UTHealth Graduate School of Biomedical Sciences

Topics in Neurobiology of Disease-GS140021

Disorders of Learning and Memory
Co-directors: John H. Byrne, Ph.D.
Paul E. Schulz, M.D.

Course Description

This course is an integrated approach to neurological diseases, which includes background information as well the diagnosis, the treatment, and the biological mechanisms of the diseases under study. The topic for Fall, 2012, is “Disorders of Learning and Memory”. This course will explore 1) the basic cellular mechanisms of learning and memory, and 2) use diseases associated with memory deficits to illustrate how memory systems are organized in the brain, and how memory disorders are assessed, diagnosed, and treated. This will include Alzheimer’s disease, Traumatic Brain Injury, Schizophrenia, Parkinsonism, and developmental disorders such as Autism and ADHD.

This course is open to graduate students, medical students, residents and postdoctoral fellows.

Lecture Time and Location

Wednesdays, 12:00 p.m. – 1:00 p.m.
University of Texas Medical School Building, Rm. 7.037

Course Requirements

Attendance
Completion of final exam

Course Contacts

John H. Byrne, Ph.D.
Chair and Professor
Dept. of Neurobiology & Anatomy
6431 Fannin Street, MSB 7.046
Houston, TX 77030
Phone: 713-500-5602
Email: John.H.Byrne@uth.tmc.edu

Paul E. Schulz, M.D.
Vice Chair and Associate Professor
Dept. of Neurology
6431 Fannin St.
Houston, TX 77030
Phone: 832-325-7457
Email: Paul.E.Schulz@uth.tmc.edu

Anne K. Hart, Ph.D.
Sr. Coordinator
Neuroscience Research Center
6431 Fannin St., MSB 7.168A
Houston, TX 77030
Phone: 713-500-5538
Email: Anne.Hart@uth.tmc.edu
## Disorders of Learning and Memory

**Course Schedule: Fall, 2012**

*Wednesdays, 12:00 p.m. – 1:00 p.m.*

*University of Texas Medical School Building, Rm. 7.037*

*Open to graduate and medical students, postdoctoral fellows and residents.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Title/Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. August 29, 2012</td>
<td>Clinical Assessment of Memory Disorders</td>
<td>Paul E. Schulz, M.D., Associate Professor, UTHealth, Dept. of Neurology</td>
</tr>
<tr>
<td>2. September 5, 2012</td>
<td>Implicit memory, classical and/or operant conditioning/molecular mechanisms of short, long-term memory</td>
<td>John H. Byrne, Ph.D., Professor, UTHealth, Dept. of Neurobiology &amp; Anatomy</td>
</tr>
<tr>
<td>3. September 12, 2012</td>
<td>Synaptic plasticity/LTP/LTD</td>
<td>Harel Shouval, Ph.D., Associate Professor, UTHealth, Dept. of Neurobiology &amp; Anatomy</td>
</tr>
<tr>
<td>4. September 19, 2012</td>
<td>Declarative Memory</td>
<td>Anthony A. Wright, Ph.D., Professor, UTHealth, Dept. of Neurobiology &amp; Anatomy</td>
</tr>
<tr>
<td>5. September 26, 2012</td>
<td>Imaging memory</td>
<td>Michael Beauchamp, Ph.D., Associate Professor, UTHealth, Dept. of Neurosurgery</td>
</tr>
<tr>
<td>6. October 3, 2012</td>
<td>Memory deficits associated with TBI and PTSD</td>
<td>Pramod Dash, Ph.D., Professor, UTHealth, Dept. of Neurosurgery</td>
</tr>
<tr>
<td>7. October 10, 2012</td>
<td>Attention and memory deficits in Schizophrenia and Parkinsons</td>
<td>Anne Sereno, Ph.D., Professor, UTHealth, Dept. of Neurobiology &amp; Anatomy</td>
</tr>
<tr>
<td>8. October 17, 2012</td>
<td><em>No Class – SfN</em></td>
<td></td>
</tr>
<tr>
<td>9. October 24, 2012</td>
<td>Dementia and Alzheimer’s Disease</td>
<td>Paul E. Schulz, M.D., Associate Professor, UTHealth, Dept. of Neurology</td>
</tr>
<tr>
<td>10. October 31, 2012</td>
<td>Epidemiology of Alzheimer’s Disease and other dementias</td>
<td>Stephen Waring, DVM, Ph.D., Senior Research Scientist II, Division of Research, Essentia Institute of Rural Health, Duluth, MN</td>
</tr>
<tr>
<td>11. November 7, 2012</td>
<td>Molecular basis of Alzheimer’s and neurodegenerative diseases</td>
<td>Claudio Soto, Ph.D., Professor, UTHealth Dept. of Neurology</td>
</tr>
<tr>
<td>12. November 14, 2012</td>
<td>Learning difficulties in children with neurodevelopmental disorders</td>
<td>Marcia A. Barnes, Ph.D., Professor, UTHealth Dept. of Pediatrics, Children’s Learning Institute</td>
</tr>
<tr>
<td>13. November 21, 2012</td>
<td><em>No Class</em></td>
<td></td>
</tr>
<tr>
<td>14. November 28, 2012</td>
<td>Molecular mechanisms of Fragile X-associated memory disorders</td>
<td>David L. Nelson, Ph.D., Professor, Baylor College of Medicine, Dept. of Molecular and Human Genetics</td>
</tr>
<tr>
<td>15. December 5, 2012</td>
<td>Therapeutic approaches to treating dementias</td>
<td>To be determined</td>
</tr>
<tr>
<td>16. December 12, 2012</td>
<td><strong>Final Paper Due</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Course Contacts:** [John.H.Byrne@uth.tmc.edu](mailto:John.H.Byrne@uth.tmc.edu); [Paul.E.Schulz@uth.tmc.edu](mailto:Paul.E.Schulz@uth.tmc.edu)

8/23/2012