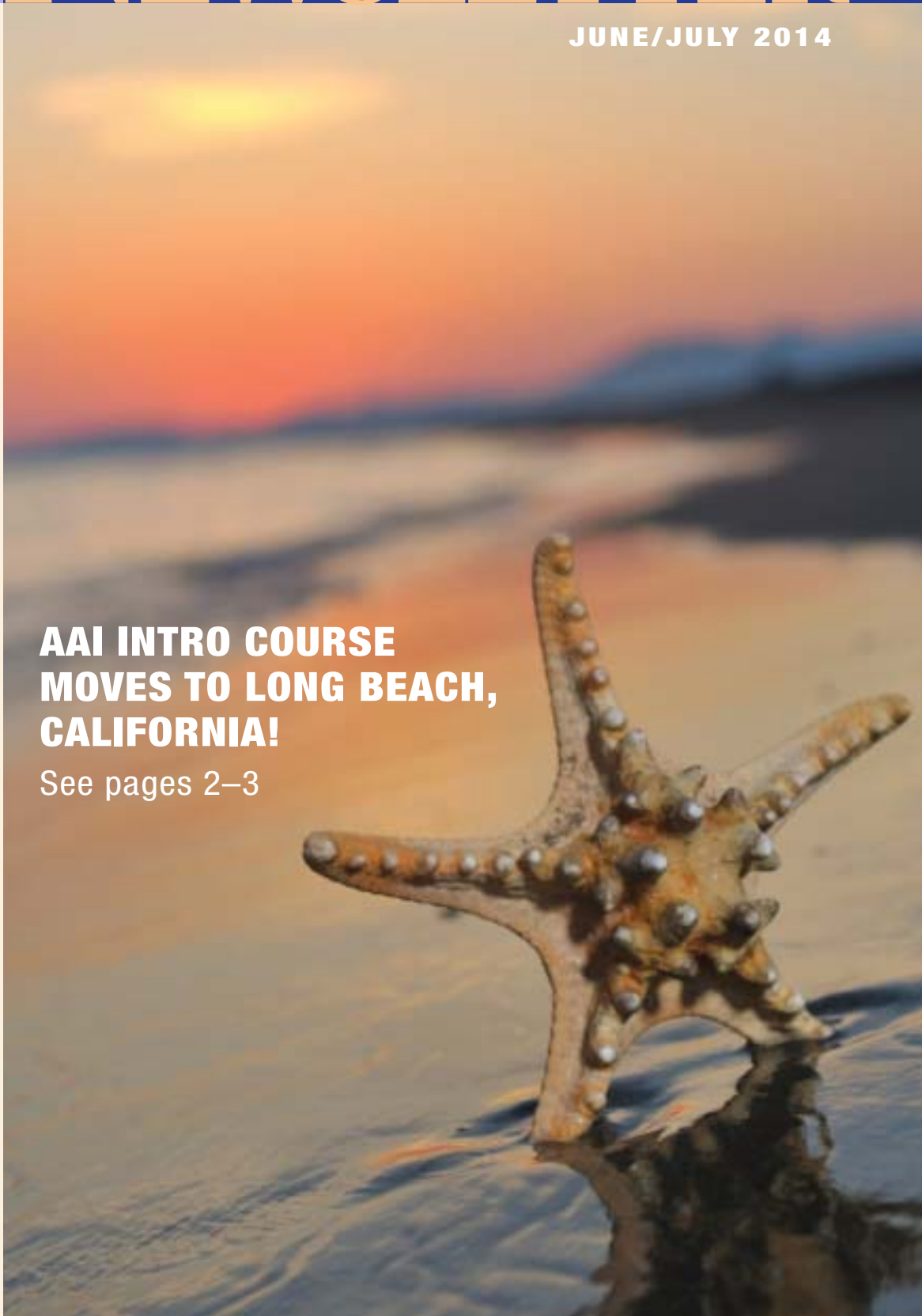
AAI
The American Association of Immunologists
NEWSLETTER
JUNE/JULY 2014

In This Issue…



AAI INTRO COURSE MOVES TO LONG BEACH, CALIFORNIA!

See pages 2–3

We're Moving...

The AAI Introductory Course in Immunology

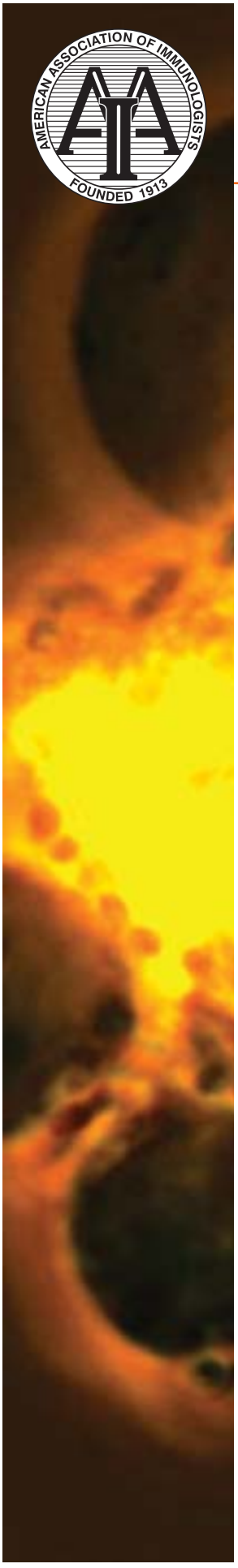
Will be held in beautiful

Long Beach, California

July 12–17, 2014

Long Beach Convention Center

Visit **aai.org/Education/Courses/intro**



2014 Introductory Course in Immunology

July 12–17, 2014 • Long Beach Convention Center, Long Beach, California

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

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

This intensive two-part course, taught by world-renowned immunologists, provides a comprehensive overview of the basics of immunology. This course is for students new to the discipline or those seeking more information to complement general biology or science training. **Part I (July 12–14)** is a detailed introduction to the basic principles of immunology and is suitable for students with a general biology background. **Part II (July 15–17)** is a clinically oriented lecture series focusing on specialty areas.

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

Faculty

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

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

Andrea J. Tenner, *University of California, Irvine*
Complement

Gregory M. Barton, *University of California, Berkeley*
Innate Immunity: Introduction to Pattern Recognition and Intracellular Signaling

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

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

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

Edward M. Behrens, *Children's Hospital of Philadelphia*
Dendritic Cells: The Bridge Between Innate and Adaptive Immunity

Michael G. McHeyzer-Williams, *The Scripps Research Institute*
Effector T Cell Differentiation and Response

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

Arthur Weiss, *University of California, San Francisco*
Signaling in the Immune System

Alessandro Sette, *La Jolla Institute for Allergy and Immunology*
Putting the Pieces Back Together: Epitopes, Cell Responses, and Diseases

Ninan Abraham, *University of British Columbia*
Cytokines

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

Linda A. Sherman, *The Scripps Research Institute*
Tumor Immunology

Olivia M. Martinez, *Stanford University School of Medicine*
Transplantation

Hilde Cheroutre, *La Jolla Institute for Allergy and Immunology*
Mucosal Immunology

Steven F. Ziegler, *Benaroya Research Institute*
Type 2 Immunity

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

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

Jeffrey A. Bluestone, *University of California San Francisco*
Autoimmunity

Stephen P. Schoenberger, *La Jolla Institute for Allergy and Immunology*
Immunologic Memory

Nicole Frahm, *Fred Hutchinson Cancer Research Center*
Vaccination

Jennifer M. Puck, *University of California, San Francisco*
Genetic Approaches to Immune-Mediated Diseases

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

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

For assistance, contact (301) 634-7178 or meetings@aai.org. Overseas applicants are advised to apply early for visas; for details, visit www.aai.org/Education/Courses/Visa.html.Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit www.faseb.org/MARC.

AAI Launches Careers in Immunology Fellowship and Travel for Techniques Awards

The New AAI Awards Programs Nearly Triple the Funding AAI Provides Annually for Scientists at All Career Stages

To help support AAI members experiencing hardship in their research funding, the AAI Council launched two major new funding initiatives in mid-April. Impetus for the ambitious new funding initiatives stems from AAI Councilors' recognition of current funding crises for publicly funded laboratories.

