

# Flux Congress Program Schedule

**Day 1**

**Saturday, September 16**

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8:00 – 8:30 AM	<b>Coffee</b>
8:30 – 9:00 am	Welcome Comments <b>Beatriz Luna</b> University of Pittsburgh, USA <b>Brad Schlaggar</b> Washington University in St. Louis, USA <b>Fred Sabb</b> University of Oregon, USA <b>Damien Fair</b> Oregon Health and Sciences University, USA  <b>Translational Neuroscience in the Northwest Symposium - Part 1</b> Chair: <b>Bita Moghaddam</b> Oregon Health & Science University, USA Discussant: <b>Bonnie Nagel</b> Oregon Health & Science University, USA
9:00 - 9:25 am	<b>Adolescent dopamine disobeying adult rules: recent electrophysiological and behavioral findings</b> <b>Bita Moghaddam</b> Oregon Health & Science University, USA
9:30 - 9:55 am	<b>The rapidly accelerating pace of autism genetics as a model for genetic studies in mental health</b> <b>Brian O'Roak</b> Oregon Health & Science University, USA
10:00 - 10:25 am	<b>Development and plasticity of local and long-range cortical circuits in the mouse</b> <b>Cris Niell</b> University of Oregon, USA
10:25 – 10:50 am	<b>Q&amp;A</b>
10:50 – 11:10 am	<b>Break</b>
	<b>Translational Neuroscience in the Northwest Symposium - Part 2</b> Discussant: <b>Fred Sabb</b> University of Oregon, USA
11:10 – 11:35 am	<b>Healthy brain development programs in global health</b> <b>Dan Marks</b> Gates Foundation, USA
11:35 – 12:00 pm	<b>Adult human cortical cell type diversity defined by single nucleus RNA-sequencing</b> <b>Trygve Bakken</b> Allen Institute, USA
12:00 – 12:25 am	<b>Q&amp;A</b>
12:25 – 1:25 pm	<b>Lunch</b>

## Science of Learning Symposium

Co-chair: **Silvia Bunge** University of California at Berkley, USA

Co-chair: **Bruce McCandliss** Stanford University, USA

- 1:25 – 1:45 pm **S.1.1 Early cerebral constraints on academic learning in children, adolescents and adults**  
**Gregoire Borst** Paris Descartes University, USA
- 1:45 – 2:05 pm **S.1.2 White matter plasticity and reading: Network level changes track the learning process**  
**Jason Yeatman** University of Washington, USA
- 2:05 – 2:25 pm **S.1.3 The relationships among SES, white matter, and reading development: a longitudinal investigation from kindergarten to 2nd grade.**  
**Ola Ozernov-Palchik** Tufts University/MIT, USA
- 2:25 – 2:45 pm **S.1.4 Altered processing of reward and punishment following early life stress**  
**Carolyn Johnson** Harvard University, USA

2:45 – 3:00 pm **Q&A**

## Young Investigator Award

3:00 – 3:15 pm **Damien Fair** Oregon Health & Science University, USA

## Huttenlocher Lecture

3:15 - 4:00 pm *Huttenlocher Lecture – Adolescence: Experience-Seeking, Experience-Sculpting and Phenotypic Stabilization, a lecture given by Marisa Silveri on behalf of Linda Spear*

**Marisa Silveri** Harvard University Medical School, USA

4:00 – 6:00 pm **Poster Session 1**

6:00 – 7:00 pm **Opening Reception**

## Day 2 **Sunday, September 17**

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8:00 – 8:30 am **Coffee**

## **Oral Session 1: Development of Psychopathology**

Chair: **Nick Allen** University of Oregon, USA

Discussant: **Erika Forbes** University of Pittsburgh, USA

8:30 - 8:50 am **O.1.1 Early postnatal development of prefrontal-amygdala synaptic transmission**

**Roger Clem** Mount Sinai School of Medicine, USA

8:50 - 9:10 am **O.1.2 Temper tantrums as Indicators of emotion dysregulation in children**

**Amy Roy** Fordham University, USA

9:10 - 9:30 am **O.1.3 Affect-biased Attention as a core mechanism of emotion reactivity and regulation**

**Koraly Perez-Edgar** Penn State University, USA

9:30 – 9:40 am **Q&A**

9:40 – 10:00 am **Break**

## **Oral Session 2: Development of Attention**

Chair: **Sarah Durston** University of Utrecht, Netherlands

10:00 - 10:20 am **O.2.1 Brain development in Attention Deficit Hyperactivity Disorder**

**Sarah Durston** University of Utrecht, Netherlands

10:20 - 10:40 am **O.2.2 Beyond the attentional homunculus: The developmental dynamics of attention, learning and memory**

