Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, JAPAN Elucidation of the Neural Computation for Prediction and Decision Making 科研費新学術領域研究「予測と意思決定の脳内計算機構の解明による人間理解と応用」

# International Symposium on Prediction and Decision Making 2015

予測と意思決定 国際シンポジウム 2015.10.31(Sat) – 11.1(Sun)

Koshiba Hall, The university of Tokyo 東京大学 小柴ホール

Day1: October 31st

Opening remark: Kenji Doya 9:00-9:20

## Neural Circuit for Decision Making 9:20-12:20

### Robert Malenka

Exploring circuits underlying reward and aversion

### **Anatol Kreitzer**

Function of Basal Ganglia Circuits in Movement and Action Selection

### Bernard Balleine

Inhibition and choice

### **Catharine Winstanley**

The risks of risky choice: what can rodent models of maladaptive decision-making under uncertainty tell us about addiction disorders?

### Katsuyuki Kaneda

Neural mechanisms of acute stress-induced enhancement of cocaine craving behavior

### Takayuki Teramoto

Whole-brain Ca<sup>2+</sup> imaging of *C. elegans* to explore the neuronal mechanisms for behavioral choice

# Social and Affective Decision Making 15:00-17:40

### Toshio Yamagishi

Heuristic and Deliberative Decision Making in Five Economic Games

### John O'Doherty

Neural mechanisms underlying learning and inference in a social context

### Masahiko Haruno

Brain Response Patterns to Inequity Can Predict Long-term Changes in Depression Tendency

### Satoshi Umeda

Probabilistic decision making and autonomic nervous activities

### Takafumi Minamimoto

The role of dopamine and serotonin in value-based decision-making in normal and disease state

### Hitoshi Okamoto

Control of Social Aggression by the Habenula

### Special Lecture 18:00-19:00

### Wolfram Schultz

The dopamine reward utility signal and its two components

# Day2: November 1<sup>st</sup> Model-based Decision Making 9:00-12:40

### **Nathaniel Daw**

Model-based decision making and compulsion

### Masamichi Sakagami

Functional difference of reward inference in the lateral prefrontal cortex and the striatum and its integration

### A.David Redish

Interactions between decision-making systems - implications for behavioral economics

### **David Foster**

Hippocampal place-cell sequences for learning and decision-making

### Sophie Deneve

Spike-based Population Coding and Bayesian Inference

### Akihiro Funamizu

Neural substrate of Bayesian dynamic filter in posterior parietal cortex

#### Yu Ohmura

Optogenetic control of central serotonergic neurons affects impulse control and model-based decision making

### Akio Namiki

A decision-making algorithm for an air-hockey robot depends on its opponent player's motions

# Computational Psychiatry 15:20-18:30

### Read Read Montague

A superposition of errors: sub-second dopamine fluctuations in human striatum encode superposed error signals about actual and counterfactual reward.

### Mitsuo Kawato

Psychiatric disorders as dynamic diseases

### Mathias Pessiglione

Why don't you make an effort? Computational dissection of motivation disorders

### Michael J. Frank

What do you do when you don't know what to do:
Probing for informativeness on latent states during value-based decision making

### Hidehiko Takahashi

Flexible modulation of risk attitude during decision-making under quota and its impairments in gambling disorders



参加ご希望の方は、予測と意思決定ホームページよりお申し込みください。 Web: <a href="http://www.decisions.jp">http://www.decisions.jp</a> 申込締切10月23日(金) 皆様のご参加をお待ちしております。