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## **Meet-the-Expert Session**

### **003: Meet-the-Expert: Cisek — Making Decisions in a World Full of Action**

**Location:** SDCC 2

**Time:** Saturday, November 12, 2022, 2:00 PM - 3:00 PM

**Description:** Paul Cisek is interested in how the brain controls our interactions with the world. His laboratory uses behavioral studies, neurophysiological recordings, and computational modeling to investigate how the brain selects and plans actions in a dynamically changing environment. He will describe the motivation behind this interest, its many sources of inspiration, and the challenges and joys of trying to synthesize insights from diverse fields.

**Moderator: P. Cisek;**  
University of Montreal, Montreal, QC, CANADA.

**Disclosures: P. Cisek:** None.

**Grant Support:** CIHR grant PJT-166014  
NSERC grant RGPIN-05345

## **Meet-the-Clinician-Expert Session**

### **011: Meet-the-Clinician-Expert: Luby — Balancing Brain and Behavior in Investigations of Early Childhood Psychopathology**

**Location:** SDCC 2

**Time:** Saturday, November 12, 2022, 4:00 PM - 5:00 PM

**Description:** The presenter describes how an infant/preschool psychiatrist evolved as a researcher in collaboration with neuroscientists to investigate the neural correlates of emotion development and risk for psychopathology. The integration of phenomenological and neural data in early childhood and balancing these domains in a multi-disciplinary research team will be discussed. To design studies with high potential for clinical translation, we have integrated of neural data into clinical trials. New ventures integrating human and animal models towards this end will also be described.

**Moderator: J. L. Luby;**  
Washington University in St Louis, SAINT LOUIS, MO.

**Disclosures: J.L. Luby:** None.

### **Meet-the-Expert Session**

#### **090: Meet-the-Expert: Martin — From Cell Biological Studies of Synaptic Plasticity to Leadership Roles in Academia and Philanthropy**

**Location:** SDCC 2

**Time:** Sunday, November 13, 2022, 9:00 AM - 10:00 AM

**Description:** I will discuss the pathway that led me to study the cell biology of learning-related synaptic plasticity and will review our understanding of how experience regulates gene expression to alter neuronal connectivity and store memories. I will also discuss my roles as medical school dean and Director of the Simons Foundation Autism Research Initiative and Neuroscience Collaborations, with a focus on the challenges and opportunities for driving change to advance biomedical research.

**Sponsor:** Thorlabs, Inc.

**Moderator: K. Martin;**  
The Simons Foundation, New York, NY.

**Disclosures: K. Martin:** None.

**Grant Support:** R01 NS045324

R01MH077022

### **Meet-the-Expert Session**

#### **099: Meet-the-Expert: Taffe — An Unhealthy Interest in What the Kids Are Doing These Days**

**Location:** SDCC 2

**Time:** Sunday, November 13, 2022, 11:00 AM - 12:00 PM

**Description:** Recreational drug use continues to harm health, as well as vocational and inter-personal success, for some individuals. The complexities of human histories, contingencies and social settings make it difficult to isolate the effects of specific drugs, thus animal models can assist in providing clear guidance. Dr. Taffe will describe how models from non-human primate to rat to the crayfish have been used in his lab to determine effects of popular recreational drugs.

**Moderator: M. Taffe;**  
University of California, San Diego, La Jolla, CA.

**Disclosures: M. Taffe:** None.

## **Meet-the-Expert Session**

### **166: Meet-the-Expert: Yu — Studying the Activity of Large Populations of Neurons: Less Is More?**

**Location:** SDCC 2

**Time:** Sunday, November 13, 2022, 1:00 PM - 2:00 PM

**Description:** With the rapid development of large-scale neural recording technologies, there is a need for modern statistical methods to dissect and interpret neural recordings. Byron Yu will describe how dimensionality reduction and related methods can be applied to large-scale neural recordings to provide new insights about brain function. He will also discuss the benefits of quantitative and experimental scientists working together at every stage of the scientific process: from experimental conception and design, to data analysis, to development of new statistical tools, and beyond.

**Moderator: B. M. Yu;**  
Carnegie Mellon University, Pittsburgh, PA.

**Disclosures: B.M. Yu:** None.

**Grant Support:**      NIH R01 HD071686  
  
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## **Meet-the-Expert Session**

### **248: Meet-the-Expert: Goshen — Astrocytes in Higher Brain Function**

**Location:** SDCC 2

**Time:** Monday, November 14, 2022, 9:00 AM - 10:00 AM

**Description:** Astrocytes were hardly studied in the past in the context of higher brain function, and if they were it was as disruptors of it. In recent years there is a growing interest in how astrocytes are involved in memory, and I will talk about how they are involved in recent and remote memory with activity- and projection- specificity. I will then present a new role of

astrocyte in encoding (themselves!) environmental data, specifically reward location. I will present the methods, and how important it is to work on awake behaving animals.

