Center for the Study of Inflammatory Bowel Disease  
23rd Annual Workshop

Signaling, Circuits and Communication in Health and Disease  
November 15 – 16, 2013

November 15, 2013

7:30 - 7:55  
Registration and Continental Breakfast  
Opening Remarks  
Ramnik J. Xavier, M.D., Director, CSIBD

Session I:  
SIGNALING DURING INFLAMMATION

Moderators: Gail Hecht, M.D., and Thaddeus S. Stappenbeck, M.D., Ph.D.

8:00 – 8:20  
Ectonucleotidases, Regulatory T Cells and the Conditioning of Vascular and Immune Responses in Inflammatory Bowel Disease  
Simon Robson, M.D., Ph.D., Beth Israel Deaconess Medical Center, Boston, MA

8:25 – 8:45  
Systems Immunology of Spontaneous Models of ileitis  
Fabio Cominelli, M.D., Ph.D., University Hospitals Case Medical Center, Cleveland, OH

8:50 – 9:10  
Immune-mediated Disease Associated Variants Affect Long Non-coding RNA Expression  
Cisca Wijmenga, Ph.D., University of Groningen, The Netherlands

9:15 – 9:35  
BACH2 Represses Effector Programs to Stabilize Treg-Mediated Immune Homeostasis  
John O’Shea, M.D., NIH, Bethesda, MD

9:40 – 9:55  
Q & A

10:00 – 10:15  
BREAK

Session II:  
ADAPTIVE SIGNALS AND IMMUNITY

Moderators: Bana Jabri, M.D., Ph.D., and Stephen James, M.D.

10:20 – 10:40  
Ahr Signaling in Intestinal Immunity  
Marco Colonna, M.D., Washington University School of Medicine, St. Louis, MO

10:45 – 11:05  
B vs DC: How to Activate T in SLE  
Mark Shlomchik, M.D., Ph.D., University of Pittsburgh, Pittsburgh, PA

11:10 – 11:30  
Thymus Voltage-Gated Channels and T Cell Immunity  
Paul Allen, Ph.D., Washington University School of Medicine, St. Louis, MO

11:35 – 11:55  
Randomly Made Yet Ordered: New Perspectives on T cell Receptor Repertoires Revealed by High-Throughput Sequencing  
Nir Friedman, Ph.D., Weizmann Institute of Science, Rehovot, Israel
Session III: GENETICS, SINGLE CELLS AND PATHWAYS

Moderators: Cosmas Giallourakis, M.D., and Curtis Huttenhower, Ph.D.

1:05 – 1:25 Exomes and Human Disease
Mark Daly, Ph.D., Massachusetts General Hospital, Boston, MA

1:30 – 1:50 Regulation of Innate Immunity by Long Non-Coding RNA
Katherine Fitzgerald, Ph.D., University of Massachusetts Medical School, Worcester MA

1:55 – 2:15 Single-Cell Transcriptomics Reveals Bimodality in Expression and Splicing in Immune Cells
Aviv Regev, Ph.D., Broad Institute, Cambridge, MA

2:20 – 2:40 Revisiting T Regulatory Type 1 Cells
Maria Grazia Roncarolo, M.D., San Raffaele-Telethon Institute for Cell and Gene Therapy, TIGET, Milano, Italy

2:45 – 3:00 Q & A

3:05 – 3:20 BREAK

Session IV: DIET, METABOLITES AND DISEASE

Moderators: Kate Jeffrey, Ph.D., and Alykhan Shamji, Ph.D.

3:25 – 3:45 Tolerance to Oxygen and Asaccharolytic Metabolism Distinguish the Human Mucosally-Associated Gut Microbiota from Stool
Gary Wu, M.D., University of Pennsylvania School of Medicine, Philadelphia, PA

3:55 – 4:15 SLE – Genes to Drugs
Timothy Behrens, M.D., Genentech, Inc., San Francisco, CA

4:20 – 4:40 Molecular Control of Steady-State Dendritic Cell Maturation and Immune Homeostasis
Averil Ma, M.D., University of California, San Francisco, CA

4:45 – 5:05 Targeting Immunometabolism: An Interface between Immune, Metabolic and Oncologic Diseases
Dhavalkumar Patel, M.D., Ph.D., Novartis Institutes for BioMedical Research, Basel, Switzerland

5:10 – 5:30 Diet Dominates Host Genotype in Shaping the Gut Microbiota
Peter Turnbaugh, Ph.D., FAS Center for Systems Biology, Cambridge, MA

November 16, 2013

7:15 - 7:40 Registration and Continental Breakfast

Session V: SINGLE CELLS, RNA, EPIGENETICS AND DISEASE

Moderators: Ramnik Xavier, M.D., and Balfour Sartor, M.D.
7:45 – 8:05  
*Single-Cell Genomics for Pathway Discovery in Microbial Dark Matter*
Paul Blainey, Ph.D., Broad Institute, Cambridge, MA

8:10 – 8:30  
*Control of Antiviral Responses by Histone Mimics*
Alexander Tarakhovsky, M.D., Ph.D., The Rockefeller University, New York, NY

8:35 – 8:55  
*Autophagy, Cell Death and Disease*
Beth Levine, M.D., UT Southwestern Medical Center, Dallas, TX

**KEYNOTE ADDRESS**

9:00 – 9:40  
*Ribosomes, Noncoding RNAs and Biology*
Eric Lander, Ph.D., Broad Institute, Cambridge, MA

9:45 – 10:05  
Q & A

10:10 – 10:25  
BREAK

**Session VI:**  
VIRUSES, CIRCUITS AND COMMUNICATION

Moderators: Jonathan Braun, M.D., Ph.D., and Charles Elson, M.D.

10:30 – 10:50  
*Interactions Between the Virome and the Host*
Herbert W. Virgin, M.D., Ph.D., Washington University School of Medicine, St. Louis, MO

10:55 – 11:15  
*Microbes, PSA and Signaling Networks*
Sarkis Mazmanian, Ph.D., California Institute of Technology, Pasadena, CA

11:20 – 11:40  
*PI3K Pathway in Mucosal Lymphocytes*
Holm Uhlig, M.D., Ph.D., University of Oxford, Oxford, United Kingdom

11:45 – 12:05  
*Clonal Expansions of CD4+ Killer T Cells and Plasmablasts Mediate IgG4-Related Disease*
Shiv Pillai, M.D., Ph.D., Massachusetts General Hospital, Charlestown, MA

12:10 – 12:30  
*Genetic Variants Synthesize to Produce Paneth Cell Phenotypes that Define Subtypes of Crohn’s Disease*
Thaddeus S. Stappenbeck, M.D., Ph.D., Washington University School of Medicine, St. Louis, MO

12:35  
LUNCH

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**Simches Research Building, at Charles River Plaza**
185 Cambridge Street, 3rd floor, Boston, MA
The Workshop is open to the research community at no charge.

To register, please e-mail mleonard1@partners.org

**PRE-REGISTRATION REQUIRED**