



# AAI

The American  
Association of  
Immunologists

# NEWSLETTER

WINTER 2014–2015

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**Modest Increase  
for NIH Offers Small  
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Passed Funding Law**

*See Story on page 4*





# Important Dates for Two AAI Awards Programs

*AAI Programs to Benefit Your Lab's Current or Future Research*

## AAI Careers in Immunology Fellowship

KEY DATES	APPLICATIONS OPEN	APPLICATIONS CLOSE
	<b>JANUARY 15</b>	<b>MARCH 16</b>

These fellowships provide AAI member PIs with one year of salary support for a graduate student or postdoctoral fellow in their labs. Member PIs in good standing with less than \$250,000 (excluding PI's salary) in annual direct costs are eligible to apply.

Selection is based on the potential of the trainee, merit of the project, quality of the training environment, and financial need.

**Direct inquiries to [fellowships@aai.org](mailto:fellowships@aai.org).**

## AAI Travel for Techniques Award Program

AWARDS CYCLE	APPLICATIONS OPEN	APPLICATIONS CLOSE
<b>WINTER</b>	<b>DECEMBER 15</b>	<b>FEBRUARY 15</b>
<b>SPRING</b>	<b>APRIL 15</b>	<b>JUNE 15</b>
<b>FALL</b>	<b>AUGUST 15</b>	<b>OCTOBER 15</b>

The Travel for Techniques Award is given to member PIs, reimbursing up to \$1,500 in expenses for travel to learn a new technique. Member PIs in good standing with less than \$250,000 (excluding PI's salary) in annual direct costs are eligible to apply.

**Direct inquiries to [tft@aai.org](mailto:tft@aai.org).**

These two exciting awards programs were launched by the American Association of Immunologists in 2014, adding significantly to its already robust support for scientists through fellowships, career awards, and travel grants. For more information, visit [www.aai.org/awards](http://www.aai.org/awards).



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of Immunologists**

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of Immunology***

Tel: 301-634-7197  
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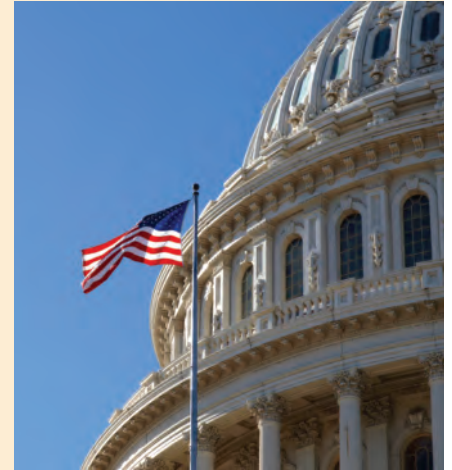
[About/Departments-Staff](#)

# FOCUS ON PUBLIC AFFAIRS

## Republicans Take Control of the Senate, Expand Majority in the House

### Congress to Welcome at Least 68 New Members

As a result of the November elections, the 114th Congress, which is set to begin on January 6, 2015, will include at least 68 new faces: 61 in the House and 13 in the Senate (with seven new senators having previously served in the House of Representatives). For the first time in eight years, the Republican Party will have a majority in both chambers of Congress. Senator Mitch McConnell (R-KY), the current Senate Minority Leader, will take over as Senate Majority Leader, while Rep. John Boehner will retain his position as Speaker of the House of Representatives.



Republicans gained nine seats in the Senate, giving them a total of 54 seats. Democrats have 44 seats but can generally count on the support of two independent senators, both of whom will caucus with the Democratic Party.

The Republican Party also expanded its majority in the House of Representatives, gaining 13 seats for an advantage of 247 to 188.

With majorities in both chambers, the Republican Party will have a greater ability to control the agenda. But legislating will continue to require compromise, because most controversial bills in the Senate require 60 votes to pass and because bills that are passed by both chambers may be vetoed by the president. Overriding a presidential veto requires a two-thirds majority vote in both the House and the Senate.

NIH and the broader scientific community will lose a number of long-term champions when the 114th Congress begins. Longtime NIH advocate Senator Tom Harkin (D-IA) is retiring after five terms in the House of Representatives and five terms in the Senate—a total of 40 years of public service. Harkin has served as either the chair or ranking member of the Senate Labor, Health, and Human Services, Education, and Related Agencies Appropriations Subcommittee, which funds NIH, since 1989. He was also a co-recipient of the AAI Public Service Award in 2001.

The House of Representatives will also lose a leading science advocate to retirement—eight-term Congressman and physicist Rush Holt (D-NJ, 12th). Among other things, Holt was a co-chair of the Congressional Biomedical Research Caucus. Although his congressional service will be coming to an end, his commitment to science remains strong. In February, Holt will join the American Association for the Advancement of Science as chief executive officer and executive publisher of *Science* and its family of journals.

# FOCUS ON PUBLIC AFFAIRS

## NIH Receives Small Increase for Current Year

### New Law includes \$5.4 Billion to Combat Ebola

Following significant debate, arcane procedural maneuvers, and the passage of two very short term funding extensions, Congress approved a “CROmnibus” appropriations bill on December 13. The CROmnibus, which President Obama signed into law on December 16, funds the Department of Homeland Security under a Continuing Resolution (“CR”) at its previous year’s level through February 27, 2015, while funding NIH and all other federal agencies and programs (through an omnibus appropriations bill) at their new levels through September 30, 2015.

The new law includes \$30.05 billion for NIH in fiscal year (FY) 2015, an increase of \$150 million (0.5 percent) over the FY 2014 level. In addition, NIH received \$238 million in emergency funding to support Ebola research and vaccine development, the full amount requested by President Obama for NIH. In total, Congress provided \$5.4 billion of the \$6.18 billion requested for all agencies by the president to combat the Ebola epidemic.

Part of the \$150 million in new NIH money is earmarked for specific programs. The President’s Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative received a total

appropriation of \$65 million, an increase of \$25 million from the FY 2014. The new law also includes \$12.6 million to support the Gabriella Miller Kids First Research Act, a bill sponsored by former House Majority Leader Eric Cantor to increase NIH funding for pediatric research. In addition, the National Institute on Aging received a \$25 million increase, of which Congress expects that a “significant portion” should be directed to research on Alzheimer’s disease.

The CROmnibus is accompanied by a report which provides detailed guidance to federal departments and agencies, including spending instructions and other directives. The new law includes 17 pages of report language that specifically pertain to NIH. Among other things, NIH is asked to:

- create an Administrative Burden Workgroup within 60 days of enactment of the bill with the objective of reducing current onerous requirements
- develop a plan to reduce the average age at which investigators receive their first R01
- provide a report to the House and Senate Appropriations Committees on how it plans to proceed with the National Children’s Study. (The fate of this directive is somewhat at issue, however, given that NIH Director Francis Collins has announced that NIH has cancelled the study.)



## MARK YOUR CALENDAR!

### ABSTRACTS

Regular Abstract Submission Deadline: **NOVEMBER 12, 2015**

### HOUSING

Housing Reservation Deadline: **NOVEMBER 19, 2015**

### AWARDS

Travel Award Grant Application Submission Deadline: **NOVEMBER 23, 2015**

### REGISTRATION

Registration Deadline: **NOVEMBER 23, 2015**



# IMMUNOLOGY 2015™



THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS  
MAY 8–12, 2015 | AAI ANNUAL MEETING | NEW ORLEANS, LA

## Call for 2015 Award Applications

**Deadline: January 12, 2015**

Applications are invited for the following AAI Travel Awards and Grants, which annually foster the promise and professional development of investigators of all career stages, including underrepresented minority scientists and trainees.

### Lefrançois-BioLegend Memorial Award

Established to honor the memory of AAI member Dr. Leo Lefrançois, this award is intended to advance the career of a trainee who attends the AAI annual meeting and presents an outstanding abstract specifically in the area of mucosal immunology. The award recipient will receive a \$1,000 cash award and a certificate during an awards presentation program at the AAI annual meeting. *This award is generously supported through a grant from BioLegend and donations from friends and colleagues of Dr. Lefrançois.*

### AAI Trainee Poster Awards

These awards provide up to \$300 travel reimbursement to AAI trainee members (students and postdoctoral fellows) whose first-author abstracts submitted to the AAI annual meeting are selected for poster sessions only and found to be exceptional by the AAI Abstract Programming Chairs. Selection is based on the originality and significance of the research being presented.

### Pfizer-Showell Travel Award

This award recognizes the professional promise of an early career investigator (assistant professor or equivalent) by assisting the award recipient with travel to the AAI annual meeting. Selection is based on career progress and submission of an outstanding abstract selected for oral presentation in a block symposium at the meeting. The award recipient will be recognized and presented with a certificate at an awards presentation program at the AAI annual meeting. Support of up to \$1,500 will be provided for meeting registration and travel. *This award is supported through an endowment from Henry J. Showell and Pfizer, Inc.*

### AAI-Thermo Fisher Trainee Achievement Awards

These awards recognize up to six promising trainees in the field of immunology. Selection is based on career promise and presentation of an outstanding first-author abstract selected for oral presentation in a block symposium. Awardees will receive a \$1,000 cash prize and reimbursement for meeting expenses. *This award is generously supported through a grant from Thermo Fisher Scientific.*

### AAI Early Career Faculty Travel Grants

These grants assist young investigators (assistant professor or equivalent) in attending the AAI annual meeting. Recipients will be reimbursed up to \$1,250 for registration and travel expenses.

### Chambers-eBioscience Memorial Award

Established to honor the memory of AAI member Dr. Cynthia Chambers, this award is intended to advance the career of an early career scientist who attends the AAI annual meeting and presents an outstanding abstract specifically in the area of cancer biology. The award recipient will receive a \$1,000 cash award and a certificate during an awards presentation program at the AAI annual meeting. *This award is generously supported through a grant from eBioscience, an Affymetrix Company.*

### Lustgarten-eBioscience Memorial Award

Established to honor the memory of AAI member Dr. Joseph Lustgarten, this award is intended to advance the career of a mid-career scientist who attends the AAI annual meeting and presents an outstanding abstract specifically in the area of immune regulation. The award recipient will receive up to \$1,250 travel reimbursement and a certificate during an awards presentation program at the AAI annual meeting. *This award is generously supported through a grant from eBioscience, an Affymetrix Company.*

### AAI Underrepresented Scientist Travel Awards

These awards provide travel support to eligible AAI members to attend the AAI annual meeting. Two types of awards are available (trainee, junior faculty), providing support of up to \$1,850 for registration and meeting-related travel expenses. *This award is generously supported through the FASEB Minority Access to Research Careers (MARC) program and a grant from the National Institute of General Medical Sciences (NIGMS), NIH.*

### AAI Trainee Abstract Awards

These awards provide up to \$500–750 travel reimbursement to AAI trainee members (students and postdoctoral fellows) whose first-author abstracts submitted to the AAI annual meeting are selected for presentation in block symposia.

### AAI Undergraduate Faculty Travel Grants

These grants assist undergraduate faculty in attending the AAI annual meeting. Each grant will also support travel costs for an undergraduate student of the recipient's selection. A grant of up to \$1,250 is awarded to the undergraduate faculty member, and a grant of up to \$1,000 is awarded to the selected undergraduate student (registration for an undergraduate student is complimentary).

### AAI Laboratory Travel Grants

***Now open to both mid-career and senior investigators!***

These grants assist mid-career and senior investigators in attending the AAI annual meeting. Applicants must hold an appointment of associate professor, full professor, or equivalent; have limited research funding; and be a first or last author on one or more abstracts submitted to the annual meeting. Each grant will provide two travel awards of up to \$1,250 each: one to the PI or laboratory director and another to a member of his or her lab, chosen by the PI or laboratory director. Recipients will be reimbursed for registration and travel expenses.

**For complete AAI Travel Award and Grant application details, visit [www.AAI.org/Awards](http://www.AAI.org/Awards).**

*The 2015 AAI Awards will be presented in conjunction with*

**IMMUNOLOGY 2015™**

May 8–12, 2015 • New Orleans, Louisiana

**Questions? Contact AAI at 301-634-7178  
or [awards@aai.org](mailto:awards@aai.org)**

# Members in the News

## Four AAI Members Elected to Institute of Medicine

AAI members **Rafi Ahmed (AAI '84), Arturo Casadevall (AAI '98), James E. Crowe, Jr. (AAI '99), and John J. O'Shea (AAI '84)** were elected this fall to the Institute of Medicine (IOM). Election to the IOM is considered one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding professional achievement and commitment to service.



