P2.07 Exploring the relationship between sensory and behavioural profiles of young people with Fetal Alcohol Spectrum Disorder in the UK Clinic Database

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BACKGROUND
Sensory processing deficits have been reported previously in the FASD population (Jirikowic et al., 2020; Wang et al., 2022). Literature shows a link between individuals who have been confirmed to have prenatal alcohol exposure and challenging behaviour (Cluver et al., 2019; Day et al., 2013; Khoury et al., 2018). Tentative associations have been made between sensory processing difficulties and behaviours that challenge but limited research has established a significant correlation between the two factors in a FASD based population (Franklin et al., 2008). To date, this research has been very limited in a UK based population of individuals with FASD.

OBJECTIVE/AIM
To examine the behavioural and sensory profile in a UK-based FASD population using the Short Sensory Profile (SSP) questionnaire and Developmental Behavioural Checklist Parent Edition (DBC-P). To explore the associations between sensory processing and behavioural outcomes in a UK based population.

METHOD
Data was collected from a sample of 90 children who had received a diagnosis of FASD and are registered in the UK FASD clinic database aged 6-10 with both SSP scores and DBC scores. Retrospective descriptive and inferential analyses were used to examine the SSP and DBC-P total scores and subdomain scores.

RESULTS:
Preliminary data indicates a significant percentage of individuals with an FASD diagnosis presented with significant sensory processing difficulties and significant problem behaviours. There were no significant differences in either SSP or DBC-P total scores for those with and without sentinel features. There were no significant differences in the profiles of those who had confirmed additional polysubstance and those who were only exposed to alcohol. There was a significant strong negative correlation between SSP total scores and DBC-P total scores. Several significant correlations were also found between SSP subdomains and DBC-P subdomains.

DISCUSSION
These results reveal that UK FASD sensory and behavioural profiles are consistent with profiles previously discovered in international FASD research. There is some association between sensory processing difficulties and behaviours within the FASD population. This highlights the potential importance of sensory processing being a factor of interest when analysing behaviour.

P2.08 Early Neurodevelopmental Trajectories in Infants and Toddlers with Prenatal Alcohol Exposure

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BACKGROUND
The association between prenatal alcohol exposure (PAE) and later diagnosis of fetal alcohol spectrum disorders (FASD) remains one of the major unresolved challenges in early neurodevelopmental research. Epidemiological data consistently indicate that substantially more children are prenatally exposed to alcohol than are subsequently identified with FASD, raising concerns about underdiagnosis and the limited sensitivity of current early assessment approaches. In Poland, PAE has been estimated to occur in up to 30% of pregnancies, whereas the prevalence of FASD is approximately 2%, highlighting a critical gap between exposure, early neurodevelopmental risk, and formal diagnosis.

METHODS
This prospective longitudinal study examines early neurodevelopmental functioning in infants and toddlers with confirmed PAE compared with a matched non-exposed control group. Children are enrolled in the first years of life and followed longitudinally up to 36 months of age. Neurodevelopmental outcomes are assessed using standardized psychometric instruments, including the Bayley Scales of Infant and Toddler Development and the Polish Children's Developmental Scale, administered at age-appropriate intervals.
In addition, biological samples are collected at study entry to explore associations between early neurodevelopmental profiles and selected physiological factors. In infants with an open fontanelle, cranial ultrasound is performed to provide complementary information on early brain development. Analyses of biological measures are ongoing and will be reported separately.

RESULTS
Data collection is ongoing. Preliminary results expected at the time of the conference will describe early developmental profiles of children with PAE, identify domains of increased vulnerability, and compare psychometric performance between exposed and non-exposed groups across the first three years of life.

CONCLUSIONS
By focusing on the earliest stages of neurodevelopment, this study aims to improve recognition of developmental risk associated with PAE and to support the identification of more sensitive assessment strategies within the early FASD diagnostic pathway. Improved characterization of early neurodevelopmental trajectories may contribute to more timely intervention and better-informed clinical decision-making for children at risk of FASD.

P2.09 The prevalence of Attention-Deficit Hyperactivity Disorder (ADHD) in the cohort of FASD children diagnosed in FASD Diagnostic Reference North Center at University Hospital Center Reunion Island, France, a first study

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INTRODUCTION
Fetal Alcohol Spectrum Disorder (FASD) affects more than 1% of births in France. The people concerned frequently present hyperactivity, impulsivity and an adult trajectory with an increased prevalence of psychiatric and addictive comorbidities, problems with the law, as well as great precariousness. These manifestations strongly resemble those observed in Attention Deficit Hyperactivity Disorder (ADHD), making the diagnostic distinction complex.

OBJECTIVE
The aim of this study was to estimate the prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in the cohort of FASD children diagnosed in our FASD Diagnostic Reference North Center at the University Hospital Center Reunion Island, France. It is the first study in our country, and demonstrates the importance of systematically screening for this frequently associated neurodevelopmental disorder, ADHD which is a cumulative vulnerability and an additional risk factor for addictive comorbidity.

METHODS
A retrospective from January 2020 to July 2025 chart review was performed regarding 146 children aged 5 to 17 among witch110 (41 female and 69 male) who were diagnosed with FASD at the FASD Diagnostic Reference North Center at the University Hospital center was performed. The records of all patients were reviewed to obtain their medical history, family history and screening for prenatal alcohol exposure, facial dysmorphia, growth abnormalities, and central nervous system abnormalities, clinical phenotype and investigations, including genetic testing and neuropsychological assessment (Vineland-2; CBCL; WISC-V; BMT-a; Rey complex Figure test and recognition trial. FASD diagnoses were made according to the Australian Guide. And ADHD diagnoses with Young DIVA-5 based on the DSM-5 criteria for ADHD.

RESULTS
ADHD was identified in 68% (76/110) of our patients.

CONCLUSION
This first French study show a particularly high number of ADHD in our series like some frequencies reported in the literature. While FASD and ADHD share many symptoms, their neurocognitive clinical expressions present notable differences. Recognizing this is essential for making a reliable diagnosis, providing appropriate care, and effectively supporting families, particularly through the prevention of the cumulative risk of developing an addiction in adulthood due to this dual vulnerability.

P2.10 Cervical spine anomalies in FASD whether or not FAS is present: MRI-based frequency study within a large monocentric series and perspective as a diagnosis marker

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Cervical spine anomalies (vertebral fusions) have been scarcely reported in fetal alcohol syndrome (FAS): 43% of a 46 patients serie (Smith et al., 1981) and a few case-reports of FAS-Klippel-Feil association. No such report exists for non-syndromic forms of FASD (without FAS), although these anomalies might occur there as well, possibly at a lower frequency. A better knowledge of the prevalence across the whole fetal alcohol spectrum of these abnormalities, which can be detected without radiation as an adjunct to brain MRI, could shed light on their potential clinical relevance.
We compiled 3D-T1-weighted brain MRI (part of French FASD work-up), showing 4-to-8 upper vertebrae, for a monocentric series of 133 patients with FASD and 52 typically developing controls (0-to-20 years). Patients were classified, based on the 4DDC criteria (+ minimum alcohol-exposure threshold), into 52 FAS, 17 partial-FAS, 39 "oligo-syndromic" FASD (without FAS but with at least one major “sentinel” physical sign) and 25 non-syndromic FASD. An expert pediatric radiologist blindly reviewed the images, noting the number of fully analyzable vertebrae and the presence of any type of vertebral fusion.
An average of 6.5 (SD 0.75) vertebrae were analized in patients, 5.7 (SD 1.1) in controls. Vertebral fusions, whether total, partial (lateralized, anterior, posterior) or associated with apophyseal fusion, were observed at levels C5-C6, C4-C5, C7-T1 and C6-C7 by descending frequency (twice at two levels, once with butterfly vertebra). The prevalence of any anomaly was 19.2% in the FAS, 11.8% in the pFAS, 7.7% in the oligo-syndromic FASD, and 0% in both the non-syndromic FASD and the control groups (2-by-2 different, $p<5\%$).
Our study specifies the high prevalence of cervical spine abnormalities in FAS, but also shows they are observable at a lower frequency in FASD without FAS, even if only (within our sample limits) in patients showing other "sentinel" morphological signs. This result is two-fold clinically interesting: first, cervical vertebral fusions could contribute to a body of evidence strengthening the likelihood of the causal link with alcohol in probabilistic FASD diagnoses laking FAS; second, they could constitute a fetal alcohol suggestive feature in the context of ultrasound prenatal screening.

P2.11 Facial Motor Function and Emotional Expression in Children with Fetal Alcohol Spectrum Disorders: A Pilot Study Using Quantitative Motion Capture

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BACKGROUND
Children with Fetal Alcohol Spectrum Disorders (FASD) present significant difficulties in social communication and emotional regulation, with well-documented deficits in facial emotion recognition. However, whether these children also exhibit impairments in producing facial emotional expressions remains unexplored. Static facial dysmorphology is a diagnostic criterion, but dynamic facial motor function has never been quantitatively assessed. Understanding whether expression production deficits contribute to social communication difficulties could inform targeted therapeutic interventions.

OBJECTIVES
To conduct a pilot study quantitatively characterizing facial motor function and emotional expression production in children with FASD using 3D Motion Capture technology, and to explore preliminary correlations with social communication difficulties.

METHODS
Prospective pilot case-control study including children with FASD (ages 6-16) and age-matched controls recruited at CHU Amiens-Picardie. Facial movements are captured using VICON 3D Motion Capture system (Institut Faire Faces, Amiens) during standardized tasks: voluntary emotional expressions (happiness, sadness, anger, surprise...), spontaneous expressions during emotion-inducing videos. Outcomes include amplitude (mm), velocity (mm/s), facial symmetry (left/right ratio), and temporal coordination of movements.

PRELIMINARY RESULTS
This pilot study will provide the first quantitative data on dynamic facial motor function in FASD. We hypothesize that children with FASD may present reduced amplitude and velocity of facial movements, increased facial asymmetry, and altered temporal coordination, particularly for complex emotions. These preliminary findings will determine feasibility and effect sizes for a larger multicenter study, and explore whether facial motor anomalies correlate with social communication impairments.

SIGNIFICANCE
This first pilot study of dynamic facial motor function in FASD establishes proof-of-concept for quantitative assessment of emotional expression production in this population. Preliminary findings could identify new therapeutic targets (facial motor rehabilitation, social skills training) and develop objective biomarkers for diagnosis and treatment monitoring. This innovative methodological approach establishes a framework for future research in pediatric neurodevelopmental disorders.

P2.12 Interoception and Children with FASD: An Exploratory Study

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Interoception is defined as “how sensory signals related to internal body experiences such as pain, temperature, [...] hunger, thirst, [...] reach conscious awareness” and involves a complex network of multisensory connections and integration of internal afferents in both cortical and subcortical areas (Craig, 2015). Increased interoceptive awareness (IA) has been associated with better self-regulation capacity (Cheung et al., 2023) and engagement in activities of daily living such as eating, toileting, and sleeping (Wijnberg, 2022). However, although self-regulation and adaptive functioning challenges such as dysregulated appetite, fecal/urinary incontinence, and poor sleep are frequently documented in existing FASD literature (Reid et al., 2023), no study to date has assessed the IA of individuals with FASD.

A systematic review of interoception in autism has demonstrated between-group interoceptive differences in individuals with and without ASD, with a tendency towards hyporeactivity in IA in individuals with ASD (DuBois et al., 2016). As occupational therapists at a community-based mental health clinic specialized in supporting children with FASD, the authors' clinical experiences suggest that IA may also be decreased for children with FASD. Therefore, this poster presentation will detail the results of an exploratory cross-sectional study of IA in children with FASD, based on the Multidimensional Assessment of Interoceptive Awareness-Youth self-report questionnaire (Jones et al., 2021). Expected results include a descriptive profile of the IA of children diagnosed with FASD (n=5) and discussion of implications for therapeutic interventions to address self-regulation and adaptive functioning challenges resulting from interoceptive differences.

P2.13 Fetal Alcohol Spectrum Disorder and Post-Natal Trauma in the Classroom: A Proof of Concept Extended Case Study describing a Whole Brain Approach to Education (2025)

Thomas Oates, Barnsley Virtual School- Barnsley Local Authority

Children in care often face the dual challenge of neurodevelopmental impairment from Fetal Alcohol Spectrum Disorder (FASD) and the psychological effects of post-natal trauma. This proof of concept extended case study explores a whole brain approach to support young people in education using the Motional program. Motional integrates affective neuroscience and therapeutic principles to assess and support emotional and cognitive development. A group of children in care engaged in a bespoke intervention programme informed by Motional assessments targeting social engagement, social defence, and executive functioning. Activities were delivered by trusted adults in educational settings. Results showed measurable improvements across all domains. The study highlights the importance of relational safety, personalised interventions, and neurodevelopmental understanding in supporting vulnerable learners. While limited in scale, the findings suggest that whole brain, needs-led approaches can enhance emotional wellbeing and educational outcomes for children affected by FASD and trauma.

P2.14 Decoding Cognitive Profiles in FASD: A Neuropsychological Window into Brain Network Functioning

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Cognitive functioning in children with FASD is characterized by marked heterogeneity, reflecting individual differences in the involvement of neural circuits. This study aimed to examine performance on the WISC-V (Wechsler Intelligence Scale for Children) in a sample of children and adolescents with FASD to determine whether distinct cognitive profiles emerge that may be interpreted as reflecting dysfunctions in major brain networks supporting attention, executive functioning, visuospatial processing, and cognitive integration.

Fifty children aged 6–16 years with a diagnosis of FASD were assessed using the WISC-IV (Wechsler Intelligence Scale for Children–Fifth Edition, 2014). Verbal Comprehension (VCI), Working Memory (WMI), Visual Spatial (VSI), and Processing Speed (PSI) indices were analyzed, and emerging cognitive patterns were interpreted considering recent neuroimaging findings on altered brain connectivity in FASD. Data are expressed as normal condition values in healthy individuals, according to age.

Mean Full Scale IQ scores fell within the low-average to borderline range (FSIQ ≈ 75–85); however, substantial intra-individual variability was observed, with index score discrepancies frequently exceeding 15–20 points. Approximately 35–45% of participants showed relatively preserved VCI scores (M ≈ 90–95) alongside marked impairments in WMI (M ≈ 75–80) and PSI (M ≈ 70–75), suggestive of selective vulnerability within attentional and executive networks. A further 25–30% exhibited combined reductions in VSI, WMI, and PSI (M ≈ 80–85), consistent with broader frontoparietal network disruption. A smaller subgroup (15–20%) demonstrated globally reduced performance across all indices, indicative of diffuse network involvement. Overall, more than 60% of the sample displayed uneven cognitive profiles, with at least one impaired index preserved.

WISC-based cognitive profiling captures meaningful inter-individual variability in children with FASD and provides clinically relevant insights into underlying brain network dysfunctions. These findings support the use of differentiated cognitive profiles as an indirect tool for informing targeted interventions and guiding clinical decision-making in settings where neuroimaging is not readily available.

P3 / People & Community Perspective

Moderation: **Krijgsheld Martha**

P3.01 Listening to Lived Experience: Improving the Safety and Validity of FASD Diagnostic Assessments in the UK

Helen Howlett, Dr Sarah Mills, Ms Maria Catterick

BACKGROUND
Fetal Alcohol Spectrum Disorder (FASD) is a lifelong neurodevelopmental condition associated with complex, lengthy, and emotionally demanding diagnostic pathways. While clinical

research has expanded understanding of neurodevelopmental mechanisms and comorbidities, far less attention has been paid to how diagnostic services are experienced by children, young people, and families, and how these experiences directly influence engagement, validity of assessment, and clinical outcomes.

