

PROGRAMME DES « RENCONTRES TRANSLATIONNELLES DE NEUROSPIN »

NEUROSPIN TRANSLATIONAL MEETING PROGRAM

Imaging neurodevelopmental disorders and related conditions

Friday 17th November 2023

- 11h00 Reception
- 11h15 Welcome address & presentation of NeuroSpin. [Stanislas Dehaene \(NeuroSpin Director\)](#)
Presentation of the meeting
- 11h30 1st conference – 45min talk and 15min discussion
Brain growth trajectories in children with prenatal alcohol exposure: fundamental & clinical perspectives
[Catherine Lebel \(University of Calgary, Hotchkiss Brain Institute, Calgary\)](#)
Chair: [Jessica Dubois](#)
- 12h30 Lunch - Large poster display in the Galeria
- 14h00 Session 1 – 60min talks and 30min discussion
Imaging the brain after perinatal insults: from the description of differential maturation and plasticity to the characterization of clinically relevant markers
Chair & discussants: [Jessica Dubois & Nathalie Bednarek \(URCA, CHU Reims, Reims\)](#) – [Marianne Alison \(Univ. Paris Cité, AP-HP, Paris\)](#)
- **Brain development in children with congenital heart diseases: relating MRI features to clinical outcome**
[Serena Counsell \(King's College, London\)](#)
 - **Multimodal MRI and EEG studies of infants: insights into early neurodevelopment and disturbances related to prematurity**
[Jessica Dubois \(Inserm, NeuroSpin, Gif/Yvette\)](#)
 - **Lessons in both form and substance from the imaging follow-up studies of the French NAIS cohort**
[Lucie Hertz-Pannier \(CEA, NeuroSpin, Gif/Yvette\)](#)
- 15h30 Break
- 16h00 Session 2 – 40min talks and 20min discussion
What contribution can computational anatomy of cortical folding make to the field of neurodevelopmental conditions?
Chair & discussants: [Julien Lefèvre \(Univ. Aix Marseille, INT, Marseille\)](#) & [Stéphanie Valence \(AP-HP, Paris\)](#)
- **Developmental anatomy of cortical gyrification: evolution of computational tools & clinical prospects**
[Jean-François Mangin \(CEA, NeuroSpin, Gif/Yvette\)](#)
 - **Toward a large window to the development of gyrification in fetuses: from clinical MRIs to computational neuroanatomy**
[Guillaume Auzias \(CNRS, INT, Marseille\)](#)
- 17h00 Session 3 – 40min talks and 20min discussion
Towards 7T MRI in children with neurodevelopmental concern. Where are we?
Chair & discussants: [David Germanaud & Nadine Girard TBC \(Univ. Aix Marseille, AP-HM, Marseille\)](#)
- **A rapid overview...**
In NeuroSpin: the TRANSEPT-E project to leverage 7T brain MRI in school age children
[Vincent Gras & Catherine Chiron \(CEA, NeuroSpin, Gif/Yvette\)](#)
 - **In Utrecht: neonatal and pediatric 7T projects**
[Evita Wieggers & Jannie Wijnen \(University Utrecht, Utrecht\)](#)
- 18h00 Aperitif in the Galeria - Large poster display in the Galeria (from Friday 10h to Saturday 16h)
- 20h00 End of first day (bus to Paris for those who wish)

Saturday 18th November 2023

- 09h30 Session 4 – 60min talks and 30min discussion
Reconciling large group analyses and clinical relevance in neuroimaging of neurodevelopmental disorders and related psychiatric conditions
 Chair & discussants: Pauline Favre & Renaud Jardri (Univ. Lille, CHU Lille, Lille) – Anna Maruani (CHU Robert Debré, Paris) TBC
- Large scale neuroimaging studies: interest and limits so far in neurodevelopmental disorders and related psychiatric conditions**
 Charles Laidi (AP-HP, Institut Mondor, Créteil ; NeuroSpin, Gif/Yvette)
- **Can machine learning applied to neuroimaging in neurodevelopmental disorders help the clinician?**
 Edouard Duchesnay (CEA, NeuroSpin, Gif/Yvette)
 - **Normative scaling analysis and other attempts to reach individual clinical relevance: the example of neuroanatomical markers of Fetal Alcohol Spectrum Disorders**
 David Germanaud (CEA, NeuroSpin, Gif/Yvette)
- 11h00 Break
- 11h30 2nd conference - 30min talk and 30min round table
Imaging neurodevelopmental conditions: clinical challenges & expectations for today and tomorrow
 Ingeborg Krägeloh-Mann (Universität Tübingen, Tübingen)
 Chair & discussants: David Germanaud & Richard Delorme (Univ. Paris Cité, AP-HP, Paris) – Mathilde Chevignard (Laboratoire d'imagerie biomédicale, LIB, Sorbonne université) Sylvie N'Guyen (CHU Lille)- TBC
- 12h30 Lunch
- 13h30 Session 5 – 40min talks and 20min discussion
Crossing imaging and genetics in neurodevelopmental conditions: from susceptibility traits to rare single-gene diseases
 Chair & discussants: Cathy Philippe (CEA, NeuroSpin, Gif/Yvette) & Aurore Curie (Univ. Lyon 1, HCL, Lyon)
- **Effects of pathogenic recurrent copy number variants on brain structure : lessons from large-scale studies**
 Ida Sonderby (Universitetet i Oslo, KG Jebsen Centre for NDD, Oslo)
 - **Contribution of neuroimaging to the understanding and care in a rare disease: NF1-related neurodevelopmental disorders**
 Eloïse Baudou (CHU Toulouse, ToNIC, Toulouse)
- 14h30 Session 6 – 60min talks and 30min discussion
Cognitive imaging helps reveal what happens when first-grades learn reading and numbers: how could this now help with learning disabilities?
 Chair & discussants: Caroline Huron (Inserm, LPI, Paris) & Hervé Glasel (CERENE, Paris); Yves Chaix (univ.toulouse, ToNIC, Toulouse) - TBC
- **Imaging the first years of learning to read**
 Ghislaine Dehaene-Lambertz (CNRS, NeuroSpin, Gif/Yvette)
 - **Imaging the first years of learning numbers**
 Jérôme Prado (CNRS, CRNL, Lyon)
 - **Imaging children's watching naturalistic math lessons: a window into why some of them struggle?**
 Marie Amalric (Università di Trento, CIMeC, Trento)
- 16h00 Closing intervention: Highlights from discussions and perspectives for translational research
 Lucie Hertz-Pannier
- 16h15 End of symposium TBA/C (to be announced/confirmed): to date not all discussants have confirmed

Thank you for participating !