**Sponsor:** Thorlabs, Inc.

**Moderator: I. Goshen;**

The Hebrew University, Edmond and Lily Safra Center For Brain Sciences, Jerusalem, ISRAEL.

**Disclosures: I. Goshen:** None.

**Grant Support:** European Research Council (ERC) #803589

Israel Science Foundation (ISF) #1815/18

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### **Meet-the-Expert Session**

**257: Meet-the-Expert: Bautista — Itching to Know: My Journey From Ion Channels to Itch, Pain, and Inflammation**

**Location:** SDCC 2

**Time:** Monday, November 14, 2022, 11:00 AM - 12:00 PM

**Description:** Diana Bautista studies the molecular & cellular mechanisms of itch, pain & inflammation. She will discuss recent efforts to understand how neurons are modulated by signals from immune cells under disease conditions & how neurons influence the immune system and contribute to chronic itch, pain & airway inflammation. In addition to her passion for science, she is committed to increasing equity and inclusion in science. As a woman of color & first in her family to attend college, she will share her non-traditional path & her perspectives on promoting cultural change in academia.

**Sponsor:** STEMCELL Technologies

**Moderator: D. M. Bautista;**

University of California Berkeley & HHMI, Berkeley, CA.

**Disclosures:** None

### **Meet-the-Expert Session**

**334: Meet-the-Expert: Miranda-Dominguez — Modeling to Unveil Associations Between Brain Function and Behavior**

**Location:** SDCC 2

**Time:** Monday, November 14, 2022, 1:00 PM - 2:00 PM

**Description:** The associations between brain function and behavior remain elusive. This lack of knowledge prevents effective interventions in the field of mental health. With the availability of large datasets it is becoming clearer that such associations are dominated by small effects, requiring large amounts of data for reproducible results. In this talk, Dr. Miranda-Dominguez will present several methodologies aimed to maximize reliability of findings using functional MRI and will describe how this knowledge can be used to design personalized interventions.

**Moderator: O. Miranda-Dominguez;**  
University of Minnesota, Minneapolis, MN.

**Disclosures: O. Miranda-Dominguez:** None.

### **Meet-the-Expert Session**

**416: Meet-the-Expert: Gratton — Gaining "Precision": Studying Individuals to Provide New Insights Into Human Brain Networks and Their Role in Complex Cognition**

**Location:** SDCC 2

**Time:** Tuesday, November 15, 2022, 9:00 AM - 10:00 AM

**Description:** Humans flexibly accomplish many diverse tasks in the service of their goals. This ability appears to depend on coordinated interactions among brain regions that form large-scale networks. Many open questions remain regarding how networks are organized, how they vary across people and time, and how they contribute to complex goal-directed functions. Dr. Gratton will discuss her path toward an individually-focused "precision" approach to measuring human brain networks and insights from this work.

**Sponsor:** Thorlabs, Inc.

**Moderator: C. Gratton;**  
Psychology, Northwestern University, Evanston, IL.

**Disclosures: C. Gratton:** None.

**Grant Support:**       NIH Grant MH118370  
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## **Meet-the-Expert Session**

### **423: Meet-the-Expert: Benfenati — New Biophotonic Nanotools for Photostimulation of Neurons**

**Location:** SDCC 2

**Time:** Tuesday, November 15, 2022, 11:00 AM - 12:00 PM

**Description:** Bio-photonic nanotools, including organic nanoparticles and photochromic compounds, represent a gene-free strategy for wireless neural photostimulation. Current studies in animal models are addressing their potential application in the cure of human neurodegenerative diseases. Organic nanodevices are starting a new era of tissue electronics, in which light-sensitive molecules and live tissues integrate to create hybrid neuronal interfaces for neuroprosthetics.

**Moderator: F. Benfenati;**

The Italian Institute of Technology, Genova, ITALY.

**Disclosures: F. Benfenati:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); The Italian Institute of Technology. F. Consulting Fees (e.g., advisory boards); Novavido S.r.l..

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## **Meet-the-Clinician-Expert Session**

### **501: Meet-the-Clinician-Expert: Veenstra-VanderWeele — Pathways to Biology-Based Treatments in Autism Spectrum Disorder**

**Location:** SDCC 2

**Time:** Tuesday, November 15, 2022, 1:00 PM - 2:00 PM

**Description:** Genetic and neuroscience advances are providing ideas for biology-based interventions in autism spectrum disorder, but none of these have translated to new treatments. Dr. Veenstra-VanderWeele will discuss opportunities and challenges for the pathway from bench to bedside. He will highlight the power and limitations of model systems, as well as the uncertainty around target populations and clinical outcome measures.

**Moderator: J. Veenstra-VanderWeele;**

Columbia University, New York, NY.

**Disclosures: J. Veenstra-VanderWeele:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Janssen, Acadia, Yamo, MapLight, Roche.

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