AIMS
This study aimed to capture and centre the voices of children, young people, parents, and carers regarding FASD diagnostic assessments, with the objective of informing clinically meaningful, neuroaffirming, and trauma-aware practice. A further aim was to demonstrate why patient and family voice is essential to safe, effective, and ethical FASD diagnosis.

METHODS
A co-designed feedback questionnaire was distributed to families and young people with lived experience of FASD assessment. The survey explored preferences and experiences relating to assessment structure, clinic environments, communication, emotional impact, accessibility, and post-diagnostic feedback. Quantitative items were combined with open-text responses to ensure both breadth and depth of lived experience data.

INITIAL FINDINGS
Preliminary results indicate strong preference for flexible, individualised assessment pathways rather than uniform models. Respondents emphasised the importance of calm, sensory-aware, non-clinical environments; predictable structure combined with child-led pacing; clear preparation before appointments; and opportunities for parental input outside the child's hearing. Both parents and young people described assessments as emotionally significant, with themes of vulnerability, fear of judgement, fatigue, and masking emerging strongly. Recognition of strengths, validation of parental knowledge, and acknowledgement of co-occurring neurodevelopmental conditions were identified as critical to clinical credibility and trust. Young people highlighted the need for respectful communication, reduced pressure to respond quickly, and continuity of clinicians.

CLINICAL SIGNIFICANCE
These findings demonstrate that diagnostic accuracy and clinical effectiveness are inseparable from the assessment context in which information is gathered. Failure to integrate patient and family voice risks misinterpretation of functioning, disengagement, and secondary harm. Incorporating lived experience into service design and clinician practice will inform improvements in assessment validity, communication, and post-diagnostic support. Full thematic analysis and practice-oriented recommendations will be presented at the conference, with direct implications for multidisciplinary FASD diagnostic services internationally.

P3.02 FASD training provision for social workers delivering post adoption support in England

Rebecca Govan, Birmingham City University

Due to the high prevalence of Fetal Alcohol Spectrum Disorder (FASD) in the care-experienced population in England (Gregory et al 2015), post adoption social work often occurs with families with a child with the condition. Nevertheless, no specific policy and procedure in this complex and challenging area of practice exists (Gilbert et al, 2021). The research presented here explores data gathered from regional adoption agencies in England regarding training provision in FASD for social workers which were analysed using descriptive statistics and a narrative methodology.

Findings reveal a lack of clarity in organisational accountability for training in FASD with 25% provided by the Local Authority and 75% by the Regional Adoption Agency. The research highlights that social workers received training from their own profession in only 6% of responses received. No mandatory and regular training in FASD was provided. Only 43% of respondents provided FASD training that was a day long in duration with others providing training ranging from one to three hours. Next steps are to analyse the views of adoptive parents and children with FASD alongside that of social workers.

P3.03 Advancing FASD-Informed Mental Health Care Through Community-Engaged Partnership

Jacqueline Pei (1), Viktoria Wuest, Erika Makowecki, Carly Mcmorris

(1) Department of Educational Psychology, University of Alberta, Edmonton, AB

Research evidence consistently demonstrates that people with fetal alcohol spectrum disorder (FASD) experience substantially higher rates of mental health challenges compared to the general population. Yet despite these consistently reported high rates, current mental health systems in Canada are not well-equipped to offer equitable access and competent evidence-based mental health care for people with FASD. Furthermore, mental health professionals often do not have sufficient training and knowledge to provide FASD-informed mental health care, further limiting the availability and quality of mental health services available to people with FASD. To address these disparities and strengthen access to equitable, evidence-based and FASD-informed mental health care in Canada, the Integrated Mental Health Partnerships for Advancing Care and Treatment (IMPACT) team was established. IMPACT is a community partnership comprising people with FASD, caregivers, clinicians, researchers, and policymakers. Using a community-engaged approach, the IMPACT team co-developed a number of resources for clinicians, caregivers, and people with FASD to expand access to FASD-informed mental health care. Resource development was informed by an environmental scan identifying 451 currently available community mental health services in Alberta, 22 interviews/focus groups with individuals with FASD, caregivers, and clinicians, and 74 survey responses from clinicians. This presentation will review the history of the IMPACT project, summarize key findings from the diverse data that informed resource development, provide an overview of the resources generated, share initial evaluation feedback from the pilot implementation, and outline next steps. Overall, the IMPACT project demonstrates how community-engaged partnerships can help bridge service gaps in current mental health systems, accelerate the incorporation of FASD-informed resources, and strengthen professional capacity and competency to deliver essential community-based mental health services to an underserved population. In doing so, the IMPACT project illustrates an approach to addressing the mental health needs of individuals with FASD and building capacities in communities to address those mental health needs in a realistic, appropriate, and timely manner through community partnerships and collaboration.

P3.04 Supporting Wellbeing Among Caregivers of Individuals with FASD

Katherine Flannigan (1), (2), Kelly Harding (1), (3), Dorothy Reid (1), Audrey Mcfarlane (1), Melissa Dobson (1), (4), Kathy Unsworth (1), **Jacqueline Pei** (1), (2)

(1) Canada FASD Research Network
(2) University of Alberta
(3) Laurentian University

(4) Northern Alberta Institute of Technology

BACKGROUND
Caregivers of individuals with fetal alcohol spectrum disorder (FASD) experience unique challenges, stressors, and strengths, and there is growing understanding of the needs of these caregivers. However, less is known about broader contextual and ecological factors that may be associated with caregiver wellbeing.

METHODS
Data for this study were collected between 2021 and 2024, gathered as baseline information as part of an ongoing international longitudinal virtual survey about caregiver experiences and perspectives raising people with FASD (N = 234). Information on sociodemographic factors, family characteristics, and self-reported caregiver wellbeing were analyzed.

RESULTS
Participants predominantly identified as women (95%), had a mean age of 54 years (range 26 to 82), were adoptive caregivers of children and adults with FASD (69%), and lived in Canada (67%). Family structure and composition varied widely across participants, and many caregivers reported financial challenges. Overall, caregivers reported high levels of stress and limited social support along with strengths in their relationships with spouses/partners and relatives. Self-reported wellbeing was highest among parents who were retired, did not experience employment disruptions due to parenting responsibilities, cared for adults (as opposed to preschool-aged children) with FASD, and had only one (as opposed to multiple) dependent(s) with FASD.

CONCLUSIONS
This study provides insight into broad contextual factors (i.e., employment status, life stage) that may influence wellbeing among caregivers of people with FASD. Understanding these factors can lead to more tailored and effective responses, interventions, and policies that support stability and thriving among caregivers, families, and communities of people with FASD.

P3.05 Sentinel Resources: Partnership for a Multidisciplinary Training Program and a Better FASD Screening

Olga Eglin (1), Bérénice Roy-Doray (2), (3), (4)

(1) Vivre avec le SAF association
(2) Université de La Réunion - UFR Santé - Laboratoire CEPOI
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(4) centre tsaf La Réunion, add this new organisation

BACKGROUND
FASD prevention has improved in France, but too few professionals are trained in identifying non-syndromic FASD or providing follow-up care, which can affect various sectors: health, child protection, education, adapted employment, police, justice, sexual health, and addiction services.

Yet, the expertise is available: care and health experts, researchers, patient experts, and families. It would be unrealistic to think that all professionals could be trained individually, sector by sector, in person. Moreover, they need coordination to be efficient.

AIM
Through the "Sentinel Resources " project, we want to simultaneously raise awareness among all care professionals in a given area, to help them identify individuals with undiagnosed FASD, to help physicians diagnose and ensure appropriate follow-up care, and thus to create coordinated local networks.

METHODS
The need of shared training about FASD came from families demand because even with diagnosis the geographical inequalities were high. We created training sessions bringing together representatives from all sectors in Cherbourg (June 2025), then Besançon (October 2025), and Créteil (April 2026). Each time, we had 80 professionals representing all sectors, from child care to adults screening.

The job starts by contacting each local organization and convincing them that this knowledge could help them. Once we have “delegates” from all sectors the program is:
- a plenary session presenting FASD
- followed by smaller thematic working groups: screening and follow-up in childhood; vulnerabilities prevention for adults. This part is using testimonies of both affected persons and caregivers.

Later, a practitioner training on diagnosis with the FASD Center.
Professionals were able to identify resources among other colleagues.
They could then self-organize and disseminate the information further.

RESULTS
Looking back, we can see that professionals need to be reassured by taking decisions together, and that gathering them into a network made them more effective. Unlike other neurodevelopmental disorders, the demand for training must first be created.

CONCLUSIONS
“Sentinelles Ressources TSAF” has shown to be a very effective tool to pool the experiential knowledge of those directly affected, their families and friends, clinical care professionals and researchers. We now need to extend these pilot actions to more regions.

P3.06 FASD and Addictions Propensity: Creating a Support Program Involving FASD Affected People and Professionals

Olga Eglin (1), Catherine Simon (2), Aurore Ferré (3), Mathilde Souillé (4)

(1) Vivre Avec Le SAF
(2) service addictologie du CHP Morlaix
(3) CSAPA APS Contact Montereau - CJC
(4) CSAPA de Fougères

BACKGROUND
Following a survey of the needs of members of our association, we organized online support groups on addictions for individuals affected by FASD and their families. Indeed, many people with FASD develop addictive behaviors. We also identified few addiction professionals experienced in FASD screening and care.

AIM
To train more addiction professionals to FASD special needs.

METHODS
The FASD support group began by discussing everyone's resources, successes, and projects, and only after trust construction, some of its members joined this “addiction support group”. In parallel, the addiction professionals group created a reference framework. The "Addictions and FASD" support groups are regularly held on Zoom, facilitated by someone with FASD knowledge and an addiction professional. We began with a group of parents and relatives, followed with several age – situation groups (substances or not, prevention or care...). We assumed that knowing better their FASD condition, developing psychosocial competencies, and becoming active participants in their own health could help them with addiction risks. Those meetings aim to promote local resources for personalized support, complementing the group support.

RESULTS
-All members, adopted or not, are prone to addictive behaviors, with or without substances or large consequences. Impulsivity, ADD, bullying trauma, poor understanding of their needs are aggravating factors. Early emotion regulation, medication, psychoeducation, information about FASD may protect from addiction.
-Some wanted to have follow-ups with the same support group and evolved positively.
-The relationship with alcohol is complex (hate or attraction) often linked to family history and the ability to manage emotions. Prenatal alcohol exposure means that their “first drink” had happened long ago, and they are much more sensitive as teenagers.
-Not enough knowledge of available supporting structures.

The addiction specialists also realized how much FASD could impact addiction, and thus changed their own practice.
The experiential knowledge of these patients, families, and caregivers allowed us to propose two training sessions for professionals who were less familiar with FASD.

CONCLUSIONS
This co-creation experience has enriched everyone involved and demonstrates the value of meetings between patients and professionals. The professionals' group also advocates for a public policy on diagnosis practices.

P3.07 Needs of Professionals Working with Individuals with FASD in Catalonia (Spain)

Dídac Gómez (1), Carme Montserrat, Marta Garcia-Molsosa, Lidia Segura-Garcia, Núria Tudela-Saldaña (2)

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Prenatal exposure to alcohol represents one of the leading preventable causes of neurodevelopmental difficulties and health-related impairments in children. Fetal Alcohol Spectrum Disorder (FASD) refers to a broad diagnostic category that includes a variety of physical, cognitive, and behavioural alterations. Despite increasing recognition within professional communities, there remains a significant gap in knowledge about its full impact and about effective approaches for assessment and intervention. This gap directly influences how professionals provide support to individuals with FASD.

The authors of this study aim to examine the level of knowledge about FASD among professionals working in Catalonia, as well as the challenges they report when supporting

individuals affected by this condition. An ad hoc questionnaire was administered to 322 professionals from multiple sectors.

Findings reveal low levels of specific training in FASD and a generalized perception of insufficient services and practical resources. The results further underline the importance of improving interdisciplinary collaboration. Professionals who had previously worked with individuals with FASD, as well as those with longer professional experience, reported greater confidence and more positive perceptions regarding their ability to intervene effectively.

Overall, the study highlights the urgent need to strengthen cross-sector training initiatives and to promote the development of structured prevention, identification, and intervention services aimed at improving support for individuals with FASD and their families.

P3.08 Life as we live it

Gisela Michalowski (1), **Katrin Lepke** (2)

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We would like to present our weekend programme for adults with FASD. These annual weekends offer opportunities to get to know one another, exchange ideas, network, and provide mutual support. Furthermore, many participants find it helpful to realise: I am not the only one facing these difficulties and challenges. During one of these weekends, the film “Life as We Live It” was created, which we are keen to introduce.

At another weekend, a flyer was created entirely by adults with FASD, clearly expressing their wishes. Not about people with FASD, but by people with FASD. In other words, by genuine experts on their own behalf! This flyer is also available in English.

P3.09 Ireland's Silent Epidemic

Cillian Flynn (1), Tristan Casson-Rennie (1), Robert O'connell (1), Áine Talty (1), Áine O'halloran (1), Scott Casson-Rennie (1)

(1) FASD Ireland

Foetal Alcohol Spectrum Disorder (FASD) is the most prevalent neurodevelopmental condition in Ireland, yet it remains unrecognised as a disability by the State. There is no standard diagnostic pathway, no framework for support, and no tailored services for individuals and families affected. Despite Health Service Executive (HSE) estimates that up to 7.4% of the population may be living with FASD—and recent data suggesting 1 in 10 babies are born with a form of FASD—the absence of systemic recognition perpetuates significant barriers to care and inclusion.

FASD Ireland was established on International FASD Awareness Day, 9th September 2021, with a mission to provide education, advocacy, and support while working to reduce prevalence through prevention. Since inception, we have supported over 800 families and trained more than 1,500 professionals across education, health, social care, and justice sectors. Our work bridges the gap between lived experience and policy, engaging with government departments,

state agencies, and opposition representatives to advocate for recognition of FASD as a disability and the implementation of diagnostic and support frameworks.

Key initiatives include pre-budget submissions, statutory consultation responses, and a landmark joint research report with the Royal College of Surgeons in Ireland: Foetal Alcohol Spectrum Disorder in Ireland: Wellbeing, Living Experience, and The Need for Change. This study amplifies the voices of those affected and outlines urgent recommendations for systemic reform.

Through awareness campaigns, professional training, and policy engagement, FASD Ireland has initiated a national conversation and become the first state-funded FASD organisation in Ireland. Our vision is a society where individuals with FASD are supported and accommodated, enabling them to thrive. This presentation will share insights from our advocacy journey, research findings, and strategies for creating inclusive systems of care.

P3.10 "I want to learn about FASD": Voices of social workers from France. Challenges and hopes of a community of practice in child welfare

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The purpose of my PhD research is to understand learning in a child welfare institution and how it can be supported to improve practices in foster care. Indeed, social, individual and collective learning is a condition for organizational learning. The research question focuses on learning conditions and processes based on a complex issue that affects children in care and the response to their needs: FASD. The theoretical framework used is that of organizational learning and the ethics of care, as they enrich our understanding of the practices of professionals whose mission is to care for children on a daily basis.

The method is qualitative and is based on pragmatist action-research methodology and research with care. This research has two main objectives: the production of knowledge and action in a social situation. This research has been conducted during a Cifre contract: the doctoral student is employed by the institution for three years to conduct the research. In this context, I have created a community of practice with social workers (foster carers, educators) to investigate in what conditions they can learn together regarding FASD and what the effects of this community of practice for these professionals are. Interviews and focus groups completed the data collected. We specify the initial problems identified and what this community of practice sought to address.