The first of these programs, the AAI Careers in Immunology Fellowship Program, is a significant addition to the portfolio of programs and awards AAI already offers to support the career development of young investigators. AAI Executive Director Michele Hogan introduced the program to attendees at the AAI membership business meeting during IMMUNOLOGY 2014™, stating, "The Careers in Immunology Fellowship Program is the most significant funding mechanism that AAI has ever launched. This initiative nearly triples the funds that AAI currently devotes to supporting the career development of our members. It can profoundly benefit many investigators struggling for funding for their labs by allowing them to keep a trainee that they may not otherwise have the means to support."

> "The Careers in Immunology Fellowship Program is the most significant funding mechanism that AAI has ever launched."
>
> *AAI Executive Director M. Michele Hogan*

The Careers in Immunology Fellowship will provide independent principal investigators (PIs), both U.S. citizens and international investigators, who have demonstrable financial need with funding to retain a current AAI Trainee lab member. Funding to selected PIs will support one year of salary for a predoctoral student or postdoctoral fellow, especially one whose position is in danger of being defunded. At the time of application, the PI should have no more than $250,000 U.S. dollars in total annual direct costs from grants and/or institutional research support, excluding PI salary. Applications for the 2014-2015 fellowship award cycle are due July 15, 2014, with award funding to commence in October of 2014.

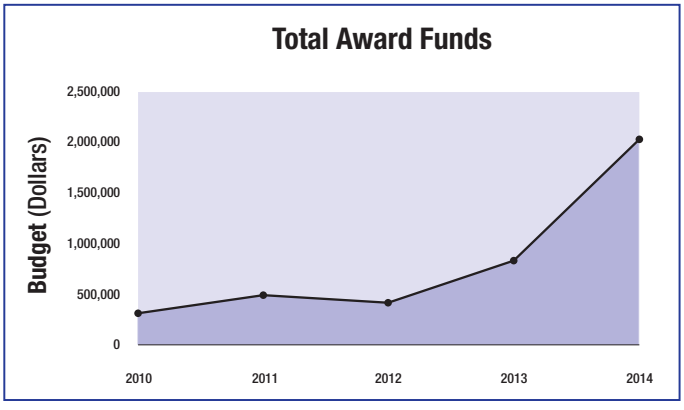
AAI President Marc Jenkins citing the potentially profound impact of the new funding programs

Separately, AAI has launched the AAI Travel for Techniques Program. This initiative provides travel support to an AAI Regular or Associate member needing to travel to another laboratory to learn a technique useful for their research. AAI President Marc Jenkins says he conceived of the program as a means for investigators with limited funds to learn a method that might benefit their current or new research goals. "Building a repertoire of techniques applicable to your work is fundamental to making strides in your research and ensuring the continued success of your laboratory. I am proud that the AAI Travel for Techniques Program offers researchers who may not otherwise be able to afford the travel to seek training outside of their institutions for skills important to the success of their research programs."

The designated technique must be unavailable at an institution within 50 miles. The program is not necessarily limited to applicants seeking training in a new methodology. Members seeking instruction in older yet unfamiliar techniques may also apply. For example, a PI studying autoimmune responses in type-1 diabetes might wish to learn how to isolate pancreatic islet-infiltrating T cells, a method that is not wholly new, but is technically difficult to learn and is not commonly available. This proposal to learn islet T cell isolation would be given as much consideration as a proposal to learn a new technology such as in vivo imaging.

The Travel for Techniques Program allows an eligible PI to apply for funding for himself or a designated AAI member in the lab to travel to another educational facility for instruction in the method. The award will provide up to $1,500 in reimbursable travel expenses. Proposals will be considered on a rolling basis, with application deadlines in February, June, and October. Applications selected for funding in the first review cycle ending June 15, 2014, will be announced this August.

Detailed information regarding eligibility requirements and application instructions for the AAI Careers in Immunology Fellowship and the AAI Travel for Techniques program can be found on the AAI website at www.aai.org/awards.



The funding AAI devotes to awards nearly tripled in 2014.

The American Association of Immunologists
9650 Rockville Pike
Bethesda, MD 20814-3994
Tel: 301-634-7178
Fax: 301-634-7887
E-mail: infoaai@aai.org
www.aai.org

Member Services
Tel: 301-634-7195
E-mail: members@aai.org

The Journal of Immunology
Tel: 301-634-7197
E-mail: infoji@aai.org
www.jimmunol.org

Focus on Public Affairs

AAI Holds Third Annual Public Policy Fellows Capitol Hill Day

The 2013–14 class of AAI Public Policy Fellows visited Washington in early March to participate in the third annual Public Policy Fellows Program (PPFP) Capitol Hill Day. The fellows attended a formal training session before traveling to Capitol Hill the following day to meet with multiple members of their congressional delegations.

The 10 AAI fellows were joined by AAI Committee on Public Affairs (CPA) Chair Elizabeth Kovacs and AAI Advocacy Programs Subcommittee Chair Susanna Greer, and were escorted by AAI Director of Public Policy and Government Affairs Lauren Gross and Federation of American Societies for Experimental Biology (FASEB) staffers Jennifer Zeitzer and Meghan McCabe.

For the third consecutive year, Hugh Auchincloss (AAI '83), principal deputy director, National Institute of Allergy and Infectious Diseases (NIAID), was the special guest speaker at the training dinner. Dr. Auchincloss provided a behind-the-scenes perspective on the National Institutes of Health (NIH) and NIAID and led a lively discussion with the fellows. The second presentation was given by Gross, who focused on preparing the fellows for their visits to Capitol Hill.

Each of the AAI fellows visited at least two offices of his or her own congressional delegation, as well as those of other fellows. The fellows advocated for predictable and sustained funding for NIH, including a budget of at least $32 billion in fiscal year (FY) 2015.

Many of the fellows attended IMMUNOLOGY 2014™ in Pittsburgh, where they visited the AAI booth at designated times daily to speak with AAI members wishing to hear about their experience on Capitol Hill and the program as a whole.

(L–R): AAI Fellow Jeremy Schaefer, AAI Advocacy Programs Subcommittee Chair Susanna Greer, Rep. John Lewis, and AAI Fellows Tamisha Vaughan and Lori Blanchfield

(L–R): AAI Fellow Rachel Bergerson, Senate staffer Joe Dunn (for Sen. Christopher Murphy), and AAI Fellows Brian Sheridan, Katrina Hoyer, and Jeremy Schaefer

(L–R): AAI Fellows Surojit Sarkar and Elizabeth Leadbetter, AAAS Fellow and Senate staffer Eric Deeble, Ph.D. (for Sen. Kirsten Gillibrand), AAI Fellow Gretchen Diehl, and CPA Chair Elizabeth Kovacs

(L–R): AAI Fellow Stephanie Watkins, FASEB Legislative Affairs Analyst Meghan McCabe, AAI Fellow Tamisha Vaughan, Rep. David Scott, AAI Fellow Lori Blanchfield, and AAI Advocacy Programs Subcommittee Chair Susanna Greer

Senator Durbin Receives AAI Public Service Award

Also Introduces the American Cures Act to Increase Funding for Biomedical Research

On March 12, 2014, AAI presented its 2013 Public Service Award (PSA) to Senator and Assistant Senate Majority Leader Richard Durbin (D-IL). The PSA is presented to "individuals who have made outstanding contributions to the advocacy and support of basic biomedical and immunologic research."

The PSA was presented to Sen. Durbin by CPA Chair Elizabeth Kovacs during a break in the AAI PPFP Capitol Hill Day. All 10 fellows attended the presentation, which took place in Sen. Durbin's spacious office in the U.S. Capitol building. The award was given to Sen. Durbin for his "strong, steadfast leadership in advancing biomedical research through support for the National Institutes of Health." Sen. Durbin thanked AAI for the award via tweet and posted a picture from the event on his website.

The co-recipient of the 2013 AAI PSA, Rep. Rosa DeLauro (D-CT, 3rd), was honored last October for her "deep commitment to advancing biomedical research and outstanding leadership in supporting the National Institutes of Health." AAI was also pleased to present its 2013 Public Service Staff Recognition Award to Howard Garrison, FASEB deputy executive director of policy and director of the Office of Public Affairs.

American Cures Act

On the same day that AAI presented its PSA to Sen. Durbin, the senator introduced new legislation, the American Cures Act, to create a trust fund for biomedical research.

