

AGENDA

Focused Site Visit Workshop Temporal Dynamics of Learning Center

Timing and Learning

Meeting Rooms on 15, The Village, UC San Diego
June 19, 2014

This is an assistive site visit focusing on areas of opportunity. We highlight a subset of the research portfolio of our center, bringing attention to findings that emerged from group focus on shared questions that forge links across domains and levels of analysis. The format is a series of workshop-style presentations intended to promote in-depth discussion of featured topics, and demonstrate new questions and findings that were enabled by the center. The presentations feature a line of research that investigates brain dynamics and sensory/motor representation as a building block for learning, from basic rhythms in the brain through autonomous robot tools.

Thursday, June 19, 2014

- 7:20 Bus pick-up at the La Jolla Hyatt Hotel
- 7:30-8:00 Breakfast at “Meeting Rooms on 15”, The Village, UC San Diego
- 8:00-8:05 Welcome and Introductions. Andrea Chiba (UCSD)
- 8:05-8:20 Center Overview Andrea Chiba (UCSD)

Session One: Cortical State and Learning

- 8:20-8:45 Overview and Brain dynamics underlying early language acquisition. April Benasich (Rutgers)
- 8:45-8:50 Informational Questions
- 8:50-9:10 Cortical States and Sensory Processing. Dan Feldman (UC Berkeley)
- 9:10-9:15 Informational Questions
- 9:15-9:35 Open discussion: Understanding the role of cortical activation in sensory processing, development, and learning. Led by Dan Feldman and a member of site visit team.
- 9:35-10:00 NSF executive session and BREAK**

Session Two: Approaches to Modeling Cortical Dynamics

- 10:00-10:25 Overview of cortical dynamics and processing: Matching dynamics to the world. Ken Harris (UC London)
- 10:25-10:30 Informational Questions
- 10:30-10:50 Cortical oscillations arise from contextual interactions. Terry Sejnowski (UCSD)
- 10:50-10:55 Informational Questions
- 10:55-11:20 Open Discussion: Functional role of activation in the brain and modeling the mechanisms of cortical state. Led by Terry Sejnowski and a member of the site visit team
- 11:20-12:00 Meeting with Trainees
- 12:00-1:25 Lunch, Poster and Demo session

Session Three: Neural Path Maturation and Academic Skills

- 1:25-1:45 Overview: Timescales of dynamics for educating a brain: from milliseconds to years. Paula Tallal (UCSD)
- 1:45-1:50 Informational Questions
- 1:50-2:10 Links between brain development and cognitive skills. Terry Jernigan (UCSD)
- 2:10-2:15 Informational Questions
- 2:15-2:35 Open discussion on brain maturation and learning: Led by April Benasich and Member of the Site Visit Team

2:35-3:05 NSF Executive Session and Break

Session Four: New Technology for the Study of Learning

- 3:05-3:25 The faces of engagement. Javier Movellan (UCSD)
- 3:25-3:30 Informational Questions
- 3:30-3:50 iRat as a social neuroscience research tool. Janet Wiles (U. Queensland)
- 3:50-3:55 Informational Questions

- 3:55-4:15 Open discussion on new technology for the study of learning: Led by Javier Movellan, and Member of the Site Visit Team.
- 4:15 - 4:25 Director's Summary: Andrea Chiba
- 4:25 – 4:45 General Discussion: Marian Bartlett, Andrea Chiba, and Member of the Site Visit Team
- 4:45-4:55 BREAK

Session Five: Sustainability

- 4:55-5:10 Executive Director's remarks: Kim Hutson de Belle
- 5:10-5:15 Discussion
- 5:15-5:25 Institutional Leader's remarks: Miroslav Krstic, UCSD Associate Vice Chancellor for Research
- 5:25-5:35 Discussion
- 5:35-5:55 **NSF Executive Session**
- 5:55-6:25 Additional feedback from site visit team and discussion
- 6:25-9:45 Bus to the La Jolla Hyatt every 30 minutes

Friday, June 20, 2014

NSF and Site Visitors

La Jolla Hyatt, Milos Conference Room

- 7:30-8:30 Breakfast
- 8:30-9:30 Additional Q&A with members of Executive Committee (only if needed)
- 9:30–5:00 **NSF Executive session**
- 12:30-1:30 Lunch (NSF & Site Visitors)