OHBM 2020 Featured Programming

The Annual Meeting programming is being offered over a nine day period – June 23 – July 3, 2020.
Three days of programming and activities have been scheduled alternating between three major time zones as follows:
1) **New York (North/South America)** 2) **London (Europe)** and 3)**Hong Kong (Asia/Australia)**.

This Schedule of Events will allow most countries to attend "live" chat events and activities.

But remember – all content will be available to fit your personal schedule with the ability to connect with the presenters.

Time Point of Reference	**TUESDAY, 23 JUNE - WEDNESDAY, 24 JUNE 2020**	**WEDNESDAY, 24 JUNE - THURSDAY, 25 JUNE 2020**	**THURSDAY, 25 JUNE - FRIDAY, JUNE 26, 2020**
08.00H - New York 13.00H - London 20.00H - Hong Kong		Engagement Lounge	**GE Symposium** Coffee / Social Hour with exhibitors and colleagues
09.00H - New York 14.00H - London 21.00H Hong Kong	Opening Ceremonies	**Keynote Lecture Series** *- Alex Fornito, PhD*	**Keynote Lecture Series** *- Jason P. Lerch, PhD*
10.00H - New York 15.00H - London 22.00H - Hong Kong	**Talairach Lecture** *- Yoshua Bengio, introduced by Alan Evans*	**Symposia**	**Symposia**
11.00H - New York 16.00H - London 23.00H - Hong Kong	Up Close and Personal with the Glass Brain Award Winner - Leslie Ungerleider	**Oral Sessions**	**Oral Sessions**
12.00H - New York 17.00H - London 24.00H - Hong Kong	Welcome Reception and Networking hour	**Siemens Symposium** Poster standby and Exhibit Hours	Software Demonstrations
13.00H - New York 18.00H - London 01.00H +1d - Hong Kong	Grab a beverage and catch up with your colleagues!	**Siemens Symposium** Poster standby and Exhibit Hours	Engagement Lounge

Time Point of Reference	FRIDAY, 26 JUNE - SATURDAY, 27 JUNE 2020	Break!	MONDAY, 29 JUNE - TUESDAY, 30 JUNE 2020	TUESDAY, 30 JUNE - WEDNESDAY, 1 JULY 2020
16.00H - New York 21.00H - London 4.00H +1d - Hong Kong	Engagement Lounge		**Omniscient Neurotechnology Symposium** Coffee / Social Hour with exhibitors and colleagues	Engagement Lounge
17.00H - New York 22.00H - London 05.00H +1d - Hong Kong	**Keynote Lecture Series** *- Tomáš Paus MD, PhD*		**Keynote Lecture Series** *- Michael D. Fox, MD, PhD*	**Keynote Lecture Series** *- Biyu Jade He, PhD*
18.00H - New York 23:00H - London 06.00H +1d - Hong Kong	**Symposia**		**Symposia**	**Symposia**
19.00H - New York 24:00H - London 07.00H +1d - Hong Kong	**Oral Sessions/Round Table**		**Oral Sessions/Round Table**	**Oral Sessions**
20.00H - New York 01.00H +1d - London 08.00H +1d - Hong Kong	Poster standby and Exhibit Hours		Software Demonstrations	Poster standby and Exhibit Hours
21.00H - New York 02:00H +1d - London 09.00H +1d - Hong Kong	Poster standby and Exhibit Hours		Engagement Lounge	Poster standby and Exhibit Hours
21.00H - New York 02.00H +1d - London 09.00H +1d - Hong Kong				**Chinese Young Scholars**

Time **Point of Reference**	**WEDNESDAY, 1 JULY - THURSDAY, 2 JULY 2020**	**THURSDAY, 2 JULY - FRIDAY, 3 JULY 2020**	**FRIDAY, 3 JULY - SATURDAY, 4 JULY 2020**
22.00H - New York 03.00H +1d - London 10.00H +1d - Hong Kong	Coffee / Social Hour with exhibitors and colleagues	Engagement Lounge	Coffee / Social Hour with exhibitors and colleagues
23.00H - New York 04.00H +1d - London 11.00H +1d - Hong Kong	**Keynote Lecture Series** *- Claudia Buss, PhD*	**Keynote Lecture Series** *- Mark Woolrich, DPhil, Meng*	**Symposia**
24.00H - New York 05.00H +1d - London 12.00H +1d - Hong Kong	**Symposia**	**Symposia**	**Symposia**
01.00H +1d - New York 06.00H +1d - London 13.00H +1d - Hong Kong	**Oral Sessions**		Closing Ceremonies
02.00H +1d - New York 07.00H +1d - London 14.00H +1d - Hong Kong	Software Demonstrations	Poster standby and Exhibit Hours	Software Demonstrations
03.00H +1d - New York 08.00H +1d - London 15.00H +1d - Hong Kong	Engagement Lounge	Poster standby and Exhibit Hours	

OHBM Annual Meeting Schedule is Subject to Change

2020 Talairach Lecture

TUESDAY, 23 JUNE

Yoshua Bengio

Mila Scientific Director

(Quebec Artificial Intelligence Institute)

Full Professor,

Department of Computer Science

and Operations Research (DIRO)

University of Montreal

Deep Learning: from System 1 to System 2

Recent successes of machine learning based on deep learning have enabled great progress on System 1 abilities (unconscious processing) in AI. This presentation will discuss a recent trend in machine learning research exploring how new conceptual tools, in particular the use of attention mechanisms, could open the door to System 2 abilities (i.e., conscious processing), and how this could enable a more powerful form of generalization, outside of the training distribution, and robustness to changes in distribution, a necessary feature of learning agents interacting with a non-stationary environment.