Rafi Ahmed

**Rafi Ahmed, Ph.D.,**  
*Director, Emory Vaccine Center; Georgia Research Alliance Eminent Scholar; Professor, Department of Microbiology and Immunology, Emory University School of Medicine*

Rafi Ahmed's research addresses the development of T and B cell memory and the mechanisms by which viruses persist by evading or suppressing the immune

system, with the goal of better understanding host-pathogen interactions and using this knowledge to develop vaccines. His work on lymphocyte memory has been influential in understanding the differentiation of CD8<sup>+</sup> memory T cells, beginning with the discoveries that T cell memory was much longer lived than previously anticipated and could persist in the absence of antigen. His group also identified T cell exhaustion, which can occur in chronic viral infections, such as HIV-1, and found that blockade of programmed death 1 (PD-1) could rejuvenate exhausted T cells. This discovery has led to clinical development of PD-1 blockade, which is showing promise for the treatment of chronic infections and cancer. Dr. Ahmed and his lab colleagues are now expanding their focus to address additional inhibitory receptors and the roles of other cell types in chronic viral infection. Their work on humoral memory is currently focusing on mechanisms that regulate the generation of broadly neutralizing antibodies following influenza vaccination in hopes of developing a universal influenza vaccine.

Ahmed is a past AAI Distinguished Lecturer, major symposium chair, and major symposium speaker at the AAI annual meeting and has served as a member of the AAI Nominating Committee and as an AAI Advanced Course faculty member. He is a member of the National Academy of Sciences, a fellow of the American Association for the

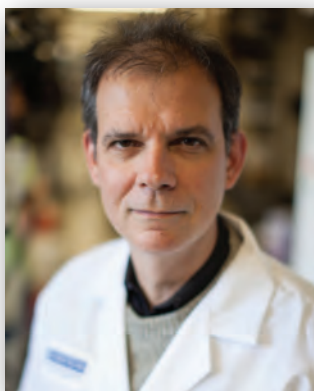
Advancement of Science and the American Academy of Microbiology, and foreign member of the Indian National Academy of Sciences. He has served on multiple National Institutes of Health (NIH) study sections and as a member of the National Cancer Institute (NCI) Board of Scientific Counselors. His additional review and advisory panel appointments include service for the HIV Vaccine Trials Network, Pediatric Dengue Vaccine Initiative (Gates Foundation), International AIDS Vaccine Initiative Advisory Committee, Government of India's Ministry of Science, National Multiple Sclerosis Society, Oregon Regional Primate Research Center, Baylor School of Medicine's Center for AIDS Research, AIDS Etiology and Pathogenesis Area Review Panel (Office of AIDS Research, NIH), Virology Study Section (NIH), and the United States Environmental Protection Agency Biotechnology Science Advisory Committee. He has served as editor-in-chief of *Microbial Pathogenesis* and held editorial board appointments for the *Journal of Virology*, *Microbial Pathogenesis*, *Virology*, and *Immunity*.

His additional professional honors and appointments include: Drexel Prize in Immunology, Drexel University; Dan H. Campbell Memorial Lecture, Asilomar, CA; Janeway Lecture, Yale University; Stuart Memorial Lecture, Brown University; Cepero Memorial Lecture, University of Miami, FL; Julius Stone Lecture, Society for Investigative Dermatology; Baruj Benacerraf Lecture in Immunology, Harvard University; Calame Lecture, Columbia University; Keynote Lecture, Conference for Immunology Day 2009, Montreal, Canada; Bassford Lecture, University of North Carolina at Chapel Hill (UNC); Dolman Lecture, University of British Columbia; Keynote Lecture, Immunologic Memory and Host Defense, Keystone, CO; Keynote Lecture, Prevention of HIV/AIDS, Keystone, CO; Keynote Lecture, Association of Scientists of Indian Origin in America, Denton, TX; Idaho State University Distinguished Alumnus Award; Hepatitis B Foundation Bruce Witte Distinguished Lecturer; Thaler Honorary Lecture, Aeras Global TB Vaccine Foundation; 45th Annual J.S. and H.R. Blumenthal Memorial Lectureship; Dean's Distinguished Faculty Lecture and Award, Emory University School of Medicine; Thomas J. Matthews Endowed Lectureship, Duke University; Keynote Lecture, Basic Aspects of Tumor Immunology, Keystone, CO; Russell S. and Rae Weiser Endowed Lecture in Immunology, University of Washington, Seattle; Albert E. Levy Scientific Research Award, Emory University; Neal Nathanson Lectureship, University of Pennsylvania; NIH Director's Lecture (Dyer Lecture); 3rd Merle Sande Lecture, Gladstone Institute of Virology and Immunology, San Francisco; Tadeusz J. Wiktor Memorial Lecture, Wistar Institute; Visiting Lamb Professor, Vanderbilt University School of Medicine; Harry Weaver Neuroscience Scholar, National Multiple Sclerosis Society; Ryan Foundation Scholar, Harvard University; Osmania University Merit

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Scholarship; and Government of India National Merit Scholarship.

Ahmed holds a B.Sc. degree (chemistry) from Osmania University in his native Hyderabad, India, as well as B.S. and M.S. degrees (microbiology) from Idaho State University. He earned his Ph.D. from Harvard University and completed postdoctoral training at Scripps Clinic and Research Foundation. In 1984, he was appointed an assistant professor at the UCLA School of Medicine, where he rose to full professor before joining Emory in 1995.



Arturo Casadevall

**Arturo Casadevall, M.D., Ph.D.,** *Chair, Department of Microbiology and Immunology; Leo and Julia Forchheimer Professor of Microbiology and Immunology; Professor, Department of Medicine (Infectious Diseases); and Director, Center for Immunological Sciences, Albert Einstein College of Medicine*

Arturo Casadevall's research straddles basic immunology and microbial pathogenesis. Dr. Casadevall became interested in the problem of fungal infections after witnessing first hand the ravages of the AIDS epidemic in the mid-1980s. He worked with his postdoctoral mentor Dr. Matthew Scharff (AAI '64) to develop passive antibody therapy against *Cryptococcus neoformans*, which led to the discovery of new mechanisms of antibody action. To understand other immunological questions he explored basic mechanisms of fungal pathogenesis. His lab discovered that *C. neoformans* was a facultative intracellular pathogen with a novel replicative strategy that included activation of the cell cycle. Some of Casadevall's work has translated into therapeutics that have been tested in the clinic. His studies delving into the relationship between *C. neoformans* melanin production and virulence of this organism ultimately led to the development of antibody-based radioimmunotherapy to treat melanoma. Casadevall's research now branches out beyond fungal immunity, encompassing studies on the development of a wide range of antibodies that are efficacious against diseases ranging from anthrax to tuberculosis to cervical cancer.

Casadevall's passion for science extends beyond his prolific lab career (which has resulted in several hundred citations), to advocacy for good scientific practices in the public realm. He is nationally recognized as a proponent of scientific peer review reform and scientific integrity, as the co-creator of the "retraction index," a scoring system

based on the association between a journal's impact factor and retraction rate, and as a supporter of the recruitment of women and minority students into scientific disciplines.

A member of the AAI Minority Affairs Committee (MAC), Casadevall is a past presenter of the MAC Guest Lecture at the AAI annual meeting (2014) and has served as a reviewer for *The Journal of Immunology*. He has actively trained and mentored a significant number of minority scientists, and himself served as a role model of success. He is the first Hispanic department chair at the Albert Einstein College of Medicine ("Einstein") and has been recognized by the Hispanic Center for Excellence at Einstein for training minority students. Among Casadevall's trainees, nearly half are members of underrepresented minority groups and more than half are women.

Casadevall has served on numerous review/advisory panels for the National Institutes of Health, including at NIAID (Board of Scientific Counselors, Blue Ribbon Panel on Biodefense Research, Immune Epitope Database Scientific Advisory Board, the Institut Pasteur, Invasive Aspergillosis Animal Models Panel, Strategic Plan Task Force), NCI, and NHLBI, as well as for the National Academy of Sciences (including National Science Advisory Board for Biosecurity), Centers for Disease Control and Prevention, Lawrence Livermore National Laboratory, National Research Council, National Science Foundation, National Cooperative Drug Discovery Group, Burroughs Wellcome Fund, St. Jude Fellowship for Pediatric Infectious Diseases, and Abbott Laboratories Award in Clinical and Diagnostic Immunology.

A founding editor and editor-in-chief of *mBio*, Casadevall has held editorial appointments with the *Journal of Clinical Investigation*, *Journal of Experimental Medicine*, *Nature Reviews in Microbiology*, *Faculty of 1000*, *Future Microbiology*, *BMC Infectious Diseases*, *Expert Opinion on Emerging Drugs*, *Current Opinion in Microbiology*, *Emerging Infectious Diseases*, *Revista Iberoamericana de Micología*, *Infection and Immunity*, *International Journal of Infectious Diseases*, and *Journal of Medical and Veterinary Mycology* and has served as a reviewer for over 40 journals. He is an elected member of the American Society for Clinical Investigation, American Association of Physicians, and Interurban Clinical Club; fellow of the American Academy of Microbiology, Infectious Disease Society of America, and American Association for the Advancement of Science; and has served as president of the Medical Mycology Society of the Americas.

His additional career honors include: Founders Distinguished Service Award, American Society for Microbiology (ASM); Faculty Mentoring Award, Albert Einstein College of Medicine; ASM William Hinton Award (for mentoring scientists from underrepresented

# Members in the News (continued)

groups); NIH MERIT Award; Rhoda Benham Award, Medical Mycology Society of the Americas; Maxwell L. Littman Award in Mycology; Solomon A. Berson Medical Alumni Achievement Award in Basic Science, New York University (NYU) School of Medicine; Kass Lecture, Infectious Disease Society of America; Burroughs Wellcome Visiting Professorship, University of Wisconsin; Sam Rosen Award, Einstein; Leo M. Davidoff Society (for outstanding teaching), Einstein; Foundation for Microbiology Lectures Program; Burroughs Wellcome Fund Developmental Therapeutics Award; James S. McDonnell Scholar Award; Pfizer Postdoctoral Fellowship Award; Montefiore Fellow of the Year Award; Medical Scientist Training Program Fellowship; Salk Graduate Scholarship; and undergraduate honors including the Stanley Konkol Memorial Award and Chemistry Department Service Award. In 2013 he delivered the Kinyoun lecture at the NIH.

A chemistry graduate of Queens College, CUNY, Casadevall received his M.S., Ph.D. (biochemistry – mentor: Loren Day), and M.D. degrees from NYU. He completed his medical internship and residency in internal medicine at Bellevue Hospital NYU Medical Center, a postdoctoral fellowship in infectious diseases at Albert Einstein/Montefiore Medical Center, and postdoctoral fellowship in cell biology (Matthew Scharff lab) at Albert Einstein College of Medicine. He joined the Einstein faculty as an assistant professor of medicine and of microbiology and immunology in 1992; he was appointed associate professor in 1996 and full professor in 2001 and has served as Department of Microbiology and Immunology chair since 2006. His past Einstein appointments include director of the Division of Infectious Diseases and Selma and Jacques Mitrani Professor in Biomedical Research.



James Crowe, Jr.

**James E. Crowe, Jr., M.D.,**  
*Ann Scott Carrell Professor,  
Pediatric Infectious  
Disease; Professor of  
Pathology, Microbiology,  
and Immunology; and  
Director, Vanderbilt  
Vaccine Center, Vanderbilt  
University Medical Center*

James Crowe's research elucidates the mechanisms behind the generation of effective antibody responses in response to viral infection. His lab

has used strategies, such as phage display combinatorial libraries, hybridomas, and high-throughput sequence analysis to dissect structural and functional characteristics of antiviral antibodies, and analyses of virus-neutralizing antibodies from survivors of historical pandemics. His early work, producing targeted, recombinant antibody Fab fragments in bacteria, demonstrated that these molecules could neutralize viruses in these organisms, leading to investigations for the use of antibodies as therapeutic agents against infectious diseases. He also pioneered studies in the field of respiratory syncytial virus (RSV) research, demonstrating that maternal antibodies present in newborns hinder the ability of infants to mount effective antibody responses in response to immunization against RSV. Dr. Crowe's lab identified a large number of live, attenuated RSV vaccine candidates for use in the development of more efficacious vaccines to this virus. His ambitious research program extends beyond RSV studies and targets the development of vaccines and therapeutics for a broad spectrum of pathogens, including Ebola, influenza, Dengue, HIV, West Nile, and smallpox viruses. In addition to these endeavors, his lab currently focuses on learning how viral proteins and viruses traffic within cells.

