Gastrointestinal Response to Injury

Sept. 28 – Oct. 1, 2010
InterContinental Montelucia Resort & Spa | Scottsdale, Arizona

Pre-registration deadline: Sept. 20, 2010
Hotel reservation deadline: Sept. 7, 2010

Attention GI Fellows!
Register at a reduced rate. Travel scholarships are available.

Attend one of these pre-conference events on Sept. 28:
• Microbes and Mucosal Immunity 2010
• Japanese-American Association of Gastrointestinal and Ulcer-Acid Researchers (JAAGUAR) Young Investigators Forum

Earn up to 23 AMA PRA Category 1 Credits™ by attending both the GI Injury conference and Microbes and Mucosal Immunity 2010.

Funded by the Takeda Endowment in support of the James W. Freston Single Topic Conference

The AGA Institute gratefully acknowledges NIH/NIDDK for their partial support for this program.

Register online at www.gastro.org/giri
This one-of-a-kind conference will address the important biological processes related to acid-peptic conditions, infectious diseases, inflammatory disorders, and malignancies that complicate chronic inflammation and injury. Blending both the basic and clinical sciences, the field's top experts will lead exciting discussions on cutting-edge topics relevant to the diseases affecting the entire luminal gastrointestinal tract.

**Learning Objectives**

Upon completion of this course, attendees will:

- Recognize how epithelial and immune mucosal defense mechanisms affect the host response to gastrointestinal injury and repair.
- Interpret mechanisms employed by commensal and pathogenic microbial species that regulate gastrointestinal health and disease.
- Identify the role of conserved host signaling pathways in mediating diseases that arise within the context of inflammation and injury.
Tuesday, Sept. 28

Conference Chairs: Richard M. Peek, Jr, MD, AGAF & Jonathan D. Kaunitz, MD

6:30 – 7:30 p.m. **Keynote Address: Host-bacteria Homeostasis in the Healthy and Inflamed Gut**
Philippe J. Sansonetti, MD

7:30 – 9 p.m. **Welcome Reception**

Wednesday, Sept. 29

7:30 – 8:45 a.m. **Breakfast**

**Part I: Host Responses that Mediate Gastrointestinal Repair**

9 a.m. – Noon

**Session One: Innate Epithelial Defense Mechanisms**

*Chairs: Asma Nusrat, MD & Marshall H. Montrose, PhD*

- Role of the Intestinal Barrier and Polarization in Inflammation and Injury
  Asma Nusrat, MD
- Signals that Activate Nod-like Receptors in Health and Disease
  Dana Philpott, PhD
- Guardians of the Gut: Newly Appreciated Roles for Epithelial Toll-like Receptors
  Andrew T. Gewirtz, PhD
- Ecto-purinergic Regulation of Protective Duodenal Alkaline Surface pH
  Jonathan D. Kaunitz, MD
- Epithelial Gaps in the Stomach and Small Intestine
  Marshall H. Montrose, PhD

Noon – 1:30 p.m. **Lunch**

1:30 – 3:30 p.m. **At leisure**

3:30 – 5 p.m. **Poster Session**

5 – 5:30 p.m. Young Investigator/Trainee Oral Presentations of Selected Posters

5:30 – 6 p.m. **Special Lecture: Cryptic Progenitors of Metaplasia in the Stomach: From Out of the Mist Comes the Chief Cells**
James R. Goldenring, MD, PhD, AGAF