2020 Keynote Series

WEDNESDAY, 24 JUNE

Alex Fornito, PhD

Research Professor, Psychology

Turner Institute for Brain and Mental Health,

School of Psychological Sciences,

and Monash Biomedical Imaging

Monash University

Brain network hubs: maps, models, and molecules

Alex Fornito completed his Clinical Masters and PhD in 2007 in the Departments of Psychiatry and Psychology at The University of Melbourne in Australia before undertaking Post-Doctoral training in the Department of Psychiatry at the University of Cambridge, UK, under the auspices of a National Health and Medical Research Council Training Fellowship. He is currently a Sylvia and Charles Viertel Foundation Senior Research Fellow and Head of the Brain Mapping and Modelling Research Program at the Turner Institute for Brain and Mental Health, Monash University, Melbourne, Australia.

Alex's research develops new imaging techniques for mapping human brain connectivity and applies these methods to shed light on brain function in health and disease. In particular, this work focuses on understanding foundational principles of brain organization, characterizing how genes influence brain network architecture, and developing maps and models of how mental illness might arise from disordered brain connectivity. Alex is co-

author, together with Andrew Zalesky and Ed Bullmore, of the textbook *Fundamentals of Brain Network Analysis.*

THURSDAY, 25 JUNE

Jason P. Lerch, PhD

Associate Professor

University of Oxford

Shaping the brain

Jason P. Lerch, PhD is the Director of Preclinical Imaging at the Wellcome Centre for Integrative Neuroimaging (WIN) at the University of Oxford and an Adjunct Scientist at the Mouse Imaging Centre (MICe) of the Hospital for Sick Children and Associate Professor in Medical Biophysics at the University of Toronto. Jason joined WIN in March of 2019; prior to that he completed his PhD in 2005 in the Department of Neurology and Neurosurgery at McGill University and a post-doctoral fellowship at MICe from 2005-2008 with Dr. Mark Henkelman and Dr. John Sled. He received his BA in 1999 in Anthropology and Social Studies of Medicine from McGill University. His PhD research, under the supervision of Dr. Alan Evans, was on in-vivo measurements of cortical thickness from MRI. His current research focus is on detecting neuroanatomical changes due to behavioural and genetic manipulations in tightly controlled mouse models, primarily related to neurodevelopmental disorders, and to relate these findings to sadly not so well controlled human subjects. As an antidote to these academic pursuits, he likes to leave the city and hike in the woods, whenever possible.

FRIDAY, 26 JUNE

Tomáš Paus MD, PhD

Distinguished Senior Scientist

Director, Population Neuroscience

& Developmental Neuroimaging

Bloorview Research Institute

Population Neuroscience of the Growing Brain

Dr. Paus is Distinguished Senior Scientist and Director of the Population Neuroscience & Developmental Neuroimaging at the Bloorview Research Institute, and Professor of Psychology and Psychiatry at the University of Toronto. His work integrates epidemiology, neuroscience and genetics in the pursuit of knowledge relevant for brain health.

Publications by Dr. Paus and his colleagues have had a marked impact in the field with over 40,000 citations (h-index: 94). Dr. Paus has contributed to the field of neuroscience in two ways. First, he has introduced a number of innovations for studying the human brain, including a) voxel-wise analyses of structural brain images (Science 1999); b) combining brain stimulation and imaging (Journal of Neuroscience 1997); and c) integrating epidemiology, genetics and brain imaging (Population Neuroscience 2013). Second, he has provided new frameworks for understanding the function of the anterior cingulate cortex (Nature Reviews Neuroscience 2001), and the processes underlying changes in white matter during male adolescence and their significance for axonal transport (Journal of Neuroscience 2008, NeuroImage 2015).

MONDAY, 29 JUNE

Michael D. Fox, MD, PhD

Associate Professor of Neurology

Beth Israel Deaconess Medical Center

From correlation to causal mapping of human brain function

Michael Fox is an Associate Professor of Neurology at Harvard Medical School and Director of the Laboratory for Brain Network Imaging and Modulation. He is Co-Director of the Beth Israel Deep Brain Stimulation Program and Associate Director of the Berenson-Allen Center for Noninvasive Brain Stimulation. Dr. Fox's research focuses on the development of new and improved treatments for neuropsychiatric symptoms by using brain imaging to understand brain circuits, brain lesions, and brain stimulation. His papers have been cited over 27,000 times and he has won multiple awards, including the inaugural Trailblazer Prize for Clinician Scientists, a single award across all medical specialties for advances in translational research.

