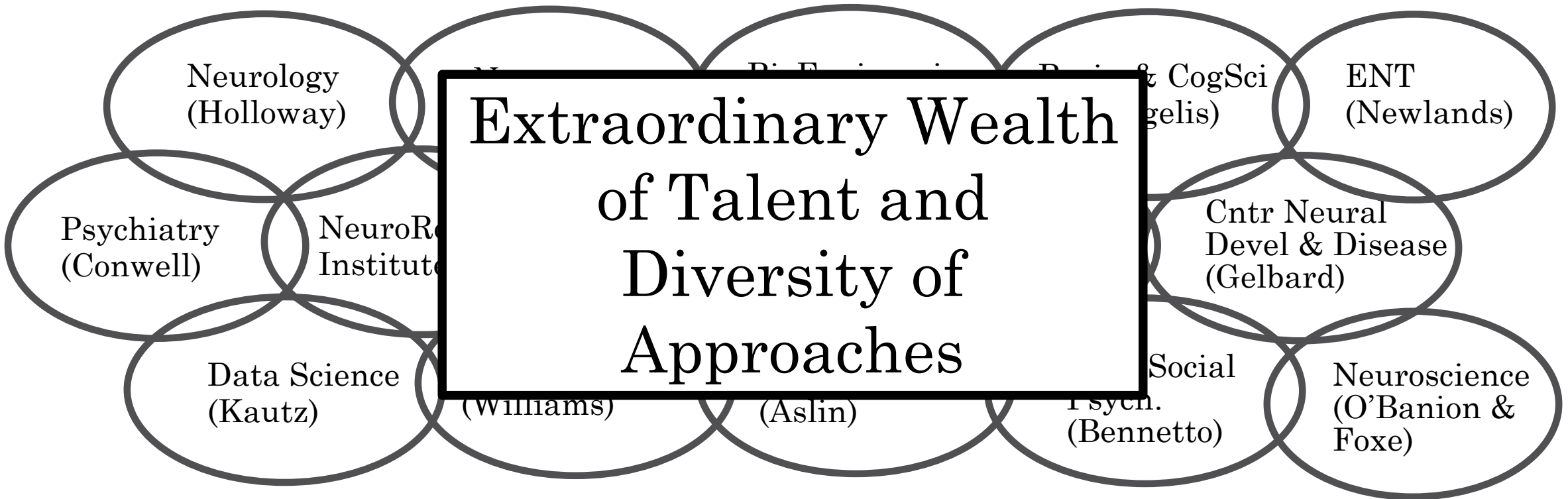


The Del Monte Institute for Neuroscience at Rochester

Forging a new future for Neuroscience at UPMC

The Neuroscience Strategic Plan - a work in progress

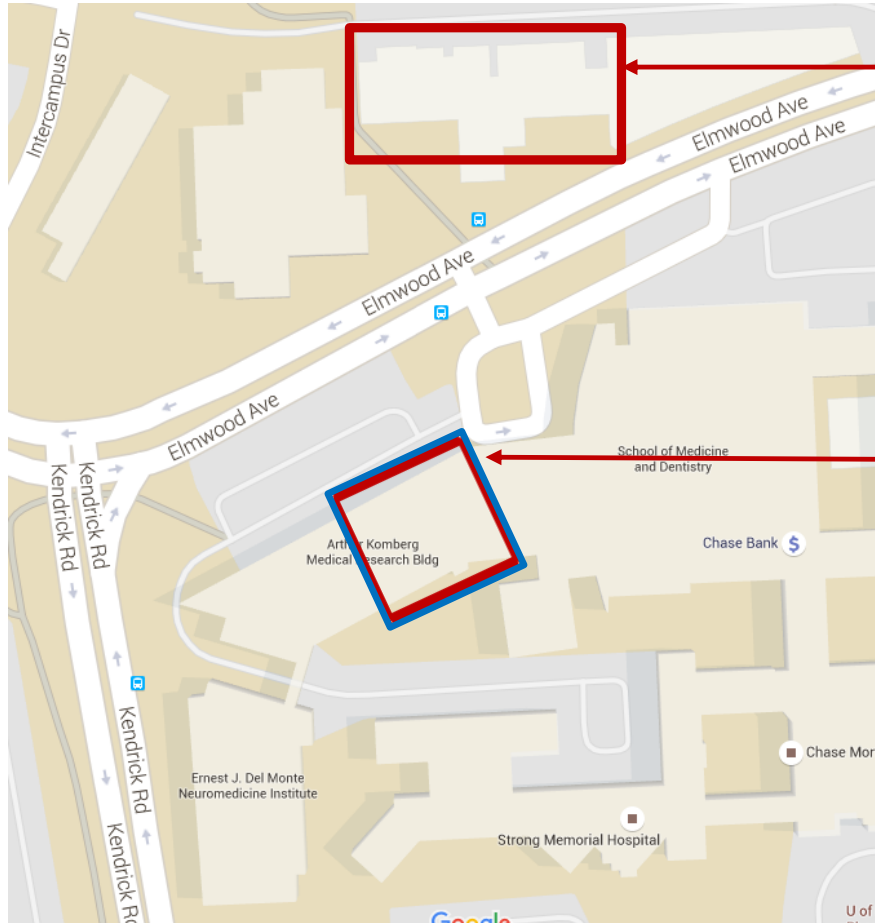
A Large and Extremely Complex Set of Stakeholders



Strategic Initiatives

- Signature space development and the geography of integrative neuroscience
- Administrative office and streamlining