The American Cures Act would provide supplemental funding to support biomedical research at NIH, the Centers for Disease Control and Prevention (CDC), the Department of Defense Health Program, and the Veterans Medical & Prosthetics Research Program. The trust fund would annually increase the budgets of each of these agencies and programs by five percent plus a measure of gross domestic product-indexed inflation. In the first year alone, NIH would receive an estimated increase of $1.8 billion.

Sen. Durbin spoke about the bill and about biomedical research in general during remarks at the Center for National Policy on March 11:

"America's place as the world's innovation leader and our future prosperity are at risk because we are no longer investing adequately in basic science. … American Cures will make funding for critical biomedical research projects less political and more predictable. It will allow America's smartest medical researchers to spend less time trying to cut their budgets and more time finding new ways to cut cancer rates and lower the costs of cancer care."

AAI is proud to endorse the American Cures Act. In a letter to Sen. Durbin, CPA Chair Elizabeth Kovacs said the following: "AAI greatly appreciates your leadership in introducing this important legislation, which recognizes the urgent need for reliable, sustained increases in funding for biomedical research. By creating a trust fund that would supplement regular appropriations, your legislation would boost funding for essential research agencies and programs at a time of extraordinary scientific opportunity. In addition, it would also assure promising young scientists and students that they can, indeed, pursue a rewarding and successful career in biomedical research in the United States." Kovacs indicated, however, that AAI "is unable to take a position on any offset that might be selected or used."

CPA Chair Elizabeth Kovacs presents Sen. Richard Durbin with the 2013 AAI Public Service Award

AAI Executive Director Michele Hogan congratulates AAI PSA honoree Sen. Durbin. Also pictured (middle), CPA Advocacy Programs Subcommittee Chair Susanna Greer

AAI Submits Testimony to Congress on NIH Funding

AAI submitted testimony to the House Labor, Health and Human Services, Education, and Related Agencies (Labor-HHS) Appropriations Subcommittee recommending an appropriation of at least $32 billion for NIH for FY 2015. The testimony was submitted on behalf of AAI by CPA Chair Elizabeth Kovacs.

The House and Senate Labor-HHS Appropriations Subcommittees are responsible for funding numerous federal agencies and programs, including health agencies, such as NIH and CDC; education programs, such as Head Start and Pell Grants; and labor programs, such as Job Corps. Before writing the annual bills that fund these agencies and programs, the subcommittees hold informational hearings to learn more about these agencies and programs and to hear what is planned for the funds that are appropriated. They also solicit testimony from stakeholders and other interested parties.

The AAI testimony "recommends an appropriation of at least $32 billion for NIH for FY 2015 to support important ongoing research, fund a reasonable number of outstanding new grant applications, and restore NIH funding to a level that can sustain a robust and dynamic biomedical research enterprise." It also highlights some of the most outstanding immunological advances of the last year, including the growing promise of cancer immunotherapies.

The full AAI testimony to the House Labor-HHS Appropriations Subcommittee is reprinted on pages 10–11.

AAI submitted similar testimony to the Senate Labor-HHS Appropriations Subcommittee in May.

Congressional Letters Demonstrate Bipartisan Support for NIH

Two recent letters show that bipartisan support for NIH remains strong in Congress. A letter co-signed by 186 members of the House of Representatives asks appropriators to provide at least $32 billion for NIH for FY 2015, consistent with the AAI recommendation for NIH. A similar letter, seeking a "strong commitment to funding for the National Institutes of Health," was co-signed by 57 senators.

The House letter recommending $32 billion for NIH was led by a bipartisan group of four members, including Republicans David McKinley (R-WV, 1st) and Peter King (R-NY, 2nd) and Democrats Andre Carson (D-IN, 7th) and Susan Davis (D-CA, 53rd). In arguing for "[f]ull funding for NIH," the 23 Republican and 163 Democratic co-signers stressed "the importance of NIH as a job creator, driver of economic growth, and a vital tool in curbing our nation's soaring healthcare costs."

The Senate letter was drafted by Sen. Bob Casey (D-PA) and Sen. Richard Burr (R-NC). Although the letter does not recommend a specific funding level for NIH, it emphasizes the damage done by cuts to and decreasing investment in biomedical research. The letter, which was co-signed by 46 Democrats and 11 Republicans, states the following: "America is losing ground as the world leader in research and development and researchers are struggling to secure funding. As NIH grants get more competitive, researchers can easily spend half their careers working before receiving a grant, resulting in promising, talented young researchers being discouraged from the field of biomedical research and some investigators deciding to abandon scientific research altogether or to conduct their research outside the United States."

Senate Confirms New Secretary of Health and Human Services

On June 5, the U.S. Senate confirmed Sylvia Mathews Burwell as the new Secretary of the Department of Health and Human Services, by a vote of 78-17. Burwell was nominated by President Obama to serve as Secretary of Health and Human Services (HHS), following the resignation of Kathleen Sebelius. Sebelius, the former governor of Kansas, presided over HHS during the implementation and launch of the Patient Protection and Affordable Care Act and was much criticized for the flawed roll-out of the president's signature legislative achievement. Burwell, who is widely respected on Capitol Hill, is a former staffer for President Bill Clinton and previously served as the director of the White House Office of Management and Budget (OMB).

NIH Appoints First Chief Diversity Officer

NIH Director Francis Collins has appointed Hannah Valantine, M.D., to be NIH's first permanent chief officer for scientific workforce diversity. Dr. Valantine "will lead NIH's effort to diversify the biomedical research workforce by developing a vision and comprehensive strategy to expand recruitment and retention, and promote inclusiveness and equity throughout the biomedical research enterprise."

Valantine previously served as senior associate dean for diversity and leadership at the Stanford School of Medicine and as professor of cardiovascular medicine at the Stanford University Medical Center. She replaces Acting Chief Officer for Scientific Workforce Diversity Roderick Pettigrew. Dr. Pettigrew will now return full-time to his role as director of the National Institute of Biomedical Imaging and Bioengineering.

Dr. Collins appointed a chief officer for scientific workforce diversity in response to a recommendation by the NIH Working Group on Diversity in the Biomedical Research Workforce, which released its final report in June 2012.

Institute of Medicine Names New President

Victor J. Dzau, M.D., will serve as the next president of the Institute of Medicine (IOM), the National Academy of Sciences recently announced. He will replace Harvey V. Fineberg, who will have served two terms as IOM president. Dr. Dzau's six-year term is set to begin on July 1, 2014.

Dzau currently serves as president and CEO of the Duke University Health System. He is also the chancellor of health affairs and James B. Duke Professor of Medicine at Duke University. Dzau has served on the IOM Council since 2008.

FASEB Releases Best Practices Guide on Mitigating the Risks of Animal Rights Extremism

FASEB recently released a new best practices guide, entitled "The Threat of Extremism to Medical Research: Best Practices to Mitigate Risk through Preparation and Communication." The guide is based on recommendations made at a June 2012 international summit, sponsored by FASEB, on combatting animal rights extremism.

The guide contains dozens of recommendations aimed at helping both individual scientists and organizations that support research. For example, the guide urges organizations to institute a crisis management plan and outlines 13 concrete steps that organizations can take to put that plan into action. The guide also includes a collection of some of the best resources available on the web related to animal rights extremism.

More information about the guide, including additional resources, is available on the FASEB website at www.faseb.org.

FASEB Announces the Winners of Its "Stand Up for Science" Competition

Graduate students from the University of California, San Francisco, are the winners of FASEB's 2013 "Stand Up For Science" video competition. The recently announced grand prize winners were awarded a cash prize of $5,000 to share.

For its second annual "Stand up for Science" competition, FASEB asked entrants to submit videos that increase awareness of the need for federal support for biomedical and biological research. All videos were required to mention at least one of five specified federal agencies, including NIH.

The winning video was submitted by Florie Charles, Nir Oksenberg, Marta Wegorzewska, Osama Ahmed, Argenta Price, and Christin Chong, and was entitled "Funding Basic Science to Revolutionize Medicine." The video creatively illustrates the value of federal investment in basic science. The runner-up video was submitted by Kayla Briet, a high school student from California, who won $2,500 for her work, entitled "Stay Curious." Two additional entrants received honorable mentions and $500 each.