TUESDAY, 30 JUNE

Biyu Jade He, PhD

Assistant Professor, Department of Neurology

From Resting State to Conscious Perception

Dr. He obtained her PhD in Neuroscience from Washington University in St. Louis. Prior to joining NYU, she led her own independent research group in the intramural research program the NIH/NINDS, with an intramural equivalent of the NIH Director's Early Independence Award. Her laboratory uses a combination of invasive and non-invasive multimodal human brain imaging, brain stimulation, and computational approaches to investigate the neural mechanisms of perceptual processing in the human brain. She has also made important contributions to understanding the organization, mechanisms and

Department of Radiology

Investigator, Neuroscience Institute

New York University School of Medicine

and a Leon Levy Neuroscience Fellowship.

WEDNESDAY, 1 JULY

Claudia Buss, PhD

Associate Adjunct Professor, Pediatrics

Fetal Programming of Brain Development and Risk for Psychiatric Disorders

Claudia Buss is a Professor at the Institute of Medical Psychology at Charité, University Medicine, Berlin, Germany and an Associate Professor at the University of California Irvine School of Medicine, Department of Pediatrics, Division of Developmental and Behavioral Pediatrics. She received her PhD in Psychobiology at the University of Trier and conducted her doctoral and postdoctoral studies focusing on early life stress and brain development at McGill University and the University of California Irvine. Her research addresses the effects of stress and stress-related biological (maternal-placental-fetal endocrine, immune, genetic) and behavioral (nutrition, physical activity, smoking/drug use) processes during human pregnancy on fetal brain development as well as other health-related infant outcomes like body composition, metabolic function and obesity risk. Her recent work has specifically advanced our understanding of the relationship between maternal-placental-fetal stress biology and fetal/infant neurodevelopmental trajectories by applying multimodal neuroimaging techniques. She is the PI of several NIH-funded and European based studies that focus on the mechanisms underlying developmental programming of brain development and the transmission of maternal preconceptual adversity as well as stress during pregnancy to her child.

THURSDAY, 2 JULY

Mark Woolrich, DPhil, MEng

Head of Analysis, OHBA

Associate Director, OHBA

Senior Research Fellow, FMRIB

Group Leader, Welcome Centre for Integrative Neuroimaging (WIN)

Mapping Fast Transient Brain Network Dynamics

Mark Woolrich is a Professor of Computational Neuroscience at the University of Oxford. He develops new computational methods for analysing neuroimaging data using techniques from machine learning, artificial intelligence and image/signal processing; allowing novel questions to be asked about the function and dysfunction of the human brain. His previous work includes the development of the fMRI analysis tools in the FMRIB Software Library (FSL). More recently, he has focused on understanding the dynamics of large scale brain networks using M/EEG. He has been Head of Analysis and Associate Director at the Oxford Centre for Human Brain Activity (OHBA) since 2010. He is also a Group Leader at the Wellcome Centre for Integrative Neuroimaging (WIN).

2020 Symposia

SYMPOSIA

Wednesday, 24 June

A Global Perspective on the Neural Bases of Intelligence

Organizer: Pedro Valdes Sosa

Network Neuroscience Theory of Human Intelligence
- Aron Barbey

Brain Activity Markers of Intelligence in Children: From intellectual disability to giftedness
- Sarah Lippé

Gender Differences in Connectome-based Predictions of Individualized Intelligence Quotient and Sub-domain Scores
- Jing Sui

Crystallized and Fluid Intelligence are Predicted by Microstructure of Specific White-matter Tracts
- Maria Bringas Vega

Approaches and Challenges for Across-site Harmonization of Structural, Functional, and Diffusion MRI

Organizer: Michael Harms

Statistical Harmonization Methods for Next Generation Neuroimaging Studies
- Haochang Shou

Multi-site Data Harmonization during Childhood and Adolescence: An ABCD study perspective
- Sean Hatton

Retrospective and Prospective Diffusion MRI Data Harmonization for Site-independent Analysis
- Suheyla Cetin-Karayumak

Deep Harmony: Structural Harmonization through Deep Learning
- Blake Dewey

Open Science in Action: Doing research as a community!

Organizer: Camille Maumet

Hackathons: A new space for collaborative projects and learning
- Elizabeth Levitis

Inclusivity as a Requirement for Robust and Reproducible Brain Imaging Research
- Cassandra Gould Van Praag

Every Little Bit Counts: Towards data reuse in neuroimaging

- Camille Maumet

Round Table: Managing the disruptive effects of open science

- Eugene Duff

Student and Postdoc SIG Annual Symposium

Success in Academia: A road paved with failures

(14.30H - New York / 19.30H - London / 02.30H +1d - Hong Kong)

Organizer: Mengxia Gao

No Milestones Met: The academic developmental history of an elderly academic

- Terry Jernigan

Luck is not Random and other Reflections on Becoming a Scientist

- 2020 Mentor Award Recipient

Navigating the Emotional Ups and Downs of Academia

- Erin Barker

Thursday, 25 June

Big Data and Machine Learning Personalize Neuropsychiatric Disorders: Ready for clinical translation

