

Center for the Study of Inflammatory Bowel Disease
24th Annual Workshop

Microbes, Metabolism and Mucosal Circuits
November 7 – 8, 2014

November 7, 2014

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

Session I: **GUT CIRCUIT**

Moderators: Thaddeus Stappenback, M.D., Ph.D., and Michael Grey, Ph.D.

8:00 – 8:20 ***Macrophages in Innate Mucosal Homeostasis***
Clara Abraham, M.D., Yale School of Medicine, New Haven, CT

8:25 – 8:45 ***Chemistry of the Microbiota: Understanding Disease-Associated Metabolism***
Emily Balskus, Ph.D., Harvard University, Cambridge, MA

8:50 – 9:10 ***Programmable Cell Technologies***
Sean S. Davies, Ph.D., Vanderbilt University, Nashville, TX

KEYNOTE ADDRESS

9:15 – 10:00 ***Editing and Control at Genome Scale***
Feng Zhang, Ph.D., Broad Institute, Cambridge, MA

10:00 – 10:15 **BREAK**

Session II: **ENERGY, COMMUNICATION AND SYSTEMS BIOLOGY**

Moderators: Cosmas Giallourakis, M.D., and Balfour Sartor, M.D.

10:20 – 10:40 ***Microbial Therapeutics***
Eric Alm, Ph.D., Massachusetts Institute of Technology, Cambridge, MA

10:45 – 11:15 ***Mitochondria, Bioenergetics and Therapeutics***
Vamsi Mootha, M.D., Massachusetts General Hospital, Boston, MA

11:20 – 11:40 ***Microbes, Systems in Zebrafish***
Karen Guillemin, Ph.D., University of Oregon, Eugene, OR

11:45 – 12:05 ***Dendritic Cells and Autoimmunity***
Boris Reizis, Ph.D., Columbia University, New York, NY

12:10 – 1:00 **LUNCH**

Session III:

SIGNALS FROM INNATE TO ADAPTIVE IMMUNITY

Moderators: Terrence Barrett, M.D., and Gail Hecht, M.D.

1:00 – 1:25

T cell Repertoire and Gut Microbes

Dan Littman, M.D., Ph.D., New York University, New York, NY

1:30 – 1:55

ILC's Govern Immunity

David Artis, Ph.D., University of Pennsylvania, Philadelphia, PA

2:00 – 2:30

Systems Immunology in Celiac Disease

Bana Jabri, M.D., Ph.D., University of Chicago, Chicago, IL

2:30 – 2:45

BREAK

Session IV:

SENSORS, NERVES AND INNATE IMMUNITY

Moderators: Fabio Cominelli, M.D., Ph.D., and Andrew Luster, M.D., Ph.D.

2:45 – 3:15

Gut Brain Axis

Gary J. Schwartz, Ph.D., Albert Einstein College of Medicine, Bronx, NY

3:15 – 3:45

Synthetic Circuits

James J. Collins, Ph.D., Boston University, Boston, MA

3:50 – 4:20

Tissue-Specific Signals Control Functional Polarization of Macrophages

Ruslan M. Medzhitov, Ph.D., Yale School of Medicine, New Haven, CT

4:25 – 4:55

Intestinal Epithelial Cells in Host-Microbe Interactions

Thaddeus S. Stappenbeck, M.D., Ph.D., Washington University School of Medicine, St. Louis, MO

November 8, 2014

7:15 - 7:40

Registration and Continental Breakfast

Session V:

TOOLS TO THE GUT RESPONSE

Moderators: Shiv Pillai, M.D., Ph.D., and John Garber, M.D.

7:45 – 8:05

Immunoglobulin Regulation by Glycosylation

Robert Anthony, Ph.D., Massachusetts General Hospital, Boston, MA

8:10 – 8:30

Mucins, Goblet Cells and Immunity

Gunnar C.Hansson, M.D., Ph.D., University of Gothenburg, Sweden

8:35 – 8:55

Gut Immunity and Inflammasomes

Eran Elinav, M.D., Ph.D., Weizmann Institute of Science, Israel

9:00 – 9:20

Tregs and Intestinal Immunity

Fiona Powrie, M.D., University of Oxford, United Kingdom

9:25 – 9:45

Antibodies, Engineering and Mucosal Immunity

Hidde Ploegh, Ph.D., Massachusetts Institute of Technology, Cambridge, MA

9:50 – 10:05

BREAK

Session VI:

VIRUSES, BUGS AND IBD

Moderators: Charles Elson, M.D., and Atul Bhan, M.D.

10:10 – 10:30

The Virome

Herbert Virgin, M.D., Ph.D., Washington University School of Medicine, St. Louis, MO

10:35 – 10:55

Cooperation and Competition of the Human Gut Microbiome

Andrew Goodman, Ph.D., Yale School of Medicine, West Haven, CT

11:00 – 11:20

Relating the Metatranscriptome and Metagenome of the Human Gut

Curtis Huttenhower, Ph.D. Harvard School of Public Health, Boston, MA

11:25 – 11:45

Microbes to Gene Function

Lothar Steidler, Ph.D., ActoGeniX, Flanders, Belgium

11:50 – 12:10

Bugs, Strains and Disease

Dirk Gevers, Ph.D., Broad Institute, Cambridge, MA

12:15

LUNCH