Crowe is a member of the AAI Program Committee and has served as a reviewer for *The Journal of Immunology*. He has held editorial board appointments for *Nanomedicine: Nanotechnology, Biology and Medicine*; *WIREs: Nanomedicine and Nanobiotechnology*; *PLoS Pathogens*; *Nanomedicine: Virology*; *Journal of Virology*; *Faculty of 1000*; *Pediatric Infectious Diseases Journal*; *Seminars in Pediatric Infectious Diseases*; and *Proceedings of the National Academy of Sciences USA* and has served as a reviewer for more than 30 journals.

Crowe has been a member of multiple NIH study sections and served on numerous other review and advisory panels for NIH, U.S. Department of Defense, U.S. Department of Homeland Security, U.S. Civilian Research and Development Foundation, March of Dimes, Thrasher Foundation, World Health Organization, Wellcome Trust, University of Siena, Swiss National Science Foundation, BioAdvance/Greenhouse, Health Research Board of Ireland, Maryland Industrial Partnerships, Genome British Columbia, Society for Pediatric Research (SPR), Pediatric Infectious Diseases Society, U.S./Israel Binational Science Foundation, U.S. Immunodeficiency Network, Infectious Diseases Society of America, American Institute of Biological Sciences–U.S. Army Medical Research and Materiel Command, Singapore Agency for Science, Technology and Research, New York Influenza Center of Excellence, Duke–National University of Singapore Program, M. J. Murdock Charitable Trust, Danish National Research Foundation, Danish Council for Strategic Research, Instituto Pasteur–Fondazione



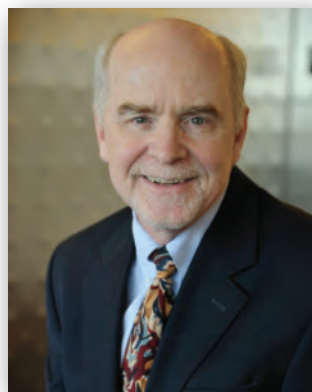
Cenci Bolognetti (Italy), Pediatric Academic Societies/ Asian SPR Joint Meeting and Eastern SPR Annual Meeting, Hong Kong Special Administrative Region Government Food and Health Bureau, Pediatric Academic Societies Annual Meeting, Sigma Delta Epsilon Graduate Women in Science Program, Swiss National Science Foundation, New York Capital Research Alliance, French National Research Agency, Israel Science Foundation, Medical Research Council, U.K., International Pediatric Research Foundation, Human Vaccines Project Working Group, U.S.–Japan Foundation, and U.S.–Japan Cooperative Medical Sciences Program.

Crowe has received multiple Vanderbilt University honors, including Mentor of the Year Award (Vanderbilt Postdoctoral Association), Chancellor's Research Award, Ernest W. Goodpasture Faculty Research Award, F. Peter Guengerich Award for Mentoring Postdoctoral Fellows, Teacher of the Year Award (School of Medicine Interdisciplinary Graduate Program), and Turner Scholar Award. His additional career honors include: Norman J. Siegel New Member Outstanding Science Award, American Pediatric Society; Outstanding Investigator Award, American Federation for Medical Research; America's Top Pediatricians, Consumers Research Council; E. Mead Johnson Award for Excellence in Pediatric Research, SPR; Oswald Avery Award for Early Achievement, Infectious Diseases Society of America; Judson Daland Prize for Outstanding Achievement in Patient-Oriented Clinical Research, American Philosophical Society; Young Investigator Award, SPR; Young Investigator Award, Pediatric Infectious Diseases Society; Dade MicroScan Young Investigator Award, ASM; Basil O'Connor Scholar Research Award, March of Dimes; Pfizer Faculty Scholar, Pfizer, Inc.; Edward Curnen Award, UNC Pediatrics; Outstanding Pediatric Resident, Wake Medical Center; Edward Stuart Scholarship (full four-year undergraduate merit scholarship), Davidson College.

He served on the council of the SPR American and is a member or fellow of the American Academy of Microbiology, American Association for the Advancement of Science, American Pediatric Society, Association of American Physicians, American Society for Clinical Investigation, Federation for Medical Research, Infectious Diseases Society of America, American Society for Virology, and American Society of Microbiology.

A graduate of Davidson College, Crowe earned his M.D. from UNC School of Medicine, where he completed his internship and residency in pediatrics. He received postdoctoral training in the Respiratory Viruses Section of the Laboratory of Infectious Diseases at NIAID (mentors: Robert Chanock and Brian Murphy) before joining

Vanderbilt University Medical Center as a clinical fellow and instructor in 1995. He was appointed an assistant professor in 1996, associate professor in 2001, and full professor in 2004; his Vanderbilt appointments have included the Ingram Professor of Cancer Research.



John O'Shea

**John J. O'Shea, M.D.,**  
*Scientific Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health*

John O'Shea's lab studies signal transduction pathways that regulate cytokine signaling and how these pathways affect differentiation and activation of immune cells. In particular, Dr.

O'Shea has detailed many elements of Janus kinase (Jak) and signal transducer and activator of transcription (STAT) pathways and their role in immunomodulation and disease. His group cloned and characterized Jak3, a nonreceptor tyrosine kinase, and demonstrated the role mutations in this molecule play in autosomal recessive severe combined immunodeficiency. His research on Jaks has yielded a number of patents and led to the development of immunomodulatory drugs that have the potential to treat a variety of diseases from cancer to autoimmunity. His group also examines the contribution of Jak-STAT signaling to cytokine regulation of CD4<sup>+</sup> T helper (Th) cell differentiation, including the requirement for STAT-1 in follicular Th cell development, STAT-3 in Th17 cell differentiation, and STAT-4 in Th1 cell differentiation. Importantly, his group collaborated with others to show that STAT-3 mutations that cause defective Th17 cell differentiation contribute to the development of Hyperimmunoglobulin E syndrome. Most recently, O'Shea's work has delved further into CD4<sup>+</sup> Th subset differentiation, analyzing the epigenetic events that determine the plasticity of Th cell commitment.

O'Shea has served as a major symposium chair and speaker at the AAI annual meeting and as an associate editor for *The Journal of Immunology*. His additional career honors and appointments include: fellow, American Association for the Advancement of Science; U.S. Public Health Service Physician Researcher of the Year Award; Paul Bunn Award in Infectious Disease; Lee C. Howley Prize in Arthritis Research; Irish Society for Immunology Public Lecture Award; Ross Prize in Molecular Medicine; Daniel Drake Medal;

# Members in the News (continued)

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NIH Director's Award (three times); elected member, American Association of Physicians; elected member, American Society for Clinical Investigation; World's Most Influential Scientific Minds (Immunology 2002- 2014, Thomson Reuters); NIAMS Mentoring Award; NIH "Make a Difference" Office of Equal Opportunity Award; co-founder, NIH/Oxford/Cambridge program in biomedical science; member, NIH-UPenn Immunology Program; and adviser, Howard Hughes Medical Institute Scholars.

O'Shea has served on the editorial boards of *Immunity*, *Journal of Experimental Medicine*, *Journal of Biological Chemistry*, and *Blood* and has presented numerous invited lectureships at universities and international meetings in the United States, Canada, Europe, and Asia. He is board certified in internal medicine and allergy and immunology.

A Phi Beta Kappa graduate of St. Lawrence University, O'Shea received his M.D. from the University of Cincinnati before serving as an intern and resident in internal medicine at the State University of New York Upstate Medical University. He later received subspecialty training in allergy and immunology at NIH and additional postdoctoral training in the Cell Biology and Metabolism Branch in the National Institute of Child Health and Human Development. After subsequently establishing his own research group in the National Cancer Institute in 1989, he moved to NIAMS in 1994 as chief of the Lymphocyte Cell Biology Section of the Arthritis and Rheumatism Branch. In 2002, he was appointed chief of the NIAMS Molecular Immunology and Inflammation Branch

and became scientific director of the NIAMS Intramural Research Program in 2005. O'Shea has served as acting director of the NIH Center for Regenerative Medicine and is a professor in the Department of Pathology at the University of Pennsylvania.



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## IOM

*Established in 1970 by the National Academy of Sciences as both an honorific membership organization and an advisory organization, IOM serves as a national resource for independent, scientifically informed analysis and*

*recommendations on health issues. New members are elected by current active members through a selective process that recognizes individuals who have made major contributions to the advancement of the medical sciences, health care, and public health. With their election, members make a commitment to volunteer their service on IOM committees, boards, and other activities. Projects during the past year include studies of the benefits of including physical activity in the school environment, direct health outcomes of sodium intake, regional variations in Medicare spending, child abuse and neglect in the United States, improved delivery of cancer care, the commercial sexual exploitation and sex trafficking of minors in the United States, post-deployment needs of Iraq and Afghanistan service members, gun violence research priorities in the United States, and the international problem of illegitimate and substandard medications. For more information about IOM, visit <http://www.iom.edu>.*



Jane Salmon

## Jane Salmon Receives Lupus Foundation Honors

**Jane E. Salmon, M.D., AAI '87**, is a 2014 recipient of the Evelyn V. Hess Research Award, presented by the Lupus Foundation of America in recognition of investigators whose work has significantly advanced understanding of the

causes and management of lupus.

Salmon is the Collette Kean Research Professor at the Hospital for Special Surgery (HSS) and professor of

medicine and professor of obstetrics and gynecology at Weill Cornell Medical College (WCMC). Her research focuses on the mechanisms of tissue injury in patients with lupus and other autoimmune diseases with the goal of characterizing determinants of disease phenotype and, thereby, targets for therapy. Her laboratory identified the essential role of complement activation as a cause of pregnancy loss and thrombosis in the antiphospholipid syndrome (APS). To translate these findings to patients, she is currently leading the PROMISSE Study (Predictors of pRegnancy Outcome: bioMarkers In antiphospholipid antibody Syndrome and Systemic lupus Erythematosus), a multicenter, prospective observational study of pregnant women with lupus and/or APS. The study seeks to characterize predictors of pregnancy outcomes and use these indicators to develop trials in patients at risk for severe pregnancy complications. Salmon's group is also investigating the mechanisms responsible for accelerated atherosclerosis observed in patients with lupus and

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rheumatoid arthritis. Overall, her studies have uncovered causes of pregnancy loss and organ damage in lupus, identified predictors of risk for lupus-related pregnancy complications, kidney inflammation (nephritis), and cardiovascular disease, and pioneered new targets to prevent these disorders.

Salmon holds associate editor appointments with *Annals of Rheumatic Diseases* and *Lupus, Science and Medicine* and has held additional editorial board appointments with *Arthritis and Rheumatism, Lupus, Autoimmunity, Current Opinions in Rheumatology*, and *Genes and Immunity*.

Salmon has served on numerous review and advisory panels for the National Institutes of Health, as well as for other organizations including the American College of Rheumatology (Board of Directors), Rheumatology Research Foundation (Board of Directors), Alliance for Lupus Research (Scientific Advisory Board), Lupus Research Institute, Henry Kunkel Society, Clinical Immunology Society, Federation of Clinical Immunology Societies (secretary-treasurer), European League Against Rheumatism, Lupus Federal Working Group, S.L.E. Foundation, New York Rheumatism Association (president), and New York Arthritis Foundation.