Results show that this community of practice has been positive and beneficial for them. It has changed their understanding and vision of children and some aspects of their practices. It has allowed them to feel supported and less isolated, to connect with other colleagues with whom they share a common experience. The process of cooperation, trust, listening, mutual learning and sharing of experiences has been meaningful for the participants. This research ultimately raises a paradox that, in our view, runs through child welfare as a whole: addressing and learning about issues, like FASD, that are socially invisible and silenced and that are little known in child welfare despite their high prevalence, as shown in the international literature. Learning then becomes a way of warding off social ignorance.

P3.11 FASD Support in Poland: Municipal Roles and Opportunities

Sylwia Opasińska (1), Bartosz Kehl (1)

(1) National Centre for Prevention of Addictions

Fetal Alcohol Spectrum Disorders represent a significant yet still insufficiently recognized public health, educational, and social challenge in Poland. Prenatal exposure to alcohol leads to permanent changes in the central nervous system, affecting emotional regulation, cognitive functioning, social skills, and adaptive behavior throughout the lifespan. Population-based studies conducted in Poland indicate that FASD affects at least 20 per 1,000 school-aged children, which means that children and families living with the consequences of prenatal alcohol exposure are present in every municipality, regardless of its size or socio-demographic profile.

The aim of this poster is to present FASD as a systemic challenge within the Polish context that requires coordinated action at the local level, with municipalities playing a central role in building effective and sustainable support structures. Particular emphasis is placed on the responsibilities of local governments under the public health and alcohol prevention frameworks, including municipal alcohol prevention and problem-solving programs. The paper highlights the importance of early identification and diagnosis as a key protective factor that significantly reduces the risk of secondary difficulties, such as educational failure, mental health disorders, social exclusion, and long-term dependence on social welfare systems.

The article discusses the current state of access to FASD diagnosis and intervention services in Poland, pointing to regional disparities, long waiting times, and limited availability of interdisciplinary diagnostic teams. It emphasizes the role of municipalities in improving access to services through investment in local diagnostic and therapeutic facilities, professional training for educators, healthcare providers, and social workers, and cooperation with non-governmental organizations experienced in working with children with neurodevelopmental disorders and their families.

Special attention is given to prevention strategies implemented in Poland, stressing the importance of evidence-based, non-stigmatizing approaches aimed at women of reproductive age and pregnant women. Public education campaigns, brief interventions, and motivational interviewing are presented as effective tools that can be embedded within local healthcare, education, and social support systems. Investing in FASD prevention, diagnosis, and support should therefore be understood as a high-return social investment that strengthens families and builds more inclusive and resilient local communities across Poland.

P3.12 Ask me about Therapy! Designing qualitative research with children with PAE and parents to inform patient engagement and clinical practice

Miranda Eodanable (1), Jack Purrington (2), Jacqueline Lynch (2), **Stewart Mcdougall** (1)

(1) University of Edinburgh
(2) Chrysalis Associates

BACKGROUND
Psychotherapeutic family interventions such as Theraplay offer promising outcomes in improved self-regulation and affect for care experienced children with prenatal alcohol exposure (PAE), and experiences of developmental trauma and attachment disruption (Purrington et al., 2023). To date, there is no known published qualitative research with individuals with PAE who engaged in a psychotherapy intervention in the UK nor qualitative research of Theraplay with young people. The aim of this research was to explore the experiences and views of children with confirmed PAE and their foster and adoptive parents who engaged in a Theraplay- informed intervention, and how it can inform children's engagement and therapeutic outcomes, and efficacy in clinicians' practice.

METHOD
Qualitative research design with children with confirmed PAE and/or suspected FASD (age 6-18) requires adaptations to ensure inclusion and participation for marginalised populations. A purposive sample for recruitment of children and their parents who received a Theraplay informed intervention was identified from a therapeutic service with specialist practice in developmental trauma, attachment and neurodivergence in the UK. Demographics were collected using a short questionnaire. The study's advisory group (parents, young adult with FASD, and a Theraplay therapist) were consulted on the design and materials. The materials and process of the child's study were piloted with the young adult. The child's study used the photo-elicitation method with a semi-structured interview schedule. Photos from clinic settings represented the therapeutic process. The KidScreen 10 measure of health-related quality of life was included. The parent study employed a semi-structured interview schedule to explore their experiences of the Theraplay process.

RESULTS
Preliminary findings from the study, and researcher comments on the ethics, recruitment and feasibility of online data collection will be presented.

CONCLUSION
Research with children and young people with PAE can inform research methods, therapeutic interventions, and professional learning to improve the efficacy and outcomes of Theraplay.

P3.13 Science Communication Advocacy Strategy in Community Empowerment during Mental Health Emergencies in Uganda

Wilson Okaka, Kyambogo University

INTRODUCTION
Mental health emergencies are rising in Uganda due to socio-economic stress, conflict, poverty, and limited access to specialized care. Science communication advocacy has become essential for empowering communities with accurate, actionable information.

BACKGROUND
Uganda's burden of mental illness is significant: an estimated 14% of adults and 20–25% of adolescents experience a mental disorder annually. Only 1.4 psychiatrists per one million people serve the population, while over 35% of neurological cases remain undiagnosed. Common causes include substance abuse, trauma, depression, epilepsy, domestic violence, and post-conflict stress.

PURPOSE
This paper examines how science communication advocacy strategies can strengthen community preparedness, awareness, and response during mental health emergencies.

PROBLEM STATEMENT
Despite the rising prevalence of mental disorders, 65% of Ugandans lack adequate mental health knowledge, leading to stigma, delayed treatment, and misuse of traditional remedies. Weak communication systems hinder early detection and community action.

METHODS
A systematic literature review of 52 national and international publications, government reports, and WHO datasets was conducted. The review identified lessons, best practices, and gaps in communication-based mental health responses. Communicator theory of change strategy assumes clear scientific messages with cultural relevance from community engagement leads to improved awareness and reduced stigma enhances early care-seeking behavior with stronger community resilience. Results Community awareness increases help-seeking by 40–55% when evidence-based messages are used. Stigma reduces by 30% when communication is delivered through trusted local leaders. Digital platforms expand mental health outreach to over 3 million users annually. Training community health workers improves emergency response efficiency by 25%.

DISCUSSION
Science communication advocacy creates behavioral change by simplifying complex information, countering myths, and promoting evidence-based care. Integrating local languages and cultural norms increases acceptance. Effective science communication transforms communities from passive recipients into active mental health responders, reducing stigma and improving emergency interventions.

RECOMMENDATIONS
Develop national mental health communication guidelines, train village health teams in science-based messaging, integrate mental health content into radio, tv, and digital platforms, strengthen school-based mental health literacy programs, and build partnerships with civil society, media, and religious institutions

P3.14 Effectives of Interdisciplinary Communication Skills Policy Practice for by Junior Mental Health Clinicians for SDG 3 Acceleration in Uganda and Africa

Wilson Okaka, Kyambogo University

INTRODUCTION
Junior mental health clinicians play an increasingly critical role in accelerating SDG 3 (Good Health and Well-Being) through interdisciplinary communication, digital readiness, and policy-aligned service delivery. Strengthening communication competencies enhances diagnosis, treatment, and community engagement.

BACKGROUND
Africa faces a severe mental health workforce shortage—1 psychiatrist per 500,000 people—while Uganda has only 53 psychiatrists serving over 45 million citizens. Nearly 14 million Ugandans are estimated to experience mental health challenges annually, yet 70% lack access to quality care. Poor communication between clinicians, families, and communities contributes to delayed treatment and stigma.

PROBLEM STATEMENT

Existing interdisciplinary communication policies remain weak, fragmented, and underutilized by junior clinicians. Digital gaps—where over 40% of health workers lack digital literacy—limit effective tele-mental health and data-driven SDG monitoring.
Purpose: To assess how interdisciplinary communication skills and digital readiness enhance clinical effectiveness and SDG 3 acceleration in Uganda and Africa.

METHODS
A systematic literature review (SLR) of 45 peer-reviewed articles, national health policies, and WHO reports was conducted. Document and policy analysis identified gaps, best practices, and communication competency frameworks. Digital literacy readiness theory of change ensures improved digital literacy for better communication with accurate data reporting to strengthened diagnosis and treatment protocols lead to enhanced mental health outcomes for accelerated SDG 3 progress. Active listening, cultural sensitivity, patient-centered messaging, simplified explanations, digital communication ethics, and collaborative reporting.

RESULTS
Digital tools improve clinical documentation accuracy by 35%. Interdisciplinary case meetings increase treatment success rates by 20–30%. Effective communication reduces patient relapse by 25%. Policy-aligned communication improves referral efficiency by 40%.

DISCUSSION
Junior clinicians who integrate communication skills with digital competencies strengthen team-based care, early detection, and patient trust. However, gaps persist in ICT infrastructure, policy enforcement, and training. Conclusion: Interdisciplinary communication and digital readiness are essential drivers of Uganda's and Africa's mental health system strengthening and SDG 3 acceleration.

RECOMMENDATIONS
Integrate mandatory communication skills modules in medical training. Invest in digital literacy programs for junior clinicians. Strengthen policies on interdisciplinary case management. Expand tele-mental health platforms at district level. Enhance mentorship between senior and junior clinicians.

Poster session 2

P4 / Health & Care

Moderation: **Landgraf Mirjam**

P4.01 Therapist experiences of adapting Theraplay to better meet the needs of care experienced children with developmental trauma, attachment disruptions, and FASD

Jack Purrington (1), Rhea Mistry (1), Elspeth Bass (1), Izzie Rose (1), Rob Johnson (1)

(1) Chrysalis Associates

BACKGROUND
Within looked after populations there are comparatively high rates of prenatal alcohol exposure, frequently resulting in FASD, co-occurring alongside post-natal early life adversity. Therefore, therapy-seeking families with care experienced children often attend services reporting histories of pre- and post-natal adversity, including FASD, developmental trauma, and experiences of attachment disruptions. There is limited understanding regarding how to best meet the therapeutic needs of children presenting with this unique triad. To date there are two published interventions, with three studies currently undergoing peer review, exploring psychotherapeutic interventions designed for young people with both FASD and early life adversity. The vast majority of these studies (4/5, 80%) are centred around Theraplay. Therefore, the aim of this study was to explore the experiences of therapists utilising Theraplay with care experienced children with FASD, developmental trauma, and attachment difficulties with a particular focus on the necessary adaptations to meaningfully support the intersecting presentations of FASD and complex trauma during therapy.

METHOD
Therapist experiences were explored utilising thematic analysis of semi-structured interviews. Purposive sampling recruited nine trauma and attachment psychotherapists from a specialist service within the UK which provides psychotherapeutic support for families with care experienced children with FASD, developmental trauma, and attachment disruptions. The therapists' experience ranged from 0-5 years to 25-30 years, with ages ranging from 30-40 years to 50-60 years, and all therapists were trained to Level 1, Level 2, or Practicum Level standard in Theraplay, each receiving regular clinical supervision from a clinical psychologist. The therapists engaged in individual interviews which followed a topic guide, took place via an online videoconferencing platform, and were between 24-41 minutes in length.

RESULTS
Preliminary findings from the study, including the constructed key themes, will be presented.

CONCLUSION
As a trauma and attachment child psychotherapy, Theraplay is regularly utilised and is becoming more commonly studied for care experienced children with FASD and experiences of complex trauma. However, it is understood that the model may need adapting to truly accommodate FASD presentations. This study provides preliminary thematic findings which can aid therapeutic understanding and improve the efficacy and outcomes of Theraplay for this population.

P4.02 SPECIFIC (Salford Parents and carers' Education Course for Improvements in FASD outcomes In Children: A qualitative interview study of participants' and facilitators' experiences of the programme

Katherine Perryman (1), Alan Price (2), Clare Allely, Raja Mukherjee (2), (3), Penny Cook (2)

(1) University of Salford
(2) University of Salford
(3) Faculty of Health and Medical Sciences [University of Surrey]

BACKGROUND
There is a lack of post diagnostic interventions for FASD, including support for parents and carers following their child's diagnosis. The SPECIFiC programme, psychoeducation to support parents and carers to support their child with FASD, was developed and evaluated in a feasibility randomised controlled trial. This study reports the qualitative component of the feasibility study.

METHODS
Semi-structured qualitative interviews were conducted with 11 parents/carers who had participated in the SPECIFIC programme and 6 facilitators who delivered it. A topic guide based on the programme logic model was used to explore participants experiences of participating and delivering the course. Interviews were transcribed verbatim and analysed thematically using a Framework Analysis approach.

RESULTS
The data was coded inductively into a thematic framework pertaining to acceptability, impact on knowledge, impact on confidence/self-efficacy, skills/competence, impact on caregivers and impact on children. The coded data was then explored for higher order themes of the experience of taking part in SPECIFIC. Three main themes were identified. The first theme “Barriers and enablers to attendance and engagement”, describes what made SPECIFIC acceptable to participants and what factors underpinned attendance and engagement. The second theme “Increased confidence in supporting their child”, reflects the ways in which the course validated existing knowledge and experience of caring for a child with FASD, how increased knowledge gained from the course helped increase confidence and the ability to advocate for their child. The third theme “Changed expectations of children's capabilities and improved family well-being” includes parental behaviour changes and increased parent and child well-being following knowledge gained about how FASD affects the brain and behaviour and from implementing strategies to help support their child.

CONCLUSIONS
This research enabled the short-term outcomes outlined in the logic model to be evaluated in greater depth, and the data suggested that the SPECIFiC course had a positive impact on these outcomes. Future qualitative research alongside any further quantitative evaluation of the SPECIFiC programme with underserved groups or people who did not complete the course would be beneficial to understand participants experience of the course in more depth and to further refine the logic model.

P4.03 Therapy as a Tool, Relationship as the Goal: A Family-Based Intervention Approach in FASD

Justyna Malanowska – Mamrot (1), Ewa Grobelska (1), Anna Wiśniewska (1), Małgorzata Hoffman - Orłowska (1), Małgorzata Piwońska (1), Szymon Wnuk (1), Małgorzata Gałązka (1), Monika Łężyk (1), Renata Struzik (1)

(1) DAJ SZANSĘ FUNDACJA NA RZECZ ROZWOJU DZIECI NIEPEŁNOSPRAWNYCH

For over 30 years, the Daj Szansę Foundation has been supporting children with FASD and their families, guided by a holistic, family-centered approach in which the child is always at the center, and the family forms the foundation of care. Our work is rooted in the philosophy of parent-as-therapist, emphasizing the crucial role of a responsive caregiver in fostering a child's sense of security and well-being. Research and practice indicate that children, particularly those in vulnerable or disrupted family situations, have a fundamental, innate need for safety, attachment, and emotional closeness. Without consistent, nurturing interaction, this need often remains unfulfilled, leading to developmental and relational challenges.

This presentation will outline our model of intervention, which integrates evidence-based and domain-specific therapies—such as sensory integration, fine motor skill development, vestibular and proprioceptive stimulation—as tools to improve specific areas of functioning in children with FASD. Importantly, these methods are not applied in isolation; they are embedded within a relational framework that prioritizes the parent-child bond. Parents are guided and educated to become active participants in therapy, enabling daily continuation of interventions at home, incorporation of therapeutic principles into play and routine activities, and responsive engagement that addresses the child's sensory and emotional needs.

We will present practical strategies for addressing sensory hyper- and hypo-sensitivities, balancing stimulation to promote regulation, and tailoring interventions to individual profiles. Observed outcomes include improved attention, extended focus, enhanced fine motor coordination, reduced sensory over-reactivity, better school participation, and strengthened parent-child relationships.

Our approach demonstrates that therapeutic interventions for children with FASD achieve their greatest impact when paired with a supportive, responsive caregiving environment, ensuring that all techniques serve the larger purpose of fostering security, attachment, and holistic development. These experiences contribute to the growing evidence base for family-centered, domain-specific interventions in FASD, highlighting the importance of integrating therapeutic goals with relational and emotional support to optimize child outcomes.