Organizer: Matthias Schroeter

Large-Scale Imaging Harmonization and Analytics Using Machine Learning

- Christos Davatzikos

Decoding the Neurodegenerative Mind with Pattern Recognition in MRI & Meta-Analyses

- Matthias Schroeter

Good Practices in Developing Neuroimaging Biomarkers Based on Machine Learning Models

- Choong-Wan Woo

Delineating Neurodevelopmental Pathways from Early Adversity to Cognitive and Affective Outcomes

Organizer: Deanna Barch

Testosterone and Hippocampal Trajectories Mediate the Relationship of Poverty to Emotion Dysregulation and Depression: A longitudinal study

- Maya Rosen

Decomposing Complex Links between the Childhood Environment and Brain Structure in School-aged Youth

- Dylan Gee

Neural Structure, Cognition, and Psychopathology are Independently Predicted by Deprivation and Threat in Early Childhood

- Margaret Sheridan

Neural Mechanisms Underlying the Income-Achievement Gap: The role of the ventral visual stream

- Katie Mclaughlin

Prospects in artificial intelligence neuroscience

Organizers: Local Organizing Committee (LOC)

Modelling and Propagating Uncertainties in Machine Learning for Medical Images of Patients with Neurological Diseases

- Tal Arbel

Learning Distributed Representations in the Human Brain

- Anna Schapiro

Mapping the Brain with Objective Functions

- Blake Richards

Sponsored Symposium

SIGNA™ MR

Advanced Neuro imaging of the future powered by 7.0T and AI

(07.00H - New York / 12.00H - London / 19.00H - Hong Kong)

Organizers: GE

Sponsored Symposium

(07.00H - New York / 12.00H - London / 19.00H - Hong Kong)
Organizers: Siemens

Friday, 26 June

Elucidating the Causality in "Causal Brain Circuits": Theory, methods, and applications
Organizer: Manjari Narayan

What Does it Mean for Brain Regions to Causally Influence one Another and Why Don't Functional/Effective Connectivity Count as Causal
- Konrad Kording

Carving up Brain Functions from an Evolutionary Perspective
- Paul Cisek

What Kind of Kinds are Optimal for Causal Discovery in Clinical Neuroscience?
- Jacqueline Sullivan

When Do We Need Etiological Brain-circuit Biomarkers?
- Manjari Narayan

Heterogeneity in Neurodevelopmental Disorders: Identification, nosology, and intervention
Organizer: Jessica Cohen

Parsing Heterogeneity in Prevalent Neurodevelopmental Disorders using Executive Function Profiles and Individual Connectome Mapping
- Lucina Uddin

Can Within-person Models Help Improve our Understanding of Risk for Suicidal Ideation and Behavior?
- Adam Miller

Heterogeneity in Functional Brain Network Reconfiguration after Methylphenidate Administration Underlies Individual Differences in Improvements in Response Control
- Jessica Cohen

Dichotomous vs. Continuous Approaches for Studying Learning Difficulties, ADHD, and Predicting Intervention Response
- Jessica Church

Measuring the Individual: Understanding sources of variability in task and resting fMRI
Organizer: Colin Hawco

Factors Influencing the Test-retest Reliability of Functional Connectivity
- Stephanie Noble

Differentiating Anatomical and Functional Sources of Variability to Improve Neuropsychiatry Research
- Erin Dickie

Precision Measurements Reveal Trait-like Variations in Human Functional Brain Networks
- Caterina Gratton

Clustering Task- fMRI Activity in Large Samples of Schizophrenia or Healthy Populations Reveals Patterns of Individually-Variable Activity
- Colin Hawco

Monday, 29 June

Multi-view Methods for Imaging Genetics
Organizer: Andre Altmann

Introduction To Regularized Canonical Correlation Analysis (RCCA): A Unifying Approach To Perform CCA/PLS Analysis
- Agoston Mihalik

Functional Insights From Univariate Genetic Associations With Brain Structure -- A Benchmark For Advanced Multivariate Analyses
- Neda Jahanshad

ICA-Based Multimodal Data Mining And Its Application On Imaging Genetics
- Jingyu Liu

Latent Variable Models In Imaging-Genetics For Multi-Variate, Multi-View And Multi-Centric Analyses
- Marco Lorenzi

Network Control Theory: Recent advances, current limitations, and future directions
Organizer: Danielle Bassett

Introduction To Control Theory And Its Application To Clinical Neuroimaging
- Daniela Zöller

Dimensional Psychopathology Phenotypes Track Deviations From The Normative Neurodevelopmental Pattern Of Structural Control Metrics
- Linden Parkes

Multimodal Data Integration Using Network Control Theory
- Urs Braun

Target Control Principles And Their Applications To C. Elegans And Other Connectomes
- Petra Vertes

Tuesday, 30 June

Neurodevelopmental Insights from Fetal and Infant Imaging
Organizer: Vani Pariyadath

Novel Insights into Neurocognitive Development Gleaned from Studies of the Fetal Brain in Utero
- Moriah Thomason

The Developing Human Connectome Project. An Open Science Resource for Fetal and Neonatal Neuroscience: Early results
- David Edwards

