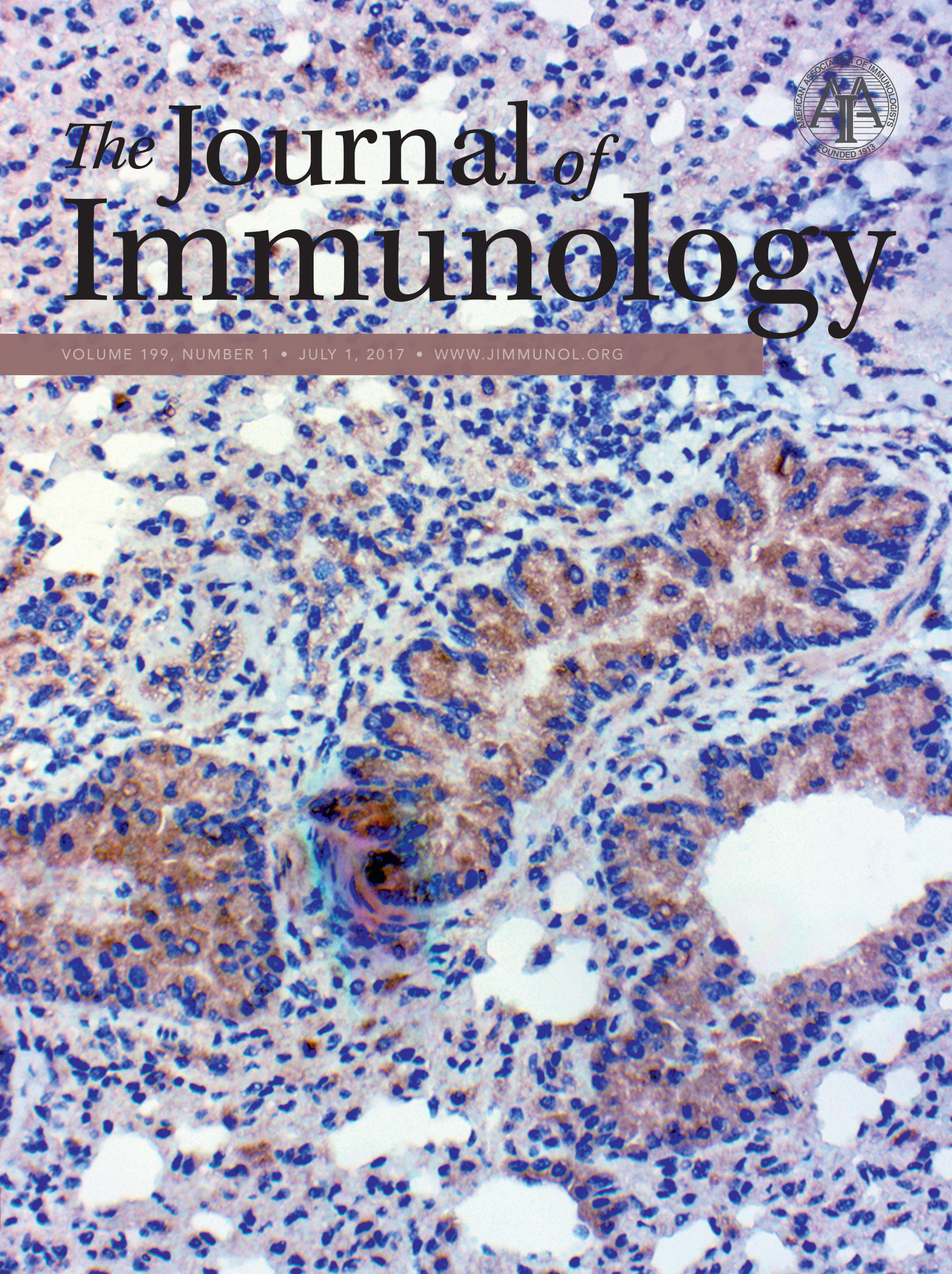
The Journal of Immunology
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AMERICAN ASSOCIATION OF IMMUNOLOGISTS
FOUNDED 1913

AAI COURSE IN BIG DATA ANALYSIS IN IMMUNOLOGY

September 6–9, 2017
Johns Hopkins University Montgomery County Campus Rockville, Maryland
www.aai.org/education/courses

The vast amount of immunological data has pushed immunology research into the big data era. The challenge for immunologists is to transition from working with data, to obtaining knowledge that can be used to generate data-driven hypotheses. Knowledge discovery relies on both the availability of accurate and well-organized data, and proper analysis.