6 – 7:30 p.m. **Dinner**

7:30 – 9:30 p.m. **Session Two: Regulators and Effectors of Gut Inflammation**

*Chairs: R. Balfour Sartor, MD & Kenneth Croitoru, MD, AGAF*

- Epithelial Hedgehog Modulates Inflammatory Signaling
  Deborah L. Gumucio, PhD
- Adenosine Receptors that Mediate Gut Inflammation
  Peter B. Ernst, DVM, PhD
- T-cell Induced Mucosal Damage in the Intestine
  Kenneth Croitoru, MD, AGAF
- Novel Translational Models For Understanding IBD
  R. Balfour Sartor, MD
<table>
<thead>
<tr>
<th>Thursday, Sept. 30</th>
<th>7:30 – 8:45 a.m.</th>
<th>Breakfast</th>
</tr>
</thead>
</table>
| **Part II: Agents and Mechanisms of Gastrointestinal Injury** | 9 a.m. – Noon | Session Three: O₂, Nitric Oxide, and NSAIDs in Upper GI Mucosal Injury  
Chairs: Keith T. Wilson, MD, AGAF & Sheila E. Crowe, MD, AGAF  
- Polyamine-mediated Oxidative Stress  
  Keith T. Wilson, MD, AGAF  
- Hypoxia and Gastrointestinal Disease  
  Sean P. Colgan, PhD  
- Hypoxic Regulation of NF-κB Signaling in the Gut  
  Cormac T. Taylor, PhD  
- Role of Oxidative and Nitrosative Stress in Gastric Pre-neoplasia  
  Sheila E. Crowe, MD, AGAF  
- Strategies to Minimize Injury from Anti-inflammatory Compounds  
  John L. Wallace, PhD, MBA |
| Noon – 1:30 p.m. | Lunch |
| 1:30 – 5:30 p.m. | At leisure |
| 5:30 – 6 p.m. | **Special Lecture: Stem Cells as Mediators of Repair and Injury**  
  Sir Nicholas A. Wright, MD, PhD, AGAF |
| 6 – 7:30 p.m. | Dinner |
| 7:30 – 9:30 p.m. | Session Four: Microbial and Host Mediators of Repair and Disease  
  Chairs: Andrew S. Neish, MD & Gail A. Hecht, MD, MS, AGAF  
- Stealth Entry into Gastrointestinal Epithelial Cells by Microbial Pathogens  
  Manuel Amieva, MD  
- Innate Immune Responses to Commensal Bacteria in the Gut Epithelium  
  Andrew S. Neish, MD  
- Epithelial Responses to Pathogenic E. coli  
  Gail A. Hecht, MD, MS, AGAF  
- Salmonella Infections and Chronic Intestinal Inflammation  
  Beth A. McCormick, PhD |

<table>
<thead>
<tr>
<th>Friday, Oct. 1</th>
<th>7:30 – 8:45 a.m.</th>
<th>Breakfast</th>
</tr>
</thead>
</table>
| **Part III: Consequences of Gastrointestinal Injury** | 1 – 4 p.m. | Session Five: Healing, Repair and Carcinogenesis  
  Chairs: Gary D. Wu, MD & Juanita L. Merchant, MD, PhD  
- Dysregulation of Apical-Junctional Complexes and Inflammation  
  Jerrold R. Turner, MD, PhD, AGAF  
- Relmß and Inflammatory Bowel Disease  
  Gary D. Wu, MD  
- Pre-malignant Consequences of EGFR-mediated Tissue Repair  
  D. Brent Polk, MD, AGAF  
- Regulatory Peptides and Cytokines In Gastrointestinal Homeostasis and Disease  
  Juanita L. Merchant, MD, PhD  
- Novel Effectors of Inflammation-Mediated Cancer  
  JeanMarie N. Houghton, MD, PhD, AGAF |
| Noon – 1 p.m. | Lunch |
| 4 – 4:30 p.m. | Break |
| 4:30 – 6:30 p.m. | **Session Six: Clinical Manifestations of Gastrointestinal Inflammation**  
  Chairs: Beth B. McConnell, PhD & R. Balfour Sartor, MD  
- Tissue Regeneration, Inflammation and Colon Cancer  
  Beth B. McConnell, PhD  
- Barrett’s-mediated Esophageal Adenocarcinoma  
  Rhonda F. Souza, MD, AGAF  
- Gluten Enteropathies  
  Ciaran P. Kelly, MD  
- Inflammatory Bowel Disease  
  R. Balfour Sartor, MD |
| 6:30 – 10 p.m. | Dinner |
# Conference Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonathan D. Kaunitz, MD</td>
<td>Professor of Medicine, VA Greater Los Angeles Healthcare System, University of California, Los Angeles</td>
</tr>
<tr>
<td>Richard M. Peek, Jr., MD, AGAF</td>
<td>Director, Division of Gastroenterology, Hepatology and Nutrition, Vanderbilt University</td>
</tr>
</tbody>
</table>

# Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuel Amieva, MD</td>
<td>Assistant Professor, Pediatrics, Infectious Diseases, Microbiology and Immunology, Stanford University</td>
</tr>
<tr>
<td>Sean P. Colgan, PhD</td>
<td>Director of Mucosal Inflammation Program, Division of Gastroenterology and Hepatology, University of Colorado, Denver</td>
</tr>
<tr>
<td>Kenneth Croitoru, MD, AGAF</td>
<td>Professor of Medicine, University of Toronto</td>
</tr>
<tr>
<td>Sheila E. Crowe, MD, AGAF</td>
<td>Associate Professor of Internal Medicine, University of Virginia</td>
</tr>
<tr>
<td>Peter B. Ernst, DVM, PhD</td>
<td>Professor, Department of Medicine, Gastroenterology, University of Virginia</td>
</tr>
<tr>
<td>Andrew T. Gewirtz, PhD</td>
<td>Professor of Pathology and Laboratory Medicine, Emory University</td>
</tr>
<tr>
<td>James R. Goldenring, MD, PhD, AGAF</td>
<td>Professor and Vice Chairman of Surgery, Vanderbilt University Medical Center</td>
</tr>
<tr>
<td>Deborah L. Gumucio, PhD</td>
<td>Professor of Cell and Developmental Biology, University of Michigan</td>
</tr>
<tr>
<td>Gail A. Hecht, MD, MS, AGAF</td>
<td>Chief, Division of Gastroenterology, and Professor of Medicine, University of Illinois, Chicago</td>
</tr>
<tr>
<td>JeanMarie N. Houghton, MD, PhD, AGAF</td>
<td>Associate Professor of Medicine, University of Massachusetts Medical School</td>
</tr>
<tr>
<td>Ciara P. Kelly, MD</td>
<td>Professor of Medicine, Beth Israel Deaconess Medical Center</td>
</tr>
<tr>
<td>Beth A. McCormick, PhD</td>
<td>Professor of Molecular Genetics and Microbiology, University of Massachusetts Medical School</td>
</tr>
<tr>
<td>Beth B. McConnell, PhD</td>
<td>Assistant Professor, Emory University</td>
</tr>
<tr>
<td>Juanita L. Merchant, MD, PhD</td>
<td>Professor of Molecular and Integrative Physiology, Department of Internal Medicine, University of Michigan</td>
</tr>
<tr>
<td>Marshall H. Montrose, PhD</td>
<td>Professor and Chair, Department of Molecular and Cellular Physiology, University of Cincinnati School of Medicine</td>
</tr>
<tr>
<td>Andrew S. Neish, MD</td>
<td>Professor of Pathology and Laboratory Medicine, Emory University</td>
</tr>
<tr>
<td>Asma Nusrat, MD</td>
<td>Professor of Pathology and Laboratory Medicine, Emory University</td>
</tr>
<tr>
<td>Dana Philpott, PhD</td>
<td>Assistant Professor, Department of Immunology, University of Toronto</td>
</tr>
<tr>
<td>D. Brent Polk, MD, AGAF</td>
<td>Chair, Department of Pediatrics, University of Southern California</td>
</tr>
<tr>
<td>Philippe J. Sansonetti, MD</td>
<td>Unit Head, Molecular Microbial Pathogenesis, Institut Pasteur, Paris</td>
</tr>
<tr>
<td>R. Balfour Sartor, MD</td>
<td>Professor of Medicine, University of North Carolina School of Medicine</td>
</tr>
<tr>
<td>Rhonda F. Souza, MD, AGAF</td>
<td>Associate Professor, Internal Medicine — Digestive and Liver Diseases, UT Southwestern</td>
</tr>
<tr>
<td>Cormac T. Taylor, PhD</td>
<td>Associate Professor, School of Medicine and Medical Science, The Conway Institute, Dublin</td>