Salmon's career honors include: the Carol Nachman Prize in Rheumatology; Virginia Kneeland Frantz '22 Distinguished Women in Medicine Award, Columbia Physicians & Surgeons Alumni Association; Nanna Swartz Lectureship, Swedish Society of Medicine; Annual Ogrzyzlo Research Day Visiting Professor, University of Toronto; "Best Doctors in New York," New York magazine; Michael Einbender Distinguished Lectureship, University of Missouri-Columbia School of Medicine; Soderberg Prize Symposium, Swedish Society of Medicine; Laura Hadad Lectureship, Georgetown University Hospital; Theodore E. Woodward Award, American Clinical and Climatological Association; Arthur DeGraff Lecture, New York University School of Medicine; Eric Bywaters Memorial Lecture, Imperial College of London; Edmund L. Dubois, M.D., Memorial Lectureship Award, American College of Rheumatology; Jacob Probstin Endowed Lecture in Obstetrics and Gynecology, Washington University in St. Louis; Janice M. Wiles Memorial Lecture on SLE, University of Massachusetts; Kroc Visiting Professor, UCLA; Henry Christian Award for Excellence in Research, American Federation for Clinical Research; Young Women Achievers Award, National Council of Women; Andrew W. Mellon Teacher-Scientist; American Rheumatism Association Senior Rheumatology Scholar Award; S.L.E. Foundation Fellowship. She is a member of Association of American Physicians.

An honors graduate (psychobiology) of New York University, Salmon received her M.D. from the College of Physicians and Surgeons of Columbia University, where she was the first woman enrolled in their Medical Scientist Training Program. She completed her medical internship and residency at The New York Hospital and trained as a postdoctoral fellow in rheumatic diseases at the Hospital for Special Surgery (HSS). In 1983, she was appointed an instructor in medicine at Cornell University Medical College, where she later became an assistant and then associate professor, including in the immunology graduate program of the Cornell University Graduate School of Medical Sciences. During the period, she also held scientist and attending physician appointments of increasing rank at New York Presbyterian Hospital and HSS. In 1996, she was named to her current appointments as a full professor of medicine of the Weill Cornell Medical College (WCMC), senior scientist and attending physician at HSS, and attending physician at New York Presbyterian. She also serves as a professor in the immunology and microbial pathogenesis graduate program of the Weill Cornell Graduate School of Medical Sciences, professor of medicine in obstetrics and gynecology at WCMC, and Collette Kean Research Chair at HSS. Her additional appointments include director of the Lupus and APS Center of Excellence, director of the Lupus Registry and Repository, and co-director of the Mary Kirkland Center for Lupus Research.



George Tsokos

## **George Tsokos Receives Awards from American College of Rheumatology, Lupus Foundation**

**George C. Tsokos, M.D., AAI '81**, has been honored with the

American College of Rheumatology (ACR) Distinguished Basic Investigator Award, which recognizes an ACR basic scientist for outstanding contributions to the field of rheumatology. In addition, Tsokos is a 2014 recipient of the Evelyn V. Hess Research Award, presented by the Lupus Foundation of America in recognition of

# Members in the News (continued)

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investigators whose work has significantly advanced understanding of the causes and management of lupus.

Dr. Tsokos is a professor of medicine at Harvard Medical School and chief of rheumatology at Beth Israel Deaconess Medical Center, Harvard Medical School. His research delves into the cellular and molecular pathogenesis of systemic lupus erythematosus (SLE), with emphasis on identifying biomarkers and therapeutic targets to diagnose and treat this disease. Tsokos has taken a unique approach to his work, using human cells, tissues, and fluids from SLE patients to identify genetic and functional abnormalities. He then translates these aberrations into murine systems to dissect out the specific mechanisms behind the defects and develop therapeutics to counteract them, in essence traveling from the bedside to the bench and back again. With the use of these methods, Tsokos has made seminal contributions to the autoimmunity field by defining molecular abnormalities in SLE T cells. He has identified several defining characteristics of these cells that can be used as biomarkers for disease, including aggregated lipid rafts on the T cell surface, decreased T cell receptor zeta chain expression, and increased expression of calcium/calmodulin-dependent protein kinase type IV and the catalytic subunit of protein phosphatase 2A. Tsokos' work also extends to the investigation of aberrant T cell populations, signaling molecule activity, cytokine secretion, and epigenetic events that could affect disease development or resolution. Other projects in the lab are oriented towards understanding the mechanisms of tissue injury in autoimmune disease and defining therapies to minimize the damage caused during disease pathogenesis. His research has led to the identification of a number of therapeutic targets now in different stages of development.

Tsokos has served as an associate and section editor for *The Journal of Immunology* and as an abstract programming chair for the AAI annual meeting. He has served as member or chair on numerous review panels for federal agencies including the National Institutes of Health, Department of Veterans Affairs (VA), and Department of Defense (DoD), as well as for other organizations including the Alliance for Lupus Research.

A past president of the Clinical Immunology Society (CIS), of which he served on numerous committees, Tsokos has served on multiple committees of the American College of Rheumatology and American College of Physicians. He has served as consulting editor of the *Journal of Clinical Investigation*, serves as editor-in-chief of *Clinical Immunology*, and held editorial appointments with dozens of additional

scientific journals. His career honors include the NIH MERIT (Method to Extend Research In Time) Award; Lee C. Howley, Jr., Prize for Arthritis Research; the Mary Kirkland Award, Mary Kirkland Lupus Center; Distinguished Service Award, CIS; master, American College of Physicians; fellow, American Association for the Advancement of Science; member, Association of American Physicians; James Leonard Award for Excellence in Clinical Research, Uniformed Services University of the Health Sciences (USUHS); William Crosby Superiority in Research Award, American College of Physicians; Philip Hench Award, Association of Military Surgeons of the United States; William R. Felts, M.D. Award for Excellence in Rheumatology Research Publications, Arthritis Foundation's Metropolitan Chapter; and member, Henry Kunkel Society.

Tsokos has a special interest in training and developing young colleagues. He directs a T32 training program in systemic autoimmunity and has mentored numerous fellows who have attained leading positions and/or become K award or R grant recipients. Between 2003 and 2010, Tsokos ran the annual CIS summer school on systemic autoimmunity attended by select fellows from around the world and supported through an NIH/industry collaboration (R13).

A native of Greece, Tsokos received his medical degree and doctor of sciences degree in biostatistics from the National University of Athens in Athens, Greece, where he also did resident training in internal medicine. He undertook additional resident training in internal medicine at the Combined Veterans Administration Medical Center-Georgetown University Program in Washington, D.C., and completed additional postdoctoral training in immunology (as a Fogarty International Center Fellow) and rheumatology in the Arthritis and Rheumatism Branch of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases at the National Institutes of Health. In 1983, he was appointed a clinical professor in the Department of Medicine at USUHS, where he would rise to full professor in 1991 and serve as vice chair for research. He also served as chief of the Department of Cellular Injury at the Walter Reed Army Institute of Research. He was named to his current Beth Israel Medical Center and Harvard Medical School appointments in 2007.

## Herman N. Eisen, M.D., AAI '51

(1918–2014)

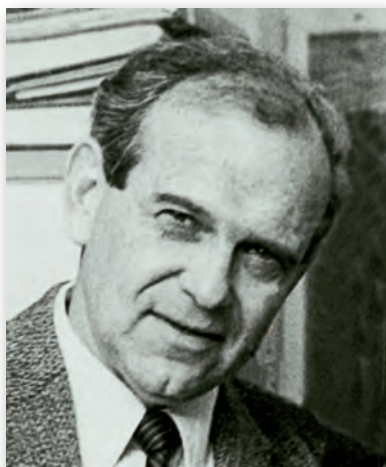
*“I’ve always enjoyed seeing medicine as an outsider and following it, but I enjoy science more... The kind of science I enjoy is dispelling ambiguities. I can’t stand ambiguity. Getting insight to a problem can be pretty rewarding.”*

Herman Eisen, AAI Oral History Project interview (May 4, 2012)



AAI extends condolences to the family, friends, and colleagues of renowned immunologist and past AAI president Herman N. Eisen, M.D., AAI '51, who died on November 2 at the age of 96. He was the oldest and second-longest tenured AAI member at the time of his death.

An emeritus professor of biology at Massachusetts Institute of Technology (MIT), whose active research career spanned six decades and extended to the end of his life, Dr. Eisen is perhaps best known for groundbreaking research in which he described affinity maturation, the immune system’s ability to adjust antibody production to better identify and neutralize invading pathogens after infection.



Herman Eisen

The recipient of the AAI Lifetime Achievement Award (1997) and AAI Behring Heidelberger Award (1993), Eisen was a member of the AAI Council from 1964 to 1971, including as AAI president from 1968 to 1969. He served on the AAI Awards Committee and AAI Nominating Committee (including as chair of both) and on additional AAI bodies, including the Blue Ribbon Panel, Committee for Liaison with DRG [Division of Research Grants, National Institutes of Health (NIH)], Liaison Committee with Research Granting Agencies, and Long Range Planning Committee (chair). He was a member of the editorial board of *The Journal of Immunology* and served as AAI representative to the board of the Federation of American Societies for Experimental Biology.

For highlights of his AAI service and career achievements and to view Dr. Eisen’s 2012 interview for the AAI Oral History Project, visit [www.aai.org/About/History/Notable\\_Members/Presidents/Eisen\\_Herman.html](http://www.aai.org/About/History/Notable_Members/Presidents/Eisen_Herman.html).

Eisen was a member of the National Academy of Sciences and the Institute of Medicine of the National Academies and a fellow of the American Academy of Arts and Sciences.

The following tribute was published by MIT and appears with the kind permission of that institution.

### Herman Eisen, Professor Emeritus of Biology, Dies at 96

Eisen was a pioneering immunologist and longstanding member of MIT’s cancer research community.

Kevin Leonardi, Koch Institute  
November 13, 2014

Herman Eisen, a professor emeritus of biology and founding member of the MIT Center for Cancer Research, died November 2 at age 96.

Over a 70-year career, Eisen forged a path as a pioneering immunologist whose research has significantly shaped the field. He joined the MIT faculty in 1973, having been recruited as a founding member of MIT’s Center for Cancer Research (now the Koch Institute for Integrative Cancer Research).

Eisen retired from MIT in 1989, albeit only in the official sense: As a professor emeritus, he maintained an active laboratory and continued to research, publish, and advise students and postdocs until his passing. In all, Eisen spent 41 years at MIT, during which he taught, mentored, and collaborated with thousands of students, faculty members, and staff.

### Early years

Born in 1918 in Brooklyn, New York, Eisen developed a keen interest in science at an early age, when a high school chemistry class helped frame his perception of the world as a collection of atoms and molecules. Eisen began premedical studies at New York University (NYU) in 1934, but halfway through his undergraduate career he needed to

## Herman N. Eisen, M.D., AAI '51 *(continued)*

(1918–2014)

leave school — and his position as first baseman on NYU's baseball team — after developing tuberculosis. Though Eisen's TB kept him out of school for one year, the illness sparked a curiosity about the immune system that would endure for the rest of his life.

Eisen returned to NYU to complete his bachelor's degree, and he then enrolled at the university's medical school. He graduated with an M.D. in 1943 and then worked as an assistant in the pathology department at the Columbia University College of Physicians and Surgeons before going back to NYU for his residency.

Eisen had a strong interest in basic science research, particularly in trying to better understand the body's immune system. Though career options for physician-scientists had historically been limited, the federal government began to increase its funding of biomedical research through the National Institutes of Health (NIH) following World War II. Seizing these new opportunities, Eisen became one of the first recipients of an NIH fellowship, which supported his research on sulfonamide-induced antibodies at NYU. These investigations helped him and colleague Fred Karush to determine the number of antigen-binding sites on antibodies.

After his two-year NIH fellowship, Eisen worked briefly at the Sloan Kettering Institute before returning once again to NYU as a faculty member. Inspired by the work of his recently deceased role model, physician-scientist Karl Landsteiner, he studied immune reactions of the skin. In doing so, he clarified the basis for certain allergic responses and showed that only those chemicals capable of forming covalent bonds to skin proteins could cause a characteristic itchy rash.

In 1955, Washington University in St. Louis (WUSTL) recruited Eisen to join the faculty of its School of Medicine. There, he served as dermatologist-in-chief for five years before moving to the Department of Microbiology to serve as chair. While at WUSTL, Eisen published groundbreaking research in which he described affinity maturation: the process by which activated B cells produce antibodies with an increasingly higher affinity for invading pathogens after infection. This process is fundamental to the development of potent immune responses.

"Our understanding of affinity maturation begins with Herman's papers," says Arup K. Chakraborty, director of MIT's Institute for Medical Engineering and Science and the Robert T. Haslam Professor in Chemical Engineering,

Physics, Chemistry, and Biological Engineering.