The **AAI Course in Big Data Analysis in Immunology** will provide hands-on training in specialized analysis of large immunological data-sets. Topics covered include, but are not limited to: reproducibility, introduction to programming (Linux and R), high-throughput flow cytometry data analysis, RNA sequencing data analysis, downstream analysis, biological data repositories (ImmPort, Immune Epitope Database, and Analysis Resource), and biological networks. This course is taught by leading bioinformatics experts and is suitable for attendees with a background in immunology. Previous programming experience is helpful but is not required. Course attendees will need to bring their own laptops.

This course is sponsored by The American Association of Immunologists, the largest association in the world for professional immunologists.

www.aai.org/education/courses

Notice: *While AAI has rented facilities from the Johns Hopkins University, AAI and any programs operated by it are not related to or affiliated with the Johns Hopkins University in any way. AAI is an entirely separate legal entity with no connection to the Johns Hopkins University, aside from the temporary use of facility for the specified program.*

The Journal of Immunology Influence Statement

Comprehensive • Authoritative • Foundational

The largest and oldest journal in the field offers unparalleled reporting of major advances in immunology research. Fully peer-reviewed by working scientists, reports are rapidly published and broadly cited.

Comprehensive

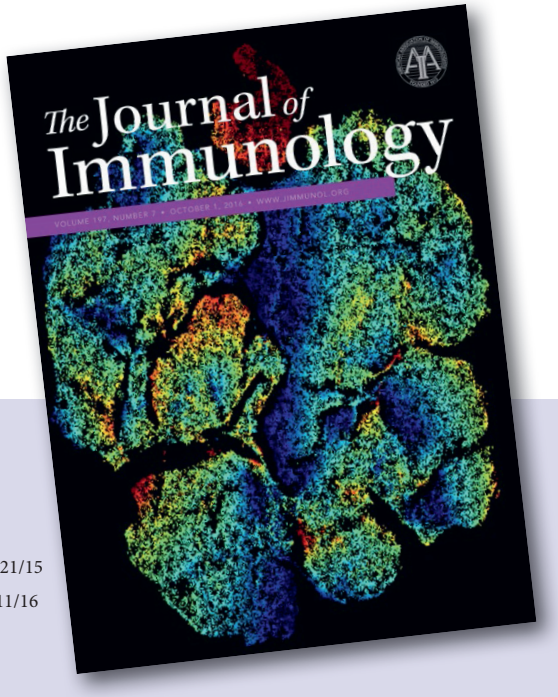
- Your "first stop" for major advances
- No triage! Every manuscript is peer-reviewed
- Fair, in-depth evaluation of each manuscript
- Submission to first decision: 29 days
- Average time to online publication: 4 weeks
- 4th most frequently used journal for NIH-supported publications[5]

Authoritative

- Cited more than any other immunology journal[1]
- 5-year Impact Factor of 5.287, top 18% of immunology journals[1]
- Ranked #1 for Eigenfactor[2] among immunology journals[1]
- Google Scholar h5-index is 107, 6th in the Immunology category[3]
- The Scimago H-index is 311, equal third amongst 200 Immunology and Microbiology journals.[4]

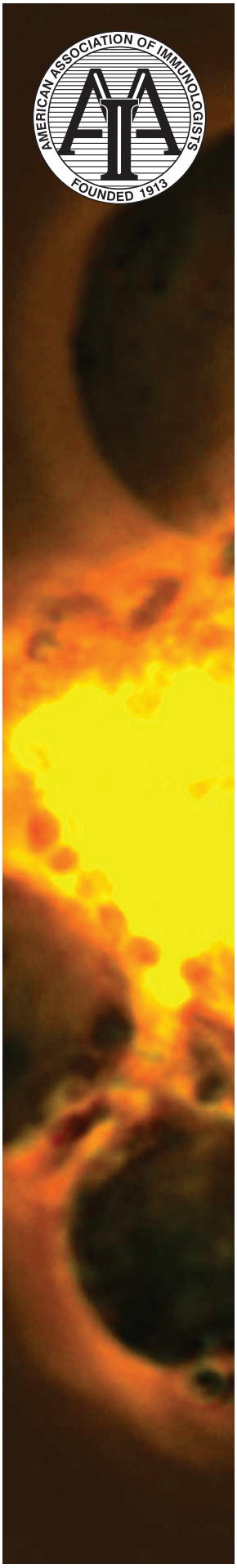
Foundational

- At 9.1 years[1], the cited half-life is one of the longest in the field!
- Committed to rigorously performed research that moves the field forward
- Over 1.8 million page views and 395,000 PDF downloads per month



The Journal of Immunology (The JI) is owned and published by The American Association of Immunologists, Inc., a non-profit association founded in 1913 that is dedicated to advancing the careers of scientists and promoting the field of immunological research.