</tr>
<tr>
<td>Jerrold R. Turner, MD, PhD, AGAF</td>
<td>Professor and Associate Chair, Department of Pathology, University of Chicago</td>
</tr>
<tr>
<td>John L. Wallace, PhD, MBA</td>
<td>Professor of Medicine, Director, Farncombe Family Digestive Health Research Institute, McMaster University</td>
</tr>
<tr>
<td>Keith T. Wilson, MD, AGAF</td>
<td>Professor of Medicine and Cancer Biology, Vanderbilt University</td>
</tr>
<tr>
<td>Sir Nicholas A. Wright, MD, PhD, AGAF</td>
<td>Professor of Investigative Medicine, Warden, Barts and The London School of Medicine and Dentistry, London Research Institute</td>
</tr>
<tr>
<td>Gary D. Wu, MD</td>
<td>Associate Professor of Medicine, University of Pennsylvania School of Medicine</td>
</tr>
</tbody>
</table>
# Tuesday, Sept. 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 – 8:30 a.m.</td>
<td>Breakfast</td>
</tr>
<tr>
<td>8:30 – 8:45 a.m.</td>
<td>Opening Remarks&lt;br&gt;Peter B. Ernst, DVM, PhD&lt;br&gt;University of Virginia</td>
</tr>
<tr>
<td>8:45 – 10:15 a.m.</td>
<td>Session One: Normal GI Structures and Functions&lt;br&gt;• Developmental Biology of GI Tract&lt;br&gt;Deborah L. Gumucio, PhD, MPH&lt;br&gt;University of Michigan&lt;br&gt;• GI Physiology&lt;br&gt;Marshall H. Montrose, PhD&lt;br&gt;University of Cincinnati&lt;br&gt;• Comparative Anatomy of Mouse and Human Immune System&lt;br&gt;Christopher Hughes, PhD&lt;br&gt;University of California Irvine</td>
</tr>
<tr>
<td>10:15 – 10:30 a.m.</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 – 11:30 a.m.</td>
<td>Session Two: Pathogenesis of Disease I&lt;br&gt;• Bacterial-Epithelial Interaction&lt;br&gt;Gail A. Hecht, MD, MS, AGAF&lt;br&gt;University of Illinois-Chicago&lt;br&gt;• Bacteria-Host Interaction&lt;br&gt;R. Balfour Sartor, MD&lt;br&gt;University of North Carolina School of Medicine</td>
</tr>
<tr>
<td>11:30 a.m. – Noon</td>
<td>Panel Discussion for Sessions One and Two</td>
</tr>
<tr>
<td>Noon – 1 p.m.</td>
<td>Lunch</td>
</tr>
<tr>
<td>1 – 2 p.m.</td>
<td>Session Three: Pathogenesis of Disease II&lt;br&gt;• Immunopathologies of Human GI Tract&lt;br&gt;Jerrold R. Turner, MD, PhD, AGAF&lt;br&gt;University of Chicago&lt;br&gt;• Inflammation and Cancer&lt;br&gt;JeanMarie N. Houghton, MD, PhD, AGAF&lt;br&gt;University of Massachusetts Medical School</td>
</tr>
<tr>
<td>2:00 – 2:15 p.m.</td>
<td>Break</td>
</tr>
<tr>
<td>2:15 – 3:45 p.m.</td>
<td>Session Four: Novel Research Tools&lt;br&gt;• Molecular Imaging and Novel Endoscopic Techniques&lt;br&gt;Thomas Wang, MD, PhD&lt;br&gt;University of Michigan&lt;br&gt;• Microsystems to Characterize Dynamic Biological Responses of Individualized Cells&lt;br&gt;J. Christopher Love, PhD&lt;br&gt;Massachusetts Institute of Technology&lt;br&gt;• Micro RNA-GI Inflammation&lt;br&gt;John H. Kwon, MD, PhD&lt;br&gt;University of Chicago</td>
</tr>
<tr>
<td>3:45 – 4:15 p.m.</td>
<td>Panel Discussion for Sessions Three and Four</td>
</tr>
</tbody>
</table>