"Understanding this evolutionary process is critical for vaccine design, and affinity maturation is also mimicked in countless academic laboratories and companies to design antibody-based therapies."

### Joining the MIT cancer research community

In response to the signing of the National Cancer Act of 1971, MIT tasked Nobel Prize-winning biology professor Salvador Luria with establishing and leading a new MIT Center for Cancer Research. Wanting to include cancer immunology as a focus of this new center, Luria approached Eisen about joining as a founding faculty member. Eisen accepted the role, and arrived at MIT in 1973 as a professor in the Department of Biology.

Eisen brought his immunology expertise to MIT's new cancer center to study how cancer cells evade the body's natural immune response. Much of his work focused on studying myeloma tumors in mice and screening their associated proteins. He found that if he used myeloma proteins from one mouse to immunize other mice from the same strain, they were resistant when challenged with cancer cells.

Eisen and his laboratory went on to study how CD8 T cells develop into cytotoxic, or "killer," T cells and long-lived memory T cells. Therapeutic vaccines that exploit CD8 responses have not yet been developed for human populations; existing immunotherapies rely on helper T cells and other immune cells, and they do not mount the same aggressive offense against targets. Eisen was working to understand and overcome the barriers to creating effective CD8 vaccines, and his research on the subject was of particular importance to the advancement of cancer immunology. As part of this research, Eisen collaborated closely with Koch Institute faculty members Jianzhu Chen and Richard Young, who is also a member of the Whitehead Institute.

"Herman's lifelong pursuit of science, even to the very last day of his life, has been an inspiration to many of us," says Chen, the Ivan R. Cottrell Professor of Immunology. "He was a great human being with a great attitude and a clear mind. He will be missed greatly."

As a fixture of MIT's cancer research community since its formal inception, Eisen could, in recent years, often be found in his second-floor Koch Institute office consulting with students and younger investigators.

“Herman was a true treasure: an inspiring colleague, a caring mentor, and a wonderful human being,” says Tyler Jacks, director of the Koch Institute and the David H. Koch Professor of Biology. “We all aspire to be Herman Eisen.”

Other colleagues remember Eisen not only as a groundbreaking immunologist but also as a hardworking collaborator and a generous man of integrity. He continued to be an active scientist and had been working with Chakraborty on a paper until his passing.

“Herman was a giant in the field of immunology, with many seminal discoveries,” Chakraborty says. “He was also the kindest and most generous and moral person I have known. Until the end, he was working on scientific problems with junior colleagues and students who benefited from his wisdom. I am lucky to have worked with this great scientist and wonderful human being.”

“Herman was a wonderful colleague and a terrific person with the highest integrity — a true mensch,” adds Alan Grossman, the Praecis Professor of Biology and head of MIT’s biology department. “We will miss his wisdom, thoughtfulness, and vitality.”

Eisen was elected to the American Academy of Arts and Sciences in 1965, the National Academy of Sciences in 1969, and the Institute of Medicine of the National Academies in 1974. He received numerous other awards and honors throughout his career, including the Behring-Heidelberger Award from The American Association of Immunologists, an Outstanding Investigator Award from the National Cancer Institute, and the Lifetime Service Award from The American Association of Immunologists, of which he served as president from 1968 to 1969.

Eisen is survived by his wife Natalie; their children, Ellen, Jane, Jim, Tom, and Matthew; and 12 grandchildren.

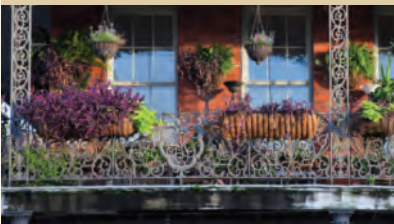
*Memorial donations may be made to the Marine Biological Laboratory (connect.mbl.edu/donate) in Woods Hole, Massachusetts.*

*See also: Michael C. Purdy, “Obituary: Herman Eisen, 96, former head of molecular microbiology,” Newsroom, November 13, 2014, Washington University in St. Louis, <https://news.wustl.edu/news/Pages/27687.aspx>*

## Future AAI Annual Meetings

Mark Your Calendar for the Premier Annual Immunology Event!

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New Orleans, Louisiana

# 2016



IMMUNOLOGY 2016™  
May 13–17  
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# 2017



IMMUNOLOGY 2017™  
May 12–16  
Washington, D.C.

## Stephen L. Kaattari, Ph.D., AAI '88

(1951–2014)

AAI member Stephen Kaattari, Ph.D., a professor in the Department of Environmental and Aquatic Animal Health at the College of William & Mary's Virginia Institute of Marine Science (VIMS), died on November 11, 2014, at the age of 63.

Before his January 2014 retirement, Dr. Kaattari and his laboratory colleagues explored the basic molecular, cellular, and immunochemical aspects of teleost immune system function. Their insights were applied to the understanding of disease resistance and pathogenesis, as well as the development of immunodiagnosics and vaccines for aquaculture. An additional, more recent line of inquiry focused on the development of monoclonal antibody probes for incorporation into real-time sensor platforms to monitor the presence and flux of pollutants, toxins, and pathogens within the estuarine environment.

Prior to his two decades on the William & Mary faculty, Kaattari served as a professor of microbiology at Oregon State University. He received his B.S. and Ph.D. degrees from the University of California, Davis, and completed his postdoctoral training at Oregon State. His career honors and appointments included the Special Achievement Award of the American Fisheries Society and the James and Mildred Oldfield Team Award, Oregon State University; editorial board/reviewer service for *Fish and Shellfish Immunology and Diseases of Aquatic Organisms*; and interdisciplinary collaborations with the National Fish Health Research Laboratory (U.S. Geological Survey), the National Center for Cool and Coldwater Aquaculture (USDA), and the schools of veterinary medicine at the University of Georgia and Michigan State University. In addition to AAI, Kaattari was a member of the American Society for Microbiology and the International Society for Development and Comparative Immunology.

AAI extends condolences to Dr. Kaattari's family, friends and colleagues. The following remembrance appears courtesy of VIMS.

### Tribute to Professor Stephen Kaattari

by VIMS Staff, November 12, 2014

Dr. Stephen L. Kaattari, CSX Professor of Marine Science, Emeritus at the Virginia Institute of Marine Science, passed away on November 11, 2014.

Steve joined the William & Mary faculty in 1993 and had



Stephen Kaattari

retired in January 2014. He served as Chair of the Department of Environmental and Aquatic Animal Health (currently Aquatic Health Sciences) from 2002 to 2004. Prior to joining VIMS, Steve was a professor of microbiology at Oregon State University, where he served on the faculty for 10 years.

Steve was a highly respected and internationally recognized researcher, as well as an extraordinary teacher and mentor. His research program melded basic research in immunology with applied goals to provide innovative and practical new tools for the scientific community and the public. His research has provided new understanding of

basic immune functions and has produced vaccines for use in aquaculture. His more recent work included development of real-time sensor platforms that are now being used to analyze pollutants in Chesapeake Bay. Products from his research have resulted in new patents in the United States and Britain and have led to new areas of research that continue today. Steve advised 20 graduate students, 11 postdoctoral trainees, numerous undergraduates, and served on more than 75 graduate-student committees.

During Steve's tenure at VIMS, he secured more than \$8 million in competitive extramural grants and contracts to support his research program. He authored or co-authored more than 90 technical articles and books, and reviewed more than 350 proposals and over 400 manuscripts for the scientific community. He also served on numerous advisory committees for professional societies. In 2004, Steve was awarded a special achievement award by the American Fisheries Society.

Most recently, Steve chaired the faculty search committee that ultimately led to two new outstanding hires at VIMS. He was very dedicated to serving the Institute and was excited to play a part in rebuilding the VIMS faculty following several recent retirements.

In a letter to the VIMS community, Dean and Director John Wells wrote "I and the entire VIMS community will miss Steve tremendously, but he will not be forgotten, as his legacy will live on at VIMS. My deepest sympathies go out to his wife, Ilsa, and their family."

A memorial and celebration of life for Dr. Kaattari was held Monday, December 8, 2014, at the William & Mary Alumni House. Donations may be made to the Williamsburg Heritage Humane Society, Habitat for Humanity, or the American Heart Association.

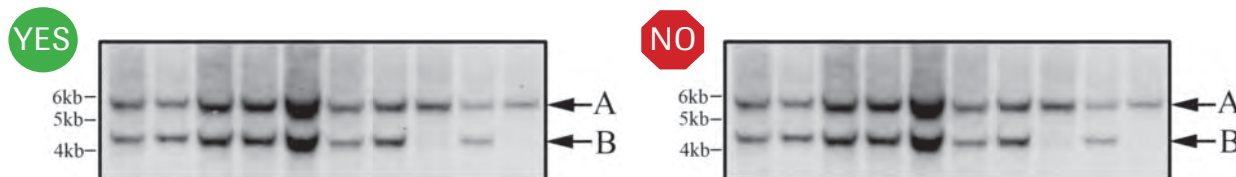


# Digital Image Dos and Don'ts

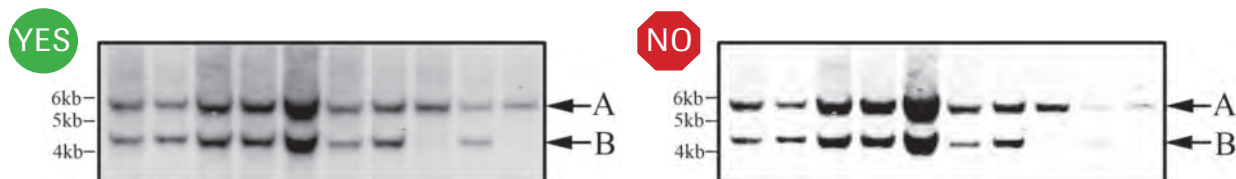


Before preparing manuscript figures, please read the Information for Authors at <http://www.jimmunol.org/site/misc/authorinstructions.xhtml#mspreparation>

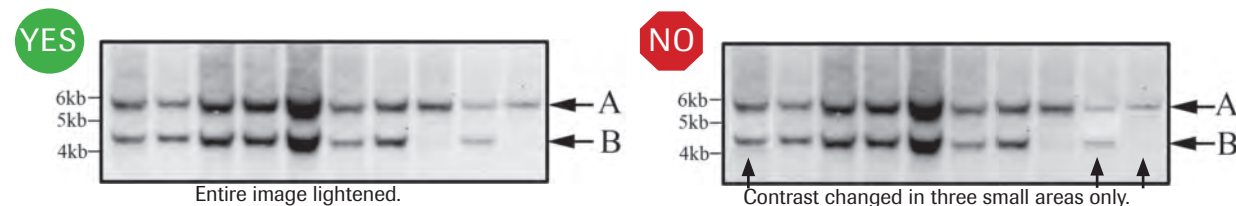
## 1. Do not erase any part of the image, including the background.



## 2. Do not use excessive contrast that removes background.

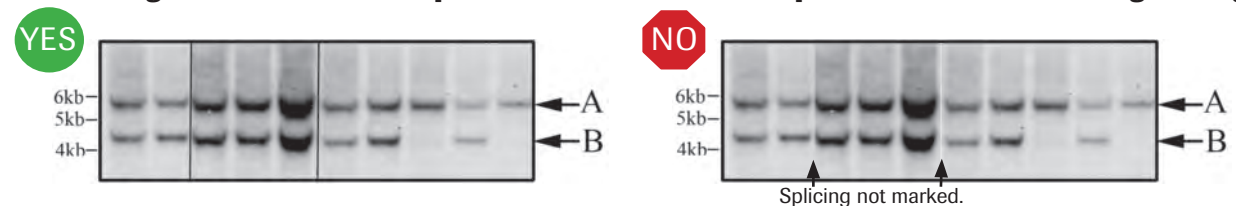


## 3. Make any adjustments to brightness or contrast equally across the entire image.

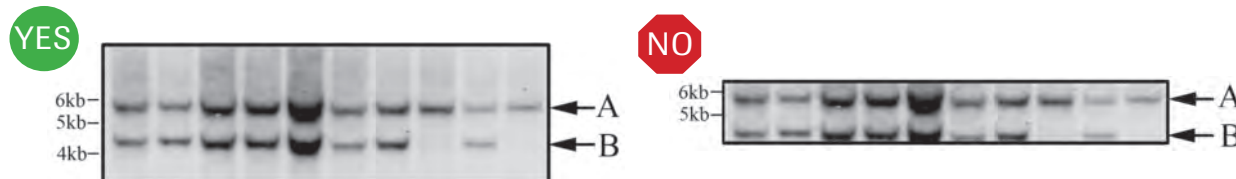


## 4. Indicate any splicing of data from a single experiment by contrasting (black or white) lines; state the manipulation in the legend.

