

## Annual Meeting Detailed Program

### Sunday August 28<sup>th</sup>

Welcome and Opening  
Remarks  
**08:30 – 08:45**

Paul E Phillips  
*President*

Session I  
**08:45 – 10:20**

Consumer and Organizational Behavior

08:45 - 09:05

**Neural Mechanisms underlying Diversification in Consumer Choice**

Linda Couwenberg  
*Linda Couwenberg, Maarten Boksem, Maciej Szymanowski, Alan Sanfey, Ale Smidts*

09:10 - 09:30

**Responsibility Aversion and Leadership Ability - Behavioral, Cognitive and Neurocomputational Mechanisms**

Micah Edelson  
*Micah G Edelson, Rafael Polania, Christian Ruff, Ernst Fehr, Todd A Hare*

09:35 - 09:55

**Neural Mechanisms of Everyday Decision-Making Under Scarcity**

Inge Huijmans  
*Inge Huijmans, Leticia Rettore Micheli, Wenwen Xie, Mirre Stallen, Alan Sanfey*

10:00 - 10:20

**Divisive Normalization Yields Attraction and Compromise Effects**

Ryan Webb  
*Ryan Webb, Peter Landry*

Poster Spotlights I  
**10:25 – 10:50**

10:25 - 10:30

**How oxytocin fine-tunes decision making in social dilemmas: cooperate as long as it pays off, but aggress only when you think you can win! An fMRI study.**

Carolyn Declerk  
*Carolyn H Declerck, Christophe Boone, Bruno Lambert, Paul M Parizel*

10:30 - 10:35

**Visual search patterns predict the level of sophistication in interactive games**

Luca Polonio  
*Luca Polonio, Joshua Zonca, Giorgio Coricelli*

10:35 - 10:40

**Neural mechanisms of control aversion during social decision making**

- 10:40 - 10:45 Sarah Rudorf  
*Sarah Rudorf, Thomas Baumgartner, Katrin Schmelz, Urs Fischbacher, Daria Knoch*  
**Contributions of neural adaptation to value-based and perceptual choice**
- 10:45 - 10:50 Alireza Soltani  
*Alireza Soltani, Oihane Horno, Mehran Spitmaan*  
**Independence of Irrelevant Alternatives in Decisions from Experience: A Challenge for Reinforcement Learning Models**  
Mikhail Spektor  
*Mikhail S Spektor, Sebastian Gluth, Laura Fontanesi, Jörg Rieskamp*

### Poster Session I

**10:50 – 13:15**  
Panorama Foyer

Coffee/Tea and snacks served  
Please visit our poster presenters in the Panorama Foyer. A full list of poster presenters can be found further in the conference program.

*Sponsored by: UNC Kenan Flagler Business School, Wells Fargo Center for Corporate Finance*

**13:15 – 14:15**  
Beletage Restaurant

**Buffet Lunch**

### The Kavli Foundation Social and Decision Science Workshop –

**14:15 – 15:45**

**Experimental approaches at the interface of neuroscience and social sciences – insights, pitfalls and cultural differences**  
Bernd Weber, Life & Brain Center & Center for Economics and Neuroscience

**15:45 – 16:05**

**Coffee Break**

**16:05 – 17:35**

**Consumer Neuroscience: Does Consumer Research Need Brains?**

Hilke Plassmann, INSEAD

*In this workshop, we discuss the applications of neuroscience to consumer research. I start with giving an overview on basic questions of interest to consumer researchers and then discuss when and why (not) neuroscience can be useful to answer them. I also give a brief overview of how non-academic agents (i.e. companies and public policy institutions) are currently applying neuroscience work “in the wild”. The workshop will be wrapped up by an interactive discussion on what it means to be faculty at a business school doing research in neuroeconomics.*

## The Kavli Foundation Neuroscience Workshop –

**14:15 – 15:45**

### **The neurophysiology of decision-making: implications for psychiatry and economics**

David Redish, University of Minnesota

*Every normative model makes underlying assumptions about the processes available. Equivalently, every process model implies a normative set of decisions that are optimized based on the available processes – this means that while one can ask whether animals normatively use a given process model to its full extent, in order to do so, we need to understand the processes underlying decision-making. Thus, if we want to get the economics right, we need to understand how decisions are made.*

*There is now extensive evidence that mammals, including rats, monkeys, and humans, take actions based on an interaction between multiple decision-making systems, each of which uses different algorithms implemented by different neural circuits to select actions. Current neuroscience technologies are able to directly observe the information processes underlying those different algorithms. Through a combination of neurophysiological observations, computational analyses, and theoretical reasoning, I will present what is currently known about those decision-making processes.*

*Small changes in how questions are asked, how options are perceived, or even small changes in the past experience of agents will affect which systems become accessed. If we want to understand errors in the system (such as why an agent continues to take drugs), then we need to understand those processes, including the potential physical and algorithmic failure modes of the processes, so that we can see where the agent is making normative mistakes. The interacting multiple decision-making systems make surprising factors relevant, explaining how behavioral economics and psychiatric treatment can “nudge” behavior through surprisingly small changes.*

