

**National Institute of Diabetes and Digestive and Kidney Diseases  
Local Influences on Health and Repair of Intestinal Epithelium**

Natcher Conference Center, Rooms E1 and E2  
National Institutes of Health  
Bethesda, Maryland

March 25-26, 2008

**Draft Agenda**

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**Tuesday, March 25, 2008**

- 7:30 – 7:50 a.m.                   **Continental Breakfast**
- 7:50 – 8:00 a.m.                   **Introduction and Logistics**  
*Jill Carrington, National Institute of Diabetes and Digestive and  
Kidney Diseases (NIDDK)*
- 8:00 – 8:20 a.m.                   **Welcome**  
*Griffin Rodgers, Director, NIDDK*
- 8:20 – 10:05 a.m.                 **The Epithelial Barrier in the Intestine**  
*Asma Nusrat, Chair, Emory University*
- 8:20 – 8:35 a.m.                   **The Epithelial Barrier in the Intestine – Introduction**  
*Asma Nusrat, Emory University*
- 8:35 – 9:00 a.m.                   **Mechanisms Regulating Epithelial Cell Surface Polarity**  
*W. James Nelson, Stanford University*
- 9:00 – 9:25 a.m.                   **Structure and Properties of the Paracellular Barrier**  
*James M. Anderson, University of North Carolina at Chapel Hill*
- 9:25 – 9:50 a.m.                   **Paneth Cell Biology in Barrier Function**  
*Andre Ouellette, University of California, Irvine*
- 9:50 – 10:05 a.m.                 **Discussion**  
*Speaker Panel*

**Tuesday, March 25, 2008** continued

- 10:05 – 10:15 a.m.            **Break**
- 10:15 a.m. – 11:45 a.m.       **Normal Epithelial Replacement and Healing**  
*Deborah Rubin, Chair, Washington University*
- 10:15 – 10:30 a.m.  
                                 **Normal Epithelial Replacement and Healing – Introduction**  
*Deborah Rubin, Washington University*
- 10:30 – 10:55 a.m.  
                                 **The Epithelium as a Detector and a Director of Tissue Patterning In Health and Disease: Role of the Hedgehog Signaling Pathway**  
*Deborah Gumucio, University of Michigan Medical School*
- 10:55 – 11:20 a.m.  
                                 **Environmental Effects on Healing: Myofibroblasts**  
*Don Powell, The University of Texas Medical Branch*
- 11:20 – 11:45 a.m.  
                                 **Cell-Matrix Interactions and Epithelial Functions**  
*Jean-François Beaulieu, Université de Sherbrooke*
- 11:45 a.m. – 12:50 p.m.       **Lunch**
- 12:50 – 2:45 p.m.            **Normal Epithelial Replacement and Healing, continued**
- 12:50 – 1:15 p.m.  
                                 **The Influence of Commensal Bacteria on NFkB Signaling and Mucosal Homeostasis**  
*Balfour Sartor, University of North Carolina at Chapel Hill*
- 1:15 – 1:40 p.m.  
                                 **Wnt-Dependent ex vivo Expansion of Primary Intestinal Progenitors**  
*Calvin Kuo, Stanford University*
- 1:40 – 2:05 p.m.  
                                 **Importance of RB and Wnt Signaling for Differentiation of Enteroendocrine Cells**  
*Andrew Leiter, University of Massachusetts Medical School*
- 2:05 – 2:25 p.m.  
                                 **Neuropeptides and Intestinal Mucosal Healing**  
*Charalabos Pothoulakis, University of California, Los Angeles*
- 2:25 – 2:45 p.m.  
                                 **Discussion**  
*Speaker Panel*

**Tuesday, March 25, 2008** continued

2:45 – 3:00 p.m.

**Break**

3:00 – 5:15 p.m.

**Stem Cell Biology of the Intestine**

*Linheng Li, Chair, Stowers Institute for Medical Research*

3:00 – 3:15 p.m.

**Stem Cell Biology of the Intestine – Introduction**

*Linheng Li, Stowers Institute for Medical Research*

3:15 – 3:40 p.m.

**Stem Cells, Niches, and Zones**

*Linheng Li, Stowers Institute for Medical Research*

3:40 – 4:05 p.m.

**Decision Pathways for Tissue Differentiation and Metaplasia**

*Ramesh Shivdasani, Dana-Farber Cancer Institute*

4:05 – 4:30 p.m.

**The Challenge of Stem Cell Isolation and Characterization**

*Susan Henning, University of North Carolina at Chapel Hill*

4:30 – 4:55 p.m.

**Adaptation of the Intestinal Stem Cell Niche**

*Thaddeus Stappenbeck, Washington University*

4:55 – 5:15 p.m.

**Discussion**

*Speaker Panel*

**Wednesday, March 26, 2008**

7:30 – 8:00 a.m.

**Continental Breakfast**

8:00 – 9:30 a.m.

**Effects of the Inflammatory Environment on the Epithelium**

*Richard Blumberg, Chair*

8:00 – 8:15 a.m.

**Effects of the Inflammatory Environment on the Epithelium – Introduction**

*Richard Blumberg, Harvard Medical School*

8:15 – 8:40 a.m.

**ER Stress of the Intestinal Epithelium and Inflammation**

*Richard Blumberg, Harvard Medical School*

8:40 – 9:05 a.m.

**Genetics of Barrier Integrity and Disease Susceptibility**

*John Rioux, Université de Montréal and Montreal Heart Institute*

**Wednesday, March 26, 2008 continued**

9:05 – 9:30 a.m.

**Leukocyte-Epithelial Interactions**

*Charles Parkos, Emory University*

9:30 – 10:00 a.m.

**Break**

10:00 – 11:35 a.m.

**Effects of the Inflammatory Environment on the Epithelium, continued**

10:00 – 10:25 a.m.

**The Intestinal Epithelium: Balancing Immunity and Inflammation in the Gut**

*David Artis, University of Pennsylvania*

10:25 – 10:50 a.m.

**The Role of an Inflammatory Microenvironment on Epithelial Regeneration**

*Melissa Wong, Oregon Health and Science University*

10:50 – 11:15 a.m.

**Mechanisms of Beta-Catenin Signaling in Colitis-Induced Cancer**

*Jeffery Brown, Children's Memorial Hospital*

11:15 – 11:35 a.m.

**Discussion**

*Speaker Panel*

11:35 a.m. – 12:45 p.m.

**Lunch** (on your own)

12:45 – 2:35 p.m.

**Inflammation and Cancer**

*Charles Parkos, Chair*

12:45 – 1:00 p.m.

**Inflammation and Cancer – Introduction**

*Charles Parkos, Emory University*

1:00 – 1:25 p.m.

**Role of TRLs in Promoting Colorectal Cancer**

*Maria Abreu, University of Miami*

1:25 – 1:50 p.m.

**Tumor Stroma Stimulation of Immune Responses**

*Derek Radisky, Mayo Clinic Jacksonville*

1:50 – 2:15 p.m.

**A Novel Mechanism of Colon Cancer Invasion: The Role of CCR and Myeloid Cells**

*Makoto M. Taketo, Kyoto University*

2:15 – 2:35 p.m.

**Discussion**

*Speaker Panel*

2:35 – 3:30 p.m.

**Future Research Directions – Final Discussion**

*Participants*

3:30 p.m.

**Adjournment**