Imaging of Non-Sedated Pediatric Subject's 6 Years Old Using MRI: Logistics and image analysis
- Weili Lin

Early Life Adversity, Neonatal Brain Connectivity, and Early Childhood Psychopathology
- Cynthia Rogers

Neuropsychiatric Genetic Variation Shapes Brain Architecture by Modulating Gene Expression
Organizer: Sébastien Jacquemont

The Effect on Functional Brain Networks of High-Risk Variants Identified in the Neurodevelopmental Disorder Clinic
- Clara Moreau

Genetic Determinants Of Brain Structure
- Paul Thompson

From SNPs to Cortical Structure: Molecular mechanisms by which common genetic variation leads to changes in brain structure
- Jason Stein

Molecular Variation of Cortical Cell Types Across Human Cortex and Between Primates and Mice
- Trygve Bakken

Neurovascular Coupling in Health and Disease: Revisiting the hemodynamic response function
Organizer: Colleen Schneider

Neurovascular Coupling in Cerebrovascular Disease and Dementia
- Edith Hamel

Abnormal Hemodynamic Responses as a Window into the Mechanisms of Stroke Recovery
- Colleen Schneider

Neuro-vascular Coupling and Changes in Cerebral Hemodynamics as a Function of Intracranial Pressure
- Jana Kainerstorfer

Assessing Various Hemodynamic Responses in Hypercapnia using Functional MRI
- Yunjie Tong

Wednesday, 1 July

Replicability and Reproducibility for Machine Learning: Applications in brain mapping
Organizers: Vince Calhoun, Tulay Adali

Overview, Introduction, and Definitions
- Vince Calhoun, Tulay Adali

The Role of Replicability and Reproducibility in the Interpretability of Machine Learning Results in Brain Mapping
- Stephen Strother

Reliable and Reproducible Brain Network Estimation
- Lisa Nickerson

Beyond Reproducibility: Reusability and generalizability

- Gael Varoquaux

Symbiosis of fMRI and Transcranial Electrical Stimulation: Methodology, implications, and challenges

Organizer: Hamed Ekhtiari

Mechanistic Biomarkers for tES: How fMRI can inform us about tES effects

- Charlotte Stagg

Understanding the Effects of Transcranial Electrical Stimulation on Cognitive Control Through Simultaneous Functional MRI and Measurement of Brain Network Structure

- David Sharp

FMRI and Head Modeling: Addressing state and trait predictors in response to tES

- Marom Bikson

Methodological Parameter Space in Combining tES and fMRI: From mechanism to prediction

- Hamed Ekhtiari

The Effect of Analytic Choices on fMRI Results and What We can do about it

Organizer: Tom Schonberg

NARPS: Context and overview and summary and future directions

- Tom Schonberg

NARPS Findings

- Rotem Botvinik-Nezer

From the Eyes of an Analysis Team

- Remi Gau

Looking Ahead: Sharing uncorrected data and design matrices, and training future neuroimagers

- Jeanette Mumford

Thursday, 2 July

The Human Connectome in Light of Evolution

Organizer: Katherine Bryant

Plasticity and Learning in Ontogeny and Phylogeny

- Erin Hecht

Imaging Brain Evolution: The next frontier

- Michel Thiebaut de Schotten

Variability of Structural Connections Within and Between the Species

- Stephanie Forkel

Neurophylogenetic Approaches to Human Brain Mapping

- Katherine Bryant

What can Modern Bayesian Methods Offer Neuroimaging Data Analysis?

Organizer: Martin Lindquist

Improve Reproducibility through Bayesian Multilevel Modeling

- Gang Chen

Automatic Selection of Primary Threshold for Clusterwise fMRI Inference: An Empirical Bayes Approach

- Chen Shou

Template ICA: Leveraging big fMRI data through empirical population priors for accurate and fast estimation of subject-level brain networks

- Amanda Mejia

Hierarchical Bayesian Modelling of Individual - and Population-level Resting StateNetworks fromBig fMRI Data

- Seyedeh-Rezvan Farahibozorg

Friday, 3 July (23.00H - New York / 04.00H +1d - London / 11.00H +1d - Hong Kong)

What is the Role of The Human Thalamus? Insights from Functional Neuroimaging

Organizer: James Shine

The Role of theThalamus in Shaping Whole-brain Functional Connectivity

- James Shine

When the Thalamus Fluctuates, the Brain Integrates
- Douglas Garrett
Network Properties and Cognitive Functions of the Human Thalamus
- Kai Hwang
Thalamic Control of Arousal States and Large-scale Cortical Dynamics
- Laura Lewis

A Tale of Parcels and Gradients: Individual differences and behavioral associations
Organizer: Ruby Kong
Representing Brain Organization: Smooth gradients, discrete regions or a bit of both?
- Ye Tian
Comparing Gradients, Soft-Parcellations and Hard-Parcellations for RSFC Behavioral Prediction
- Ruby Kong
Macroscale Brain Organization and Cognitive Dynamics
- Jonathan Smallwood
Studying Idiosyncratic Connectome Organization using Gradient and Parcellation Techniques in Typical and Atypical Development
- Oualid Benkarim