**15:45 – 16:05**

### **Coffee Break**

**16:05 – 17:35**

### **Learning from Experience: How Different Forms of Memory Guide Decisions**

Daphna Shohamy Zuckerman; Mind, Brain Behavior Institute, Kavli Institute for Brain Science, Columbia University

*From robots to humans, the ability to learn from experience turns a rigid response system into a flexible, adaptive one. What are the neurobiological and cognitive mechanisms that allow everyday experiences to change the way we perceive, act and make decisions?*

*Daphna Shohamy's research explores how different parts of the brain work together to support learning, what this means for how memories are built, and what the consequences are for how we make decisions.*

## Networking Cocktail Reception

**17:35 – 19:00**  
Panorama Foyer

Join us in the Panorama Foyer for appetizers, drinks and networking opportunities

*Sponsored by The Brain, Mind and Markets Lab at the University of Melbourne*

## Monday August 29, 2016

### Session II

**08:45 – 10:20**

### Attention, Learning & Memory

*Sponsored by NeuroObjective Press*

08:45 - 09:05

**Seek, and ye shall find patience: Information Search Strategies Both Reveal and Shape Intertemporal Choice**

Crystal Reeck

*Crystal Reeck, Daniel Wall, Eric J Johnson*

09:10 - 09:30

**Less is more: weaker prefrontal cortex leads to better implicit decision making**

Dezso Nemeth

*Dezso Nemeth, Karolina Janacsek*

09:35 - 09:55

**Reward prediction errors enhance episodic memory**

Nina Rouhani

*Nina Rouhani, Ken Norman, Yael Niv*

10:00 - 10:20

**Motivational processes engaged by levels of reward**

Roberto Viviani

*Roberto Viviani, Lisa Dommès, Julia Bosch, Julia C Stingl, Petra Beschoner*

### Poster Spotlights II

**10:25 – 10:50**

10:25 - 10:30

**The role of time ambiguity in intertemporal choice**

Iris Ikink

*Iris Ikink, Jan B Engelmann, Wouter van den Bos, Karin Roelofs, Bernd Figner*

- 10:30 - 10:35 **Assumptions of linear utility systematically bias estimations of impulsivity**  
Silvia Lopez-Guzman  
*Silvia Lopez-Guzman, Anna B Konova, Kenway Louie, Paul W Glimcher*
- 10:35 - 10:40 **New flavor of the exploration-exploitation trade-off in contextual multi-armed bandit problems**  
Hrvoje Stojic  
*Hrvoje Stojic, Pantelis Analytis, Maarten Speekenbrink*
- 10:40 - 10:45 **Disrupting the temporo-parietal junction reveals role of overcoming self-centeredness in delay of gratification**  
Alexander Soutschek  
*Alexander Soutschek, Christian C Ruff, Tobias Kalenscher, Philippe Tobler*
- 10:45 - 10:50 **Human Striatum Represents Bayesian Surprise, Not Prediction Error, in Categorization Learning**  
Ian Ballard  
*Ian C Ballard, Samuel M McClure*

## Poster Session II

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*Sponsored by INSEAD*

**13:15 – 14:15**

Beletage Restaurant

**Buffet Lunch**

*Sponsored by Laboratory for Social and Neural Systems Research at the University of Zurich*

## Session III

**14:15 – 15:25**

### Social Influences and Social Decisions

14:15 - 14:35

**Overcorrection for Social Categorization Information Drives Impact Bias in Affective Forecasting**

Tatiana Lau

*Tatiana Lau, Carey K Morewedge, Mina Cikara*

14:40 - 15:00

**Social context influences decision signals in primate ACC**

Wei Song Ong

*Wei Song Ong, Michael L Platt*

15:05 - 15:25

**Computational and neural mechanisms of altruistic and healthy choices: cognitive regulation in social and non-social choice domains**

Anita Tusche

*Anita Tusche, Cendri Hutcherson*

## The Fred Kavli Plenary Lecture— Sponsored by The Kavli Foundation

**15:30 – 16:40**

### **Retaining Memory: The paradoxical benefits of both novelty and familiarity**

Richard G M Morris, FRS

*Centre for Cognitive and Neural Systems, The University of Edinburgh*

Sponsored by The Kavli Foundation

*One key challenge in memory research is to understand the selectivity of memory consolidation – the process by which memory traces become stabilised over time. A key issue is that some events are remembered, others are not. In recent publications, I have argued that the ‘automatic recording of attended experience’ by which we keep track of daily events is followed by the loss of many but not all memory traces within the day, with only some persisting longer in association with the upregulation of plasticity-related proteins (PRPs) that stabilise synaptic potentiation (cellular consolidation) that is the basis of memory formation. Novelty is adept at upregulating PRPs. Memory traces are encoded in parallel in the cerebral cortex (cortical consolidation), with the additional twist that new information may be more successfully assimilated if it fits well with prior knowledge that has previously been stored in cortex in the form of ‘schemas’. Prior knowledge is, of course, information with which we are most familiar. The economic implications of this paradox are not my realm of expertise, but I will conclude with some thoughts about accuracy vs. gist that perhaps each affect our economic behaviour.*

### Beer Hall Dinner

**18:00 – 20:00**

**LowenBrau**

Leipziger Str. 65

Join us in the hotel lobby for the short walk to a traditional German Beer Hall! We will enjoy a buffet of traditional Germany cuisine with beer, wine and many opportunities to catch up with your colleagues.

