



Innate Immunity Day

Wednesday, May 31, 2017 1:30-5:45 p.m.
Albert Sherman Center Auditorium, AS2-2102

PLEASE REGISTER @
www.umassmed.edu/pii/iiday



UNIVERSITY of
MASSACHUSETTS
MEDICAL SCHOOL

Department of Medicine
Division of Infectious
Diseases and Immunology



Frederic Geissmann, M.D., Ph.D. - Over the past 11 years my lab has elucidated several key aspects of the developmental origin, homeostasis, and functions of monocytes and macrophages. We described the two main functional subsets of monocytes in mice, and initiated their study in vivo. We have in particular described and initiated the study of the biology and functions of Ly6C low monocytes. We identified the common bone marrow progenitor for dendritic cells and monocyte/macrophages (MDP). We have pioneered the description of the yolk Sac Erythro-Myeloid Progenitor (YS EMP) origin of tissue resident macrophage, and developed experimental approaches to study their differentiation and functions in vivo, including fate mapping, intravital imaging and adoptive transfer. The significance from these findings stem from the observations that the two lineages of myeloid cells, YS EMP-derived Myb-independent tissue resident macrophages, and HSC-derived Myb-dependent myeloid cells play specific roles during homeostasis and in condition of stress or infection.



Beth Stevens, Ph.D. is an Associate Professor at Harvard Medical School in the FM Kirby Neurobiology Center at Boston Children's Hospital and an Institute Member of the Broad Institute and Stanley Center for Neuropsychiatric Research. Her research seeks to understand the mechanisms that regulate the disappearance of synapses — junctions where nerves communicate with each other — by focusing on how immune-related molecules mediate this process. Her most recent work seeks to uncover the role that microglial cells, the immune cells of the central nervous system, and their connectivity play in neurodevelopmental and neuropsychiatric disorders. She and her team recently identified how microglia affect synaptic pruning, the critical developmental process of cutting back on synapses that occurs between early childhood and puberty. Problems with pruning can lead to developmental disorders such as autism.



Marco Colonna, Ph.D. - My laboratory studies diversity, specificity, signaling and biological impact of cell surface receptors expressed on leukocytes involved in innate immune responses, including innate lymphoid cells (ILCs), plasmacytoid dendritic cells and monocytes/macrophages. My leadership, expertise and productivity in these areas of immunology is exemplified in over 80 primary last-author studies in peer-reviewed journals, as well as over 70 invited reviews and commentaries published over a period of 20 years. We study human innate immune responses during infections, autoimmunity and cancer. My current areas of research include: 1) Innate lymphoid cells (ILCs) in mucosal immunity; 2) Plasmacytoid dendritic cells and IFN- γ in host defense and autoimmunity; 3) Innate immune mechanisms in Alzheimer's disease and neurodegeneration.

SCHEDULE OF EVENTS

- 11:45 - 1:15 Lunch, LRB Blais Pavilion
- 1:30 - 1:35 Opening Remarks:
Kate A. Fitzgerald, Ph.D., Director, Program in Innate Immunity
Terence R. Flotte, M.D. Dean, Provost & Executive Deputy
Chancellor
- 1:35 – 1:40 Jun Huh, Ph.D. Introducing Frederic Geissmann, M.D., Ph.D.
- 1:40 - 2:20 Frederic Geissmann, M.D., Ph.D. *Development and functions of macrophages***
- 2:20 – 2:25 Brief Remarks: Amy Hise, M.D., Treasurer IEIIS
- 2:25 – 2:40 Short Talk from submitted abstracts
- 2:45 – 3:00 Short Talk from submitted abstracts
- 3:00 – 3:05 Dorothy Schafer, Ph.D. Introducing Beth Stevens, Ph.D.
- 3:05 – 3:40 Beth Stevens, Ph.D. *Immune Mechanisms of Synapse Loss in Health & Disease***
- 3:45 – 4:15 Coffee Break (outside AS2.2102)
- 4:20 – 4:35 Short Talk from submitted abstracts
- 4:40 – 4:55 Short Talk from submitted abstracts
- 4:55 – 5:00 Kate Fitzgerald, Ph.D., Introducing Marco Colonna
- 5:00 – 5:40 Marco Colonna, Ph.D. *Innate Immunity in Neurodegeneration***
- 5:40 – 5:45 Closing Remarks
- 6.00 - 7:30 POSTER SESSION with wine and cheese (Medical School Lobby/Faculty Conference Room)