**Gaia Scerif** University of Oxford, UK

10:40 - 11:05 am **O.2.3 When children are more open-minded learners than adults are: computation, evolution and phenomenology**

**Alison Gopnik** University of California at Berkeley, USA

11:05 - 11:30 am **O.2.4 Developing Inhibitory Control: The Role of Temporal Dynamics in Children's Attention**

**Yuko Munakata** University of Colorado Boulder, USA

11:30 – 11:50am **Q&A**

11:50 – 1:10 pm **Lunch**

## **Oral Session 3: Cellular & Molecular Mechanisms in Development**

Chair: **Nim Tottenham** Columbia University, USA

1:10 - 1:40 pm **O.3.2 Epigenetic Variation in Developmental Trajectories: Role of Prenatal and Postnatal Experiences**  
**Frances Champagne** University of Texas at Austin, USA

1:40 - 2:10 pm **O.3.3 Leveraging Dynamic Changes in Neural Circuitry During Adolescence to Persistently Attenuate Fear Memories**  
**Siobhan Pattwell** Lafayette College, USA

2:10 - 2:35 pm **O.3.4 Placental mechanisms underlying sex differences in neurodevelopmental vulnerability**  
**Bridget Nugent** University of Pennsylvania, USA

2:35 – 2:45 pm **Q&A**

2:45 – 3:00 pm **Break**

## **Oral Session 4: ABCD Symposium**

Chair: **Monica Luciana** University of Minnesota, USA

3:00 - 3:10 pm **O.4.1 How to describe neurodevelopment at the population level: Recruitment and sampling characteristics of the ABCD study.**  
**Hugh Garavan** University of Vermont, USA

3:10 - 3:20 pm **O.4.2 Assessing mental health and substance use in 9 and 10-year-olds: The ABCD Assessment Protocol and early outcomes**  
**Susan Tapert** University of California San Diego, USA

3:20 - 3:30 pm **O.4.3 Neurocognition in early adolescence and risk for later substance use: findings from ABCD's first year of study**  
**Monica Luciana** University of Minnesota, USA

3:30 - 3:40 pm **O.4.4 Mapping neural development supporting cognitive and emotion process in the ABCD**  
**Deanna Barch** Washington University, USA

4:00 – 6:00 pm **Poster Session 2**

7:00 – 10:00 pm **Flux Excursion at Portland Brewing Taproom** – advance ticket purchase required

8:00 – 8:30 am

**Coffee**

**Oral Session 5: Methods for Developmental Imaging**

Chair: **Monica Rosenberg** Yale University, USA

8:30 – 8:50 am

**O.5.1 Characterizing attention with connectome-based predictive models**

**Monica Rosenberg** Yale University, USA

8:50 - 9:10 am

**O.5.2 Developmental changes in the effect of emotional cues on value-based decision-making and information maintenance in borderline personality disorder**