*Sponsored by: New York University Institute for the Interdisciplinary Study of Decision Making (NYU IISDM)*

Tuesday August 30, 2016

### Announcements

**08:30 – 08:45**

#### Paul Phillips

Join us for the Early Career Award presentations, the Society Board Election Results and other Society information

### Session IV

**08:45 – 10:20**

#### Valuation & Value Systems

08:45 - 09:05

#### **Evidence for stochastic discount rates in behavioral and brain imaging data**

Christopher Glaze

*Christopher M Glaze, Sangil Lee, Joseph W Kable*

09:10 - 09:30

#### **Basolateral amygdala supports the value representation and effortful choice of a preferred option**

Evan Hart

*Evan E Hart, Marisella Garcia, Yael Zoken, Alicia Izquierdo*

09:35 - 09:55

#### **Encoding of value and choice as separable, dynamic neural dimensions in orbitofrontal cortex**

Daniel Kimmel

*Daniel L Kimmel, Gamaleldin Elsayed, John P Cunningham, William T Newsome*

10:00 - 10:20

#### **Decoding Preference Uncertainty in the Human Brain**

Rafael Polania

*Rafael Polania, Marcus Grueschow, Christian C Ruff*

### Poster Spotlights III

**10:25 – 10:50**

10:25 - 10:30

#### **The neural correlates of uncertainty in probability updating and risky decision-making**

Wouter van den Bos

*Wouter van den bos, Robert Lorenz, Tim Pleskac, Corinna Laube, Laurianne Vagharchakian*

10:30 - 10:35

#### **Computational substrats for the limits in human probabilistic inference**

Yun-Yen Yang

*Yun-Yen Yang, Shih-Wei Wu*

10:35 - 10:40

#### **Neural substrates of group-based hierarchy and inequity preferences**

Alan de Souza Rodrigues Fermin

*Alan de Souza Rodrigues Fermin, Haruto Takagishi, Toshio Yamagishi, Yang Li, Yoshie Matsumoto*

10:40 - 10:45

**What is beautiful is trustworthy - neuroanatomic and -functional correlates of the Halo effect**

Soyoung Park

*Soyoung Q Park, Hackjin Kim, Hauke R Heekeren*

10:45 - 10:50

**Distinguishing different psychiatric populations based on a social hierarchy paradigm**

Iris Vilares Donga

*Iris Vilares, Tobias Nolte, Andreas Hula, Zhuooya Cui, Peter Fonagy, Terry Lohrenz, Lusha Zhu, Pearl Chiu, Brooks King-Casas, Peter Dayan, Read Montague*

Poster Session III

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Beletage Restaurant

**Buffet Lunch**

Session V

**14:15 – 15:25**

**Aging & Computational Psychiatry**

14:15 - 14:35

**The Shrinking of Anterior Prefrontal Lobe Correlates with Loss of Economic Rationality in Aging**

Hui-Kuan Chung

*Hui-Kuan Chung, Paul Glimcher, Agnieszka Tymula*

14:40 - 15:00

**Behavioural and neural correlates of the gambler's fallacy in Gambling Disorder**

Eve Limbrick-Oldfield

*Eve H Limbrick-Oldfield, Rachel Cocks, Inge Mick, Remy S Flechais, Michael R Aitken, Anne Lingford-Hughes, Henrietta Bowden-Jones, Luke Clark*

15:05 - 15:25

**Mesolimbic dopamine encodes both desire and satisfaction: lessons learned from studies of substance abuse in rats**

Paul E Phillips

*Paul E Phillips, Ingo Willuhn, Lauren Burgeno*



Session VI

Bounded Rationality

**15:30 – 17:05**

15:30 - 15:50

**Testing Models of Rational Inattention**

Mark Dean

*Mark Dean*

15:55 - 16:15

**Learning relative values in the striatum induces violations of normative decision making**

Gerhard Jocham

*Gerhard Jocham, Markus Ullsperger, Tilmann A Klein*

16:20 - 16:40

**Optimal and heuristic decision-making policies in the human brain**

Christoph Korn

*Christoph W Korn, Dominik Bach*

16:45 - 17:05

**Multiple timescales of valuation mediate adaptive choice behavior**

Kenway Louie

*Kenway Louie, Jan Zimmermann, Paul W Glimcher*