---

**CME CREDIT — MICROBES AND MUCOSAL IMMUNITY**

The AGA Institute designates this educational activity for a maximum of 6 *AMA PRA Category 1 Credits™*. Physicians should only claim credit commensurate with the extent of their participation in the activity.

In accordance with the ACCME’s Standards for Commercial Support of Continuing Medical Education, all faculty and planning partners must disclose any financial relationship(s) or other relationship(s) held within the past 12 months. AGA Institute implements a mechanism to identify and resolve all conflicts of interest prior to delivering the educational activity to learners.

---

**Microbes and Mucosal Immunity 2010**

Hosted by the Digestive Health Center at the University of Virginia and the Society for Mucosal Immunology, this introductory course provides an overview of the impact of mucosal diseases on society and how they are addressed through current research techniques. The goal is to provide GI fellows, research fellows and students with an overview of the challenges and technical approaches relevant to mucosal immunity.
## Tuesday, Sept. 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 – 8:30 a.m.</td>
<td>Breakfast</td>
</tr>
<tr>
<td>8:30 – 9 a.m.</td>
<td>Welcome Remarks&lt;br&gt;Jonathan D. Kaunitz, MD&lt;br&gt;University of California Los Angeles</td>
</tr>
<tr>
<td>9:15 – 9:45 a.m.</td>
<td>Keynote Speaker One&lt;br&gt;Eitaro Aihara, PhD&lt;br&gt;University of Cincinnati</td>
</tr>
<tr>
<td>9:45 – 10:45 a.m.</td>
<td>Student Presentations (15 min each)</td>
</tr>
<tr>
<td>10:45 – 11 a.m.</td>
<td>Break</td>
</tr>
<tr>
<td>11 a.m. – Noon</td>
<td>Student Presentations (15 min each)</td>
</tr>
<tr>
<td>Noon – 1:30 p.m.</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30 – 2:30 p.m.</td>
<td>Student Presentations (15 min each)</td>
</tr>
<tr>
<td>2:30 – 3 p.m.</td>
<td>Keynote Speaker Two&lt;br&gt;John L. Wallace, PhD&lt;br&gt;McMaster University</td>
</tr>
<tr>
<td>3 – 3:15 p.m.</td>
<td>Closing Remarks&lt;br&gt;Jonathan D. Kaunitz, MD</td>
</tr>
</tbody>
</table>
**Gastrointestinal Response to Injury**

**CME CREDIT — GIRI**

The AGA Institute is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The AGA Institute designates this educational activity for a maximum of 17 AMA PRA Category 1 Credits.™ Physicians should only claim credit commensurate with the extent of their participation in the activity.

**FACULTY DISCLOSURE**

In accordance with the ACCME’s Standards for Commercial Support of Continuing Medical Education, all faculty and planning partners must disclose any financial relationship(s) or other relationship(s) held within the past 12 months. The AGA Institute implements a mechanism to identify and resolve all conflicts of interest prior to delivering the educational activity to learners.

**POSTER SESSION**

Poster sessions and trainee presentations are an important aspect of GIRI, MMI, and JAAGUAR. All attendees are invited to present a poster, and posters can be presented at multiple sessions. Posters may include completed or ongoing research studies and are acceptable even if they have already been or are scheduled to be presented at another meeting. Posters submitted for consideration will be reviewed by the organizing committee. To submit an abstract for consideration please complete the Poster Submission and Travel Scholarship Form, which can be found online at [www.gastro.org/giri](http://www.gastro.org/giri), and e-mail it to Jennifer Gibson, Manager, Section Programs, at jgibson@gastro.org.

**REGISTRATION INFORMATION**

Register online at [www.gastro.org/giri](http://www.gastro.org/giri).

Pre-registration for all events closes Sept. 20. Registration will re-open onsite on a space available basis on Sept. 28.