P4.04 Transformative Approaches in Fetal Alcohol Spectrum Disorder (FASD) Support: A Quarter Century Journey with the Lakeland Centre

Lisa Murphy, Lakeland Centre for FASD

For over 25 years, the Lakeland Centre for Fetal Alcohol Spectrum Disorder has delivered comprehensive, evidence-informed interventions and coordinated care for individuals with FASD and their families across Northeastern Alberta, Canada. This oral paper provides an overview of the Centre's innovative approaches to intervention and care across the lifespan, highlighting program models, service integration, and contributions to applied research that have informed practice at regional and provincial levels.

The presentation situates FASD within an evolving care landscape characterized by complexity, co-occurring needs, and systemic barriers. It will outline how the Lakeland Centre has responded through person-centred, trauma-informed, and culturally responsive intervention models that emphasize stability, strengths, and functional outcomes.

Key components of care will be explored, including multidisciplinary assessment and diagnostic services that inform individualized intervention planning, as well as post-diagnostic supports that bridge clinical recommendations with real-world implementation. Attendees will gain insight into how integrated medical, psychological, and functional perspectives guide coordinated care and continuity of supports.

The paper will highlight intervention innovations developed by the Centre, including community-based, wraparound supports and cross-sector collaborations that enhance access, engagement, and long-term outcomes. Select examples will illustrate how participation in research and evaluation initiatives has strengthened service delivery, contributed to emerging evidence, and supported continuous quality improvement.

The presentation concludes with reflections on lessons learned, ongoing challenges in delivering effective interventions and care, and future directions for strengthening FASD service systems. This session invites dialogue on scalable, practice-based solutions that advance responsive, sustainable, and compassionate care for individuals with FASD across the lifespan.

P4.05 Fetal Alcohol Spectrum Disorder (FASD). Care for young people and their families in the context of multidisciplinary care networks – structures, approaches and access routes in a European comparison

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BACKGROUND AND RESEARCH QUESTION
People with a clinically diagnosed fetal alcohol spectrum disorder, hereinafter referred to as FASD, have a significantly increased risk of facing a variety of challenges and impairments in the course of their lives (Schindler & Hoff-Emden, 2017, pp. 5-6). A complex network of support services, comprising professional, social and organisational assistance, is essential for those affected. The available findings indicate that the disciplines and institutions dealing with FASD have so far operated largely in isolation from one another and have only a limited degree of networking (Adebiyi et al., 2018, p. 11). In view of this, from a scientific and social perspective, it is essential to systematically investigate and identify potential improvements in the organisation of support networks for those affected by FASD and their families. The planned research project addresses the research question: 'Which key hubs can be identified in the analysis of European FASD care networks that would offer potential for international networking?'

METHODOLOGY
First, a condensed systematic literature review will be conducted, followed by a second step in which the subjective experiences and assessments of families will be recorded using narrative interviews. Finally, a Delphi study will be conducted with the aim of evaluating and weighting the findings obtained previously.

RESULTS

The planned research work aims to record the existing FASD networks in various European countries and describe their structure in order to improve interdisciplinary cooperation. The research focuses on identifying the critical phases in the diagnostic process that result in delays in diagnosis and can lead to additional stress for those affected and their families.

DISCUSSION AND OUTLOOK
The structure of the study and the initial results of the research will be presented. Participants are invited to share their experiences and discuss questions on the topic with the author.

P4.06 Upcoming project – Can We Find Them Early and Predict Outcome? Including Children with High Risk of FAS/FASD in the Neonatal Follow-up Program – Opportunities for Early and Targeted Interventions

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INTRODUCTION
Consumption and dependency on drugs and/or alcohol during pregnancy is a global health issue, which can lead to impaired development and disabilities in exposed children. In Sweden the number of cases of Fetal Alcohol Syndrom (FAS) has been estimated to 0.1–0.3% of all births (100–300 children/year), while Fetal Alcohol Spectrum Disorders (FASD) amounts to 1–3%.

In some studies, children with suspected FAS have shown abnormal movement character as well as negative effects on their motor development at 3–4 months of age compared to other children of the same age. However, there are few studies on how maternal alcohol and/or drug use during pregnancy affect children's motor skills. While a well-functioning motor ability contributes to the child's general development, a deviant or delayed motor ability can affect various areas of the child's development negatively.

Since 2023, a new clinical approach has been implemented in Stockholm. Children with high risk of FAS/FASD have been included into Sachsska children's hospitals neonatal follow-up program for early physiotherapy assessment, intervention and support of motor development in collaboration with the team at Rosenlund's Child Health Care – Centre for Dependency Disorders. To our knowledge, this structured follow-up has not previously been implemented, offering a unique opportunity to generate new knowledge in this field.

PARTICIPANTS AND METHOD
Participants in the proposed study are children included in the follow-up program. A control-group will be recruited from the maternity ward.

In the follow up-program assessments are made by physiotherapist, nurse and physician at 3, 6, 12 and 18 months, and by physician, psychologist and physiotherapist at 2 and 5.5 years of age. Qualitative interviews will be conducted to explore and describe how parents/foster families experience the child's motor and cognitive development and need of support during the first year.

CLINICAL BENEFIT
Longitudinal monitoring of motor development enables comparison between exposed and non-exposed children's motor ability. It also makes early identification of children with motor difficulties possible and might contribute to predict outcomes at 2 and 5 years of age. This knowledge provides an opportunity to adapt the follow-up individually and offer timely and targeted interventions.

P4.07 FASD and Prematurity: A Double Burden of Vulnerability. Insights from the Reunion Island Cohort

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INTRODUCTION
Recent scientific literature increasingly identifies the placenta as the "first victim" of prenatal alcohol exposure (PAE). Alcohol toxicity targets the placenta from the moment of implantation and persists throughout gestation. By altering trophoblastic invasion, disrupting vascular angiogenesis, and inducing oxidative stress and placental vasoconstriction, alcohol drastically reduces maternal-fetal exchange that promotes intrauterine growth restriction and prematurity. Our objective was to evaluate the frequency of prematurity in a large cohort of children with confirmed FASD in Reunion Island.

METHODS
We conducted a retrospective study using the FASD cohort from Reunion Island. At the time of analysis, our cohort comprised 344 patients. After excluding 74 cases due to uncertain diagnosis or unknown gestational age, 270 patients with a formal diagnosis were included.

RESULTS
Preliminary results revealed that prematurity affected 31% of our population with FASD (83/270), a rate significantly higher than the local (8.7%) and national (7.1%) averages ($p < 0.0001$). Extremely preterm very preterm births were overrepresented. This excess of prematurity concerned all forms of FASD but was more frequent in patients with FAS than in non-syndromic cases, according to the teratogenic effect of alcohol on both the embryo and the placenta. In this series, no statistically significant increase of prematurity related to smoking was identified.

DISCUSSION AND CONCLUSION
Our study highlighted significant excess of prematurity in children with FASD from Reunion Island. Although we acknowledge a possible inclusion bias—our sample consisted of children referred for neurodevelopmental disorders—this study supports the "double burden" concept

for our children with multiple vulnerabilities, linked to the teratogenic and neurotoxic effects of alcohol, as well as the medical and developmental sequelae of prematurity. This study is ongoing to analyze the precise mechanism of prematurity in a larger cohort.

Alcohol is rarely investigated as a primary cause in cases of unexplained prematurity. This gap represents a missed opportunity in clinical practice. Systematic screening for EPA in premature infants is fundamental for the secondary and tertiary prevention of FASD allowing for earlier interventions and better long-term outcomes for these children with multiple vulnerabilities

P4.08 The La Réunion Model: A Territorial Strategy for Fetal Alcohol Spectrum Disorders (FASD) as a Blueprint for National Policy

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INTRODUCTION
FASD are the leading cause of preventable neurocognitive disability, affecting 1% of births – a figure higher than all known genetic diseases combined. While Reunion Island has significantly higher statistics than mainland France, these figures reflect greater professional screening capacity rather than a higher incidence. This disparity reveals a national diagnostic deficit concerning this invisible disability, which disrupts lives, fuels social exclusion, and weighs heavily on the economy.

THE TERRITORIAL STRATEGY
Since 2016, Reunion Island has implemented a pioneering strategy orchestrated by the FASD Resource Center. This Resource center is managed by the Père Favron Medical and Social Foundation, in partnership with the University Hospital, which notably houses the only specialized diagnostic center in France, and in close collaboration with the Faculty of Health at the University of Reunion. This strategy creates an integrated ecosystem linking early detection, public awareness campaigns, initial and continuing education in health and non-health fields, care, support, and research. The Resource Center coordinates information and support, transforming life paths, notably through mobile teams active in the field. Simultaneously, the Faculty of Heath is driving extensive training, integrating mandatory modules on FASD into first-year health studies and the National Health Service, as well as into

postgraduate studies.The Resource Center facilitates training for professionals in social work, education, and the justice system in order to build a coherent network.

INSTITUTIONAL FRAMEWORK
This pilot model, launched following a call for projects from MILDECA (Interministerial Mission for the Fight against Drugs and Addictive Behaviors), is based on strong institutional harmonization. It benefits from funding and support from the Regional Health Agency (ARS) and the Prefecture and actively collaborates with the Réunion Academy through a partnership signed in 2025.

CONCLUSION
This strategy tackles the “time bomb” of FASD—characterized by academic failure, substance abuse, and incarceration—by addressing cultural inertia, local traditions linked to alcohol, and powerful industry lobbying. We demonstrate that a coordinated regional network improves screening and care. To guarantee health equity and eliminate territorial inequalities, this model must be adapted and deployed nationally without delay to protect future generations and support affected families throughout the country.

P4.09 Interventions and service provision for individuals and families affected by FASD: A scoping review

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Individuals with FASD and their families may benefit from tailored interventions and support services, and many different forms of intervention and support have been published. Reviews of the literature on FASD interventions tend to focus on specific types such as behavioural interventions, community-based interventions, and pharmacological interventions. Moreover, there appears to be no published evidence synthesis on service provision and access in relation to FASD. A scoping review with the aim of identifying all published evidence of interventions, treatment, support strategies, and strategies to help people with FASD and their families access existing services would be a useful addition to the literature.

In December 2025, we began a systematic literature search of eight academic databases. Publications reporting data on service provision or interventions for individuals or families affected by FASD written in English, Spanish, or Catalan were included. Publications reporting animal or cell tissue studies, or efforts to prevent FASD were excluded.

Following removal of duplicates, 2,303 unique records were returned from the systematic search. Over the next few weeks, the team will identify which of these meet our inclusion criteria and produce a synthesis in line with the PRISMA guidelines for scoping reviews. By the time we attend EUFASD in September 2026, we will be able to present our findings in the form of a poster. We anticipate that this scoping review will highlight several forms of intervention including family-focussed psychoeducation and support packages, individual cognitive interventions and therapeutic support, as well as an emerging literature on challenges and support in relation to accessing limited service provision for individuals and families.

P4.10 Developing FAS-Specific Growth Charts to Improve Clinical Monitoring and Differential Diagnosis

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BACKGROUND AND OBJECTIVES
Growth restriction is a core feature of fetal alcohol syndrome (FAS) and remains an important element in several diagnostic systems for fetal alcohol spectrum disorders (FASD). However, children with FAS are currently assessed using general population growth charts, which may lead to misinterpretation of their growth trajectory. This project aims to develop FAS-specific reference growth charts for height and weight, enabling more accurate clinical monitoring and improved differential diagnosis of growth disturbances.

METHODS
This is an ongoing multicenter European study designed to collect retrospective and prospective anthropometric data from children aged 0–16 years with a confirmed diagnosis of FAS. Data are being gathered from specialized FASD diagnostic centers across Poland and other European countries using a standardized electronic data collection system. For each participant, longitudinal measurements of height, weight, and head circumference, along with perinatal and clinical BACKGROUND data, are recorded. Advanced statistical modeling and smoothing techniques will be used to construct sex-specific centile curves reflecting the unique growth patterns of children with FAS.

EXPECTED RESULTS
We expect to define characteristic growth trajectories in FAS that differ from those of the general pediatric population and to describe inter-individual variability within the FAS phenotype. The resulting FAS-specific growth charts will allow clinicians to distinguish syndrome-related growth patterns from additional pathological causes of growth failure or weight deficit.

CONCLUSIONS
Developing syndrome-specific growth references for FAS addresses a major gap in both clinical practice and FASD research. These charts have the potential to improve diagnostic accuracy, reduce over- and under-diagnosis of comorbid conditions, and support more appropriate long-term medical follow-up for affected children.

P4.11 Prevention and detection of fetal alcohol spectrum disorders in general practice

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BACKGROUND
Fetal Alcohol Spectrum Disorder (FASD) is the leading preventable cause of non-genetic mental retardation. General practitioners (GPs) are at the forefront of prevention and detection of FASD. While the prevalence of FASD in the region is said to be the highest in France, the regional health agency has pointed to shortcomings in the detection of alcohol consumption, particularly among pregnant women, and low participation of general practitioners in training courses on FASD.

OBJECTIVE
The aim was to understand the levers and barriers GPs face in preventing and identifying FASD, and to take action to strengthen these practices.

METHOD
An action research project was carried out. For its 1st stage, a narrative review of the literature was carried out, supplemented by two qualitative studies adopting a grounded theorizing approach with GPs. The modeling resulting from these studies enabled us to move on to the 2nd stage, the development of actions using a Delphi round consensus method. The actions are currently being implemented.

RESULTS
The review identified 23 scientifically evaluated actions in the fields of prevention, detection, screening and diagnosis of FASD. GPs' discomfort in dealing with alcohol, particularly in women, was an obstacle to preventing and identifying FASD. They felt able to identify neurodevelopmental disorders. These factors led to the development of prevention and detection actions by consensus on 24 actions, resulting in 11 consensual actions.
Four actions have been implemented. Feedback to the participants, the final stage of the action research, began with a communication to the experts on the Delphi round panel.
DISCUSSION
This action research project serves as a model for field-based research aimed at responding to a priority local public health issue. This method is transferable to the identification and prevention of other public health issues to general practice. Similar action research should be carried out in other local public health issues in primary care. They would be complementary to a cluster randomized trial focusing on training GPs in prevention and detection.

P4.12 Campaign: too young to drink in Romania and Moldova

Inge Jose Smelik

In our work in Romania and Moldova among people with special needs, especially with ASD (autism) and/or ADHD, we met children who showed different needs and did not benefit enough in the program for ASD / ADHD. Often it were children in foster care or adopted, known from families with alcohol problems. One had the diagnose FASD, what made us to seek help. At the beginning from Organisation "FASD-Netherlands" and later on also from the alliance "EU-fASD", where we became membre of in 2024. Last year we started a special project about FASD.

Campaign

Too youngh to drink!

Just a sip of alcohol can harm the foetal?!

The main goal of this project is to organize a campaign in Romanian language about the effects of alcohol consumption on the fetus and the diagnosis of FASD. Romanian is used also in Moldova and a part of Ukraine, in the border regions with Romania and Moldova.

TSAF
Tulburări din Spectrul Alcoolic Fetal

- **Information meetings**

Conference in Bucharest, workshops in Iași and Suceava - Romania and Bălți - Moldova also we had several webinars, with participants from Moldova and Ukraine too.

- **Creating informational materials**

Leaflets, folders, posters, brochures, books, manuals for parents and children and short films; self-created or translated and adapted from Dutch, English, French and German.

- **Website**

www.nevoispeciale.ro/fasd

QR cod to our Romanian website about FASD

- **Mass-media**

Interviews on local televisions and radio

We are very gratefull to the organisations of EuFASD alliance, who supported us by giving permission to translate and adapt some of their materials!

www.ancorasalvarii.ro
Tel: +40 770 555 443

Fundația ANCORA SALVĂRII

Project financed by:
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P4.13 A Mobile Multidisciplinary Resource Team for FASD in Réunion Island: Coordinating Children's Care Pathways, A Unique French Structure, a Model to Follow?