To view the winning videos please visit www.faseb.org > about FASEB > Scientific Contests.

Testimony of Elizabeth J. Kovacs, Ph.D., on behalf of The American Association of Immunologists (AAI), Submitted to the House Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies, Regarding the Fiscal Year (FY) 2015 Budget for the National Institutes of Health

March 27, 2014
Elizabeth J. Kovacs, Ph.D

The American Association of Immunologists (AAI), the world's largest professional society of research scientists and physicians who study the immune system, respectfully submits this testimony regarding fiscal year (FY) 2015 appropriations for the National Institutes of Health (NIH). *AAI recommends an appropriation of at least $32 billion for NIH for FY 2015* to support important ongoing research, fund a reasonable number of outstanding new grant applications, and restore NIH funding to a level that can sustain a robust and dynamic biomedical research enterprise in the United States.

NIH's Crucial Role in Advancing Biomedical Research

NIH is essential to the advancement of biomedical research in the United States, where virtually all biomedical scientists rely on NIH leadership and funding.[1] Academic scientists, many of whom conduct research while teaching the next generation of doctors and scientists, depend on NIH grants to support their research at universities, colleges, and research institutions all around the country. NIH intramural scientists require funding to do their own research as well as collaborate with their private sector colleagues.[2] And scientists employed by industry, who generally do not receive NIH grants or awards, depend on NIH funded scientific discoveries to develop products that bring research to the bedside. A strong NIH budget, therefore, is essential to all sectors of the U.S. biomedical research enterprise, and has enabled NIH to remain the key international leader influencing biomedical research around the globe.

NIH Budget Woes Slow Research and Threaten U.S. Preeminence

The slow growth of the NIH budget in recent years, exacerbated by the impact of biomedical research inflation,[3] has significantly reduced NIH's purchasing power and, in turn, the purchasing power of its grantees. According to the Congressional Research Service (CRS), "in constant 2003 dollars, FY 2014 funding is 22% lower than the FY 2003 level."[4] *How many avenues of research have not been followed because of this reduction? How many potential treatments and cures have been delayed or not discovered?* These are questions that cannot be answered definitively, but we do know that NIH budget reductions have already caused real and lasting damage: the loss of grant funding, even among the most highly qualified scientists; the closure of labs; the termination or interruption of important research; and the emigration of talented scientists to other countries. And we do know that too many scientists are spending too much time in a constant chase for funding, rather than conducting research and mentoring the nation's future researchers, inventors, and innovators. These budget woes threaten America's preeminence in advancing basic biomedical research, discovering urgently needed treatments and cures, and "growing" brilliant young scientists.

Research on the Immune System: Essential to our Health, Crucial to our Future

The immune system is the body's primary defense against viruses, bacteria, and parasites that cause disease in millions of people every year. When the immune system is operating properly, it provides powerful protection against a wide variety of illnesses, including cancer, Alzheimer's disease, and cardiovascular disease. The immune system can, however, perform poorly, leaving the body vulnerable to infections, including influenza, HIV/AIDS, tuberculosis, malaria, and the common cold. It can also become overactive, damaging normal organs and tissues and causing autoimmune diseases such as allergy, asthma, inflammatory bowel disease, lupus, multiple sclerosis, rheumatoid arthritis, and type 1 diabetes. Research scientists and clinicians are working to harness this powerful system to protect people and animals from infectious diseases, cancer, and many other illnesses, and to protect against natural or man-made infectious organisms (including plague, smallpox, and anthrax) that could be used for bioterrorism.[5]

Recent Immunological Advances and Their Promise for Tomorrow

1. Cancer Immunotherapies: Offering Hope of Conquering Cancer

NIH-funded scientists recently identified inhibitory receptors which suppress immune cell activation. Blocking these receptors can allow the immune system to destroy tumor cells.[6] Today, therapeutics targeted against inhibitory receptors like CTLA4 are undergoing rigorous clinical trials against a variety of cancers. The success rates for these therapies have been astounding and unprecedented: for example, rates of tumor regression in patients with metastatic melanoma have increased from ~10% to ~50%.[7] With this level of success, immunotherapy is one of the most exciting and promising areas of cancer treatment.

2. Early Antiretroviral Therapy: Eliminating HIV, Ending AIDS?

NIH-funded researchers have discovered that early administration of antiviral medication, known as antiretroviral therapy (ART), can have lasting effects on an HIV-infected patient's long-term prognosis. In one study,[8] an infant born to an HIV-infected mother began receiving ART within hours of birth. The infant tested positive for HIV and continued treatment for 18 months. Despite the HIV diagnosis and subsequent discontinuation of ART, the child remained virus-free one year later. A second baby with a similar history also showed an absence of HIV.[9] Together with several additional unconfirmed cases of babies "cured" of HIV infection, these findings offer hope to the ~250,000 babies born each year infected with HIV.[10]

3. Gut (Intestinal) Bacteria: The Microbiome Role in Autoimmune Disease

NIH-funded research has shown that gut bacteria (the intestinal "microbiome"), which aid in food digestion, may impact the development of autoimmune diseases, including rheumatoid arthritis, type 1 diabetes, multiple sclerosis, and inflammatory bowel disorders.[11] Current research is exploring changes in gut bacteria from diet, hormones, antibiotics, and infections, and the effect of gut bacteria based therapeutics [for example, the ingestion of healthy gut bacteria (probiotics) in yogurt]. One study involving fecal transplantation (which includes the transfer of intestinal bacteria from one person to another) has found that such transplantation in pill form is well tolerated and is 98-100% efficacious in curing infections with *Clostridium difficile*, a bacterium linked to ~14,000 diarrheal deaths in the U.S. per year. [12]

4. RSV Vaccine: Saving Infants' Lives

Millions of infants are hospitalized and 160,000 children die each year each from pneumonia and other lung diseases caused by respiratory syncytial virus (RSV).[13] Until recently, however, a vaccine for RSV has been elusive. In an important breakthrough, scientists at the NIH discovered antibodies – protective molecules produced by the immune system – that helped identify a key protein for use in vaccine development.[14] The NIH scientists were then able to engineer this protein and demonstrate its ability to produce a strong protective immune response against RSV in animals.[15] This molecule is expected to be ready soon for testing in humans. Importantly, the approach developed in this case can be applied to vaccine design for numerous other viruses, such as HIV, hepatitis C, dengue, and West Nile viruses, that have evaded the body's protective immune responses, and will provide insight into how viruses evade the immune system.

Conclusion

AAI thanks the members and staff of the subcommittee for their ongoing, strong bipartisan support for biomedical research, and recommends an appropriation of *at least $32 billion* for NIH for FY 2015 to fund important ongoing research, strengthen the biomedical research enterprise, and ensure that the brightest scientists, trainees, and students are able to pursue careers in biomedical research in the United States.

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1 After a highly competitive peer review process, which includes comprehensive review by panels of extramural scientists, NIH awards more than 80% of its ~$30.1 billion budget to "more than 300,000 researchers at more than 2,500 universities, medical schools, and other research institutions in every state and around the world." About 10% of its budget supports the work of the approximately 6,000 scientists who work in NIH's own laboratories. (http://www.nih.gov/about/budget.htm)

2 AAI is concerned that a federal policy limits government scientists' ability to attend privately sponsored scientific meetings and conferences. (See http://www.hhs.gov/travel/policies/2012_policy_manual.pdf) AAI believes that "the rules have had an unintended and deleterious effect … [and] made government scientists feel cut off from the rest of the scientific community, wreaked havoc with their ability to fulfill professional commitments, and undermined the morale of some of the government's finest minds." *Testimony (Amended) of Lauren G. Gross, J.D., on behalf of The American Association of Immunologists (AAI), Submitted to the Senate Homeland Security and Governmental Affairs Committee for the Hearing Record of January 14, 2014: "Examining Conference and Travel Spending Across the Federal Government"* (http://aai.org/Public_Affairs/Docs/2014/AAI_Testimony_to_Senate_HSGAC_01142014.pdf)

3 The Biomedical Research and Development Price Index (BRDPI) "is developed each year for NIH by the Bureau of Economic Analysis of the Department of Commerce. It reflects the increase in prices of the resources needed to conduct biomedical research, including personnel, services, supplies, and equipment. It indicates how much the NIH budget must change to maintain purchasing power." Johnson, Judith A., "A History of NIH Funding: Fact Sheet," Congressional Research Service, R43341, p. 2 (2014)

4 Ibid

5 NIH should robustly fund and primarily rely on individual investigator-initiated research, in which researchers working in institutions across the nation submit applications to, and following independent peer review, receive grants from, NIH. Biomedical innovation and discovery are less likely to be achieved through "top-down" science, in which the government specifies the type of research it wishes to fund.