- Faculty Recruitment and inter-departmental co-investment
- Seeding Centers of Excellence and collaborative initiatives
- Growing our student and post-doctoral talent pool
- Projecting the Institute for Neuroscience onto the national and international stage

Signature space development and the geography of integrative neuroscience



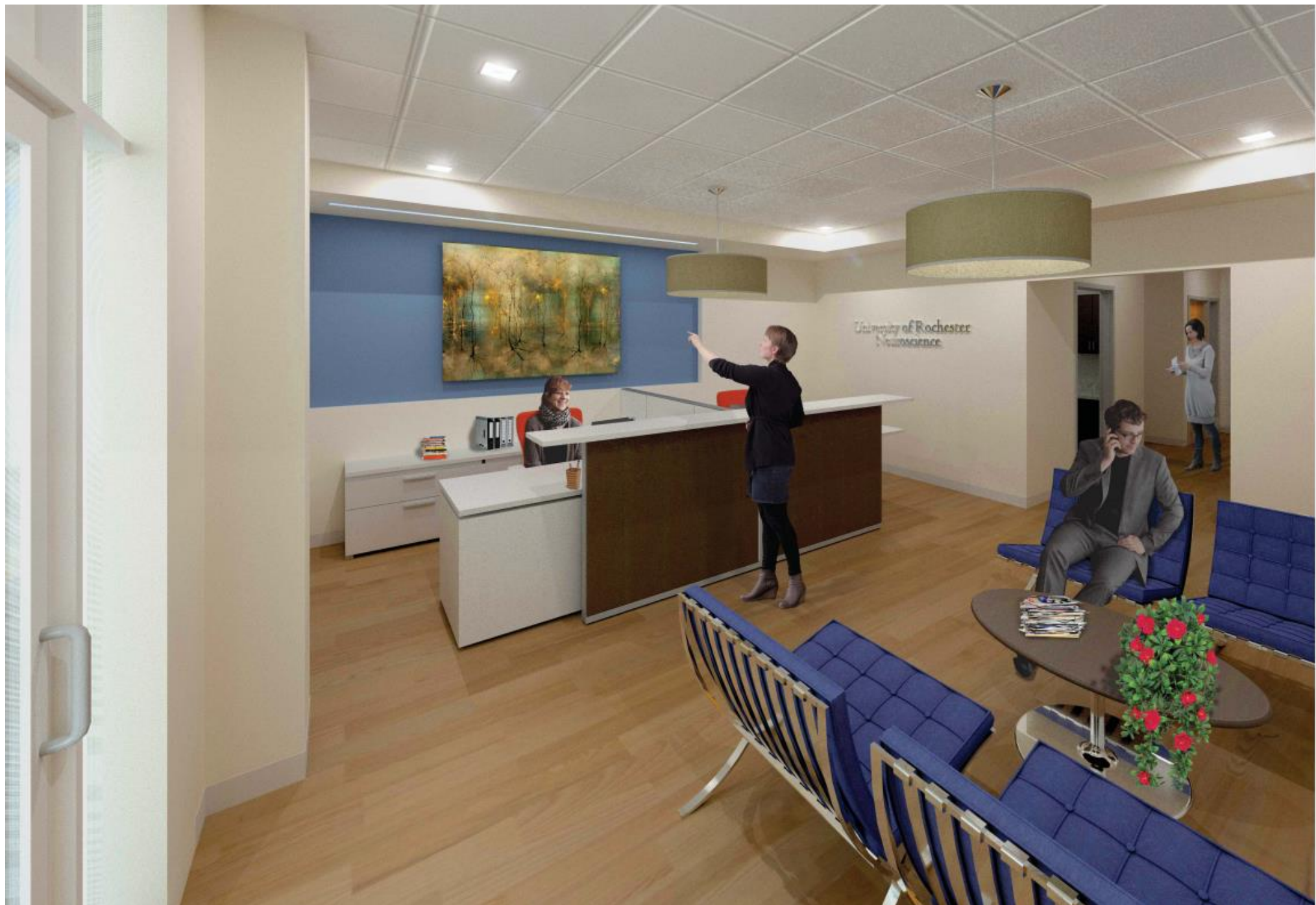
RCBI will serve as the hub for human and patient based neurophysiology (fMRI, fNIRS, high-density EEG)

