

## NCM 27th Annual Meeting, Dublin, Ireland

#### Individual Oral Presentations

#### **Representation of Visuomotor Delay with Current State Information**

Guy Avraham

Guy Avraham<sup>1</sup>, Raz Leib<sup>1</sup>, Assaf Pressman<sup>1</sup>, Lucia Simo<sup>2</sup>, Amir Karniel<sup>1</sup>, Lior Shmuelof<sup>1</sup>, Ferdinando Mussa-Ivaldi<sup>2</sup>, Ilana Nisky<sup>1</sup> Ben-Gurion University of the Negev, <sup>2</sup>Northwestern University

#### Coding of hand postures and movements in somatosensory cortex

Sliman Bensmaia

James Goodman<sup>1</sup>, Gregg Tabot<sup>1</sup>, Aneesha Suresh<sup>1</sup>, Nicholas Hatsopoulos<sup>1</sup>, Sliman Bensmaia<sup>1</sup> *University of Chicago* 

#### Principles underlying feed-forward control of multi-jointed limbs

Vikas Bhandawat Vikas Bhandawat<sup>2</sup>, Cynthia Hsu<sup>2</sup> <sup>2</sup>Duke University

#### Task-relevant motor variability is dynamically regulated by reward history

Ashesh Dhawale

Ashesh Dhawale<sup>1</sup>, Yohsuke Miyamoto<sup>1</sup>, Maurice Smith<sup>1</sup>, Bence Ölveczky<sup>1</sup>

\*\*Harvard University\*\*

#### Characterizing percepts evoked via intracortical microstimulation delivered to human somatosensory cortex

Sharlene Flesher

Sharlene Flesher<sup>1</sup>, Jeffrey Weiss<sup>1</sup>, Elizabeth Tyler-Kabara, Sliman Bensmaia<sup>2</sup>, Michael Boninger<sup>1</sup>, Jennifer Collinger<sup>1</sup>, Robert Gaunt<sup>1</sup> *'University of Pittsburgh, 'University of Chicago* 



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#### Unmasking the emergence of automaticity through practice by limiting reaction times

**Robert Hardwick** 

Robert Hardwick<sup>1</sup>, Alexander Forrence<sup>1</sup>, John Krakauer<sup>1</sup>, Adrian Haith<sup>1</sup>

<sup>1</sup>Johns Hopkins University

#### Association of BDNF and dopaminergic polymorphisms with cognitive and sensorimotor functions in older adults

Kathleen Hupfeld

Kathleen Hupfeld<sup>1</sup>, Rachael Seidler<sup>1</sup>

<sup>1</sup>University of Michigan

#### The speed of neural population dynamics as a neural code for motor timing

Mehrdad Jazayeri

Mehrdad Jazayeri<sup>1</sup>

<sup>1</sup>Massachusetts Institute of Technology

#### Vestibular prosthetic stimulation induces plasticity within vestibular reflex pathways that guides changes in motor performance

Diana Mitchell

Diana Mitchell<sup>1</sup>, Charles Della Santina<sup>2</sup>, Kathleen Cullen<sup>1</sup>

<sup>1</sup>McGill University, <sup>2</sup>Johns Hopkins University

#### The magnitude of implicit adaptation is limited by constant forgetting

Ryan Morehead

Ryan Morehead<sup>1</sup>, Maurice Smith<sup>1</sup>

<sup>1</sup>Harvard University

#### Lasting clinical gains from stimulation-enhanced visuomotor adaptation in chronic stroke

Jacinta O'Shea

Jacinta O'Shea<sup>1</sup>, Patrice Revol<sup>2</sup>, Helena Cousijn<sup>1</sup>, Jamie Near<sup>1</sup>, Pierre Petitet<sup>1</sup>, Sophie Jacquin-Courtois<sup>3</sup>, Heidi Johansen-Berg<sup>1</sup>, Gilles Rode<sup>3</sup>, Yves Rossetti<sup>2</sup>

<sup>1</sup>University of Oxford, <sup>2</sup>Lyon Neuroscience Research Center, <sup>3</sup>Hospices Civils de Lyon Hôpital Henry Gabrielle

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#### Dorsal premotor cortex recruits primary motor cortex to compensate for altered dynamics

Matthew Perich
Matthew Perich<sup>1</sup>, Juan Gallego<sup>1</sup>, Lee Miller<sup>1</sup>
Northwestern University

# Simultaneous recording from 96 extracellular electrodes in thalamus and basal ganglia of awake children during evaluation for deep-brain stimulation surgery for secondary dystonia

Terence Sanger Terence Sanger<sup>1</sup> <sup>1</sup>USC

#### **Neural Limits in Tracking High Bandwidth Movements**

Shreya Saxena
Shreya Saxena
, Sridevi Sarma
, Munther Dahleh

Massachusetts Institute of Technology, Johns Hopkins University

#### Visual processing for saccades in rostral premotor cortex compared with frontal eye field

Jeffrey Schall
Jeffrey Schall<sup>1</sup>, Joshua Cosman<sup>1</sup>, Kaleb Lowe<sup>1</sup>, Michelle Schall<sup>1</sup>, Wolf Zinke<sup>1</sup>
<sup>1</sup>Vanderbilt University

#### Subcortical LFPs as an assistive control signal for Brain Machine Interfaces

Huiling Tan
Huiling Tan<sup>1</sup>, Petra Fischer<sup>1</sup>, Syed Shah<sup>1</sup>, Peter Brown<sup>1</sup>
<sup>1</sup>University of Oxford



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Brain network adaptations evidenced by changes in spectral electroencephalography estimates correlate with acquisition and consolidation of a manual visuomotor skill

Menno Veldman

Menno Veldman<sup>1</sup>, Natasha Maurits<sup>1</sup>, Chris Mizelle<sup>2</sup>, Tibor Hortobágyi<sup>1</sup>

<sup>1</sup>University Medical Center, University of Groningen, <sup>2</sup>East Carolina University