6 Couzin-Frankel, Jennifer. "Cancer Immunotherapy." *Science* 342.6165 (2013): 1432-433

7 Wolchok, J. D. et al. "Nivolumab plus Ipilimumab in Advanced Melanoma." *N Engl J Med* 369.2 (2013): 122-33

8 Deborah, Persaud et al. "Absence of Detectable HIV-1 Viremia after Treatment Cessation in an Infant." *N Engl J Med* 369 (2013): 1828-835

9 Conference on Retroviruses and Opportunistic Infections, March 3 - 6, 2014, Boston, MA (http://www.croi2014.org/) (See also http://www.nytimes.com/2014/03/06/health/second-success-raises-hope-fora-way-to-rid-babies-of-hiv.html)

10 A clinical trial following 60 babies born infected with HIV and being treated with antiretroviral medication will begin soon. (See http://www.nytimes.com/2014/03/06/health/second-success-raiseshope-for-a-way-to-rid-babies-of-hiv.html) A second study found that adult HIV-infected patients who were treated with ART within four months of infection display significantly improved response to treatment. [See Le, Tuan, et al. "Enhanced CD4+ T-Cell Recovery with Earlier HIV-1 Antiretroviral Therapy." *N Engl J Med* 368 (2013): 218-30]

11 Sorini, C., and M. Falcone. "Shaping the (auto)immune Response in the Gut: The Role of Intestinal Immune Regulation in the Prevention of Type 1 Diabetes." *Am J Clin Exp Immunol* 2.2 (2013): 156-71

12 Infectious Diseases Society of America. "Fecal Transplant pill knocks out recurrent C. diff infection," *Science Daily* (2013) (See http://www.cdc.gov/hai/organisms/cdiff/cdiff_infect.html)

13 Couzin-Frankel, Jennifer. "Cancer Immunotherapy." *Science* 342.6165 (2013): 1432-433

14 McLellan, J. S. et al. "Structure of RSV Fusion Glycoprotein Trimer Bound to a Pre-fusion Specific Neutralizing Antibody." *Science* 340.6136 (2013): 1113-117

15 McLellan, J. S. et al. "Structure-Based Design of a Fusion Glycoprotein Vaccine for Respiratory Syncytial Virus." *Science* 342.6158 (2013): 592-98

Members in the News

Paolo Casali Appointed Department Chair at UT Health Science Center

Paolo Casali

Paolo Casali, M.D., AAI '81, earlier this year joined the University of Texas Health Science Center at San Antonio as Zachry Foundation Distinguished Professor and chairman of the Department of Microbiology and Immunology in the School of Medicine. A molecular immunologist known for pioneering studies of processes that underpin the body's response to viruses, bacteria, cancer cells, and tissue/organ damage in autoimmune diseases, Casali previously served as the Donald Bren Professor of Medicine, Molecular Biology and Biochemistry and director of the Institute for Immunology at the University of California, Irvine (UC Irvine) School of Medicine.

Casali's research has delved into the intricacies of B cell biology, antibody gene expression, somatic hypermutation (SHM), and class switch recombination (CSR), with an emphasis on determining the role of B cells in autoimmune diseases. He and others identified and characterized human B-1a and B-1b cells and demonstrated that they are a major source of natural autoantibodies. He pioneered efforts to generate human monoclonal antibodies of defined specificity and isotype, technology that enabled the production of neutralizing antibodies used to treat rabies virus infections. Casali has also made pivotal contributions to determining the molecular mechanisms of CSR and SHM, defining roles for many components of the DNA MMR repair machinery, activation-induced cytidine deaminase, and adaptor proteins. Using his knowledge of CSR and SHM, Casali determined that pathogenic autoantibodies can arise from natural unmutated antibodies that undergo CSR and SHM. His research continues to evolve and now encompasses studies focusing on the importance of epigenetics in the induction and regulation of CSR and SHM, and the involvement of estrogen-associated receptor pathways in the development of autoimmunity and other diseases.

Born in Italy, Casali received his medical degree (in medicine and surgery, *magna cum laude*) from the University of Milan, where he then served as a resident in the Department of Internal Medicine and obtained a specialty in clinical immunology/allergy as well as microbiology/virology. Casali undertook postgraduate education and research in immunology at the Medical School of the University of Geneva, Switzerland, and as a World Health Organization field officer in Ethiopia. He later served as a research associate and then assistant professor in the Department of Immunology at the Scripps Clinic and Research Foundation before joining the intramural program of the National Institutes of Health (NIH) as a senior fellow. In 1990, he was appointed associate professor of pathology at New York University (NYU) School of Medicine and in 1994 joined Cornell University Weill Medical College as professor of pathology and laboratory medicine. He joined the UC Irvine faculty in 2003.

Casali's research has been funded without interruption by the NIH for three decades, as well as by private foundations. A fellow of the American Association for Advancement of Science, Casali has served on numerous NIH review panels and study sections (including at the National Institute for Allergy and Infectious Diseases, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute on Aging, and National Cancer Institute). He has served since 2002 as editor-in-chief of *Autoimmunity* and his work has been published in leading journals including *Science, Nature Immunology, Immunity, Cell* and *The Journal of Experimental Medicine.* His additional career honors and appointments include: Athalie Clarke Research Achievement Award; senior associate dean for research and graduate studies, UC Irvine School of Medicine; vice president, Baylor College Institute for Immunobiology; IACUC chair, UC Irvine; counselor, The Henry Kunkel Society; director, Immunology Graduate Program, Cornell University and Sloan Kettering Weill Graduate School of Medical Sciences; Outstanding Teacher Award, Weill Medical College of Cornell University; "Young Turk" (elected), American Society for Clinical Investigation; Kaplan Cancer Scholar, NYU School of Medicine; Prix Bizot, University of Geneva; deputy editor, *The Lancet* (Italian edition); and Fellowship for Scientific and Didactic Formation, University of Milan.

Michael Reth is Ehrlich/Darmstaedter Prize Recipient

Michael Reth

Michael Reth, Ph.D., AAI (Hon.) '08, has been awarded the Paul Ehrlich and Ludwig Darmstaedter Prize for outstanding research in immunology. Awarded annually since 1952 to honor internationally outstanding scientists in the field of immunology, the prize is presented by the Paul Ehrlich Foundation and confers a cash award of €100,000.

Reth is professor of molecular immunology at the Institute of Biology III, University of Freiburg, Germany. He also serves as scientific director of the Centre for Biological Signaling Studies and as head of the molecular immunology department at the Max Planck Institute of Immunobiology and Epigenetics.

Reth has contributed seminal work elucidating the molecular composition, activation, and signaling of the B cell antigen receptor (BCR). His early work identified previously unknown signaling components of the BCR, including IgM-α and Ig-β. Since then, his lab group has defined the details of numerous signaling molecules, receptors, and pathways involved in B cell development and activation, providing a wealth of knowledge to the field of B cell biology. Reth's zealous dedication to determining the fundamental mechanism of B cell activation spurred him to develop new tools to help his research. Amidst great skepticism, Reth devised synthetic biology techniques to better tease out the organization and function of the BCR, a gamble that reaped tremendous rewards and precipitated his breakthrough study demonstrating that BCRs on resting B cells exist as oligomers that disengage upon antigen challenge. This work laid the foundation for a new model of B cell activation, the dissociation activation model, and refuted the cross-linking B cell activation paradigm that has stood in the field for fifteen years. The results of Reth's work could have lasting impact on how therapeutics are designed for diseases that involve dysregulation of the BCR, including autoimmunity and B cell cancers.