Discerning Signal From Artifact: Current Issues in resting-state fMRI quality control
Organizer: Jean Chen
The Influence of Motion and Physiological Noise on fMRI: Quality control, the latest solutions, and ongoing challenges
- Rasmus Birn
Multi-echo acquisition for fMRI sensitivity enhancement and data quality control
- Benedikt Poser
Is Physiological Noise Really Noise? --- Evolving QC targets in resting-state fMRI
- Jean Chen

Friday, 3 July (24.00H - New York / 05.00H +1d - London / 12.00H +1d - Hong Kong)

OHBM-DGKN Alliance: International symposium on stroke recovery
Organizer: Christian Grefkes
Cortical Reorganization after Stroke: New insights from neuroimaging and non-invasive brain stimulation
- Christian Grefkes
Network Neuroscience of Language Recovery after Stroke
- Steven Small
Neuromodulation to Improve Motor Recovery after Stroke
- Heidi Johansen-Berg

Predicting Psychometric Data From Functional Connectivity in Healthy Adults: Progress and pitfalls
Organizer: Sara Genon
Simple Guidelines for Predictive Modeling (and When to Break Them)
- Dustin Scheinost
Global Signal Regression Strengthens Association between Resting-state Functional Connectivity and Behavior
- Jingwei Li
Can Connectomics Clarify the Architecture of Cognitive Abilities?
- Chandra Sripada
A Connectivity-based Psychometric Prediction Framework for Brain-behavior Relationship Studies
- Jianxia Wu

Two is Better than One (and Many are Better): Multi-echo fMRI methods and applications
Organizer: Daniel Handwerker
How to Decide if Multi-echo fMRI can Improve your Study?
- Daniel Handwerker

Tedana Software and Community

- Elizabeth Dupre

Multi-echo Beyond Preprocessing

- Cesar Caballero-Gaudes

Multi-echo fMRI in Practice

- Angela Laird

2020 Oral Sessions & Round Tables

ORAL SESSIONS

Wednesday, 24 June
11.00H - New York / 16:00H - London / 23.00H - Hong Kong

Advances in Multimodal Acquisitions
Chairs: Jonathan Polimeni and Christophe Phillips

Quantitative, Multimodal Cell and Fiber Mapping in Full Primate Brain Sections
- Roxana Kooijmans

Dynamically Acquired 1H MRS for Detection of 13C Labeled Cerebral Glucose Metabolism In-vivo
- Masoumeh Dehghani

Simultaneous Mapping of T2* and Major Neurotransmitters using MRSI at 3T
- Fatimah Almomen

Fast, Quantitative Myelin Maps: Macromolecular pool fraction (MPF) using an optimized protocol
- Kimberly Desmond

Short Echo-Time fMRI using Magnetization Transfer Contrast
- Jenni Schulz

Time-of-Flight-MRA-Derived-Probabilistic-Map of Each Major Cerebral Artery
- Samantha Cote

Brain Stimulation
Chairs: Annabel Chen and Michael Fox

Low Intensity Focused Ultrasound Selectively Increases Regional Perfusion
- Bianca Dang

Optogenetic Stimulation of the Mouse Entorhinal Cortex Reshapes Whole Brain Dynamics
- Piergiorgio Salvan

Electroconvulsive Therapy Treatment Responsive Multimodal Brain Networks
- Shile Qi

Entrainment of Theta Oscillations with Visual Rhythmic Stimulation Boosts Auditory Working Memory
- Philippe Albouy

Brain States of Awareness and Consciousness
Chairs: Melanie Boly and Michael Chee

Connectome Harmonic Signatures of Consciousness in Anaesthesia and Disorders of Consciousness
- Andrea Luppi

Reconfiguration of Network Hubs Under Anesthesia may Predict Recovery of Consciousness
- Catherine Duclos

Ketamine's Influence on Global rs-fMRI and Individual Variation in Neuro-Behavioral Relationships
- Flora Moujaes

Non-REM Sleep Network Connectivity Represents an Altered, Not a Reduced State of Consciousness
- Evan Houldin

The Impact of Sleep Deprivation on Cortical Functional Integration and Cognition

- Nathan Cross

Predicting Depth of Sedation From Latent Structure in Whole-Brain Cortical Networks
- Corson Areshenkoff

Thursday, 25 June
11.00H - New York / 16:00H - London / 23.00H - Hong Kong

Connectivity: States and Traits
Chairs: Janine Bijsterbosch and Danilo Bzdok

Hierarchical Modelling of Individual- and Population-Level Resting State Networks from Big fMRI Data
- Seyedeh Rezvan Farahibozorg

Topological Variations in Connectivity Dynamics Decode States of the Brain
- Jacob Billings

Investigation of Spatiotemporal Functional Interactivity Among Large-Scale Brain Networks
- Nan Xu

Brain Gender Spectrum
- Yi Zhang

Brain Network Connectivity Architecture of Ego Dissolution under LSD
- Devon Stoliker

Disorders of the Nervous System: Psychiatric
Chair: Mallar Chakravarty

Convergent Molecular, Cellular, and Neuroimaging Signatures of Major Depression
- Kevin Anderson