1. 2015 Journal Citation Reports
2. Eigenfactor is a "metric that uses citing journal data from the entire Journal Citation Report file to reflect the prestige and citation influence of a journal by considering scholarly literature as a network of journal-to-journal relationships". http://thomsonreuters.com/content/dam/openweb/documents/pdf/scholarly-scientific-research/fact-sheet/esi-jcr-brochure.pdf, accessed 12/23/15
3. https://scholar.google.com/citations?view_op=top_venues&hl=en&vq=med_immunology, accessed 12/21/15
4. http://www.scimagojr.com/journalrank.php?area=2400&country=US&order=h&ord=desc, accessed 7/11/16
5. http://nexus.od.nih.gov/all/2016/03/02/nih-publication-impact-a-first-look/, accessed 3/2/16



2017 INTRODUCTORY COURSE IN IMMUNOLOGY

July 11–16, 2017 | UCLA Luskin Conference Center | Los Angeles, California

Director: Juan Carlos Zúñiga-Pflücker, Ph.D.
University of Toronto and Sunnybrook Research Institute

Don't miss the most comprehensive introduction to immunology available!

This intensive two-part course, taught by world-renowned immunologists, provides a comprehensive overview of the basics of immunology. This course is for students new to the discipline or those seeking more information to complement general biology or science training. **Part I (July 11–13)** is a detailed introduction to the basic principles of immunology and is suitable for students with a general biology background. **Part II (July 14–16)** is a clinically oriented lecture series focusing on specialty areas.

Parts I and II may be taken independently at the discretion of the student.

Faculty

Juan Carlos Zúñiga-Pflücker, *University of Toronto and Sunnybrook Research Institute*
Introduction to the Immune System

Lewis L. Lanier, *University of California, San Francisco*
Innate Immunity: Introduction to the Cells

Deborah A. Fraser, *California State University Long Beach*
Complement

Helen S. Goodridge, *Cedars-Sinai Medical Center*
Innate Immunity: Introduction to Pattern Recognition and Intracellular Signaling

Wendy L. Havran, *The Scripps Research Institute*
Introduction to Adaptive Immunity

Nilabh Shastri, *University of California, Berkeley*
Antigen Processing and Presentation

Juan Carlos Zúñiga-Pflücker, *University of Toronto and Sunnybrook Research Institute*
MHC Restriction and Thymic Selection

David Nemazee, *The Scripps Research Institute*
B Cell Development and Maturation

Shannon J. Turley, *Genentech, Inc.*
Dendritic Cells: The Bridge Between Innate and Adaptive Immunity

Michael Croft, *La Jolla Institute for Allergy and Immunology*
Effector T Cell Differentiation and Response

Shane Crotty, *La Jolla Institute for Allergy and Immunology*
B Cell Activation and Humoral Immunity

M. Carrie Miceli, *University of California, Los Angeles*
Signaling in the Immune System

Ninan Abraham, *University of British Columbia*
Cytokines

Stephen M. Hedrick, *University of California, San Diego*
Host-Pathogen Co-evolution in Human Beings: the Red Queen and the Grim Reaper

Megan K. Levings, *University of British Columbia*
T and B Cell Tolerance

Matthias G. von Herrath, *La Jolla Institute for Allergy and Immunology*
Autoimmunity

Michelle Hickey, *University of California, Los Angeles*
Transplantation

Cathryn Nagler, *University of Chicago*
Mucosal Immunology

Marion Pepper, *University of Washington*
Type 2 Immunity

Antoni Ribas, *University of California, Los Angeles*
Tumor Immunology

Robert L. Modlin, *University of California, Los Angeles David Geffen School of Medicine*
Immunity to Bacterial Pathogens

