From the Wings to Center Stage: How inflammation triggers a multitude of diseases

Tuesday, April 18, 2017
6:00 – 7:30 p.m.

The Joseph B. Martin Conference Center
The New Research Building
Harvard Medical School
77 Avenue Louis Pasteur
Boston, MA 02115
From the Wings to Center Stage: How inflammation triggers a multitude of diseases

Speakers

Diane Mathis, PhD
Morton Grove-Rasmussen Chair in Immunohematology
Professor, Division of Immunology, MBIB
Harvard Medical School

Filip Swirski, PhD
Patricia and Scott Eston MGH Research Scholar
Principal Investigator, MGH Center for Systems Biology
Massachusetts General Hospital
Associate Professor
Harvard Medical School

Steven Schoelson, PhD, MD
Helen and Morton Adler Chair,
Section Head, Pathophysiology and Molecular Pharmacology
Associate Research Director
Joslin Diabetes Center
Professor of Medicine
Harvard Medical School

Beth Stevens, PhD
F.M. Kirby Neurobiology Research, Stevens Lab
Boston Children's Hospital
Associate Professor, Department of Neurology
Harvard Medical School
About the Speakers:

**Diane Mathis, PhD**
Dr. Mathis is the Morton Grove-Rasmussen Professor of Immunohematology at Harvard Medical School. In 1983, she established a laboratory in conjunction with Christophe Benoist at the Institut de Génétique et de Biologie Moleculaire et Célulaire in Strasbourg, France. The Mathis/Benoist lab moved to the Joslin Diabetes Center at the end of 1999. The lab then joined the Harvard Medical School pathology department in the spring of 2009. Dr. Mathis is also an active member of the Committee on Immunology at Harvard Medical School, the Broad Institute, the Dana Farber/Harvard Cancer Center and the Harvard Stem Cell Institute.

**Filip Swirski, PhD**
Dr. Swirski is the Scott and Patricia Eston MGH Research Scholar, Principal Investigator at the Massachusetts General Hospital’s Center for Systems Biology, faculty member of the Harvard Immunology PhD Program, and associate professor of radiology at Harvard Medical School. His lab utilizes a range of cell, molecular and imaging techniques to elucidate how innate immune cells contribute to cardiovascular disease. He focuses on hematopoiesis and monocyte differentiation.

**Steven Shoelson, MD, PhD**
Dr. Shoelson is an associate director of research and section head, pathophysiology & molecular pharmacology, at the Joslin Diabetes Center and professor of medicine at Harvard Medical School. He co-founded Catabasis Pharmaceuticals in 2008, where he also serves as the Chair of the Scientific Advisory Board. Dr. Shoelson has published over 210 papers, and is considered a leader in our understanding of the mechanisms of insulin resistance and the pathogenesis of type 2 diabetes.

**Beth Stevens, PhD**
Dr. Stevens is a neuroscientist and an associate professor of neurology at both Boston Children's Hospital’s F.M. Kirby Neurobiology Center and in Harvard Medical School’s Department of Neurology. She is an institute member of the Broad Institute of MIT and Harvard. Her scientific papers have appeared in such journals as Neuron, Science, Proceedings of the National Academy of Sciences and Nature Neuroscience, among others. The Stevens Lab focuses on understanding the mechanisms by which neuron-glial communication helps control the formation, elimination and plasticity of synapses in health and disease.
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Inflammation is one of the body's first lines of defense against disease. But there is growing evidence that chronic or acute inflammation can fuel the development of a range of chronic ailments, including autoimmune diseases, neurodegenerative conditions, heart and metabolic diseases and more. In this seminar, Harvard Medical School researchers and clinicians explore the connection between inflammation and chronic diseases, and what can be done to reduce the risks.

Articles

Heart attack worsens atherosclerosis
Sue McGreevey, Harvard Gazette
http://news.harvard.edu/gazette/story/2012/06/heart-attack-worsens-atherosclerosis/

Listening in on Bug-Gut Chatter
Ekaterina Pesheva, Harvard Medical School News
https://hms.harvard.edu/news/listening-bug-gut-chatter

Playing with the fire of inflammation
Harvard Health Publications

This woman may know a secret to saving the brain's synapses
Emily Underwood

Inflammatory factor IL-3 may play essential role in development of sepsis
Science Daily
https://www.sciencedaily.com/releases/2015/03/150312142903.htm

Videos

World's Oldest Anti-Inflammatory Drug Finds New Use
MDedge
https://www.youtube.com/watch?v=M8uPS61mJpk

What is known about the causes of autoimmune diseases?
Scienza in Rete
https://www.youtube.com/watch?v=cncuBbgHgPs

Discovery Roundup: How Immune Cells Sculpt the Developing Brain
Boston Children’s Hospital
https://www.youtube.com/watch?v=NNTYlqJPXos