- Magnet Upgrade
- Renovations in process
- Elevator being installed

KMRB will serve as the hub for pre-clinical murine models work

- Positioning directly off Flaum provides for a very attractive signature space
- Integration of eight Neuroscience investigators with 8 existing neuroscience researchers establishes a powerful technique-based focus and incredible opportunities for integrative work





University of Rochester
Neuroscience







The Center for Human Neurophysiology and Development



KMRB renovations also underway



Administrative office and streamlining

- Kathleen Jensen joined the Neuroscience Institute as Executive Director and Chief of Staff on January 1st.
- Amalgamation of the Department of Neuroscience Administrative offices, the administrative offices of the Rochester Brain Imaging Center (RCBI), and the administrative offices of the Center for Neural Development and Disease (CNDD).
- New Administrative offices will be situated in The Institute for Neuroscience space in the Kornberg Building.
- Efforts to further streamline duplicative administrative efforts and consolidate 'satellite' offices into the Neuroscience Institute are being negotiated.



Growing our Investigator Base In Strategic Areas

- First new faculty recruit to the Neuroscience Institute
- Krishnan Padmanabhan (from the Salk Institute)
- Single neuron dynamics and computation as related to neuronal diversity, circuit level mapping and analysis of the olfactory system, human stem cell research, and translational neurogenomics.



Co-Investment with Biomedical Engineering

Two very talented young neuroscientists started in July.