Reth was elected to honorary AAI membership in 2008. He is an elected member of Leopoldina (German national academy of sciences) and of EMBO (European Molecular Biology Organization). He serves on the *Annual Review of Immunology* editorial board and as a transmitting editor for *International Immunology* and is a past *European Journal of Immunology* editorial board member. His additional career honors and appointments include: Advanced Grant recipient (nanoscale analysis of protein islands on lymphocytes), European Research Council; advisory board member, Immune Disease Institute, Harvard University; EFIS (European Federation of Immunological Societies) Schering-Plough European Immunology Prize; Gottfried Wilhelm Leibniz Prize, German Research Foundation; Heinz-Maier-Leibnitz Prize for Immunogenetics; and German Research Foundation postdoctoral fellowship.

Reth is a biology graduate of the University of Cologne, Germany, where he received his Ph.D. for research in the Klaus Rajewsky lab at the Institute of Genetics. He undertook postdoctoral training as a visiting research fellow in the Fred Alt lab at Columbia University before returning to the University of Cologne's Institute of Genetics, where he served as a group leader and received his habilitation in 1988. He was appointed an associate professor in immunobiology at the University of Freiburg, Germany, in 1989. He has been a full professor since 1996 and served during the period as chair of the university's Department of Molecular Immunology, Faculty of Biology. He has been a Max Planck Institute department head since 1996 and director of the Centre for Biological Signaling Studies since 2007.

AAI Newsletter: Members in the News—*Submissions Invited*

AAI welcomes the opportunity to highlight the career achievements and professional honors attained by AAI member scientists. Such publicity not only serves to inspire colleagues but also informs the broader public of immunology's vital and widening role in scientific discovery and transformative medicine.

Help AAI share news of your or another member's noteworthy scientific and/or service recognition or career appointments by contacting mwcuddy@aai.org.

Thank you!

Dario Vignali Named Vice-Chair of Immunology at Pitt

Dario Vignali

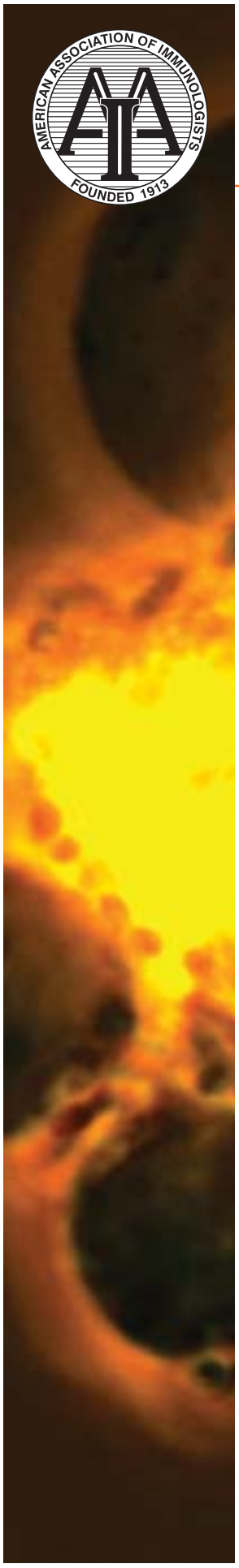
Dario A. A. Vignali, Ph.D., AAI '98, has been appointed vice chair of the Department of Immunology at the University of Pittsburgh (Pitt). He will assume the post on July 1, along with appointments as co-leader of the Cancer Immunology Program of the University of Pittsburgh Cancer Institute (UPCI) and co-director of Pitt's newly expanded Tumor Microenvironment Center.

Vignali is a member and vice chair of the Department of Immunology at St. Jude Children's Research Hospital. His research focuses on immune regulation and T cell biology with a particular interest in type 1 diabetes. In assessing the mechanisms of regulatory T cell (Treg) function, the laboratory has addressed the involvement of IL-35 and neuropilin-1 in Treg activity and stability, as well as the roles of these molecules in cancer, mucosal immunity, and autoimmunity. Vignali has also used these model systems to investigate the immune modulatory activities of inhibitory molecules such as LAG-3 and PD-1. Another important area of research in the lab involves assessment of the pathogenic and regulatory roles of T cells in diabetes and the relationship of TCR specificity to these processes. Studies of the TCR:CD3 complex in signal transduction and T cell development and function have revealed important characteristics of T cell activation that are applicable to the diverse roles of effector and regulatory T cells in immunity.

Vignali received his B.Sc. (immunology and medical microbiology) from North East London Polytechnic [now East London University] and his Ph.D. (immunology of infectious diseases) from the London School of Hygiene and Tropical Medicine, University of London. He completed successive postdoctoral fellowships at the Institute for Immunology and Genetics, German Cancer Research Center, Heidelberg, Germany, and in the Department of Biochemistry and Molecular Biology at Harvard University. Vignali joined St. Jude as an assistant member (assistant professor equivalent) in 1993, rising to associate member in 1999 and full member (and Department of Immunology vice chair) in 2008. During the same period, Vignali held concurrent appointments in the Department of Pathology at the University of Tennessee Medical Center (Memphis), including as assistant (1996), associate (2000), and full professor (2009), and served as director of the Tetramer Facility Shared Resource.

Vignali is a current member of the AAI Nominating Committee, a past member of the AAI Membership Committee, and a past deputy editor for *The Journal of Immunology* (*The JI*). He has served as an ad hoc reviewer for *Blood, Cancer Research, Cytometry Journal of Biomolecular Techniques, Developmental & Comparative Immunology, EMBO, European Journal of Immunology, Gene Therapy, Human Immunology, Immunity, Infection and Immunity, Journal of Biological Chemistry, Journal of Experimental Medicine, Journal of Immunological Methods, Journal of Immunology, Molecular and Cellular Biology, Nature, Nature Immunology, Nature Biotechnology, Nature Medicine, Nature Reviews Immunology, Proceedings of the National Academy of Sciences, Science, Trends in Biotechnology,* and *Trends in Immunology*.

Vignali's additional career appointments and honors include: service on multiple study sections (cell mediated immunity; transplantation, tolerance, and tumor; allergy and immunology) and special emphasis panels for the National Institutes of Health; review panel service for the Juvenile Diabetes Research Fund (JDRF) and Harold Wetterberg Foundation; scientific advisory board appointments with Tempero/GSK, FStar, and GlaxoSmithKline Autoimmune Diabetes Institute Core Faculty; Distinguished Poll Scholar Award, University of Washington's Diabetes Research Center; Faculty Mentoring Award, St. Jude Postdoctoral Association; Robert and Janice Compton Research Grant, JDRF; Human Frontier Science Program postdoctoral fellowship; and research technologist, London School of Hygiene and Tropical Medicine, University of London.



2014 Advanced Course in Immunology

July 27–August 1, 2014 • Seaport World Trade Center, Boston, Massachusetts

Director: Leslie J. Berg, Ph.D.
University of Massachusetts Medical School

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

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

Faculty

Marc K. Jenkins, *Center for Immunology University of Minnesota Medical School*
Anatomy of the Immune Response

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

Katherine A. Fitzgerald, *University of Massachusetts Medical School*
Innate Immunity: Gene Regulation

Albert S. Bendelac, *University of Chicago*
Innate Immunity: Cellular Mechanisms

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

Elizabeth J. Kovacs, *Loyola University Chicago Health Sciences Campus*
Molecular and Cellular Mediators of Inflammation

Brian T. Edelson, *Washington University School of Medicine*
Dendritic Cells

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

Shiv Pillai, *Massachusetts General Hospital Cancer Center, Harvard Medical School*
B Cell Development

Avinash Bhandoola, *University of Pennsylvania Perelman School of Medicine*
T Cell Development

Kenneth L. Rock, *University of Massachusetts Medical School*
MHC-Restricted Antigen Presentation to T Cells

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

Susan M. Kaech, *Yale School of Medicine*
Lymphocyte Memory

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

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

Joanne L. Flynn, *University of Pittsburgh School of Medicine*
Immune Response to Pathogens

Ann Marshak-Rothstein, *University of Massachusetts Medical School*
B Cell Tolerance and Autoimmunity

Vijay K. Kuchroo, *Brigham & Women's Hospital Harvard Medical School*
T Cell Tolerance and Autoimmunity

Catherine J. Wu, *Dana Farber Cancer Institute Harvard Medical School*
Tumor Immunology

Joanne L. Viney, *Biogen Idec*
Immunotherapeutics

Dennis W. Metzger, *Albany Medical College*
Vaccines

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

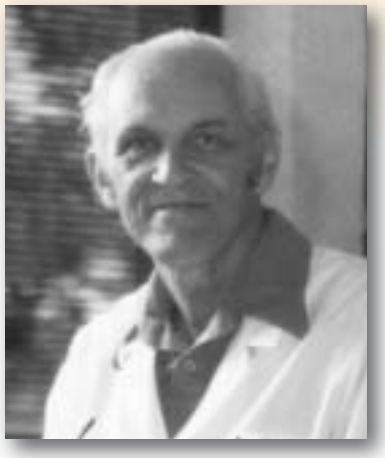
For assistance, contact (301) 634-7178 or meetings@aai.org. Overseas applicants are advised to apply early for visas; for details, visit www.aai.org/Education/Courses/Visa.html. Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit www.faseb.org/MARC.