**Michael Hallquist** Pennsylvania State University, USA

9:10 - 9:30 am

**O.5.3 Movies in the magnet: The use of naturalistic stimuli in developmental neuroimaging**

**Tamara Vanderwal** Yale University, USA

9:30 – 9:50 am

**Q&A**

**Oral Session 6: Social and Motivational Processes**

Chair: **Leah Somerville** Harvard University, USA

9:50 – 10:10 am

**O.6.1 Neurodevelopmental mechanisms underlying normative shifts in goal-directed behavior**

**Leah Somerville** Harvard University, USA

10:10 – 10:30 am

**O.6.2 The role of control and motivation in the development of prosocial behavior**

**Niko Steinbeis** Leiden University, Netherlands

10:30 – 10:50 am

**O.6.3 Variation in the oxytocin receptor gene modulates reward circuit connectivity in youth with and without autism**

**Mirella Dapretto** University of California Los Angeles, USA

10:50 – 11:10 am

**Q&A**

11:10 – 11:30 am

**Break**

**Flash Talks – Part 1**

Co-chair: **Bea Luna**

Co-chair: **Nim Tottenham**

- 11:30 - 11:35 am **F.1.1 Striatal reward anticipation decreases from adolescence to young adulthood - but only when watched by a peer**  
Rosa Li Duke University, USA
- 11:35 - 11:40 am **F.1.2 Patterns of functional connectivity predict maturity and diagnostic status of individuals with Tourette syndrome.**  
Ashley Nielsen Washington University in St. Louis, USA
- 11:40 – 11:45 am **F.1.3. Unraveling age, sex, puberty and testosterone effects on subcortical brain development across adolescence**  
LM Wierenga Leiden University
- 11:45 – 11:50 am **F.1.4 Developmental trajectories of social influence on ambiguous decision-making**  
Barbara Braams Harvard University
- 11:50 – 11:55 am **F.1.5 Development of the lateral lemniscus and its relation to receptive vocabulary**  
Anthony Dick Florida International University
- 11:55 – 12:00 pm **F.1.6 Modeling fMRI Data in R using Neuropointillist**  
Tara Madhyastha University of Washington
- 12:00 – 12:05 pm **F.1.7 Anterior cingulate theta band oscillations support development of cognitive flexibility through adolescence into adulthood**  
Scott Marek University of Pittsburgh, USA
- 12:00 - 12:05 pm **F.1.8 Pavlovian and instrumental contributions to motivated behaviors across development**  
Hillary Raab New York University, USA
- 12:05 - 12:10 pm **F.1.9 "No, don't do it!" Neural correlates of sibling closeness during risky decision-making**  
Christy Rogers University of North Carolina at Chapel Hill, USA
- 12:10 - 12:15 pm **F.1.10 Developmental stabilization of neural gain signals improves mean behavioral performance and behavioral variability**  
David Montez University of Pittsburgh, USA
- 12:15 - 12:20 pm **F.1.11 The representative developing brain: Does sampling strategy matter for neuroscience?**  
Kaja LeWinn University of California, San Francisco, USA
- 12:30 – 2:00 pm **Lunch/Poster Session 3**

## **Oral Session 7: Hippocampal Development**

Chair: **Noa Ofen** Wayne State University, USA

- 2:00 - 2:20 pm      **O.7.1 Progress and limitations in assessing hippocampal functional maturation**  
**Noa Ofen** Wayne State University, USA
- 2:20 – 2:40 pm      **O.7.2 Hippocampal contributions to the development of episodic memory**  
**Simona Ghetti** University of California Davis, USA
- 2:40 – 3:00 pm      **O.7.3 Self-derivation of new knowledge through memory integration: The importance of binding and detection of deviatio**  
**Patricia Bauer** Emory University, USA
- 3:00 – 3:20 pm      **O.7.4 Hippocampal neurogenesis, forgetting and infantile amnesia**  
**Paul Frankland** Hospital for Sick Children, USA
- 3:20 – 3:40 pm      **Q&A**

## **Flash Talks – Part 2**

Co-chair: **Bea Luna**

Co-chair: **Nim Tottenham**

- 3:40 - 3:45 pm      **F.2.1 Reduced orbitofrontal functional network centrality characterizes high neuroticism across childhood and adolescence**  
**Louise Baruël Johansen** Centre for Functional and Diagnostic Imaging and Research, Copenhagen University Hospital Hvidovre, Netherlands
- 3:45 - 3:50 pm      **F.2.2 Influence of sex and pubertal development on functional connectivity**  
**Katherine Reding** National Institutes of Health, USA
- 3:50 - 3:55 pm      **F.2.3 The developing frontoparietal network: Spatial imitation performance predicts activation in young children**  
**Sylvia Rusnak** Georgetown University, USA
- 3:55 - 4:00 pm      **F.2.4 Sex differences in the effect of nucleus accumbens volume on adolescent drinking: The mediating role of sensation seeking and positive alcohol expectancies**  
**Stephen Boyd** Oregon Health & Science University, USA

- 4:00 - 4:05 pm **F.2.5 Neighborhood effects on the brain: Impoverishment in early childhood predicts amygdala reactivity to ambiguous faces in young adulthood**  
Arianna Gard University of Michigan, USA
- 4:05 - 4:10 pm **F.2.6 Hatching a Pokémon egg By closing your eyes: A new paradigm for measuring resting-state in preschoolers**  
Moriah Thomason Wayne State University / Perinatology Research Branch, NICHD/NIH, USA
- 4:10 - 4:15 pm **F.2.7 Visual learning is modulated by reward value in infancy**  
Kristen Tummeltshammer Brown University, USA
- 4:15 - 4:20 pm **F.2.8 Ovarian hormones organize the maturation of inhibitory neurotransmission in the frontal cortex at puberty onset in female mice.**  
David Piekarski UC Berkeley, USA
- 4:20 - 4:25 pm **F.2.9 Neural correlates of latent internalizing and externalizing psychopathology during adolescence**  
Brenden Tervo-Clemmens University of Pittsburgh, USA
- 4:25 - 4:30 pm **F.2.10 Automaticity in the reading circuitry: A hallmark of skilled reading**  
Sung Jun Joo University of Washington, USA
- 4:30 – 5:00 pm **Poster Awards/Closing Ceremony**