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CONTEXT
Fetal Alcohol Spectrum Disorders (FASD) require early detection, coordinated care, and ongoing family support. In Réunion Island, a French overseas territory, fragmented services and social vulnerability can delay diagnosis and compromise child's development. We have created the only French mobile team dedicated specifically to FASD.

MODEL
Our team includes two specialized educators, a social worker, and two physicians. Our mission is to coordinate care for children with suspected or confirmed FASD from birth to 20 years, using a person- and family-centred approach. We also aim to empower families and improve continuity across health, social, and educational sectors. Currently 150 children are accompanied.

INTERVENTIONS
Proximity is central. Most contacts take place at home, allowing us to establish a relationship of trust with the parents. We provide parenting support, educational guidance, and personal explanations of FASD needs (physical health, neurocognition, behaviour, mental health, and learning). We collaborate with community providers and institutions involved in rehabilitation and mental health, and facilitate referrals to the specialized diagnostic center. We facilitate early socialisation (childcare, reception and respite services) and inclusive schooling through educational meetings including teachers and individualised learning plans. We help families with social and administrative steps, including disability rights applications to the MDPH (Departmental House for Persons with Disabilities) and access to financial and human supports. We maintain close collaboration with medical and social partners, child protection services, foster families, and maternal and child health services to ensure the coherence, continuity, and adaptation of the care pathway.

OUTLOOK
Demand is increasing, and our current staffing levels limit intervention times and long-term follow-up. Strengthening and expanding the team would allow us to extend our reach, improve planning for the child-to-adult transition, and consider implementing coordinated support for adults, needing help with professional training, employment, housing, to achieve an independent life.

CONCLUSION
Reunion Island has implemented a structured, effective, and integrated model covering screening, access to diagnosis, and ongoing support for children and their families. This mobile coordination approach appears transferable and should be adapted and deployed in other regions to reduce inequalities in FASD care.

P4.14 Italian Guidelines for the diagnosis and treatment of Fetal Alcohol Spectrum Disorders

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Drinking alcohol during pregnancy can cause congenital disabilities. J. Roquette, P. Lemoine and K.L. Jones were the first to describe these effects. In 1973, Jones and Smith coined the term Fetal Alcohol Syndrome to describe children with facial anomalies, poor growth, and learning difficulties. The caution against drinking during pregnancy has existed for centuries, including in The Bible (Judges 13:3-4). Maternal alcohol consumption is linked to congenital disabilities. To ensure safety, it is advised to abstain from alcohol during pregnancy. Fetal Alcohol Spectrum Disorder (FASD) was observed in paintings from the mid-19th century when artists began depicting moments and characters from everyday life. In 2005-2006, Italy conducted a groundbreaking study on FASD, the first in Europe. The study resulted in valuable research on FASD, contributing to prevention efforts. Unfortunately, diagnosing FASD remains a challenge in Italy. Early diagnosis and treatment are critical, and increasing the number of authorized centers to diagnose FASD is necessary to improve care. Educating ourselves about FASD is the key to creating a world where affected children receive the care they need. These guidelines include nine works dealing with all FASD aspects such as prevention, the effects on cognition, the epidemiology, the diagnostic criteria, the clinical aspects, the general effects on the body, the available treatments and the methods of detecting alcohol abuse in pregnant women.

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P5 / Scientific, Translational + Health & Care (prevention)

Moderation: **Andreu Fernández Vicente**

P5.01 The Placenta as the "First Victim" of Alcohol: From Pathophysiology to High-Risk Pregnancy Management

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INTRODUCTION
While the teratogenic and neurotoxic effets of alcohol consumption for the embryo and the fetus—specifically Fetal Alcohol Spectrum Disorders (FASD)—are becoming increasingly recognized, the deleterious consequences for the pregnancy itself, and particularly placental integrity, remain largely underappreciated, even among prenatal care specialists. Conceptually, the placenta must be identified as the "first victim" of alcohol toxicity, affecting all its physiological functions.

PATHOPHYSIOLOGY
Very early consumption, often occurring before pregnancy confirmation, can reduce chorionic villi density and impair placental vasculogenesis. This disruption drastically limits maternal-fetal exchanges, causing the classic intrauterine growth restriction associated with Fetal Alcohol Syndrome (FAS), while also altering trophoblastic invasion, a precursor to pregnancy-induced hypertension. Epigenetic research in mice further demonstrates demethylation of paternally inherited H19 and IGF2 alleles in placental tissue, genes critical for growth; notably, identical anomalies appear in gametes following male preconception exposure.

HISTOPATHOLOGY AND CLINICAL OUTCOMES
Histopathologically, early exposure induces dose-dependent placentation defects and vascular anomalies, particularly within spiral arteries. These early insults compromise placental perfusion during mid-to-late gestation. Clinically, this manifests as an excess of implantation anomalies, such as placenta accreta, and functional failures responsible for miscarriage, fetal death, hemorrhage, and preterm birth. In our Reunion Island FASD cohort, we identified a 31% prematurity rate (83/270)—significantly higher than the local 9% average—with a marked excess of extreme prematurity.

BIOMARKERS
Furthermore, the placenta is not merely an exchange surface but an endocrine organ producing vital factors like Placental Growth Factor (PlGF), a biomarker for preeclampsia. In utero alcohol exposure suppresses PlGF levels, linking placental dysfunction directly to altered fetal cerebral vascularization.

CONCLUSION
In conclusion, alcohol exposure fundamentally transforms a gestation into a high-risk pregnancy. Consequently, alcohol use must be investigated at every prenatal consultation by trained professionals. Any consumption should be classified as at-risk use, triggering immediate advice and multidisciplinary support. Recognizing the placenta as a primary target is capital for secondary and tertiary prevention, ensuring that prematurity is correctly identified as a potential sequela of prenatal alcohol exposure rather than a strictly obstetric hazard.

P5.02 Epigenetic Signatures of Alcohol Toxicity: From Molecular Mechanisms to Diagnostic Biomarkers in Fetal Alcohol Spectrum Disorders

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Fetal Alcohol Spectrum Disorders (FASD) constitute the leading preventable cause of neurodevelopmental disability worldwide. Understanding FASD requires shifting focus from clinical observation to the underlying molecular machinery: epigenetics. Alcohol acts as a systemic disruptor, altering gene expression without changing the DNA sequence. This summary highlights three distinct mechanisms driving these pathologies, offering critical knowledge for both researchers and affected families.
First, DNA methylation functions as a primary regulatory switch. Alcohol exposure induces aberrant methylation patterns in the embryo and the fetus. Imprinted genes like H19 and Igf2 in the embryo but also, most critically in the placenta, are highly concerned: methylation defects in placental tissue compromise vascularization and nutrient transfer, directly linking intrauterine growth restriction to epigenetic dysregulation. Furthermore, these methylation modifications are not strictly maternal; alcohol-induced alterations in the sperm methylome suggest a significant paternal contribution to this fetal programming.

Second, histone modifications restructure chromatin architecture. Histones are the protein spools around which DNA winds; alcohol alters their chemical tails via acetylation or methylation. This modifies chromatin accessibility, effectively silencing or inappropriately activating genes required for example for neuronal migration and brain plasticity during critical developmental windows.
Third, microRNAs (miRNAs) impose post-transcriptional control. Alcohol toxicity creates an imbalance in these small non-coding RNAs, which block the translation of messenger RNAs into proteins essential for embryonic development.

The ultimate imperative of deciphering these pathways is clinical translation. These "epimutations" create a stable, specific molecular memory of exposure. Consequently, they hold immense potential as diagnostic biomarkers. Currently, FASD diagnosis is frequently missed or delayed due to the absence of specific physical stigmata. Validating specific methylation or miRNA signatures in accessible tissues is going to revolutionize patient care soon. For researchers, this represents the frontier of precision medicine. For families, an objective biological diagnosis provides crucial validation, effectively reducing social stigma and facilitating earlier access to necessary educational and therapeutic interventions. This

transition from understanding fundamental molecular mechanisms to concrete clinical application is the next future of FASD management.

P5.03 Global analysis of the transcriptomic placenta–cortex expression profile reveals changes in several neuroactive ligands and/or receptors ratios after prenatal alcohol exposure

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BACKGROUND
Diagnosis of foetal alcohol syndrome (FAS) is possible at birth, thanks to the presence of cranio-facial dysmorphias, long before emergence of behavioural disorders. In contrast, most newborns affected by foetal alcohol spectrum disorder (FASD) escape from early diagnosis although these children manifest neurodevelopmental deficits, whose consequences are detected belatedly during schooling. Early diagnosis of FASD is thus a major challenge to allow appropriate care during a period when the immature brain still displays a high potential for recovery.

Neuroplacentology is an emerging field of research supporting that the placenta contributes to the fetal brain development through the release of bioactive molecules. A recent

angiogenesis-focused analysis showed that prenatal alcohol exposure (PAE) disrupts inter-organ gene expression between the placenta and fetal cortex.

Aim of the study: Here, we seek at establishing the first comprehensive analysis of a murine placenta-cortex transcriptomic database of PAE reflecting cerebral alterations in newborn suffering from PAE.

METHODS
Gene lists from a recently NCBI-deposited comparative PAE placenta-cortex transcriptomic database were analyzed using a bioinformatic pipeline designed as follows: 1) A functional profiling was done with g:Profiler ; 2) protein-protein interactions (PPI) were obtained by STRING ; 3) PPI within pathways were revealed by ShinyGO. Ultimately, candidates were validated by western blot.

RESULTS
g:Profiler revealed 21 enriched GO terms, 7 KEGG and 6 Reactome pathways. Among these, 11 were related to cell-to-cell communication. STRING analysis emphasized significant PPI enrichments supporting that proteins within each GO and pathways are biologically connected. ShinyGO allowed identification of 38 ligands or receptors that belong to endocrine families including angiotensinogen, leptin, somatostatin or PACAP. At the proteic level, western blot analysis revealed distinct patterns were observed: In particular, the expression of PACAP receptor family confirmed transcriptomic findings and revealed sex-dependent PAE-impacted expression profiles.

CONCLUSION
We report that PAE is associated with alterations in the transcriptomic placenta-cortex expression profile. In particular, we observed changes in the expression ratios of several ligands and/or receptors implicated in key physiological pathways such as energy balance, vascular development and neurogenesis. These transcriptomic associations suggest that altered placenta-fetal brain signalling may be predictive of alcohol-induced neurodevelopmental disorders.

P5.04 Ultrasound localization microscopy as a tool to detect early cerebrovascular alterations in non-syndromic fetal alcohol spectrum disorders?

Leroy Anais

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Fetal Alcohol Spectrum Disorders (FASD) represent the leading preventable cause of acquired neurodevelopmental disorders worldwide and remain a major public health concern. Despite significant advances in diagnostic tools, early diagnosis of non-syndromic forms of FASD remains particularly challenging. Beyond cognitive and behavioral impairments, prenatal alcohol exposure (PAE) has been shown to disrupt central nervous system (CNS) vascular development, particularly the cerebral microvasculature. These effects are increasingly investigated through both ex vivo and in vivo approaches to better understand alcohol-induced neurodevelopmental alterations.

In clinical practice, ultrasound imaging has been widely used for decades, allowing non-invasive visualization of organs and blood flow without radiation, contrast agents, or invasive procedures. Recent technological advances, notably Ultrasound Localization Microscopy (ULM), now enable high-resolution imaging of the cerebral microvasculature, reaching spatial resolutions on the order of 5 µm. This technique provides access to detailed vascular parameters, including vessel density, organization, morphology, and flow dynamics, offering new opportunities to investigate subtle cerebrovascular alterations in arterioles and capillaries in vivo.

In this context, the present study aims to evaluate whether cerebral vascular abnormalities induced by PAE can be detected in vivo using ultrasound-based imaging. Using a mouse model of PAE that simulates a non-syndromic-form of FASD, cerebral vasculature will be examined at postnatal day 21–22 on 9 control and 10 PAE mice. ULM imaging is used to characterize brain vascular architecture and microvascular parameters in PAE and control mice.

This work seeks to determine whether ULM imaging can reveal specific cerebrovascular signatures associated with PAE in young animals, such as blood flow changes and morphological or structural alterations, as described in literature. Ultimately, identifying such vascular alterations may contribute to the development of novel non-invasive tools to detect biomarkers for the early diagnosis of non-syndromic forms of FASD.

P5.05 Impact of prenatal alcohol exposure on pericyte morphology around micro vessels in the developing neocortex

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Prenatal alcohol exposure (PAE) induces a dysfunctional phenotype in brain endothelial cells, leading to disrupted brain angiogenesis and a loss of radial organization of cortical microvessels. These findings highlight the cerebral vasculature as a key target of PAE-related pathological processes. Although vascular alterations are known to impair the migration of multiple brain cell types, contributing to both white and gray matter abnormalities, their specific impact on blood–brain barrier (BBB) maturation and neurovascular unit development remains poorly understood.

BBB is a highly specialized structure composed of endothelial cells associated with pericytes and astrocytes and surrounded by neurons and microglia. BBB undergoes progressive maturation, suggesting that early vascular defects may have consequences for barrier integrity and neurovascular function. A preclinical study revealed, in mouse model of PAE, an aberrant distribution of the tight junction ZO-1 protein along blood vessels associated with increased astrocytes end feet, suggesting a disruption of BBB organization in the neocortex. Pericytes play a critical role in controlling cerebral blood flow and are key regulators of angiogenesis. They also contribute to BBB integrity and can give rise to neural and vascular lineage cells in response to cerebral injury. Despite their essential functions, little is currently known about the impact of PAE on pericyte during BBB maturation.

Thus, the objectives are to investigate the effect of PAE on pericytes number and morphology surrounding cortical microvessels and to explore potential alterations in communication between pericytes and other components of the neurovascular unit. To do so, pregnant NMRI mice received a daily subcutaneous injection of 0.9% NaCl or 3 g/kg ethanol, from gestational Day 15 (GD15) to GD20. At post-natal day 0 (P0), immunohistochemistry on brains were performed to label blood vessels, pericytes and astrocytes using Isolectin, PDGFRb and GFAP respectively. Confocal microscopy followed by 3D reconstruction using IMARIS software was performed to analyze pericytes associated with cortical microvessels and communication processes with astrocytes.

Because dysfunction of a single BBB component can lead to pathological consequences, including neuroinflammation, understanding barrier alterations in PAE is essential. This work aims to provide a more integrated view of central-peripheral pathological communication in PAE.

P5.06 Angiogenesis-Associated Epigenetic Signatures in Partial FASD

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Recent studies have highlighted vascular alterations in the central nervous system (CNS) as a key feature of the Fetal Alcohol Spectrum Disorders (FASD). In particular, multiple studies in the brain and retina have shown that prenatal alcohol exposure induces microvascular changes. At the molecular level, these alterations are associated with dysregulation of the protein expression of specific angiogenic factors and genes involved in angiogenesis. The impact of alcohol on chromatin modifications, particularly DNA methylation and histone acetylation is now well documented in the literature, providing a potential mechanism to explain these expression differences. In this context, although a DNA methylation-based episignature has been identified, it lacks sufficient discriminative power to detect partial forms of Fetal Alcohol Syndrome (pFAS), for which no reliable diagnostic tools currently exist. By focusing on genes involved in angiogenesis, the present study aims to perform a finer characterization of epigenetic modifications, including histone post-translational

modifications and DNA methylation. The diagnostic potential of blood-based episignatures associated with histone acetylation as biomarkers for moderate FASD will be also evaluated.