Elina Zuniga, *University of California, San Diego*
Immunity to Viruses

Martin Prlic, *Fred Hutchinson Cancer Research Center*
Immunologic Memory

Nicole Frahm, *Fred Hutchinson Cancer Research Center*
Vaccination

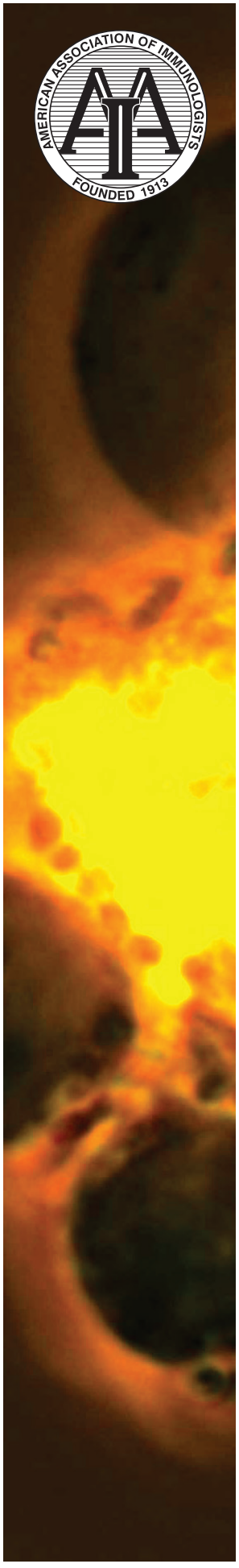
Donald B. Kohn, *University of California, Los Angeles*
Genetic Approaches to Immune-Mediated Diseases

Andrew C. Chan, *Genentech, Inc.*
Bench to Bedside to Bench: Current Issues in Immunology

For complete course details and registration, visit: www.aai.org/Education/Courses

For assistance, contact **(301) 634-7178** or **meetings@aai.org**. Overseas applicants are advised to apply early for visas; for details, visit **www.aai.org/Education/Courses/Visa.html**.

Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit **www.faseb.org/Professional-Development-and-Diversity-Resources/Travel-Awards.aspx**.



2017 ADVANCED COURSE IN IMMUNOLOGY

July 23–28, 2017 | Seaport World Trade Center | Boston, Massachusetts

Director: Ulrich H. von Andrian, M.D., Ph.D.
Harvard Medical School and Ragon Institute of MGH, MIT and Harvard

Don't miss the premier course in immunology for research scientists!

This intensive course is directed toward advanced trainees and scientists who wish to expand or update their understanding of the field. Leading experts will present recent advances in the biology of the immune system and address its role in health and disease. This is not an introductory course; attendees will need to have a firm understanding of the principles of immunology.

Faculty

Ulrich H. von Andrian, *Harvard Medical School Ragon Institute of MGH, MIT and Harvard*
Anatomy of the Immune Response

Jonathan C. Kagan, *Children's Hospital Boston Harvard Medical School*
Innate Immunity: Pattern Recognition and Anti-microbial Mechanisms

Bruce Horwitz, *Brigham & Women's Hospital Harvard Medical School*
Innate Immunity: Gene Regulation

Paul Kubes, *University of Calgary*
Innate Immunity: Cellular Mechanisms

Wayne M. Yokoyama, *Washington University School of Medicine*
NK Cells — Their Receptors and Function in Health and Disease

John P. Atkinson, *Washington University School of Medicine*
Complement System in Innate and Adaptive Immunity

Edward M. Behrens, *Children's Hospital of Philadelphia*
Dendritic Cells

Eugene M. Oltz, *Washington University School of Medicine*
The Generation and Modification of Lymphocyte Antigen Receptor Genes

Lisa A. Borghesi, *University of Pittsburgh School of Medicine*
B Cell Development

Avinash Bhandoola, *NCI, NIH*
T Cell Development

Kai W. Wucherpfennig, *Dana-Farber Cancer Institute Harvard Medical School*
MHC-restricted Antigen Presentation to T Cells

Leslie J. Berg, *University of Massachusetts Medical School*
Signaling from Antigen Receptors

David Masopust, *University of Minnesota Center for Immunology*
T Cell Memory

Joshy Jacob, *Emory University*
B Cell Memory

Arup K. Chakraborty, *Massachusetts Institute of Technology*
Computational Modeling of Immunological Processes

Brian A. Cobb, *Case Western Reserve University School of Medicine*
Glycoimmunology

Richard S. Blumberg, *Brigham & Women's Hospital Harvard Medical School*
Mucosal Immunity

Bruce D. Walker, *Ragon Institute of MGH, MIT and Harvard*
Immune Response to Pathogens

Jennifer Anolik, *University of Rochester Medical Center*
B Cell Tolerance and Autoimmunity

David A. Hafler, *Yale School of Medicine*
T Cell Tolerance and Autoimmunity

Jonathan Kipnis, *University of Virginia School of Medicine*
Neuroimmunology

Lisa H. Butterfield, *University of Pittsburgh*
Tumor Immunology

Joanne L. Viney, *JLV Biotech Consulting*
Immunotherapeutics

Gary J. Nabel, *Sanofi*
Vaccines

For complete course details and registration, visit: www.aai.org/Education/Courses

For assistance, contact **(301) 634-7178** or **meetings@aai.org**. Overseas applicants are advised to apply early for visas; for details, visit **www.aai.org/Education/Courses/Visa.html**.

Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit **www.faseb.org/Professional-Development-and-Diversity-Resources/Travel-Awards.aspx**.