**FEES —** Fees for all events include all meals and conference materials.

<table>
<thead>
<tr>
<th></th>
<th>Registration Fee for GIRI</th>
<th>Additional Registration Fee for MMI or JAAGUAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGA Member</td>
<td>$680</td>
<td>$250 ($930 total)</td>
</tr>
<tr>
<td>AGA Member Trainee</td>
<td>$250</td>
<td>$100 ($350 total)</td>
</tr>
<tr>
<td>Nonmember</td>
<td>$780</td>
<td>$500 ($1280 total)</td>
</tr>
<tr>
<td>Nonmember Trainee</td>
<td>$325</td>
<td>$100 ($425 total)</td>
</tr>
</tbody>
</table>

**TRAVEL AWARDS**

A limited number of travel awards are available. All travel award recipients are required to present a poster. To apply for a travel scholarship please complete the Poster Submission and Travel Scholarship Form, which can be found online at [www.gastro.org/giri](http://www.gastro.org/giri), and e-mail it to Jennifer Gibson, Manager, Section Programs, at jgibson@gastro.org.

**REFUND POLICY — GIRI/MMI/JAAGUAR**

Written cancellations must be postmarked or faxed to the AGA Institute by Sept. 20. There will be no refunds after that date. There is a $50 non-refundable processing fee for all cancellations. Refunds will be processed upon receipt of cancellation.

**FOR MORE INFORMATION**

Program Information  
Jennifer Gibson,  
Manager, Section Programs  
jgibson@gastro.org  
301-941-2633.

Registration Information  
AGA Member Services  
member@gastro.org  
301-941-2651.

**ACCOMMODATIONS**

InterContinental Montelucia  
4949 E. Lincoln Drive  
Scottsdale, AZ 85253  
Toll-Free for Reservations: 888-627-3010  
Discounted Room Rate: $195/night*  
*Plus 11.92% tax.

Rooms must be reserved by Sept. 7 to ensure availability and the discounted rate.

Make your reservations by calling the number provided. Be sure to mention that you are attending the AGA Institute conference to receive the discounted rate. One night’s room deposit and tax will be held upon reservation. Deposit will be forfeited for any cancellations occurring 21 days or less prior to Sept. 28.

**JOIN AGA AND SAVE — Submit a membership application with your course registration and register at the member rate, plus receive discounts on other AGA Institute meetings, products and services. Download a membership application at [www.gastro.org/membership](http://www.gastro.org/membership).**

**POSTER SUBMISSION AND TRAVEL SCHOLARSHIP**

Deadline for Submission: Friday, Aug 13
REGISTRATION FORM

MEMBER ID #

FIRST NAME MI LAST NAME SUFFIX       DEGREE

ADDRESS

ADDRESS

CITY STATE/PROVINCE ZIP COUNTRY

E-MAIL

PHONE

FAX

REGISTRATION FEES

GI Response to Injury Conference Fees

☐ Member: $680  ☐ Nonmember: $780
☐ Member Trainee: $250  ☐ Nonmember Trainee: $325

Pre-conference Events

☐ Microbes and Mucosal Immunity
☐ Japanese-American Association of Gastrointestinal and Ulcer-Acid Researchers (JAAGUAR) Young Investigators Forum

Fees:

☐ Member: $250  ☐ Nonmember: $500
☐ Member Trainee: $100  ☐ Nonmember Trainee: $100

Total $_______________

PAYMENT METHOD

☐ Credit Card (circle one of the following)
   Visa  MasterCard  American Express

☐ Check (payable to AGA Institute in U.S. Dollars)

CREDIT CARD #  EXPIRATION DATE

NAME ON CARD

SIGNATURE OF CARD HOLDER

Three Ways to Register:

ONLINE: www.gastro.org/giri
FAX: 301-272-1774
MAIL: AGA Institute,
       P.O. Box 758779,
       Baltimore, MD 21275-8779

TRAINEE CERTIFICATION If you are registering as a nonmember trainee, please have your program director complete the following:

I, ________________________________
NAME OF PROGRAM DIRECTOR
verify that Dr. __________________________
NAME
is a resident/trainee at __________________________

INSTITUTION

SIGNATURE OF PROGRAM DIRECTOR DATE

Pre-registration Deadline: Sept. 20, 2010
Register onsite on a space available basis on Sept. 28.