- Ross Maddox, University of Washington

“Sensory Integration of speech signals”

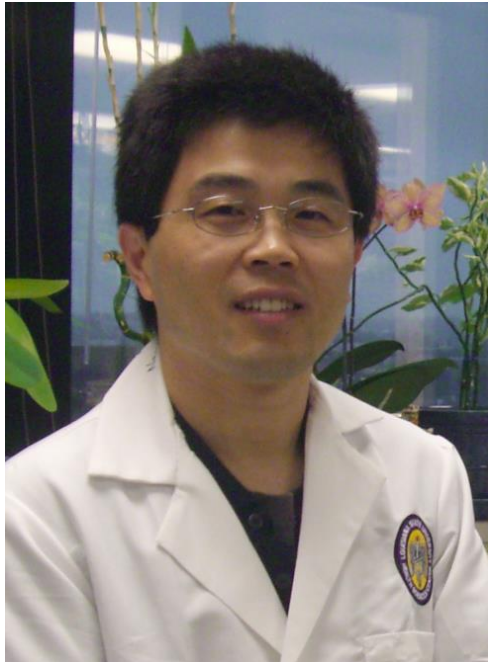


- Edmund Lalor, Trinity College Dublin

“Quantitative modelling approaches to the analysis of sensory electrophysiology in humans”



Co-Recruitment with Pharmacology and Physiology



Hugh "Houhui" Xia

Louisiana State University

Molecular mechanisms of synaptic plasticity: NMDA receptor signaling and CREB mediated gene transcription

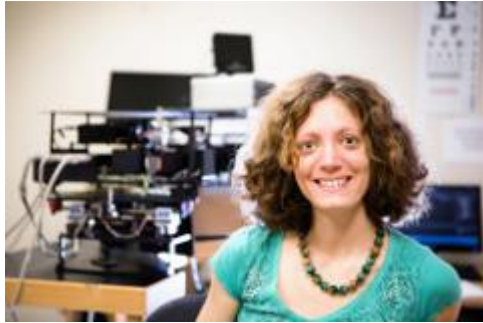


David MacLean

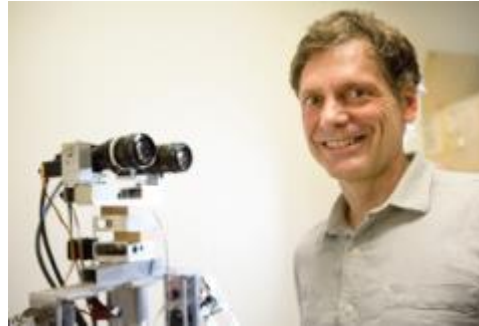
University of Texas, Houston

Structure-function relationships in ion channels activated by small molecules.

Co-Investment with Brain & Cognitive Sciences

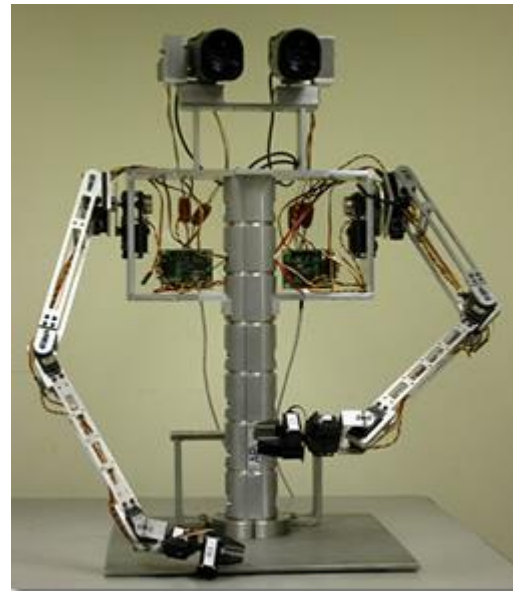
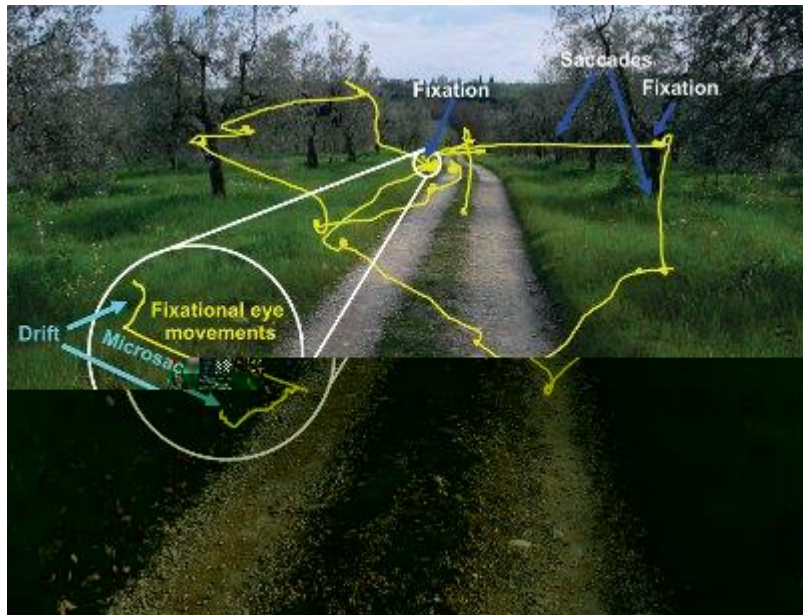