To address this question, brain, retinal, and blood samples were collected at postnatal days 2 and 5 from control and pFAS mice using a validated murine model. First, Western blot analyses were performed to characterize the effects of prenatal alcohol exposure on histone post-translational modifications, including acetylation, methylation, and phosphorylation, focusing on the marks H3K9ac, H3K9me3, H3K27ac, and H3S10PH. Following the identification of the major alcohol-deregulated histone modification, a comparative epigenetic analysis was conducted using ChIP-seq and MeDIP-seq, with chromatin immunoprecipitation performed via the CUT&RUN method followed by NGS, specifically targeting genes involved in angiogenesis. ChIP-PCR on selected angiogenesis gene promotor will be performed to validate NGS results.

This high-resolution chromatin analysis will help clarify the molecular mechanisms underlying the vascular effects of foetal alcohol exposure and may provide a basis for identifying a specific episignature associated with the angiogenic dysregulation observed in FASD.

P5.07 Live-advanced light imaging as a potential cellular screening tool for toxic exposure effects

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With similar mechanisms to humans, the rodent retinal vasculature developed after birth provides an excellent ex vivo angiogenesis model to investigate physiological and pathological developmental aspects. Retina is also an easily accessible mirror of the brain to investigate neurodevelopmental damages in particular due to toxic exposure. In mice, retinal vessels sprout from the optic nerve at birth to form the superficial vascular plexus (SVP), the deep vascular plexus (DVP) and the intermediate vascular plexus (IVP). During the progression of each plexus, some pruning events take place, resulting in a mature and functional vascular network around P21. Live-vascular remodeling has so far not been observed and most experiments have been performed on fixed flat-mounted retina. Membrane protrusions of retinal cells are inaccessible through in vivo angiography or optical coherent tomography because of low spatial resolution. In addition, only few studies have investigated the role of cell-to-cell connections during retinal angiogenesis. Our study described a multi-scale live-organ imaging workflow including macro-, meso- and microscopy approaches to investigate postnatal retinal vascular formation in mice, providing complementary spatial resolutions while preserving tissue integrity during acquisition. Retina displays valuable advantages for ex vivo imaging since the retinal tissue is easy to be dissected out, transparent and thin enough to avoid sectioning for labelling. We report through macroscopy a linear expansion of the SVP with endothelial tip-cells (ETCs) guiding angiogenic sprouting at the migration front. In addition to dynamic ETC-filopodia, we highlighted the existence of Tunneling NanoTubes (TNT) between endothelial cells and membrane protrusions connecting microglial cells, ETCs, endothelial cells and pericytes through confocal microscopy. Furthermore, we performed

mesoscopy to reveal that the SVP, DPV and IVP are sequentially generated from each other and interconnected through the development of perforating vessels. Therefore, this work proposes an accessible multi-scale live-imaging that may stimulate the interest of both developmental biologists and clinicians deciphering the impacts of alcohol exposure on retina at the cellular and membrane levels.

P5.08 How does prenatal cannabis influence early brain development in offspring? Review of results from animal studies

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INTRODUCTION
Cannabis is the most widely used illicit substance of abuse amongst pregnant women. In addition, synthetic cannabinoids mimicking the effects of cannabis have been increasingly popular among women in child-bearing age and with unknown harmful effects on the fetus. In addition to ethical issues, the combination of unreliable self-report, mostly retrospective studies and polysubstance use makes it very difficult to evaluate the isolated harmful fetal effects of cannabis in humans. Animal studies have the advantage to be executed in more controlled and standardized settings. Such studies are important to understand possible injury mechanisms in the developing brain and also to explain clinical outcome in offspring.

AIM OF STUDY
To evaluate the effects of prenatal cannabis exposure (PCE) on the developing brain in animal studies.

METHODS
We did a systematic search in several databases (Embase, Medline, PsycInofon) for systematic reviews published in 2020-2023. This resulted in 16 papers concerning prenatal cannabis-exposure in animal studies, mostly rats and mice.

RESULTS
The endogenous cannabinoid system plays a fundamental role in key neurodevelopmental processes in early brain development during fetal life (neurogenesis, glial formation, neuronal migration, axonal elongation, synaptogenesis) and also later in childhood (synaptic pruning, probably due to epigenetic modulation). Exogenous cannabis-induced activation of the endocannabinoid system disturbs this fine-tuned role and causes neurochemical toxic effects with alterations in the release of neurotransmitters and the modulation of brain plasticity in neural pathways in specific brain regions and neurotransmitter systems which appear to impact cognitive function, motor activity, and increase addiction and drug sensitivity later in life. The development of brain systems that function in motivation, cognition, emotion and behavior regulation, and reward processing are directly impacted by PCE. According to the “double hit” hypothesis, prenatal cannabis use strikes the first blow to the fetal endogenous cannabinoid signaling system, rendering it more vulnerable to later environmental stressors.

CONCLUSION

Animal studies give valuable information about how the developing brain may be harmed by prenatal cannabis exposure. However, it is never expected that an animal model can provide a direct representation of the human condition.

P5.09 FASD Research Australia: An NHMRC Centre of Research Excellence

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BACKGROUND
In late 2025, the Australian government funded a new 5-year Centre of Research Excellence for better coordination of research on Fetal Alcohol Spectrum Disorder (FASD). The aims of FASD Research Australia are: (i) to conduct an inter-disciplinary program of consumer-informed research that generates the evidence needed to implement culturally safe, ethical, equitable and cost-effective policies, processes and practices for more effective diagnosis, management and prevention of FASD; and (ii) to build capacity and capabilities in Australia's future health research workforce through inter-disciplinary training.

APPROACH
FASD Research Australia program features three Streams of research:

Stream 1: Epidemiology, Burden & Costs – clarifying the scale, nature and impacts of FASD in Australia through prospective surveillance, data harmonisation across pregnancy cohorts, costing of state-wide assessment services and data linkage.

Stream 2: Diagnosis & Management – developing effective ways to identify and support people affected by FASD through the use of novel technologies, epigenetics, analysis of revised diagnostic guidelines, RCTs on challenging behaviours and the benefits of social prescribing and evaluation of models of care, particulary those designed with and for young people living in remote Aboriginal communities.

Stream 3: Prevention – laying the foundations for a FASD-free future through the integration of apps and other technologies to identify patterns of prenatal alcohol exposure and support clinicians to ask and advise about alcohol use in pregnancy in general and high-risk populations, providing training and resources for high school students and their educators and unpacking the drivers of Australian policies to reduce harms from alcohol.

IMPLICATIONS
FASD Research Australia will consolidate, extend and support collaborative FASD research endeavours within and beyond Australia by harnessing the experience of consumers, carers, Indigenous communities, researchers, service providers and policy makers. Simultaneously, we will develop the next generation of research leaders with the interdisciplinary skillsets needed to drive world-first innovations in surveillance, diagnosis, treatment and prevention of FASD.

P5.10 Appraisal of international and Australian policies for preventing alcohol harms in pregnancy and FASD

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BACKGROUND / AIM
Policy to advance alcohol control to reduce population harms remains contested, especially as the alcohol industry may obstruct national policy efforts. In fetal alcohol spectrum disorder (FASD) prevention, alcohol control measures (e.g. taxation and limits on advertising) are marginalised relative to awareness, education and clinical initiatives, despite their potential to change behaviours and reduce prenatal alcohol exposure at scale. We aimed to identify and evaluate global and Australian policy documents on the prevention of alcohol harms in pregnancy and FASD.

METHODS
We conducted a structured Google-based internet search to identify globally relevant and Australian policies, plans, inquiry reports and impact statements published between January 2012 and April 2025 by international bodies, professional associations, Australian and state/territory governments. Using a deductive thematic framework, two reviewers coded content and appraised document quality with a published structured assessment tool.

RESULTS
Thirty-four documents met the inclusion criteria: four globally relevant documents and 30 Australian documents (21 national and nine state/territory). The most frequently addressed themes were treatment and support for women using alcohol in pregnancy (67.6%), stigma (67.6%), health literacy (64.7%), workforce training (64.7%), FASD services (61.8%) and alcohol control (61.8%). Most documents were rated medium to high quality. The appraisal highlighted strengths in the breadth of scope and stakeholder engagement in policy development, but gaps remain in guidance and resourcing for implementation and evaluation of policy.

CONCLUSIONS / IMPLICATIONS
Effective prevention of alcohol harms in pregnancy and FASD requires comprehensive policies that include alcohol control, health literacy, screening and multisectoral collaboration. Policies for preventing alcohol harms in pregnancy and FASD appears to be moving from promoting awareness and service responses towards more explicit inclusion of alcohol control, consistent with a comprehensive public health approach. This aligns with stakeholder support for stronger regulation. Although global and national policies increasingly reflect this approach, gaps remain in state territory policy, highlighting room for improvement. Overall, our findings suggest the need for comprehensive, well-resourced, and actionable policies to effectively prevent alcohol-related harms in pregnancy and FASD. Given the potential for commercial influence on alcohol policy, it is critical to safeguard policy processes and manage conflicts of interest.

P5.11 An international and Australian appraisal of guidelines for preventing alcohol harms in pregnancy and FASD

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BACKGROUND / AIM
Clinical guidelines provide clinicians with a consistent, evidence-based approach to screen for and address prenatal alcohol exposure (PAE) in antenatal settings. The aim of this research was to identify and appraise the quality of globally relevant and Australian guidelines on the prevention of alcohol harms in pregnancy, including Fetal alcohol spectrum disorder (FASD).

METHODS
A Google search was conducted for guidelines on the prevention of PAE and/or FASD published between 2014 and 2024. The guidelines were published by international bodies and professional associations, Australian national or state governments and Australian professional associations. A thematic analysis was performed to identify the inclusion of predetermined themes, and the quality of guidelines was appraised using the AGREE II tool.

RESULTS
Fourteen guidelines on the prevention of alcohol harms in pregnancy were identified, including five global, seven Australian, and two from Australian jurisdictions (Queensland and New South Wales). Twelve guidelines focused on pregnant women as the priority group, and three focused on the assessment for FASD (one focused on both). The most prevalent themes surrounding alcohol use in pregnancy or FASD were screening for PAE (92.9%), health promotion and/or literacy (92.9%), and drug and alcohol services (71.4%).

CONCLUSIONS / IMPLICATIONS
Most guidelines on preventing harms from PAE and FASD focus on pregnant women, with limited attention to paternal alcohol use. There is a growing recognition of the need for cross-sectoral collaboration and ethical, non-stigmatising care. Evidence-based recommendations to guide health care professionals in the management of women during pregnancy should be updated to reflect emerging evidence on harms from paternal alcohol use, broaden screening practices to include holistic care to promote healthy pregnancy (including drug and alcohol use, contraception and supplements) and consider priority populations.

“Opening up FASD” in the context of guidelines means making them accessible, practical, and culturally sensitive. Guideline development should integrate lived experience, be culturally and linguistically responsive and provide practical tools that enable respectful dialogue to reduce stigma. By ‘opening up', guidelines become tools for collaboration, fostering trust and informed decision-making.

P5.12 A Pilot Approach to the Prevention of Prenatal Alcohol Exposure in Republic of Moldova

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INTRODUCTION
Prenatal alcohol exposure is a major preventable risk factor for adverse neurodevelopmental outcomes and lifelong disability associated with Fetal Alcohol Spectrum Disorders (FASD). Although abstinence from alcohol during pregnancy is the only effective preventive measure, prevention efforts often remain fragmented, insufficiently coordinated, and weakly integrated into routine maternal and community services.

AIM
This paper describes the design and implementation framework of a pilot project “Opportunities in the Prevention of Fetal Alcohol Disorders in Chisinau municipality” (STAF-Project) , aimed at strengthening the prevention of prenatal alcohol exposure through intersectoral collaboration, professional capacity building, and community-oriented awareness activities.

METHODS
The pilot project was implemented between August 2025 and April 2026, in partnership with the UNICEF office in Moldova. The project combined situational analysis, professional capacity development, and behavior change communication. Initial activities focused on generating contextual evidence on existing practices, perceived barriers, and system-level gaps in FASD prevention through qualitative focus group discussions with healthcare professionals, psychologists, and social workers. In parallel, a quantitative Knowledge, Attitudes, and Practices (KAP) study was conducted to assess the real situation in the community regarding alcohol consumption during pregnancy. The project implemented coordinated interventions, including training workshops for frontline professionals involved in maternal, child, and family services; personalized preventive counseling for pregnant women during routine healthcare contacts; and dissemination of targeted public awareness messages promoting alcohol-free pregnancies.

RESULTS
The project established a structured framework for addressing prenatal alcohol exposure at the community level, aligning multiple professional groups around a shared prevention objective. Core outputs included strengthened professional competencies in prevention and communication, improved availability of standardized educational and awareness materials, and enhanced collaboration between sectors traditionally working in parallel. The pilot approach supported greater coherence between evidence generation, professional practice, and public communication, while promoting non-stigmatizing and supportive messaging for women and families.

CONCLUSIONS
The STAF project demonstrated the feasibility and relevance of an intersectoral, community-based approach to developing and implementing additional FASD prevention actions, including at the country level.

P5.13 Ocular Biomarkers Driven by Artificial Intelligence for Early, Scalable Screening of Fetal Alcohol Spectrum Disorders: A Systematic Review

Mirahi Afrooz

Ocular Biomarkers Driven by Artificial Intelligence for Early, Scalable Screening of Fetal Alcohol Spectrum Disorders: A Systematic Review

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BACKGROUND

Fetal Alcohol Spectrum Disorders (FASD) remain markedly underdiagnosed despite their high prevalence and lifelong impact. Ocular abnormalities, including short palpebral fissures, ptosis, epicanthal folds, increased intercanthal distance, and strabismus, are among the earliest and most consistent clinical features. Functional visual impairments further reinforce the role of the visual system as a sensitive target of prenatal alcohol exposure. Advances in deep learning provide an opportunity for objective, rapid, and non-invasive screening.

OBJECTIVE

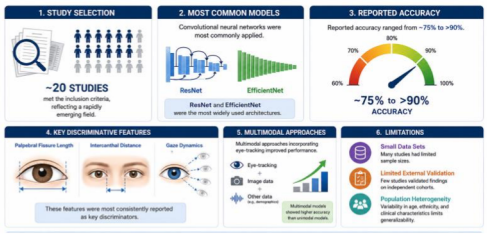
To systematically evaluate the role of deep learning in detecting ocular biomarkers for early identification of FASD.

METHODS

A systematic review was conducted in PubMed, Scopus, and Web of Science (up to 2025) following PRISMA principles. Eligible studies included pediatric populations with FASD or prenatal alcohol exposure, utilizing ocular/facial imaging or eye-tracking data combined with machine or deep learning models. Data on model architecture, dataset characteristics, and diagnostic performance were extracted and synthesized.

RESULTS

Approximately 20 studies met the inclusion criteria, reflecting a rapidly emerging field. Convolutional neural networks, particularly ResNet and EfficientNet, were most commonly applied. Reported accuracy ranged from ~75% to >90%. Key discriminative features included palpebral fissure length, intercanthal distance, and gaze dynamics. Multimodal approaches incorporating eye-tracking improved performance. However, limitations included small data sets, limited external validation, and population heterogeneity.