Images from different experiments should not be spliced to form a new single image.



## 5. Crop gels and blots conservatively, retaining important bands.



- All images submitted to *The Journal of Immunology* must accurately represent the original data.
- Original data (digital files, autoradiographs, films, etc.) for all experiments should be fully annotated, secured, and retrievable for up to 10 years.
- The original image file (raw data file) should be kept in an unprocessed and non-compressed file format.
- Figures that are compiled into multi-figure panels should be kept individually.

# AAI Outreach Program

The AAI Outreach Program, now in its fourth year, contributes to the career development of young scientists by offering awards for trainees and young principal investigators at eligible, member-organized conferences across the United States. This past fall, AAI sponsored oral and poster presentation awards at four immunology meetings: Colorado Immunology Conference, Northern Immunological Mountain Society Annual Meeting, La Jolla Immunology Conference, and New York Immunology Conference.

## Colorado Immunology Conference (CIC)

The 2014 CIC took place September 10–12 at the Beaver Run Resort and Conference Center in Breckenridge, Colorado. The conference, organized, in part, by Laurel Lenz (AAI '05), drew 167 attendees and covered a diverse array of topics, from gut microbiota to alphaviruses. AAI sponsored the Pixie Campbell Memorial Keynote Address, delivered by Diane Griffin (AAI '75), who spoke on “Viral disease and the immune response.”

In addition, AAI provided funding for eight Young Investigator Awards at the CIC. Four oral presentation awards were given to Kira Rubtsova (National Jewish Health), Rochelle Hinman (University of Colorado), Seth Welsh (National Jewish Health and University of Colorado), and Robin Lindsay (National Jewish Health and University of Colorado). Recipients of the four poster presentation awards that were also given were Sarah Clark, Daniel McDermott, and Janie Akerlund (University of Colorado) and Mira Estin (National Jewish Health and University of Colorado).



Left: Diane Griffin delivering the Pixie Campbell Memorial Keynote Address at the CIC



Above: AAI Young Investigator awardee Mira Estin at the CIC



Left: AAI Young Investigator awardee Robin Lindsay (right) discussing his work with another conference attendee

## Northern Immunological Mountain Society Annual Meeting (NIMS)

Fifty-three scientists traveled to Bolton Valley, Vermont, to attend the NIMS, held September 12–14. The meeting, organized by Karen Fortner (AAI '07), Mercedes Rincon (AAI '03), and Ralph Budd (AAI '90), focused on providing trainees with opportunities to present their work orally. The program featured creatively titled sessions, including “Death by sugar; surviving off the fat,” which highlighted the relationship between metabolism and immunity, and “Bugs I: the little guys,” which focused on viral immunity. Stephen Hedrick (AAI '81) delivered the keynote address, entitled “Immune Memory: A Human Construct with an Ancient Biological Past.”



NIMS trainee attendees posing between scientific sessions

AAI sponsored registration for 23 graduate students and postdoctoral fellows at the NIMS. The recipients were Matthew Alexander, Megan O'Connor, Jessica Rastad, and Iviana Torres (Dartmouth Medical College); Kelly Hawley, Ishita Banerjee, Sara Colpitts, Juliette Mouries, Sara Paveglio, Oriana Perez, Pablo Romagnoli, and Sierra

Root (University of Connecticut); Bianca Bautista and Allen Vong (University of Massachusetts); Delphine Planas and T  vy-Suzy Tep (Universit   de Montr  al-CRCHUM); and Edward Burgess, Victoria DeVault, Dimitry Kremmentsov, Michael Secinaro, Tina Thornton, Phyu Thwe, and Rui Yang (University of Vermont).

## La Jolla Immunology Conference (LJIC)

The Salk Institute hosted 375 attendees for the LJIC, which took place September 30–October 2 in La Jolla, California. The meeting was organized, in part, by Klaus Ley (AAI '00), Ananda Goldrath (AAI '05), and Catherine Hedrick (AAI '10) and included sessions ranging from lymphocyte development to host-pathogen interactions. Jason Cyster (AAI '97) delivered the keynote address, speaking on “Deciphering the guidance cue code for B cell immunity.”

AAI sponsored 10 Young Investigator Awards at the LJIC—five oral and five poster presentations. The oral presentation awardees were Anthony Phan and Claudia Bossen (University of California, San Diego), Sara McArdle and Shilpi Verma (La Jolla Institute for Allergy and Immunology), and Shivashankar Othy (University of California, Irvine). The poster presentation awards were given to Tyler Landtrith (University of California, Riverside), Laura Shaw (University of California, San Diego), Tobias Dong (University of California, Irvine), Florent Carrette (Sanford Burnham Research Institute), and Darina Spasova (La Jolla Institute for Allergy and Immunology).



Left: (l-r) LJIC organizers Ananda Goldrath, Klaus Ley, and Catherine Hedrick with Bj  rn Lillemeier



AAI President Linda Sherman (far right) posing with LJIC AAI Young Investigator awardees and conference organizers Klaus Ley (second from right), Ananda Goldrath (front row, far left), and Catherine Hedrick (back row, second from left)

## New York Immunology Conference (NYIC)

Over 100 scientists attended the NYIC, held October 19–22 at the Sagamore Resort and Conference Center in Bolton Landing, New York. James Drake (AAI '01) and Katherine Macnamara (AAI '11) organized the proceedings, which highlighted keynote lectures by Arturo Casadevall (AAI '98) and Michael Cancro (AAI '79) and featured oral presentations by trainee scientists.

The organizing committee selected 10 trainees to receive AAI Young Investigator Awards and present oral abstracts during the conference sessions. The awardees were Jocelyn Wang, Erika Gruber, and Norah Smith (Cornell University); Megan O'Connor (Dartmouth University); Jie Yang and Kristin Fino (Pennsylvania State University); Adam Utley (Roswell Park Cancer Institute); Cody Spencer (Trudeau Institute); and Lisbeth Boule and Aditi Murthy (University of Rochester).



NYIC AAI Young Investigator awardees pausing for a photo break during the busy conference schedule

# The AAI Grant Review for Immunologists Program Invites New Participants as It Marks a Major Milestone

For more than one decade, the AAI Grant Review for Immunologists Program (GRIP) has offered young principal investigators (PIs) the opportunity to consult established scientists for advice on how to write an effective grant proposal. The program was launched and sustained under the skillful direction of Andy Hurwitz (AAI '99) from its inception in 2002 until this fall when Steve Varga (AAI '03) assumed the post of program coordinator.

The program coordinator, together with a cadre of senior PIs, matches early career PIs with mentors in their area of expertise who can offer guidance on grant-writing skills and navigation of the NIH review process.

Impetus for founding the program, according to Hurwitz, was the fact that some investigators do not receive adequate training in grant writing during their predoctoral and postdoctoral training experiences, leaving many ill-equipped to write a compelling grant proposal as they begin their faculty careers. Over the years, GRIP mentors have addressed a range of “grantsmanship” issues, including some as basic as identifying an appropriate strategy for responding to reviewer critiques in a resubmitted grant application or the importance of adapting one’s writing style for the NIH grant application. “Young PIs often don’t understand that a grant application is different from the other forms of writing that scientists do—papers and reviews. The grant application is an advertisement. You’re trying to sell your project to reviewers,” says Suzanne Ostrand-Rosenberg (AAI '79). “Young PIs tend to think that by throwing their science up for all to see, the reviewers will just appreciate it and fund the proposal, but that’s not how it works. A grant has to be properly packaged and presented to grab the attention of the reviewer.”

Another GRIP advisor, Joan Goverman (AAI '95), agrees that presentation and packaging skills are areas that the GRIP volunteers frequently address. “You bring your idea and you bring your proposal of how to accomplish that idea. You need to concisely state those things along with clear specific aims in the first page, or you’ll lose the reader and your grant is unlikely to be funded,” she cautions.

Past GRIP participants attest to the benefits of the program, noting how their grant-writing skills evolved during the GRIP process. “It was an eye-opening



Andy Hurwitz



Steve Varga

experience,” remarked Annette Khaled (AAI '03). “My mentor emphasized the importance of writing your specific aims page first and told me if I could get this one component right, the rest of the grant would flow out organically from there. I had never thought of grants that way before. We spent two to three weeks conversing only about this page. Learning that single point from him was sufficient to change the way I write grants and has been instrumental to my success in obtaining funding.” Jim Song (AAI '03) noted that his mentor gave him very detailed feedback that helped him receive a better score upon resubmission, saying, “I was having problems with describing an approach in one of my specific aims, so my mentor provided me with suggestions for improving this section. When I resubmitted the grant, it received a better score than it had previously.”

Scott Abrams (AAI '96) was adamant in his belief that mentorship from an established investigator was critical to writing an effective grant application, saying, “There are aspects of grantsmanship—intangibles—that can only be learned by communicating with a scientist who has ample experience with the study section review process and has successfully and regularly obtained funding. My mentor offered me insight into the best way to illustrate my ideas, which is something you may not think about prior to going through the experience.”

GRIP mentees may reap additional benefits beyond the development of grantsmanship skills. Ostrand-Rosenberg elaborates, stating, “A GRIP mentor can be an avenue that connects junior investigators with other senior investigators in their field of expertise. It improves the exposure of the junior person and facilitates networking.” Goverman cites additional benefits, saying, “It’s possible that reagents might be exchanged in the future or new collaborations could develop. The program has the potential to open a lot of doors for a young investigator.”

## The GRIP Process

Early career PIs wishing to be matched with a GRIP mentor may submit their CVs along with the specific-aims page of their R01 or R15 grant proposal. The applications are screened by GRIP Coordinator Steve Varga and referred to the GRIP volunteers to be matched with an expert in the applicant’s area of expertise.

Applicants should apply at least eight weeks ahead of the grant deadline to allow ample time for the match process and for mentors to review the grants. Varga emphasized the importance of submitting proposals to GRIP well ahead of the NIH grant deadline, stating, "Not only does it allow time for the mentor to review the grant, but it allows time for the applicant to take those critiques and revise the application...and maybe go through a second round with the mentor. That [the second round] is where the learning process occurs and where the value of the program really lies."

The mentor and mentee interact via email and/or phone to discuss the grant proposal. Advisors usually spend between 8 and 16 total hours reviewing each mentee's grant proposal, but some mentors reported spending several months interacting with their mentees and reviewing up to four iterations of the grant.

Varga is eager to raise awareness of the program and ensure its continued success, saying, "My main goal is to improve the visibility of the program and make sure AAI members, particularly new investigators, are aware of the opportunities GRIP presents. It's a great program that has the potential to provide grant review support to members who may not have mentorship within their specialty at their own institutions."

## New Applicants and Advisors Welcome

AAI invites both prospective GRIP mentees and mentors to inquire about GRIP at [infoaai@aai.org](mailto:infoaai@aai.org).

Early career PIs interested in participating in GRIP may submit their CVs and the specific-aims page of their grant proposals to the above email address, referencing "GRIP" in the email subject line.

Senior investigators wishing to be considered as potential advisors for the program should email their CVs and an outline of their grant-reviewing experience also to [infoaai@aai.org](mailto:infoaai@aai.org), again referring to GRIP in the subject line.

For more information about GRIP, please visit [aai.org/Education/GRIP](http://aai.org/Education/GRIP).

AAI gratefully acknowledges the service of the AAI GRIP Subcommittee.