Martina Poletti, Ph.D.



Michele Rucci, Ph.D.

Active Perception



Search for 2 additional faculty underway

- We received circa 160 applications from outstanding neuroscientists worldwide.
- Committee whittled the list to 12 candidates.
- Interviews and visits are almost completed and we are in the process of negotiating offers with our two lead candidates.
- We expect to recruit one senior and one junior faculty.
- We continue to pursue co-investment strategies with a number of departments (e.g. BCS, Biostatistics and Computational Biology).

Growing our Graduate Program

- The Neuroscience Institute is supporting a major expansion of our Graduate Program.
- Average number of students per year in the program has been in the range of 3-4, with acceptance rates of circa 30%
- In 2016, we made a much more vigorous recruitment effort and admitted 11 new students, with an acceptance rate of 74%.
- We are no longer being out-bid by our competition!

Projecting the Institute for Neuroscience onto the national and international stage

October 11-13, 2016

Memorial Art Gallery • 500 University Avenue



PERSISTENT, MALADAPTIVE BEHAVIORS:

why we make bad choices

Reward, fear, and value

Catharine Winstanley, *University of British Columbia*
Benjamin Hayden, *University of Rochester*
Masamichi Sakagami, *Tamagawa University*
Greg Quirk, *University of Puerto Rico*
Yael Niv, *Princeton University*
Jeansok Kim, *University of Washington*

Human studies and clinical abnormalities

John O'Doherty, *California Institute of Technology*
Daniela Schiller, *Mount Sinai Hospital*
Mary Phillips, *University of Pittsburgh*
Diego Pizzagalli, *Harvard University*
Rita Goldstein, *Mount Sinai Hospital*
Hugh Garavan, *University of Vermont*

Common circuits and traits in disease

Timothy Behrens, *University of Oxford*
Suzanne Haber, *University of Rochester*
Claire Gillan, *New York University*
Randy Buckner, *Harvard University*

Keynote Speaker

Trevor Robbins, *University of Cambridge*

Why we make bad decisions

Betsy Murray, *NIMH*
Peter Dayan, *University College London*
Daeyeol Lee, *Yale University*
Joseph Kable, *University of Pennsylvania*

New therapeutic approaches

Cameron McIntyre, *Case Western Reserve University*
Alvaro Pascual-Leone, *Harvard University*
Benjamin Greenberg, *Brown University*
Michael Fox, *Harvard University*