The Relevance of Transdiagnostic Shared Networks to Symptoms and Cognition in Schizophrenia
- Shile Qi

Hallucinations and Delusions Relate to Distinct Hierarchical Alterations in Neural Timescales
- Kenneth Wengler

Uncoupling of Energy Consumption and Functional Connectivity in Psychotic Disorders
- Xiaopeng Song

Brain Age and Epigenetic Age Acceleration During Conversion to Psychosis
- Anton Iftimovici

Psychopathology Phenotypes Explain Individual's Unique Deviations from Normative Neurodevelopment
- Linden Parkes

Learning and Memory
Chairs: Veronique Bohbot and Guillén Fernández

Rethinking repetition suppression as a metric of learning
- Eva Berlot

Neural correlates of individual differences in story understanding
- Jiwoong Park

A Gradient from Long-term Memory to Novel Cognition
- Xiuyi Wang

Disuse-driven plasticity is specific to the somatomotor and cingulo-opercular networks
- Dillan Newbold

Stress Modulates the Link between Striatal GABA and Hippocampal Activity During Motor Learning
- Nina Dolfen

Friday, 26 June
19.00H - New York

Saturday, 27 June
00:00H - London / 07.00H - Hong Kong

Early Development
Chairs: Jessica Cohen and Tomáš Paus

Tracking White Matter Development in the Human Fetus
- Sian Wilson

High Temporal Resolution Longitudinal Observation of Fetal Brain Development. A baboon pilot study
- Olivier Coulon

The Developing Human Connectome Project: Functional connectivity across the perinatal period
- Michael Eyre

Discovering Developmental Patterns and Regionalization of Cortical Myelin During the First Two Years
- Ying Huang

The Subgrouping Structure of Newborns with Heterogenous Brain-Behavior Relationships
- Yuanyuan Chen

Higher Cognitive Functions: Mental representations and Imagery
Chairs: Luke Chang and Jeremy Manning
Decoding Identity from Brain Activity elicited during the Recollection of Personal Experiences
- Andrew Anderson
Real-time Reconstruction of Letter Shapes in the Mind's Eye
- Rick van Hoof
Neural Tracking of Rhythmic Constructs in Imagined Speech
- Lingxi Lu
Content-Specific Neural Patterns in Auditory Cortices During Imagery of Music
- Mor Regev
Individual Differences in Shared Representation of Symbolic and Nonsymbolic Number at 7T fMRI
- Eric Wilkey
Brain Structure and Function Predict Different Domains of Cognitive Control in Normal Aging
- Jenny Rieck

Diversity Round Table: Neuroscience and the LGBTQ Community
Organizers: OHBM Diversity and Inclusivity Committee with Lucina Uddin
LGBTQ Challenges in STEM: The Need for Data and Policy Change
- Jon Freeman
How Can We Create a Better Neuroscience of Trans Identity?
- Grace Huckins
Sexual Orientation and Gender Identity Development: Insights from Thai gay men and sao praphet song
- Doug VanderLaan
The Gap Between Neuroimaging of Gender and Gender Studies of the Brain: New perspectives on transgender research
- Jonathan Vanhoecke

Monday, 29 June
19.00H - New York

Tuesday, 30 June
00:00H - London / 07.00H - Hong Kong
Sensation & Perception
Chairs: Olivier Collignon and Reza Rajimehr
Early Processing of Odor Valence in the Human Olfactory Bulb
- Behzad Iravani
Genetic Influence is Linked to Cortical Morphology in Category-Selective Areas of Visual Cortex
- Nooshin Abbasi
Investigating Neurophysiological Sources of Multimodal Neuroimaging in Humans
- Fatemeh Ebrahiminia
How the Onset of Blindness Affects the Interplay Between Crossmodal and Intramodal Plasticity
- Stefania Mattioni
Decoding Texture from Audio-Haptic Sources: An fMRI study
- Anne Kavounoudias

Neuroanatomy: Multiscale Connectomics
Chairs: Pierre Bellec and Boris Bernhardt
Cortical Silencing Results in Paradoxical fMRI Over-connectivity
- Carola Canella
Metabolic Basis of Human Brain Network Nodes in Resting-States of Eyes-closed and Eyes-open
- Yury Koush
The Cortical Wiring Scheme of Hierarchical Information Processing
- Casey Paquola
Investigating the Axon-diameter Based Human Brain Connectome using MRI
- Hila Gast
Evolution of Cortical Myelination in Chimpanzees
- Ilona Lipp
Towards an Accurate Identification of Vascular Territories in the Human Brain
- Mykyta Smirnov

Round Table: Aperture Round Table

Tuesday, 30 June
19.00H - New York

Wednesday, 1 July
00:00H - London / 07.00H - Hong Kong

Neurodegeneration: From high risk groups to transdiagnostic signatures
Chairs: Thomas Grabowski and Joana Pereira

Changes in Functional Connectivity Associated with Vascular Burden in Person At-risk of AD
- Theresa Köbe

Transcriptomic Analysis of Alzheimer's Disease Associated Brain Hypometabolism
- Sejal Patel