David W. Talmage, M.D., AAI '54

1919–2014

AAI President 1978–1979

AAI mourns the loss of David W. Talmage, M.D., a past AAI president (1978-1979) and recipient of the AAI Lifetime Achievement Award (1994) who is credited with conceptualizing many central tenets of immunology, in particular those that led to the clonal selection theory. The following tribute is based upon an obituary published by the Talmage family in March 2014 on the Monarch Society website and Dr. Talmage's own words drawn from a narrative of his life work appended to his CV. AAI gratefully acknowledges the family's permission to extend the obituary in presenting the tribute here. AAI also thanks Drs. Ann Feeney and David Nemazee for their comments.



David W. Talmage

A life begun in 1919 ended peacefully on March 6, 2014, as David W. Talmage died at home on his own terms. David was an intellectual giant who was determinedly practical. At 94 years, he knew he was failing in health and resolutely planned his passing. He was pleased to have seen all five of his children and their spouses as well as most of his ten grandchildren and their significant others in the few weeks before his death.

Born of Presbyterian missionaries, he was raised in Korea by his parents and his beloved Grandmother Emerson. He was the sixth of seven children and spent his entire young life in Korea. He attended a mission boarding high school in Pyongyang (also known as Pyeng Yang) in what is now North Korea. He had little formal schooling until high school, having been educated at home and in small mission schools.

His was an interesting young life in the countryside of South Korea in the small town of Kwangju. His first visit to the United States didn't occur until he was 13 when he spent a few months in Decatur, Georgia, while his father was on furlough from his mission work. After returning to Korea, Talmage would not visit the United States again until he returned to attend college. He attended Maryville College for one year before transferring to Davidson College where he graduated in 1941. He attended medical school at Washington University in St. Louis during World War II, graduating in 1944 when the war required an accelerated path for medical school graduations. From 1945 to 1947, he served as a United States Army medical adviser to the Korean government. He served two internships: the first at Georgia Baptist Hospital in Atlanta (1944-1945) and the second at Barnes Hospital in St. Louis (1948-1949). He later served a residency at Barnes Hospital (1949-1950) and a fellowship at Washington University (1950-1951).

Talmage married the love of his life, LaVeryn, in 1944, and remained devoted to her until her death in 2013. Together, they raised five children, Janet Lynn "Jenny" Bock (Jim), Marilyn Talmage-Bowers (Kent), David Hall Talmage (Ellie), Mark Talmage (Karen), and Carol Talmage, all of whom reside in the Denver area. With LaVeryn, he raised their family, travelled the world, and distinguished himself in his career. In late life, he supported her painting career and took care of her while studying his own new interest, physics.

Talmage had an illustrious career with appointments at the University of Colorado Health Sciences Center (UCHSC), the University of Chicago, and the University of Pittsburgh. He was a distinguished professor at the University of Colorado from 1986 until his death. He also served as the associate dean for research affairs at the University of Colorado Health Sciences Center (UCHSC) from 1983 to 1986. He was the director of the Webb Waring Lung Institute from 1973 to 1983, the dean of faculty at UCHSC from 1969 to 1971, acting dean of faculty at UCHSC from 1968 to1969, associate dean of faculty from 1966 to1968, and professor and chairman of the Microbiology Department at UCHSC from 1963 to 1966. He was a professor in the UCHSC Department of Microbiology and Immunology from 1960 to 1986 and a professor in the UCHSC Department of Medicine from 1959 to 1960. He also served as assistant professor at the University of Chicago (1952-1956) and the University of Pittsburgh (1951-1952).

Talmage's professional achievements earned him much acclaim. He was elected to the National Academy of Sciences in 1976 and served on the Council of the National Institute of Allergy and Infectious Diseases from 1974 to 1978. He was president of The American Association of Immunologists 1978-1979, and a member of the AAI Council from 1973 to 1980. He also served as chair of the AAI Awards Committee (1979-1980) and as an AAI representative to the FASEB Board (1977-1980) and to the FASEB Public Affairs Committee (1981-1983). In

addition, he was a member of the editorial board for *The Journal of Immunology,* including as an associate editor (1968-1972) and a member (1973-1977) of what is today the AAI Publications Committee.

In 1994, he received the AAI Lifetime Achievement Award, the highest honor bestowed by the AAI Council in recognition of a member's career of scientific achievement and contributions to AAI and fellow immunologists. His additional career appointments and honors included service as president of the American Academy of Allergy, Asthma, and Immunology, editor for the *Journal of Allergy*, recipient of the Bonfils-Stanton Award, the Sewall Award from the University of Colorado, and the Sandoz Immunology Prize. He was awarded the University of Colorado Faculty Research Lectureship, the Fulbright-Hays Senior Scholar Award, honorary doctorates from Colorado State University and Buena Vista College, and an Alumni Recognition Award from the University of Chicago. He was a Markle Scholar and a member of Phi Beta Kappa and Alpha Omega Alpha honorary societies.

Between 1948 and 2007, Dr. Talmage authored more than 150 articles in leading scientific journals predominantly addressing immunobiology. In 1995, he published his first physics article. Three weeks before his death, he submitted a paper to a physics contest with an essay on physics related to gravity and inertia.

His immunology research included a large body of work on many aspects of the interaction of antigen and antibody, and the formation of antibodies by B cells after antigenic exposure, as well as other areas such as transplantation biology and immunological tolerance. He began his research in St. Louis in the laboratory of Frank Dixon, where they proposed a two-step process for the formation of antibodies, based on his studies using radiolabeled proteins. They demonstrated that the first radiosensitive phase was followed by a radioresistant phase, and that the first phase was absent from the more rapid anamnestic response. After his move to Chicago, his work led him to propose that the avidity of antibody for antigen is variable. He proposed that each B cell would make only one particular antibody, a concept which was expanded upon later that year by Burnet, who coined the term "clonal selection theory."[1]

Talmage brought together a number of studies in his 1957 *Annual Reviews in Medicine*[2] article, leading him to note that "…only those cells are selected for multiplication whose synthesized product has affinity for the antigen injected." Hence, Talmage, along with Ehrlich, Jerne, and Burnet, all contributed to the development of the clonal selection theory. His work in 1955 and 1956 with Taliaferro demonstrated antibody diversity and showed, using transferred spleen cells, that immunological memory consisted of newly made, not preformed, antibodies. His analysis, with Lee Hood, of the available amino acid sequences of Bence Jones proteins led to their 1970 *Science* article "Mechanism of Antibody Diversity: Germ Line Basis for Variability."[3]

Personally, Talmage was described by his family as a peacemaker above all. He was remarkably patient and loving. He disliked conflict and advised forgiveness and restraint in judging others. He gave everyone the benefit of the doubt and counseled respect for all humans. He was seldom critical, and was empathetic and concerned about others. He was a humble person despite his many accomplishments.

In addition to his children and grandchildren, Talmage is survived by his sister, Mariella Provost, Black Mountain, North Carolina, as well as many nieces and nephews. He was predeceased by his other siblings: John, Franklin, William, Janet (Keller), and Roy.

Gifts in his honor may be made to Montview Boulevard Presbyterian Church (montview.org) or Colorado Homeless Families (Coloradohomelessfamilies.org). Personal condolences may be sent to the family via Marilyn Talmage-Bowers, Psy.D., at marilyntalmagebowers@gmail.com.