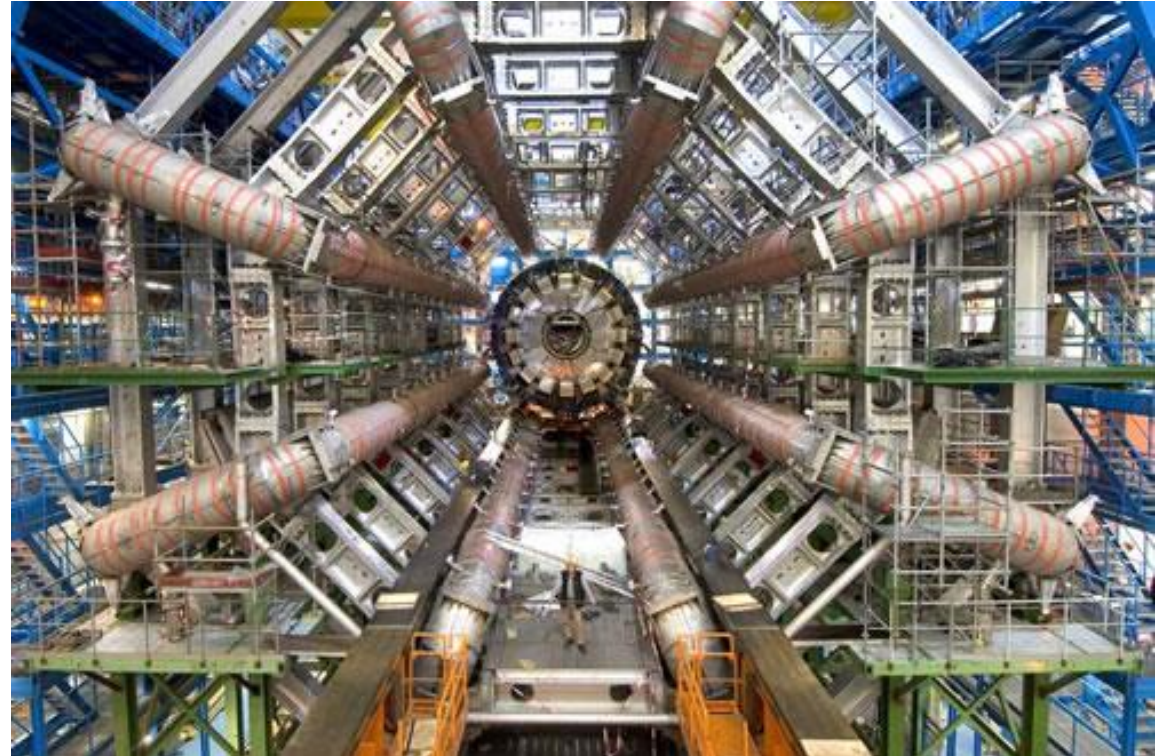
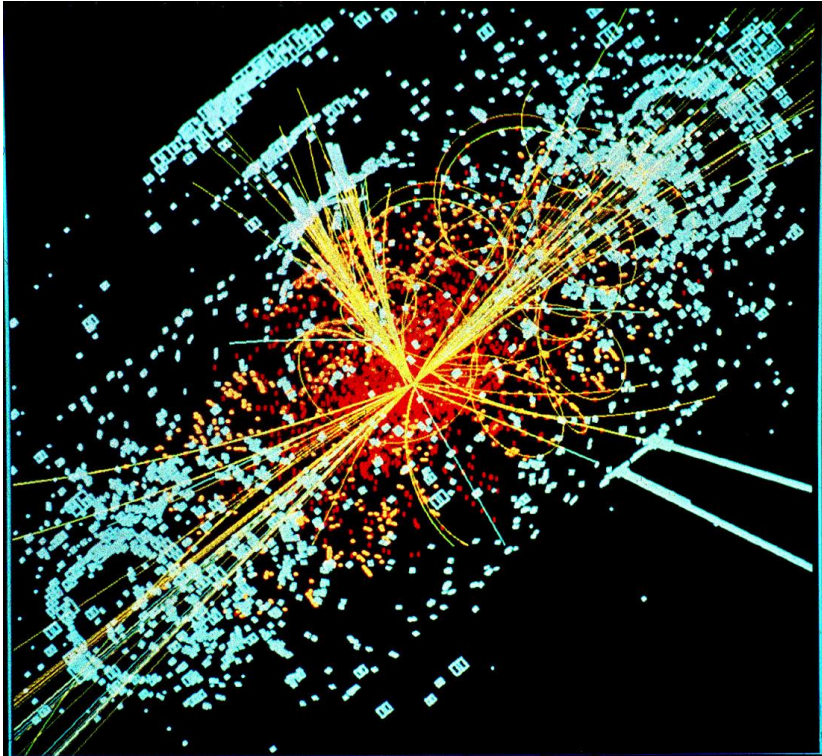
For more information and to register visit:
cel.urmc.edu/bad-choices

