# Third Annual Arizona State University & Barrow Neurological Institute Neuroscience Symposium

February 28th, 2009 at the Barrow Neurological Institute of St. Joseph’s Hospital
350 W Thomas Road
Phoenix, AZ  85013
http://www.thebarrow.org

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Breakfast and Registration</td>
<td>Marley Lobby</td>
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<tr>
<td>9:50</td>
<td>Introductory Remarks</td>
<td>Goldman Auditorium</td>
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<td><strong>Brian H. Smith, Professor, School of Life Sciences, Arizona State University</strong></td>
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<td><strong>Eric T. Vu, Staff Scientist, Division of Neurobiology, Barrow Neurological Institute</strong></td>
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<tr>
<td>10:00</td>
<td>Speaker</td>
<td>Goldman Auditorium</td>
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<td><strong>John G. Hildebrand, Ph.D., Regents Professor and Director, ARL Division of Neurobiology, University of Arizona</strong></td>
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<td></td>
<td><strong>EXPLORATIONS OF A “SIMPLE” OLFATORY SYSTEM</strong></td>
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<tr>
<td>11:00</td>
<td>Break</td>
<td>Marley Lobby</td>
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<td>11:10</td>
<td>Concurrent Breakout Sessions:</td>
<td>Goldman Auditorium</td>
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<td>• “Translational Research in Epilepsy: Experimental and Human Studies” (David M. Treiman, M.D., BNI &amp; ASU, and Leonidas D. Iasamidis, Ph.D., ASU, Co-Chairs)</td>
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<td>• “Neuroethology” (Wulfila Gronenberg, Ph.D., U of A, Chair)</td>
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<td>• “Visuomotor processing: Mechanisms and clinical applications” (Christopher A. Buneo, Ph.D., ASU, Chair)</td>
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<td>1:00</td>
<td>Lunch with Posters</td>
<td>Dining Room A</td>
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<tr>
<td>1:45</td>
<td>Posters:</td>
<td>Marley Lobby</td>
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<td><strong>SFN meeting posters welcome</strong></td>
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<td>3:00</td>
<td>Speaker</td>
<td>Goldman Auditorium</td>
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<td><strong>Mahzarin R. Banaji, Ph.D., Richard Clarke Cabot Professor of Social Ethics, Department of Psychology, Harvard University</strong></td>
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<td><strong>MIND BUGS: THE SCIENCE OF ORDINARY PREJUDICE</strong></td>
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Special Thanks to Our Sponsors:

Barrow Neurological Foundation
Arizona State University School of Life Sciences
Office of the VP for Research, Graduate Studies, & Economic Development, University of Arizona
Center for Adaptive Neural Systems of the Biodesign Institute at Arizona State University
Translational Research in Epilepsy: Experimental and Human Studies

David M. Treiman, M.D., and Leonidas D. Iasemidis, Ph.D., Co-Chairs
Goldman Auditorium
11:10 am to 1:00 pm

Overview of epilepsy research at the BNI and ASU
Co-Chairs

Nonlinear dynamical analysis of the EEG in epilepsy: Seizure prediction, seizure detection, and therapeutic potential
Shivkumar Sabesan, Ph.D.
Harrington Department of Bioengineering
Arizona State University

VNS: Efficacy and mechanisms in chronic epilepsy in the rat
Lucy J. Treiman, Ph.D., Psy.D.
Division of Neurology
Barrow Neurological Institute

Hypothalamic hamartoma: A human model of epilepsy and epileptogenesis
Jie Wu, M.D., Ph.D.
Division of Neurology
Barrow Neurological Institute

SISCOM: Clinical applications in epilepsy and other conditions
Katherine H. Noe, M.D., Ph.D.
Department of Neurology
Mayo Clinic
Neuroethology
Wulfila Gronenberg, Ph.D., Chair
Conference Center Room 3
11:10 am to 1:00 pm

Carotenoids and the brain: More than just a pretty face
Kevin J. McGraw, Ph.D.
School of Life Sciences
Arizona State University

Sensory modulation of prey capture in frogs: Alternative strategies, biomechanical trade-offs, and sensory hierarchies
Jenna A. Monroy, Ph.D.
Department of Biological Sciences
Northern Arizona University

Dopamine in behavior and learning in the honey bee
Julie Mustard, Ph.D.
School of Life Sciences
Arizona State University

Central brain regions and the control of advanced behavior in bees
Wulfila Gronenberg, Ph.D.
ARL, Division of Neurobiology
University of Arizona
Visuomotor Processing: Mechanisms and Clinical Applications
Christopher A. Buneo, Ph.D., Chair
Conference Center Room 4/5
11:10 am to 1:00 pm

Visuo-somatic integration in the posterior parietal cortex during the maintenance of static limb positions
Christopher A. Buneo, Ph.D.
Harrington Department of Bioengineering
Arizona State University

Effects of fixational microsaccades in visual physiology, perception and cognition
Susana Martinez-Conde, Ph.D.
Division of Neurobiology
Barrow Neurological Institute

Integration of visual and motor information in the motor cortex during locomotion
Irina Bellozerova, Ph.D.
Division of Neurobiology
Barrow Neurological Institute

The role of vision in the learning of object manipulation
Marco Santello, Ph.D.
Department of Kinesiology
Arizona State University

Towards over the counter rehab
Kanav Kahol, Ph.D.
Department of Biomedical Informatics
Arizona State University