Steven Varga, Chair  
*University of Iowa*

Rachel Gerstein  
*University of  
Massachusetts Medical  
School*

Laurence Morel  
*University of Florida*

John Schreiber  
*Tufts Medical Center*

James Sheil  
*West Virginia University  
School of Medicine*

Laurie Harrington  
*University of Alabama at  
Birmingham*

Andy Hurwitz  
*National Cancer Institute*

# GRIP

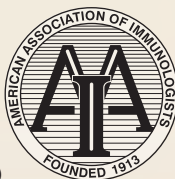
## Grant Review for Immunologists Program

Get a GRIP: An AAI program designed to help new investigators prepare their NIH grant proposals

The AAI Grant Review for Immunologists Program (GRIP) offers new principal investigators (PIs) access to established PIs for guidance in preparing grant proposals as they embark on their independent careers. Early-career PIs (assistant professors or equivalents) are invited to submit their grants' "Specific Aims" pages to the GRIP coordinator who, with the assistance of a small volunteer subcommittee, will attempt to match each topic of the proposal with the research experience of an established PI. Matches will be made as quickly as possible to allow participants to meet upcoming NIH grant deadlines. Participation is open only to AAI regular members and is strictly voluntary. The program is not intended to supplant internal mentoring programs at applicants' institutions.

**To apply, please send your CV and the grant's "Specific Aims" page to [infoaai@aai.org](mailto:infoaai@aai.org). (please write "GRIP" in the subject line)**

**To volunteer as a mentor, please send your CV and a brief description of your grant-reviewing experience to [infoaai@aai.org](mailto:infoaai@aai.org). (subject line "GRIP")**



Program details at [aai.org/Education/GRIP](http://aai.org/Education/GRIP)

# High School Teachers in AAI Summer Research Program Present Model Curricula at NABT Conference



Director Clinton Mathias (left) and Educational Consultant Megean Garvin (right) with 2014–15 AAI High School Teachers participants (l-r) Edwina Kinchington, Amy Loewen, Lori Fretta, Catherine Dollard, Beth Krauss, and John Siefert (missing: Kindra Zuberbuehler)

Participants in the 2014–15 AAI High School Teachers Summer Research Program in Immunology gathered at the National Association of Biology Teachers (NABT) Professional Development Conference, November 12–15 in Cleveland, Ohio. AAI arranged for the seven teachers to be invited there to showcase curricula that they had developed from participating in the AAI program for high school science teachers to learn how to bring immunology lessons into their classrooms.

The teachers' presentations at the NABT were an important milestone of their year in the AAI program. In the AAI program, teachers are provided four- to six-week summer research experiences in the laboratories of AAI members. Before starting in the laboratory, the teachers are given an opportunity to attend the AAI Introductory Course in Immunology, held this year in July at the Long Beach Convention Center. Following the teachers' mentored lab experiences, an educational consultant assists them with the development of innovative curricula based on their summer projects for use in their own classrooms. Finally, the teachers are given an opportunity to share their projects at a national meeting. To reach a broader audience of high school science teachers, AAI elected this year to support the AAI program's teacher participation at the NABT rather than at the AAI annual meeting. "Most often the AAI program participants have presented their posters and their talks at the AAI annual meeting, and local high school teachers and students are invited to attend. The NABT venue, however, was optimal for enabling the teachers to present their immunology classroom exercises to an audience of fellow science teachers from around the United States," said AAI Manager of Educational and Career Development Programs Mary Litzinger.

Clinton B. Mathias (AAI '10), assistant professor at Western New England University and director of the AAI High School Teachers Program, said, "It was inspiring to see the creative ways in which the teachers adapted their immunology laboratory experiences to their classrooms. We hope that this program assists high school teachers nationwide in bringing the excitement of immunology research to the classroom and helping to cultivate the next generation of investigators."

Teachers participating in the 2014–15 AAI program and the NABT session, "AAI Presents: High School Teachers Research

Program—Immunology Lessons for the Classroom," are listed with their mentors and talk titles below:

### *Control of the allergic response*

**Catherine Dollard**, Northampton High School, Northampton, Massachusetts

Mentor: **Clinton B. Mathias**, AAI '10, Western New England University

### *Chronic inflammation: causes and consequences*

**Lori Fretta**, Otter Valley Union High School, Brandon, Vermont  
Mentor: **Karen A. Fortner**, AAI '07, University of Vermont College of Medicine

### *Using immunology to understand cell growth, protein structure, and specificity*

**Edwina C. Kinchington**, Pittsburgh Public Schools, Pittsburgh, Pennsylvania

Mentor: **Christine Milcarek**, AAI '85, University of Pittsburgh School of Medicine

### *Using Lyme disease to teach immunological principles*

**Beth R. Krauss**, Manlius Pebble Hill School, DeWitt, New York  
Mentor: **Gary Winslow**, AAI '96, Upstate Medical University

### *Teaching the basics of immunology through clinical case studies and assays*

**Amy Loewen**, Hinkley High School, Aurora, Colorado  
Mentor: **Ronald J. Harbeck**, AAI '78, National Jewish Health Advanced Diagnostic Labs

### *Exploring the immune response and autoimmunity through systemic lupus erythematosus*

**John Siefert**, Conrad Weiser Area School District, Robesonia, Pennsylvania

Mentor: **Angelika Antoni**, AAI '13, Kutztown University

### *A study of light & fluorescence in the instruments of immunologists*

**Kindra M. Zuberbuehler**, Wake County Public School System, Apex, North Carolina

Mentor: **Richard Lee Reinhardt**, AAI '11, Duke University Medical Center

The session spanned many immunological topics, from allergy and inflammation to autoimmunity and instrumentation. It also spanned different presentation styles. Zuberbuehler shared her presentation via a YouTube link when inclement weather and associated delays prevented her from making the session. The session ended with Dollard's presentation, in which she recruited her fellow teachers to help with a dramatization of the immune response.

Members are urged to consider nominating a talented high school teacher for the 2015 summer program. The AAI model curricula are archived and made publicly available on the AAI website. To view their immunology lessons and learn more about this program, visit [www.aai.org/Education/Summer\\_Teachers/](http://www.aai.org/Education/Summer_Teachers/).

## SPECIAL DISCOUNTS FOR AAI MEMBER AUTHORS

### WAIVER OF MANUSCRIPT SUBMISSION FEE

Corresponding authors who are regular, associate, emeritus, or honorary AAI members in good standing on the date of manuscript submission to *The Journal of Immunology* receive a waiver of the \$50 submission fee.



### REDUCED CHARGES FOR COLOR FIGURES

Corresponding authors who are regular, associate, emeritus, or honorary AAI members in good standing on the date their manuscript is accepted for publication in *The Journal of Immunology* receive a \$300 reduction in the cost of each color figure.



For complete details on AAI membership privileges and benefits, eligibility requirements, and application forms, please visit [www.aai.org/membership](http://www.aai.org/membership), contact the AAI membership office at 301-634-7195, or email [members@aai.org](mailto:members@aai.org).

For complete details on manuscript submission to *The JI*, please visit [www.jimmunol.org](http://www.jimmunol.org), contact *The JI* office at 301-634-7197, or email [infoji@aai.org](mailto:infoji@aai.org).



# GRANT AND AWARD DEADLINES

## January 12

### AAI Travel Awards and Grants *(see also Call for 2015 Applications, p. 5)*

- **Prize/Award:** Awards in 11 categories recognizing the promise and bolstering the professional development of investigators of all career stages through support for travel to the AAI annual meeting
- **Eligibility:** Subject to limited exceptions, eligibility extends to AAI members in good standing
- **Details:** [www.aai.org/awards](http://www.aai.org/awards)
- **Contact:** AAI: (301) 634-7178; [aaiawards@aai.org](mailto:aaiawards@aai.org)

## January 28

### AAI Public Policy Fellows Program (PPFP)

- **Prize/Award:** Awards in 11 categories recognizing the promise and bolstering the professional development of investigators of all career stages through support for travel to the AAI annual meeting
- **Eligibility:** Subject to limited exceptions, eligibility extends to AAI members in good standing
- **Details:** [www.aai.org/awards](http://www.aai.org/awards)
- **Contact:** AAI: (301) 634-7178; [aaiawards@aai.org](mailto:aaiawards@aai.org)

## February 2

### Amgen Scholars (U.S. Program; Europe Program; Japan Program)

- **Prize/Award:** Support for undergraduates to participate in cutting-edge research opportunities at one of 17 leading institutions of higher learning in the United States, Europe, and Japan; scholars undertake a summer research project under top faculty, participate with peers in seminars and networking events, and take part in a regional symposium led by leading biotechnology scientists from industry and academia
- **Eligibility:** *U.S. Program*—U.S. citizens or permanent residents who are undergraduate students enrolled in accredited four-year colleges or universities in the U.S., Puerto Rico, or other U.S. territories, have a cumulative grade point average of 3.2 or above, and are interested in pursuing a Ph.D. or M.D.-Ph.D.; *Europe Program*—open to students in Europe; *Japan Program*—open to students worldwide
- **Details:** <http://amgenscholars.com/us-program>
- **Contact:** U.S. Program Office: (617) 253-2620; [amgenscholars@mit.edu](mailto:amgenscholars@mit.edu); Europe/Japan Programs: <http://amgenscholars.com/contact>

## February 2

### Lasker Awards in Basic and Clinical Medical Research

- **Prize/Award:** Separate awards each conferring an honorarium of \$250,000 in recognition of a scientist or scientists whose fundamental investigations have provided techniques, information, or concepts contributing to the elimination of major causes of disability and death (Albert Lasker Basic Medical Research Award) and improved the clinical treatment of patients (Lasker-DeBaakey Clinical Medical Research Award)
- **Eligibility:** Scientists and/or physicians who are nominated by a colleague and have made major advances in the understanding, diagnosis, treatment, cure, and prevention of human disease and/or whose work opens new areas of biomedical science
- **Details:** <http://www.laskerfoundation.org/nominate.htm>
- **Contact:** David Keegan: (212) 286-0222; [dkeegan@laskerfoundation.org](mailto:dkeegan@laskerfoundation.org)



## February 4

### American Asthma Foundation (AAF) Scholar Awards

- **Prize/Award:** Multiple awards, each of up to \$150,000 annually for two years, in support of innovative research with the potential to impact asthma, including research proposed by investigators currently working outside the asthma field; awards may be extended to a third year based on progress and potential
- **Eligibility:** Early- and mid-career investigators of any nationality and citizenship who are working in the U.S., have held their first independent faculty appointment for not more than 10 years, and have an independent research program with national-level, independent funding; the program is predicated on offering scientists the freedom to pursue new ideas without requiring preliminary data
- **Details:** <http://www.americanasthmafoundation.org/>
- **Contact:** Valerie Dougherty, Program Manager: (415) 514-0730; [vdougherty@americanasthma.org](mailto:vdougherty@americanasthma.org)

## February 10

### Young Investigator Grant for Probiotics Research

- **Prize/Award:** Three \$50,000 research grants in support of new, exploratory research on probiotics and gastrointestinal microbiota in the United States
- **Eligibility:** Young investigators committed to basic research on gastrointestinal microbiota, probiotics, and their role in health and wellness, including those who do not yet have independent funding; senior fellows with a committed faculty appointment or early faculty members within a maximum of 5 years of their first faculty appointment (must be in the United States) may apply; proposed research must be conducted at non-profit, U.S. institutions with research programs demonstrating the capacity for probiotics research
- **Details:** [www.probioticsresearch.com](http://www.probioticsresearch.com)
- **Contact:** [gpc@probioticsresearch.com](mailto:gpc@probioticsresearch.com)

## February 16

### AAI Travel for Techniques Awards

*(see also Call for Winter 2014-2015 Applications, p. 2)*

- **Prize/Award:** Up to \$1,500 in reimbursable expenses to support travel to another laboratory to learn a particular technique relevant to the applicant's research but inaccessible at local institutions
- **Eligibility:** Qualifying AAI regular and associate members in good standing seeking to expand their skills to benefit their research
- **Details:** [www.aai.org/awards](http://www.aai.org/awards)
- **Contact:** AAI: (301) 634-7178; [tft@aai.org](mailto:tft@aai.org)

## March 16

### AAI Careers in Immunology Fellowship

*(see also Call for 2015 Nominations, p. 2)*

- **Prize/Award:** Multiple awards in support of the laboratories of AAI member principal investigators (PIs), each providing one year's salary for a graduate student or postdoctoral fellow working in the PI's lab
- **Eligibility:** AAI member principal investigators with less than \$250,000 (excluding PI's salary) in annual direct costs
- **Details:** <http://www.aai.org/Awards/Fellowship.html>
- **Contact:** [fellowships@aai.org](mailto:fellowships@aai.org)



New members listed below appear in alphabetical order by state (U.S.) and country (International).