Sponsored by the University of Rochester School of Medicine,
the Ernest J. Del Monte Institute for Neuroscience, and the Silvio O. Conte Center

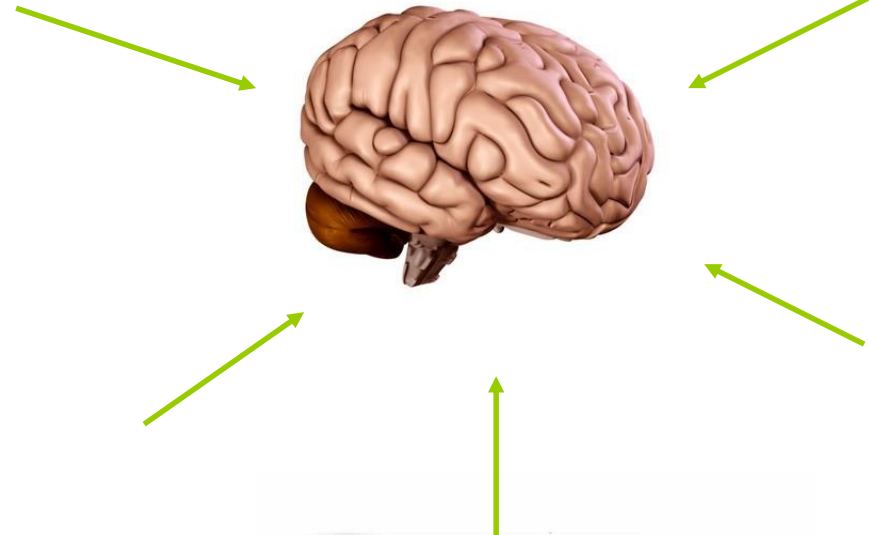
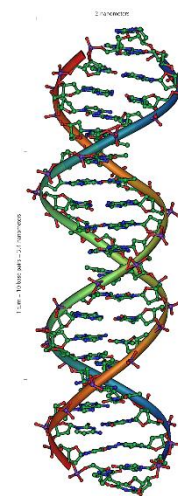
Chairs of the Symposium: Dr. Suzanne Haber and Dr. John Foxe

We are essentially an immature field

- The Large Hadron Collider was nearly 30 years in the making - and cost the member countries of CERN and other participating countries an estimated **€4.6 billion** (about US\$ 6.4 billion).



Tackling the “wicked” problems: Multi-methodological approaches to provide crucial translation



Will we choose the lofty high ground or dirty ourselves in the swamp?

*“In the varied topography of professional practice, there is a high, hard ground, overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confusing problems defy technical solution. The irony of this situation, is that the problems of the high ground tend to be relatively unimportant to individuals or society at large, however great their technical interest may be, while in the swamp lie the problems of greatest human concern. The practitioner must choose. Shall he remain on the high ground where he can solve relatively unimportant problems according to prevailing standards of rigor, or shall he **descend to the swamp of important problems and ~~non-rigorous~~ inquiry?**”*

The Del Monte Neuroscience Mission

- It's simple really.
- We need treatments and cures!
- The only way to get to these is through research
- We need answers from molecules to mind, from the cradle to the cane
- We need to take risks, to swing for the fences.
- We need to identify resources to fund our crucial work and we simply cannot rely on the government alone.

Developing a Strategic Plan

- Our charge today is to come to a consensus on the Flagship programs to be taken forward and to identify the key areas where we will invest our resources over the next 5 years.

Thank You