

UTHSC-Houston Graduate School of Biomedical Sciences
 Topics in Neurobiology of Disease-GSI40021
Neurovascular Disorders
 Tentative Course Schedule: Fall, 2008
 Wednesdays, 12:00 p.m. – 1:00 p.m.
 University of Texas Medical School Building, Rm. 7.037

	Date	Proposed Topic/Title	Lecturer
1.	September 3, 2008	Introduction by Director. First look at vascular anatomy through brain imaging in healthy vs. diseased brain.	Jaroslav Aronowski, Ph.D. and James Grotta M.D. Neurology, UTMSH
2.	September 10, 2008	Mechanisms governing vascular reactivity in brain.	Robert M. Bryan Ph.D. Anesthesiology, BCM
3.	September 17, 2008	Cerebral blood flow regulation in physiology and disease.	James Grotta M.D. Neurology, UTMSH
4.	September 24, 2008	Neurovascular unit; How do brain cells communicate with vessels?	Joseph McCarty Ph.D. Cancer Biology. UT M.D. Anderson Cancer Center
5.	October 1, 2008	Genetics of neurovascular system: Moyamoya disease, cerebrovascular dissection and Cadasil syndrome.	Dianna Milewicz. M.D. Internal Medicine/Molecular Genetics, UTMSH
6.	October 8, 2008	The genetic approach to reveal causes of stroke.	Myriam Fornage Ph.D. Human Genetics, UTHSC- IMM
7.	October 15, 2008	Physiological factors affecting vascular integrity in disease.	Tom Kent M.D. Neurology, BCM
8.	October 22, 2008	Pathobiology of Cerebral Arteriovenous Malformation	William L. Young M.D. Director, UCSF Center for Cerebrovascular Research
9.	October 29, 2008	The yin and yang of inflammation in the brain.	Jaroslav Aronowski Ph.D. Neurology, UTMSH
10	November 5, 2008	Blood-Spinal Cord-Barrier dysfunction in acute and chronic spinal cord injury.	Raymond Grill, Ph.D. Neurosurgery, UTMSH
11.	November 12, 2008	The role of the vascular unit in stem cell function.	Sean Savitz M.D. Neurology, UTMSH
12.	November 19, 2008	No Class – SfN	
13.	November 26, 2008	Wednesday before Thanksgiving	
14.	December 3, 2008	Intracerebral hemorrhage.	Jaroslav Aronowski, Ph.D. Neurology, UTMSH
15.	December 10, 2008	Blood-brain barrier and blood-CSF barrier.	Pramod Dash Ph.D. Neurobiology and Anatomy, UTMSH
16.	December 17, 2008	Final Exam	

LECTURE ORDER IS SUBJECT TO CHANGE

GS140021 CURRENT TOPICS IN THE NEUROBIOLOGY OF DISEASE

“Neurovascular Disorders”

Fall 2008

Wednesday 12:00 – 1:00 p.m.

MSB 7.037

Course Directors: Jaroslaw Aronowski, Ph.D. and John H. Byrne, Ph.D.

COURSE DESCRIPTION:

This course is an integrated approach to neurological diseases. Each course has a specialized topic, and includes the description, the diagnosis, the treatment, and the biological mechanisms of the diseases under study. The topic for Fall, 2008 is “Neurovascular Diseases” and will be an integrated approach to neurological vascular diseases, addressing both physiological and pathological aspects of the role the neurovascular unit plays in controlling brain integrity. The brain vessels do not only act as simple plumbing system carrying oxygen to support neuronal activity, but they are an integral component of the environment that directly impacts (e.g. by releasing trophic factors or proteases) the physiological function of both healthy and diseased brain cells. This course will explore the mechanisms governing the function of the brain vascular system in order to understand how impairment in vascular integrity influences/causes neurological diseases. Pathologies that will be discussed in this course include ischemic stroke, hemorrhagic stroke, traumatic brain Injury, spinal cord injury, arterio-venous malformation(AVM), Moyamoya disease and cerebrovascular dissection, and Cadasil syndrome. The mechanisms of blood-brain and blood-cerebrospinal fluid disruption, cerebral edema, and neuro-inflammation will also be discussed.

This course is a unique offering open to graduate students, postdoctoral fellows, and medical students.

COURSE REQUIREMENTS:

This is a Pass/Fail course based on attendance and successful submission of the answer to the Final Exam.

COURSE DIRECTOR: Contact Information

Course Director: Dr. Jaroslaw Adam Aronowski
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