## AAI Welcomes New Members (2014)

AAI is very pleased to welcome all new members for the 2014 membership year.

Listed below are the 465 new regular and associate members who were added in 2014. Also added in 2014 were 839 new trainee members. To view the list online, go to: [www.aai.org/Membership/newmemberlist.pdf](http://www.aai.org/Membership/newmemberlist.pdf).

*Please personally welcome the new members you know and make a point of introducing yourself to those near you whom you haven't met.*

### REGULAR

#### United States

##### Alabama

Tara M. DeSilva, Ph.D.  
Birmingham, AL

Srilalitha Kuruganti, Ph.D.  
Birmingham, AL

Qiana Latrese Matthews, Ph.D.  
Birmingham, AL

Mark R. Walter, Ph.D.  
Birmingham, AL

##### Alaska

Brenna Simons, Ph.D.  
Anchorage, AK

##### Arizona

Dominik Schenten, Ph.D.  
Pine Bluff, AR

##### Arkansas

A. Selma Dagtas, M.D., Ph.D.  
Pine Bluff, AR

V. Laxmi Yeruva, Ph.D.  
Little Rock, AR

##### California

Iannis Adamopoulos, Ph.D.  
Sacramento, CA

Marion S. Buckwalter, M.D., Ph.D.  
Stanford, CA

Swey-Shen Alex Chen, D.Sc.  
San Diego, CA

Thomas C. Chen, M.D.  
La Canada, CA

Troy D. Cline, Ph.D.  
Chico, CA

Isaac Engel, Ph.D.  
La Jolla, CA

Aaron Palmer Esser-Kahn, Ph.D.  
Irvine, CA

Donald Forthal, M.D.  
Irvine, CA

Wenxian Fu, Ph.D.  
La Jolla, CA

Amanda L. Gavin, Ph.D.  
La Jolla, CA

Andrew Whitman Goodyear, Ph.D.  
San Bruno, CA

Iris K. Gratz, Ph.D.  
San Francisco, CA

Bethany Michele Henrick, Ph.D.  
Elk Grove, CA

Zhongdong John Huang, Ph.D.  
San Diego, CA

Charles D. Kaplan, Ph.D.  
South San Francisco, CA

Elad H. Kaufman, Ph.D.  
South San Francisco, CA

Suneil K. Koliwad, M.D., Ph.D.  
San Francisco, CA

Richard S. Kornbluth, M.D., Ph.D.  
La Jolla, CA

Cecilia S. Lindestam Arlehamn, Ph.D.  
La Jolla, CA

Andrea I. Loewendorf-Snead, Ph.D.  
Los Angeles, CA

Gerrit Los, Ph.D.  
South San Francisco, CA

Henriette Macmillan, Ph.D.  
San Francisco, CA

Rajkumar Noubade, Ph.D.  
San Carlos, CA

Pedro E. Paz, Ph.D.  
San Francisco, CA

Mepur H. Ravindranath, Ph.D.  
Los Angeles, CA

William H. Robinson, M.D., Ph.D.  
Stanford, CA

Nisebita Sahu, Ph.D.  
South San Francisco, CA

William Schief, Ph.D.  
La Jolla, CA

John R. Sedy, Ph.D.  
La Jolla, CA

Iftach Shaked, Ph.D.  
La Jolla, CA

Srividya Swaminathan, Ph.D.  
San Francisco, CA

Jonathan Tam, M.D.  
Los Angeles, CA

Xiaolei Tang, M.D., Ph.D.  
Loma Linda, CA

Isela C. Valera, Ph.D.  
Los Angeles, CA

H. Christian von Bädigen, M.D.  
San Francisco, CA

Zhong Wang, Ph.D.  
Foster City, CA

Daniela Weiskopf, Ph.D.  
La Jolla, CA

Ian A. Wilson, D.Sc., Ph.D.  
La Jolla, CA

Changchun Xiao, Ph.D.  
La Jolla, CA

Alice L. Yu, M.D., Ph.D.  
San Diego, CA

Isharat Yusuf, Ph.D.  
San Diego, CA

Traci Zell, Ph.D.  
San Diego, CA

##### Colorado

Rachel Sharon Friedman, Ph.D.  
Denver, CO

Bridget Gordon, Ph.D.  
Boulder, CO

Chunjian Huang, Ph.D.  
Denver, CO

Claudia Jakubzick, Ph.D.  
Denver, CO

Stephanie James, Ph.D.  
Denver, CO

Edward N. Janoff, M.D.  
Aurora, CO

Eoin N. McNamee, Ph.D.  
Aurora, CO

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New Haven, CT

Martin A. Kriegel, M.D., Ph.D.  
New Haven, CT

Thomas D. Manes, Ph.D.  
New Haven, CT

Adam Matson, M.D.  
Farmington, CT

Vijay Rathinam, D.V.M., Ph.D.  
Farmington, CT

Lauren H. Sansing, M.D.  
Farmington, CT

Brian S. Sheridan, Ph.D.  
Farmington, CT

Yun-Hee Youm, Ph.D.  
New Haven, CT

##### Florida

Marisela D. Agudelo, Ph.D.  
Miami, FL

Alexey Y. Berezhnoy, D.V.M., Ph.D.  
Miami, FL

Larry J. Dishaw, Ph.D.  
St. Petersburg, FL

Shuhong Han, Ph.D.  
Gainesville, FL

Gustavo J. Martinez, Ph.D.  
Jupiter, FL

Corwin D. Nelson, Ph.D.  
Gainesville, FL

Jennifer L. Owen, D.V.M., Ph.D.  
Ocala, FL

Richard Louis Riley, Ph.D.  
Davie, FL

Mark S. Sundrud, Ph.D.  
Jupiter, FL

##### Georgia

Jianxu Li, Ph.D.  
Decatur, GA

Feng Liu, M.D., Ph.D.  
Atlanta, GA

Santhakumar Manicassamy, Ph.D.  
Augusta, GA

Mirko Paiardini, Ph.D.  
Atlanta, GA

Lisa M. Shollenberger, Ph.D.  
Atlanta, GA

##### Iowa

Abigail L. Henderson, Ph.D.  
Ankeny, IA

Holly R. Hughes, Ph.D.  
Ames, IA

Scott M. Lieberman, M.D., Ph.D.  
Iowa City, IA

William M. Nauseef, M.D.  
Coralville, IA

Yatin M. Vyas, M.D.  
Iowa City, IA

##### Illinois

John Patrick Galvin, Jr., M.D., M.P.H.  
Chicago, IL

Justin Kline, M.D.  
Chicago, IL

Joseph Ross Leventhal, M.D., Ph.D.  
Chicago, IL

Salvador Nares, D.D.S., Ph.D.  
Chicago, IL

David Perkins, M.D., Ph.D.  
Chicago, IL

**Melody A. Swartz, Ph.D.**  
Chicago, IL

**Julie A. Swartzendruber, Ph.D.**  
Chicago, IL

**Edward B. Thorp, Ph.D.**  
Chicago, IL

**Carl Waltenbaugh, Ph.D.**  
Chicago, IL

**Andrew Zloza, M.D., Ph.D.**  
Chicago, IL

## Indiana

**Keke C. Fairfax, Ph.D.**  
West Lafayette, IN

**Samantha Nichole Oliphant, Ph.D.**  
Indianapolis, IN

## Kansas

**Yongming Sang, Ph.D., Sc.D.**  
Manhattan, KS

## Louisiana

**Jacob P. Bitoun, Ph.D.**  
New Orleans, LA

**Samuel J. Landry, Ph.D.**  
New Orleans, LA

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# Meetings and Events Calendar

Mark Your Calendar for These Important Dates!

## 2015

### January 24–27, 2015

**54th Midwinter Conference of Immunologists at Asilomar**  
Asilomar Conference Grounds,  
Pacific Grove (near Monterey), CA  
midwconfimmunol.org

### February 11–15, 2015

**2015 BMT Tandem Meeting**  
San Diego, CA  
cibmtr.org/Meetings/Tandem/index.html

### March 28–April 1, 2015

**Experimental Biology (EB) (APS, ASPET, ASIP, ASN, AAA, ASBMB)**  
Boston, MA  
Contact: eb@faseb.org

### May 8–12, 2015

**IMMUNOLOGY 2015™ AAI Annual Meeting**  
Ernest N. Morial Convention Center  
New Orleans, LA  
immunology2015.org

### June 14–19, 2015

**First International Convention: IMMUNOPHARMACOLOGY - VACCIPHARMA 2015**  
Melia Marina Varadero  
Varadero Beach, Cuba  
scf.sld.cu

### July 10–12, 2015

**LACA 2015, 5th Latin American Congress on Autoimmunity**  
Salvador, Bahia, Brazil  
http://laca.kenes.com/

### July 11–15, 2015

**American Society for Virology 34th Annual Scientific Meeting**  
University of Western Ontario, London, Ontario, Canada  
www.asv.org/

### July 14–19, 2015

**AAI Introductory Course in Immunology**  
Long Beach Convention Center  
Long Beach, CA  
aai.org/Education/Courses/Intro/index.htm

### August 2–7, 2015

**AAI Advanced Course in Immunology**  
Seaport World Trade Center  
Boston, MA  
aai.org/Education/Courses/Advanced/index.html

### September 6–9, 2015

**ECI 2015: 4th European Congress of Immunology**  
Vienna, Austria  
eci-vienna2015.org

### September 27–29, 2015

**48th Annual Meeting of the Society for Leukocyte Biology, "Immunity in Health and Disease"**  
Raleigh, NC  
http://leukocytebiology.org/Meetings/Upcoming-SLB-Meetings.aspx

### October 6–9, 2015

**Influenza Vaccines for the World IVW 2015**  
Albufeira, Portugal  
meetingsmanagement.cmail2.com/t/d-l-vpity-vckugr-t

### October 9–12, 2015

**ASBMR 37th Annual Meeting**  
Seattle, WA  
asbmr.org

### October 11–14, 2015

**Cytokines2015**  
Bamberg, Germany  
www.cytokines2015.com

### November 5–8, 2015

**14th International Workshop on Langerhans Cells**  
Kyoto, Japan  
lc2015.jp

## 2016

### February 18–22, 2016

**2016 BMT Tandem Meeting**  
Honolulu, HI  
cibmtr.org/Meetings/Tandem/index.html

### May 13–17, 2016

**IMMUNOLOGY 2016™ AAI Annual Meeting**  
Washington State Convention Center  
Seattle, WA  
aai.org/Meetings/Future\_Meeting.html

### August 21–26, 2016

**ICI 2016: International Congress of Immunology 2016**  
Melbourne, Australia  
ici2016.org

## 2017

### May 12–16, 2017

**IMMUNOLOGY 2017™ AAI Annual Meeting**  
Walter E. Washington Convention Center  
Washington, D.C.  
aai.org/Meetings/Future\_Meeting.html

Track updated meeting listings anytime via the online Meetings and Events Calendar – visit <http://www.aai.org/Careers/Calendar/index.html>.



# IMMUNOLOGY 2015™

SAVE THE DATE

MAY 8-12, 2015 ERNEST N. MORIAL CONVENTION CENTER NEW ORLEANS, LA



[IMMUNOLOGY2015.org](http://IMMUNOLOGY2015.org)

# AAI Invites Additions to List of Women Speakers

**The AAI Committee on the Status of Women (CSOW)** has revamped the format of the *List of Potential Speakers and Chairs*. (See the November/December 2013 *AAI Newsletter*, page 39.) The committee also announced a new process for individuals to have their names added to the list. The changes are intended to broaden the range of areas of expertise of AAI members and to make the list more accessible and accurate as a resource for enhancing opportunities for women as speakers or chairs at professional meetings.

Listings were originally limited to women serving as heads of immunological research labs, but the CSOW Speaker List is now open to women AAI members fulfilling leadership roles in non-research careers as well.



In addition to representing a broader range of leadership roles occupied by women, the list will be more accessible and more easily maintained. Individuals listed will be able to maintain their own entries as each now links to the individual's Web page.

Viewers can determine how well the profile matches their need for a woman immunologist in a particular leadership role.

Women currently listed must supply their URLs to remain on the list. To be added to the list, contact Mary Bradshaw, AAI staff liaison for the CSOW (mbradshaw@aai.org).