Network Diffusion Model Enhances Predictions of Future Tau-PET Burden in Alzheimer's Patients
- Pablo Damasceno

Generalizable, Reproducible, and Interpretable Imaging Biomarkers for Alzheimer's Disease
- Dan Jin

Brain Disorders Taxonomy from a Transcriptomics Point of View
- Yashar Zeighami

Discovering Propagation Pattern of Neurodegeneration across Brain Networks
- Defu Yang

Neuroinformatics and Data Sharing
Chairs: David Kennedy and Heather Whittaker

Original to Digital: Microstructural and functional brain atlases in common MRI space
- Rory Pijnenburg

Methodological Variability and Vibration Effects in Transcriptomic Processing Pipelines
- Ross Markello

Prospective Data Harmonization for Multi-site Diffusion MRI Data Analysis
- Suheyla Cetin-Karayumak

A Bayesian Normative Model to Estimate Multi-scanner Effects in Structural Neuroimaging Data
- Johanna Bayer

Improving Discovery of the Genetic Architecture of the Cerebral Cortex
- Carolina Makowski

Validating Cellular Dimensions of Cortical Organization Through Neuroimaging-transcriptomics
- Jakob Seidlitz

Modeling and Analysis: Multivariate Multi-modal Analysis
Chairs: Lei Wang and Ting Xu

Principal Axes of Gene-Regulated Spatial Organization of the Human Brain
- Jacob Vogel

Molecular Genetics of the Biological Age of the Brain in the UK Biobank
- Philippe Jawinski

Advanced vs. Resilient Brain Aging in a Harmonized Cohort of 29,841 MRIs; The iSTAGING consortium
- Ioanna Skampardoni

Unfairness in RSFC-Based Behavioral Prediction across African American and White American Samples
- Jingwei Li

Assessing the Utilities of Resting-State Functional Gradients as a Novel Imaging Biomarker
- Suk JUN Hong

Signal Routing via Cortical Hierarchies
- Bertha Vázquez-Rodríguez

Thursday, 2 July
01.00H - New York / 06:00H - London / 13.00H - Hong Kong

Neurodevelopmental Disorders and Environmental Impact
Chairs: Michael Milham and Tonya White

A Multi-analysis Approach to Task-Modulated Functional Connectivity in Autism
- Carolin Moessnang

Gray Matter Co-Alteration Networks in Autism Spectrum Disorder: A meta-connectomic approach
- Donato Liloia

Aberrant Social Orienting and Extrinsic Functional Connectivity During Natural Viewing in Autism
- Juha Lahnakoski

Functional Cartography of Cognitive Dysfunction in Focal Epilepsies: A multiscale task-fMRI analysis
- Lorenzo Caciagli

Harmonious Family Climate Mediates the Impact of Socioeconomic Status on Child Brain Function
- Han Zhang

Cannabis Use During Adolescence Is Associated With Altered Cerebral Cortical Development
- Matthew Albaugh

Social Neuroscience, Emotion and Motivation

Chair: Daniel Kennedy

The Relationship Between BMI and volume of subcortical structures is age-dependent
- Filip Morys

Lower Reward Network Glutamate is Associated with Diminished Reward Responsiveness
- Valerie Sydnor

Hemispheric specialization of the inferior parietal lobe across key cognitive domains
- Ole Numssen

Cross-modal synchronization of intracranial EEG and fMRI during natural movie viewing
- Tiankang Xie

Doctor Trustworthiness Reduces Pain and Its Neural Correlates in Virtual Medical Interactions
- Elizabeth Losin

Social perspective taking shapes brain hemodynamic activity and eye-movements during movie viewing
- Mareike Bacha-Trams

Connectivity: Global Signals and Network Interactions

Chairs: Catie Chang and Dustin Scheinost

Does Global Signal Regression Remove Alpha Power Fluctuations? An EEG-fMRI Study in Humans at Rest
- Alba Xifra-Porxas

Gastric-brain Coupling Predominates in Primary and Association Sensory-Motor Regions
- Ignacio Rebollo

Consistent Global Propagations Across Cortical Hierarchy in the Electrophysiological and fMRI Signal
- Yameng Gu

Global Signal Topography Changes Across the Lifespan
- Jason Nomi

Structural Connectome Manifolds Guide Dynamic Functional Network Reconfigurations
- Bo-yong Park

Whole-brain Estimation of Directed Connectivity from fMRI Data
- Stefan Frässle

Modeling and Analysis: Variability in Brain Activation

Chairs: Yanchao Bi and Caterina Gratton

Individual Variability in Brain Activity during Cognitive Tasks and Relationship with Cognition
- Colin Hawco

Segregation of Functional Territories in Individual Brains
- Ana Luísa Pinho

Enhancing Task fMRI Preprocessing via Whole-Brain Neural Modeling of Intrinsic Activity Dynamics
- Anxu Wang

Cognitive Information Differentiates Between Connectivity and Activity Across the Cortical Hierarchy
- Takuya Ito

A High-Resolution in Vivo Atlas of the Human Brain's $GABA_A$ Receptor System
- Martin Nørgaard