CONCLUSION

AI-driven analysis of ocular biomarkers offers a transformative pathway for early, accessible FASD screening. With further validation and integration into clinical workflows, this approach could enable scalable detection, particularly in underserved settings, facilitating earlier intervention and improved neurodevelopmental outcomes

KEYWORDS

Fetal CNS disorders, prenatal metabolomics, deep learning, non-invasive screening, predictive biomarkers, systematic review

P5.14 Reducing alcohol-exposed pregnancies in Slovenia

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Alcohol consumption during pregnancy planning, throughout pregnancy and breastfeeding reflects the broader societal attitude toward alcohol. According to research data, alcohol consumption is highly prevalent in Slovenia, with 74% of individuals aged 15 to 74 reporting at least occasional alcohol use. Over the last decade, the proportion of abstainers has increased; however, among those who consume alcohol, the proportion engaging in hazardous or harmful drinking has risen. This is primarily attributable to changes in drinking patterns among women, while such patterns have declined among men. These trends indicate that women in Slovenia are increasingly converging with men in terms of alcohol consumption. The majority of hazardous or harmful alcohol consumption among women is associated with binge drinking, which is particularly prevalent among younger women of reproductive age. Hazardous drinking prior to pregnancy is also a significant predictor of alcohol use during pregnancy.

With the objective of raising awareness about the incompatibility of alcohol consumption during pregnancy planning, pregnancy, and breastfeeding, the National Institute of Public Health, in collaboration with various stakeholders, has been marking International FAS Day since 2014 through public awareness booths, lectures for professional and lay audiences, and the development of health education materials. Among the initiatives contributing to the reduction of alcohol-exposed pregnancies is the “Together for a Responsible Attitude Toward Alcohol” (SOPA) approach. Initially launched as a project, since 2022 it has been systematically implemented within primary healthcare centres across Slovenia. The approach involves the delivery of brief interventions aimed at identifying excessive alcohol consumption and providing support for reduction or cessation among adults at the primary healthcare level, based on principles of motivational interviewing. As part of this framework, a shorter, single-session individual counselling intervention and brief advice are also planned in gynecology facilities for implementation.

A tolerant societal attitude toward alcohol consumption and its widespread prevalence among individuals of reproductive age increase the risk of alcohol-exposed pregnancies. Preventing alcohol use during pregnancy requires broader efforts to reduce alcohol consumption in society–particularly binge drinking–and to promote a social environment that supports alcohol abstinence among both women and men.

P5.15 Promoting Participation and Resilience in Children & Youth with FASD Through an Occupational Therapy Lens

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Children and adolescents with fetal alcohol spectrum disorder (FASD) often experience challenges related to self-regulation, social participation, and adaptive functioning (Gardiner et al., 2021), as well as disability identity formation (Eodanable et al., 2024). These difficulties evolve across development as environmental and social expectations increase during middle

childhood and adolescence. Caregivers often experience isolation and difficulties in understanding their child's diagnosis, managing challenging behaviors, and accessing effective supports and strategies (Caley et al., 2009; Jirikowic et al., 2008; Skorka et al., 2020). However, there remains limited literature describing how occupation-based group interventions for youth with FASD are developed and implemented within community mental health settings.

Occupational therapy–led rehabilitation groups for children and adolescents with FASD were developed and implemented at the Violence Intervention Program (VIP), a community-based mental health clinic in Los Angeles and the only clinic providing specialized FASD services in Southern California. These groups were designed to address evidence-based needs identified in the literature by leveraging occupational therapy's whole-person, strengths-based approach to support functional participation and self-understanding in children and adolescents with neurodevelopmental disabilities and FASD, and to promote caregiver and family well-being.

The program includes three group-based interventions targeting distinct needs and areas of occupation: (1) The FASD Storytelling Group originally designed for youth aged 14–18 and has since been adapted for preteens aged 11–13 and their caregivers, focused on disability processing, emotional expression, and shared caregiver–child narratives; (2) Create Resilience, a life skills group addressing adaptive functioning and independent living skills; and (3) Teen Friendships and Dating Program targeting social participation, healthy relationships, and sexuality. Across groups, occupational therapists at VIP developed and adapted curricula to address learning and information-processing challenges common in FASD, while incorporating experiential learning opportunities and caregiver involvement to support participation and promote consistency across environments.

This poster presentation will highlight group implementation, program adaptations designed to support individuals with FASD, and qualitative outcomes gathered from participants within a community mental health setting. It will also examine implications for occupational therapy practice and future program evaluation, with the goal of strengthening group-based services for youth with FASD.

P6 / Humanities & Social Science

Moderation: **Simmat-Durand Laurence**

P6.01 Perceptions Matter: Exploring the Emotional Impact of Being Understood or Misunderstood in Individuals with Fetal Alcohol Spectrum Disorder (FASD) and Their Caregivers

Rabbani Kanzah

Kanzah Rabbani (1), Erika Makowecki (1), Viktoria Wuest (1), Danny Dufresne (1), Jacqueline Pei (1), Allyson Dann (2), Lynne Mullen-Wawryk (3), Melissa Tremblay (1), Dorothy Fenwick (4), Samantha Crandell (5), Ashleigh Michalchuk (4), Denise Milne (6), Robbie Seale (7), James Sanders (8), Twila Harris-Olson (9), Carly Mcmorris (10), Randi Martin (11), Madison Metrunec (1)

(1) The University of Alberta
(2) Calgary Fetal Alcohol Network
(3) Catholic Social Services
(4) Individual with lived experience
(5) Lakeland Centre for FASD

(6) Alberta Continuing Care Association
(7) Caregiver
(8) The University of Lethbridge
(9) Alberta Children & Family Services
(10) The University of Calgary
(11) Lakeland Psychological Services

BACKGROUND
Individuals with Fetal Alcohol Spectrum Disorder (FASD) frequently encounter social and emotional challenges that extend beyond diagnostic and neurocognitive features of the disorder. Research indicates that individuals with FASD face elevated risks of mental health concerns, with misunderstanding from others exacerbating emotional distress, hindering engagement with mental health and support services. Caregivers, who often play a critical role in advocating, accessing services, and supporting daily coping, can also face relational and systemic misunderstandings that affect their own well-being and their ability to secure appropriate care for their children. Although relational and emotional dimensions of FASD have been increasingly acknowledged, little empirical research has examined how perceptions of being understood or misunderstood shape the lived experiences of people with FASD.

OBJECTIVES
This study aims to explore how individuals with FASD and their caregivers perceive and describe the emotional impact of being understood or misunderstood by others, and how these perceptions influence mental health and experiences of care and support. Methods: A qualitative descriptive approach was employed using secondary data from the Integrated Mental Health Partnerships for Advancing Care and Treatment (IMPACT) project. Semi-structured online interviews were conducted with sixteen participants – four individuals with FASD (ages 12-40) and twelve caregivers in Canada. Data were analyzed thematically using a semantic, data-driven approach to identify patterns of meaning across narratives.

PRELIMINARY FINDINGS
Three overarching themes were identified: (1) Emotional harm from being misunderstood and judged, characterized by feelings of invalidation and emotional exhaustion; (2) Living with stigma and fear, reflecting concealment of diagnosis and internalized apprehension; and (3) Emotional restoration through understanding and support, illustrating empathy and shared understanding as facilitators of emotional relief, hope, and belonging.

CONCLUSIONS:
Preliminary findings highlight the significant emotional implications of perceived understanding and misunderstanding in the lives of individuals with FASD and their caregivers. Enhancing understanding among clinicians and educators through targeted training, stigma-reduction efforts, and caregiver-inclusive approaches can serve as a protective factor by strengthening relational connections, supporting mental health, and mitigating secondary psychosocial harm (e.g., withdrawal from services, increased caregiver stress). These insights highlight the need for more compassionate, informed, and relationship-focused care practices.

P6.02 Advancing Human Rights Across the Lifespan for People with Fetal Alcohol Spectrum Disorder

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Since 1948, the Universal Declaration of Human Rights has set global standards to ensure that all people are provided with the opportunity to live with dignity and freedom from fear of harassment or discrimination. To strengthen these protections, the United Nations developed several other conventions, including the Convention on the Rights of the Child (CRC) and the Convention on the Rights of Persons with Disabilities (CRPD). These frameworks prioritize anti-discrimination, proportionality, and the social model of disability, emphasizing the realization of social, economic, and cultural rights for people with disabilities. Despite these international commitments, individuals with fetal alcohol spectrum disorder (FASD) and their families continue to face systemic exclusion. Persistent deficit-based narratives, diagnostic barriers, and the perception of FASD as "too complex" have resulted in inadequate implementation of human rights. There is an urgent need to embed rights-based approaches into FASD research, policy, and practice to address these inequities. Both the CRC and CRPD can be used as frameworks to provide a more comprehensive direction for advancing the rights of people with FASD and their families. Historically, FASD research has been conducted on individuals rather than with them. Honouring calls for more collaborative work that directly includes individuals with living experience, alongside the recommendations of disability justice frameworks that emphasize intersectionality and collective access and liberation with leadership from those most impacted, this work brings together the perspectives of individuals with living experience with academic evidence to identify the ways in which rights for people with FASD and their families are not currently being upheld. This poster will underscore the need for person-centred, collaborative, and strengths-focused approaches, and for expanded research and support to improve outcomes across six exemplary areas situated in the CRC and CRPD including health, education, child welfare, housing, employment, and the criminal legal system. The articles in both the CRC and CRPD provide targeted areas that can be leveraged to empower advocates – including self-advocates, families and caregivers, and organizations – to speak up on behalf of persons with FASD to ensure that their human rights are respected and that their full participation in society is supported.

P6.03 "Seeing the world differently": Barriers and Opportunities for Housing Solutions for Individuals with Fetal Alcohol Spectrum Disorder

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Individuals with disabilities have a right to live independently, be included within their communities, and have adequate standards of living and social protections. However, individuals with fetal alcohol spectrum disorder (FASD) experience elevated obstacles to obtain and maintain housing. In addition to brain-based differences that can create barriers to successful navigation of daily demands, many individuals with FASD experience mental health concerns, substance use, or trauma, and the experience of being houseless is, in itself, traumatic. These factors compound one another, resulting in individuals with FASD being disproportionately affected by the ongoing housing and rising cost of living crisis—and, by extension, compromise their potential for healthy outcomes across the lifespan.

In 2023, the Canada FASD Research Network (CanFASD) interviewed 47 participants across Canada, including individuals with FASD, caregivers, support workers, housing service providers and policymakers. The goals of this project were to determine the barriers and enablers to obtaining and maintaining safe and stable housing. Reflexive thematic analysis was conducted to explore individuals' living experiences, perspectives, and recommendations on what safe and stable housing for individuals with FASD could look like.

Our results indicate that housing must improve across four domains: access, individualization, collaboration, and understanding. Lack of understanding around FASD is one of the largest barriers to housing and support, and a large contributor to poverty for individuals with FASD and their families. Individuals with FASD are misconstrued as being lazy, combative, or willfully misunderstanding the situation—these situations then escalate to eviction, even in supported housing situations which claim to be disability-informed. Individuals with FASD are thereby prevented from accessing other supported housing options, which perpetuates unsafe living situations. Successful foundations can be built on understanding: everyone can benefit from supports that are responsive, and built to adapt to fit individual needs.

P6.04 Care for children and adolescents with FASD in the Netherlands: barriers and facilitators from lived experiences

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BACKGROUND
Fetal Alcohol Spectrum Disorders (FASD) are associated with lifelong neurodevelopmental challenges and a substantial burden for children, families and society. Although early diagnosis and tailored support are seen as protective factors, international research demonstrates persistent multilevel barriers to accessing appropriate healthcare and social services. In the Netherlands, empirical insight into barriers and facilitators regarding adequate health and social care across stakeholder perspectives remains limited.

OBJECTIVE
This study aimed to identify barriers and facilitators in the provision of care for children and adolescents with FASD in the Netherlands, drawing on the lived experiences of young adults with FASD, primary caregivers, and professionals with FASD expertise.

METHODS
A qualitative study was conducted. Semi-structured individual interviews were conducted with 9 young adults with FASD (≥16 years) and 11 primary caregivers of children with FASD. An online focus group with professionals with FASD expertise was subsequently conducted to reflect on preliminary findings. Participants were recruited via the Dutch FASD Foundation using convenience, snowball and purposive sampling. Analysis followed the six steps of reflexive thematic analysis. All participants provided written informed consent.

RESULTS
Participants reported a pervasive lack of FASD-related knowledge across health and social care, which resulted in misinterpretation of behavior, unrealistic expectations and delayed or inappropriate support. FASD-informed expertise was experienced as validating and stigma-reducing. Care was experienced as fragmented, with limited continuity and unclear coordination, leading to insecurity among young adults with FASD and a heavy burden for caregivers. Long-term involvement of dedicated professionals was experienced as stabilizing and supportive. The quality of relationships and collaboration shaped care experiences: partnership-based, respectful communication fostered trust, whereas top-down approaches undermined it. Standardized interventions were often perceived as poorly aligned with the complex and heterogeneous needs associated with FASD. Early diagnosis, psychoeducation and sustained, flexible support across life transitions were consistently identified as key facilitators of appropriate care.

CONCLUSION
Care for children and adolescents with FASD in the Netherlands is experienced as fragmented, insufficiently FASD-informed and poorly aligned with their lifelong needs. Across perspectives, stable relationships, continuity, FASD-specific expertise and family-centered, flexible care pathways are seen as facilitators of appropriate health and social care.

P6.05 Gaps Between Awareness and Practice in the Prevention of Prenatal Alcohol Exposure: Evidence from a Qualitative Study in Chisinau municipality

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(2) State University of Medicina and Pharmacy "Nicolae Testemitanu"

INTRODUCTION
Prenatal alcohol exposure remains a major preventable cause of neurodevelopmental disorders and lifelong disability. Despite clear evidence that no amount of alcohol is safe

during pregnancy, prevention practices are often inconsistent and insufficiently integrated into routine maternal care. Understanding professional practices, perceptions, and barriers is essential for strengthening fetal alcohol spectrum disorder (FASD) prevention at the community level.

AIM
This study aimed to explore current practices, perceptions, and challenges related to the prevention of prenatal alcohol exposure and FASD among key professional groups and mothers in Chișinău municipality.

MATERIALS AND METHODS
In November 2025, a qualitative study was conducted within the project “Opportunities in the Prevention of Fetal Alcohol Disorders in Chisinau municipality”. Four focus group discussions (FGDs) were organized with social workers, healthcare professionals (family doctors, obstetricians-gynecologists, nurses, midwives), psychologists, and mothers on childcare leave. A total of 51 participants were involved. FGDs were performed by structured interview guides tailored to each participant group.

RESULTS
Participants demonstrated a high level of awareness regarding the risks of alcohol use during pregnancy, with 65.3% (n=34) fully agreeing that no amount of alcohol is safe, and 90.2% (n=46) considering the effects of occasional alcohol consumption on the fetus to be severe. However, only 21.6% (n=11) of respondents reported that the topic is discussed frequently during prenatal care, while 39.2% (n=20) indicated that it is addressed only occasionally. Discussions about alcohol use in pregnancy were often dependent on individual professional judgment or perceived risk, rather than being integrated as a routine preventive practice. Most respondents perceived their level of preparedness to address alcohol use during pregnancy as moderate or low. Key barriers included the lack of standardized educational materials, limited training opportunities, time constraints, stigma, and insufficient intersectoral collaboration. Mothers reported variable experiences with healthcare communication, underscoring the importance of empathetic and non-judgmental approaches.

CONCLUSIONS
The findings highlight a substantial gap between awareness of prenatal alcohol risks and the practical capacity to deliver consistent and structured prevention. Strengthening FASD prevention requires systematic screening, targeted professional training, standardized educational resources, and enhanced interdisciplinary collaboration.

P6.06 French territorial disparities in the diagnosis of fetal alcohol spectrum disorders

Stephanie Toutain (1)

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INTRODUCTION
The consumption of alcohol during pregnancy causes deleterious effects for the unborn child grouped under the term TSAF. Since 2016, Réunion has been presented as a pilot department for the diagnosis and support of these children, whereas the Hexagon only has an arrowed consultation and practitioners scattered throughout the territory. This article mainly aims to highlight the inequalities in access to diagnosis and care.

METHOD
This study approved by the University's ethics committee is based on a qualitative survey using semi-structured interviews with professionals and families raising or having raised a child with FASD.

RESULTS
The children - whose mother is suspected of drinking alcohol - benefit from a diagnosis and support from birth. On Reunion Island, the territorial network facilitates this management by public structures or liberal professionals. Without knowledge of maternal alcohol consumption, the diagnosis is often made after years of wandering thanks to associations. The scarcity of specialists to make a diagnosis in France contributes to accentuating these inequalities.

DISCUSSION
Many children are not diagnosed due to the lack of detection of maternal alcohol consumption during pregnancy by professionals and training to make a diagnosis. The extent of these shortcomings varies according to the territories, the diagnostic offer is still very unevenly distributed geographically, particularly between France and Reunion Island.

P6.07 Improving Justice Responses for Individuals with FASD: Lessons from Australia's Evolving System Reform

Sophie Harrington, NOFASD Australia

Young people with Fetal Alcohol Spectrum Disorder (FASD) are significantly overrepresented in justice systems, yet FASD often remains unrecognised within custodial and community justice settings. This presentation examines Australia's evolving approach to improving justice responses for individuals with FASD, with a particular focus on practice-based reform within youth justice contexts.

Drawing on NOFASD Australia's direct involvement in workforce education, system guidance, and policy-informed practice, the presentation highlights efforts to embed FASD-informed approaches within youth justice services. This includes sustained professional development for custodial staff and ongoing advisory input to support more developmentally appropriate, trauma-informed responses to young people with neurodevelopmental disability.

The presentation explores common challenges faced within justice settings, including late or missed diagnosis, non-syndromic presentations, and the misinterpretation of neurodevelopmental differences as wilful non-compliance. It outlines how continuous workforce training and cross-sector guidance can support improved understanding of FASD-related behaviours, strengthen decision-making, and reduce reliance on punitive responses.

By grounding reform in sustained workforce engagement, this presentation demonstrates how FASD-informed practice can be embedded within custodial environments. Reflections from implementation offer transferable insights for other jurisdictions seeking to move beyond awareness toward fairer, developmentally informed justice responses for young people with FASD.

P6.08 Navigating Complex Realities: Knowledge, Perspectives, and Practices on Alcohol Use During Pregnancy Among Portuguese Nurses and Physicians Working with Pregnant Women

Maria Xavier (1), Filipa Lima, Mafalda Moura, Ana Paula Dos Santos

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Across Europe, recent guidelines (e.g., FAR SEAS and WHO) converge on no safe alcohol use in pregnancy and call for systematic screening and brief intervention. Yet studies in different countries show inconsistent adoption by nurses/midwives and physicians working with Pregnant Women. The present study aims to explore knowledge, perspectives, and practices on alcohol use during pregnancy among Portuguese nurses and physicians working with pregnant women. The participants were 21 professionals (13 nurses and 8 physicians) selected through a non-probabilistic convenience sampling (theoretical saturation). Within a qualitative design, we carried out semi-structured interviews and subsequently applied a semi-inductive thematic analysis—guided by our research aims and interview domains while still allowing data-driven codes and themes to emerge. NVivo was used to support systematic coding and data management.

The findings reveal insufficient current scientific knowledge among participants, and that a substantial proportion are unfamiliar with the established guidelines for intervening in situations involving alcohol use during pregnancy. Inconsistent practices and non-compliance with international and national guidelines were also reported. A considerable number of participants reported risk perceptions unsupported by scientific evidence, relying instead on personal conceptions. They further identified gaps in their preparation to address alcohol use during pregnancy, stressing the need for more comprehensive training due to the sensitivity and potential complexity associated with discussing this issue with pregnant women.

We conceptualize nurses and physicians as the practical bridge linking scientific guidelines and patient outcomes. Investigating their knowledge, experiences, and practices is not merely descriptive but inherently advocacy-oriented: by enabling professionals to articulate needs and identified barriers, prevention capacity can be strengthened. In this study, we position prevention as a primary locus of professional advocacy and examine how nurses and physicians understand their roles as prevention agents within a current preventive care framework that pairs clear abstinence messaging with woman-centred and context-sensitive care, and recognises that clinical prevention depends on the surrounding system. By exploring perceived preparedness, training needs, and organisational constraints, we identify the barrier factors that currently contribute to misalignment between daily practice and up-to-date prevention standards.

P6.09 Where are the gaps? The prevention of FASD in Germany: mapping institutional structures, prevention approaches and individual projects

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(1) Federal Institute of Public Health (BIÖG)
(2) Leibniz Institute for Prevention Research and Epidemiology - BIPS

BACKGROUND
Germany is among the European countries with the highest levels of annual alcohol consumption. Despite a zero-alcohol recommendation for pregnant women and the implementation of various prevention strategies, approximately 1–2% of newborns are affected by Fetal Alcohol Spectrum Disorders (FASD) each year. Against this backdrop, this overview paper examines how FASD prevention is embedded within the German health care system and identifies existing gaps.

The article forms part of the international research project CAP-PRE (Counselling for Alcohol Problems during Pregnancy) supported by the German Alliance for Global Health Research (GLOHRA).

METHODS
This paper is based on a desk review of documented prevention approaches, interventions, and care structures related to FASD prevention in Germany published between 2015 and 2025. The literature search was conducted using three databases (PubMed, Cochrane Library, and Google Scholar), complemented by advanced Google searches and hand searches of relevant initiatives and networks involved in FASD prevention (e.g. EUFASD). Search terms included combinations of alcohol, prevention, and pregnancy in the German context. A total of 50 publications met the inclusion criteria. Of these, 14 dealt with institutional structures, 22 with the description of prevention approaches, and 14 with individual FASD prevention projects in Germany.

RESULTS
In Germany, numerous innovative and localized prevention initiatives targeting alcohol consumption during pregnancy exist. However, many of these projects lack systematic evaluation, limiting conclusions about their effectiveness. FASD counseling is usually integrated into addiction support services and pregnancy counseling structures. These systems are often interlinked and, in some cases, supported by the same umbrella organizations.

DISCUSSION
While prevention in Germany focuses on completely avoiding alcohol consumption during pregnancy, studies show that stigmatization remains a problem. Furthermore, the lack of robust evaluations of prevention measures targeting pregnant women and women with elevated risk profiles hinders the evidence-based development and scaling of effective interventions. The examination of international prevention approaches in the CAP-PRE consortium allows us to discuss how shared responsibility between healthcare professionals and other sectors can lead to a better understanding of individual problems and improved care.

P6.10 Navigating the Digital Maze: Online Information on Alcohol and Pregnancy Available in Switzerland

Luca Notari (1), Joanna Amos (1)

(1) Addiction Switzerland

The internet has become a primary source of health information for pregnant women, yet online messages concerning alcohol consumption during pregnancy remain heterogeneous in quality and clarity. This study provides a comprehensive inventory and analysis of digital information on “alcohol and pregnancy” accessible from Switzerland.

In 2024, we conducted a systematic multilingual analysis (German, French, Italian, English) combining automated web scraping and manual coding. The corpus (N = 1,082) comprised search engine results (573 websites), social media content (294 posts from Instagram, TikTok, X, Facebook public pages, and Pinterest), 19 Facebook group posts, 66 forum threads, 34 YouTube videos, and 96 AI-generated responses. Content was assessed regarding the visibility of the “zero alcohol” precautionary principle, the presence of misinformation, and dominant discursive dynamics.

Overall, the preventive message predominated, but substantial vulnerabilities were identified. Among websites, 83% explicitly endorsed the “zero alcohol” recommendation and 62% mentioned Fetal Alcohol Spectrum Disorders (FASD). However, English-language content exhibited a markedly higher error rate (33%) compared to German-language content (16%). Swiss institutional sources showed limited visibility (14%), frequently overshadowed by foreign content. On social media, 72% of posts aligned with the precautionary principle (54% mentioning FASD), while 10% contained problematic or trivializing messages, particularly on TikTok and X. Forums and groups operated as “living archives” of outdated information and polarized debates. In contrast, AI tools (e.g., ChatGPT, Gemini) consistently adhered to the precautionary principle.

In conclusion, although the “zero alcohol” message is broadly visible, it competes with ambiguous, trivializing, or erroneous content—especially within English-language ecosystems and on specific social platforms. Public health actors should strengthen search engine optimization (SEO) for official resources and implement continuous digital monitoring to ensure that validated, context-specific information prevails over persistent digital noise.

P6.11 Expanding our understanding of the influences on perinatal alcohol use

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(1) Centre of Excellence for Women's Health
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BACKGROUND
Understandings around alcohol use in pregnancy have primarily been focused on individual and behavioural level factors; disregarding the social and structural considerations that impact use. This presentation will explore the multi-level factors that influence alcohol use in pregnancy, based on a subset of literature annually searched to describe the state of evidence on Fetal Alcohol Spectrum Disorder (FASD) Prevention.

RESEARCH OBJECTIVES
This research promotes understanding of the influences on alcohol use in pregnancy in order for preventative actions to be tailored, comprehensive and effective.

METHODS
Literature searches were conducted in 2023 and 2024 using six databases using EBSCO Host. The searches are used to update those involved in FASD prevention in Canada and to inform their practice and policy work with current evidence. Using the findings from 2023 and 2024 we reconceptualized and categorized the findings on influences, in order to support more focussed efforts to prevent/reduce alcohol use in pregnancy.

RESULTS
Five categories of influences on alcohol use in pregnancy were identified: 1) structural factors, such as inadequate prenatal care; 2) informational factors, such as lack of awareness of the risks of alcohol use in pregnancy; 3) stress related factors, such as experience of violence; 4) social determinant of health-related factors, such as socioeconomic status; and 5) preconception and pregnancy related factors, such as preconception substance use.

CONCLUSIONS
To prevent FASD and promote women's health, all five influences need to be addressed. Ideas will be shared for how they are, and might be addressed based on prevention programming and policy initiatives.

P6.12 Alcohol Use Trajectories from Pre-Conception to Post-Pregnancy Recognition: Novel Data from Scottish Expectant Mothers

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(1) The University of Edinburgh

BACKGROUND
Prevalence rates of alcohol exposed pregnancies have long been considered underestimates, as data on alcohol use is often only collected after pregnancy recognition has occurred. Given that alcohol exposure can have deleterious effects at any stage of gestation, accurate stage-specific prevalence estimates are critical for effective surveillance and prevention. Despite this, how alcohol behaviours change from conception through to pregnancy recognition is little understood, as well as the correlates which predict change or persistence. The current study therefore aims to identify distinct alcohol use behaviour profiles during early pregnancy – from pre-conception to post-recognition – and to identify the demographic, lifestyle, and healthcare correlates of change or persistence, with direct relevance for the timing of public health interventions.

METHOD
A nationally representative sample of Scottish pregnant women (n ≈ 380) were invited to complete an anonymous online questionnaire, assessing their alcohol use at three time-points: i) pre-conception, ii) between conception and pregnancy recognition, and iii) post pregnancy confirmation, using the Alcohol Use Disorders Identification Test (AUDIT). Additional data were collected on participant demographics, health behaviours, mental wellbeing, and healthcare engagement.

RESULTS
Participants were grouped into four distinct alcohol use behaviour categories: i) no alcohol use across the three time-points; ii) alcohol use pre-pregnancy but alcohol abstinence after conception; iii) alcohol use pre-pregnancy and post-conception but abstinence after pregnancy confirmation; and iv) alcohol use across all three time-points. Multinomial logistic regression will be used to determine what factors distinguish between the groups, and if cumulative vulnerabilities equate to sustained alcohol use.

CONCLUSION
Identifying the demographic and health-behaviour differences across the four alcohol use behavioural groups may aid in developing more timely, targeted, and non-stigmatising prevention and support strategies. Moreover, such results can provide evidence for moving beyond “one-size-fits-all” messaging regarding alcohol use during pregnancy; and strengthen the notion that alcohol use across the pregnancy journey is complex and multifaceted.

P6.13 Geolocation of Fetal Alcohol Spectrum Disorders (FASDs) in Reunion Island: territorial disparities between patient needs and healthcare provision

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BACKGROUND
FASDs are the leading non-genetic cause of intellectual disability and are frequently associated with impaired social adaptation and behavioural difficulties. Reunion Island has the highest reported prevalence in France, prompting the creation of an FASD Resource Center and a dedicated Diagnostic Center ten years ago. However, diagnosis alone is not sufficient: long-term outcomes depend on early, continuous, multidisciplinary follow-up (e.g., speech and language therapy, psychomotor therapy, educational support, and social care). We hypothesized that significant territorial disparities persist in access to local services across the Island.

METHODS
We conducted a descriptive, multicenter observational study using routinely collected data from children enrolled between 2016 and 2024. Using RStudio (v4.1.3), we geolocated patients by area of birth and current residence and mapped their geographic distribution. We then compared patient distribution with the density of community-based, self-employed healthcare professionals involved in the care pathway (speech and language therapists and psychomotor therapists), as well as with the geographic availability of specialized institutions and social care facilities.

RESULTS
A marked mismatch emerged between place of birth and current place of residence. Births were concentrated in the North (44%) and South (25.5%), with lower proportions in the West (21%) and the East (9.5%). In contrast, current residence was more evenly distributed across the Island, notably increasing in the East (19.1%). This redistribution was largely explained by child placement: 55% of children were in out-of-home care, primarily in foster families that were geographically dispersed (78.9%). The availability of community healthcare professionals was high in the South and West, remained constrained in the North, and was particularly low in the East. Patient-to-private-practitioner ratios reflected these disparities (0.02 in the South; 0.06 in the West; 0.08 in the North; and 0.11 in the East).

CONCLUSION
Geospatial analysis therefore reveals major inequities in access to essential care for children with FASDs. These findings can inform the Regional Health Agency for workforce planning and the Departmental Council regarding early childhood services and child placement strategies, to better align service provision with population needs. Reducing territorial gaps is critical to prevent secondary disabilities, improve developmental trajectories for highly vulnerable children

P6.14 What's Happening in Canada?

Kathy Unsworth (1), Audrey Mcfarlane (1), Jocelynn Cook (1)

(1) Canada FASD Research Network

Canada has long been recognized internationally for its leadership in Fetal Alcohol Spectrum Disorder (FASD) research, policy development, and service delivery. Despite decades of progress, significant gaps and inconsistencies remain in in national efforts to address FASD and reduce prenatal alcohol exposure (PAE). This presentation provides a current snapshot Canada's FASD landscape, building on the foundational work of the Canada FASD Research Network (CanFASD), which has framed FASD within a human rights–based approach and elevated the voices and lived experiences of individuals with FASD and their families.

Drawing on recent national analyses, the presentation examines key developments shaping, and in some cases limiting, Canada's progress. Topics include the substantial disparity in research funding between FASD and other neurodevelopmental disorders; federal policy efforts such as a proposed Senate Bill to establish a National FASD Framework; and alcohol policy initiatives focused on standardized alcohol labelling as a population-level prevention strategy.

Findings from a recent national needs assessment will also be presented, identifying opportunities to improve the clarity, equity, and practical implementation of the Canadian FASD diagnostic guidelines while maintaining their scientific foundation. The assessment highlights the need for coordinated, system-level solutions to support more consistent and equitable care across jurisdictions.

Conclusions from a recent Canadian assessment report will be highlighted, offering insight into national strengths, gaps, and opportunities for coordinated action related to FASD prevention, diagnosis and support.

The presentation will conclude by highlighting insights from a recent Canadian assessment report, outlining national strengths, gaps, and opportunities for coordinated action in FASD prevention, diagnosis, and support. Emerging Canadian research initiatives will also be briefly discussed to illustrate areas of innovation and future promise.