View highlights of Dr. Talmage's AAI service and career achievements, including his 2012 video interview for the AAI Oral History Project, at http://www.aai.org/About/History/Notable_Members/Presidents/Talmage_David.html

1. *Burnet, F. M. 1957. A modification of Jerne's theory of antibody production using the concept of clonal selection. Aust. J. Sci. 20:67-69.*
2. *Talmage, D. W. 1957. Allergy and Immunology Ann. Rev. Med. 8:239-245.*
3. *Hood, L., and D. W. Talmage. 1970. Mechanism of Antibody Diversity: Germ Line Basis for Variability. Science 168:325-334.*

Monto Ho, M.D., AAI '61

1927–2013

The following tribute is reprinted with permission from the January 9, 2014, issue of the University Times*, the staff and faculty newspaper of the University of Pittsburgh.*

Monto Ho

Infectious disease specialist Monto Ho died December 16, 2013, at UPMC Presbyterian of complications following a fall.

Ho, chair emeritus of the Graduate School of Public Health Department of Infectious Diseases and Microbiology and former chief of the School of Medicine Division of Infectious Disease, was 86.

Ho was internationally recognized for his research on interferon, a substance produced by the body to fight viral infections, and was a renowned expert and pioneer in the understanding of cytomegalovirus (CMV) infection.

Charles Rinaldo, chair of the Department of Infectious Diseases and Microbiology, noted Ho's extraordinary capacity to serve in three leadership positions concurrently: not only as a public health department chair and School of Medicine division chief, but also as medical director of the clinical microbiology labs at UPMC Presbyterian.

Ho's leadership qualities included not only profound intelligence but also a calm demeanor and a forthright yet compassionate nature, said Rinaldo, adding that Ho's unique experience gave him a broad-based perspective as a medical doctor, public health clinician and researcher.

"He had a broad vision of what needed to be done to address problems," Rinaldo said.

A native of China, Ho earned a bachelor's degree in philosophy and government at Harvard in 1949 and graduated in 1954 from Harvard Medical School, where he studied under Nobel laureate John Enders.

While Ho's undergraduate education was not in medicine, it nevertheless aided his later work, Rinaldo noted. "This more diverse background helped him see the world more clearly, to search hypotheses and get answers."

Rinaldo characterized Ho as a clear thinker with a systematic approach to research. "He stood even above other giants in that respect. He had a very set manner," Rinaldo said, adding, "There's a strength to that: building on ideas."

Research — both basic and clinical — was Ho's passion, Rinaldo said, adding that his best-known discoveries were "simple, clear ideas with profound effects on people's lives."

Ho's lab uncovered the source of post-transplant viral infections — particularly CMV and herpesvirus — that complicated early organ transplants. Ho collaborated with Thomas E. Starzl on a National Institutes of Health grant to study the serology of transplant recipients and donors, research that showed that the mechanism of virus transmission is from donor to recipient.

Ho's discovery that CMV could be transmitted by a transplanted organ was "a simple finding in essence with an extraordinary impact on the field to this day, " Rinaldo said. "It changed the field of transplantation science. Donors and recipients are screened for CMV to this day. It's an inexorable part of the screening and clinical oversight of these patients."

Ho's later work in Taiwan changed the nation's policies on the use of antibiotics in the wake of gross overuse and rising drug resistance.

His work on CMV and in Taiwan "absolutely saved numerous lives," Rinaldo said.

In a message informing colleagues of Ho's death, public health Dean Donald S. Burke cited Ho's key professional achievements. "Dr. Ho made fundamental discoveries of the antiviral activity of interferon and was the first to recognize that cytomegalovirus infection can be transmitted by the transplanted organ. He was considered the foremost expert on the clinical pathogenesis of CMV infection, and wrote a book on the subject that was for many years the main source of information on CMV infection. After retirement in 1997, he initiated a national surveillance program of antibiotic resistance in Taiwan that led to a significant decrease in the use of antibiotics," Burke wrote.

Ho joined the Pitt faculty in 1959 as an assistant professor of epidemiology and microbiology and in 1962 received a joint appointment in the School of Medicine. There, in 1971, he became chief of the Division of Infectious Diseases and was named professor of medicine.

At the public health school, Ho was promoted to professor of microbiology in 1965 and was named chair of the epidemiology and microbiology department (now the Department of Infectious Diseases and Microbiology) in 1969.

Rinaldo succeeded him as chair when Ho left the University in 1997 to direct the division of clinical research in Taiwan's National Health Research Institutes.

In addition to authoring many publications, Ho wrote a memoir in 2005. "Several Worlds: Reminiscences and Reflections of a Chinese-American Physician" described his life from childhood as the son of a Chinese diplomat through his research career in Pittsburgh and Taiwan.

Ho had an easy smile and infectious laugh, Rinaldo said. "He had the same laugh at 85 that he must have had at age 10," he said. "One that grabs you and makes you feel good, too."

While Ho's demeanor was conservative, he appreciated a good joke, Rinaldo said, adding that Ho once surprised colleagues by appearing at the school's Halloween party clad in full snorkeling gear. "For the chair to show up like that was memorable."

While Ho's life was devoted mainly to his profession and family, Rinaldo said he enjoyed world travel and was an avid tennis player.

His ongoing dedication to the department was further demonstrated in 2006 when Ho and his wife, Carol Tsu Ho, a former librarian in the public health school, pledged $2 million to endow the Monto and Carol Ho Chair in Infectious Diseases and Microbiology in the Graduate School of Public Health.

"He realized this would be important for the future of the department," Rinaldo said of the endowed chair. "He made sure the department lived on through his gift."

In addition to his wife of 61 years, Ho is survived by a daughter, Bettie Pei-wen Carlson; a son, John Ho; a sister, Manli Ho, and three grandchildren.

Memorial gifts to establish a scholarship in Ho's memory may be sent to the Department of Infectious Diseases and Microbiology, A419B Public Health, Pittsburgh, PA 15261.

—Kimberly K. Barlow

A Survey of the "AAI Looks Back" Features in the *AAI Newsletter*

Since the AAI Office of History and Archives was founded in 2011, staff have researched, archived, and written about key people and moments in the remarkable history of AAI. Several AAI history projects were debuted during the centennial celebration at IMMUNOLOGY 2013™ and presented again at the 2014 AAI annual meeting: the AAI Centennial Timeline, Walk of Notables, Oral History Project, StoryBooth, and Immunology in Popular Culture exhibits. We have continued to celebrate the rich history of AAI throughout the last year, adding the AAI Digital Timeline and dozens of biographical profiles of past presidents to the AAI website, which also features the 14 articles published in the *AAI Newsletter* issues indicated below.

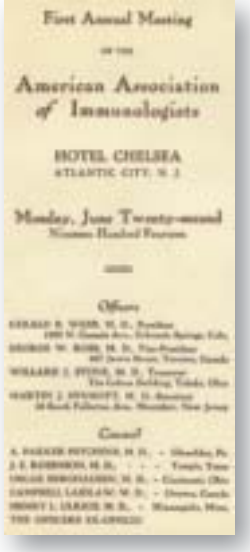
The Founding of AAI

By John Emrich (May/June 2012)

A group of like-minded physician-scientists met on the University of Minnesota campus in June 1913 to establish a new professional society and, in the process, defined a new field of medical study—*immunology*. Beginning with only 52 members that first year, the American Association of Immunologists has grown into the largest and most prestigious association for immunologists in the world, with a current membership of 7,800 scientists.

The Science at the First AAI Annual Meeting

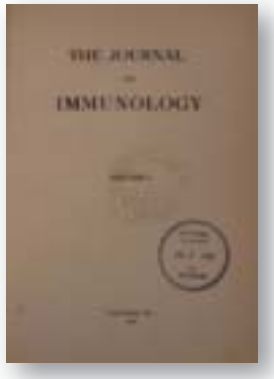
By Mary Litzinger (May/June 2012)


First Annual Meeting
American Association of Immunologists
HOTEL CHELSEA
ATLANTIC CITY, N. J.
Monday, June Twenty-second
Officers
Council

AAI annual meetings now draw 3,500–4,000 attendees, a far cry from the 18 who met in Atlantic City, New Jersey, in June 1914 for the first AAI annual meeting. Yet, even then, the program covered a remarkably diverse range of scientific topics, from "specific ferments" to tuberculin therapy.

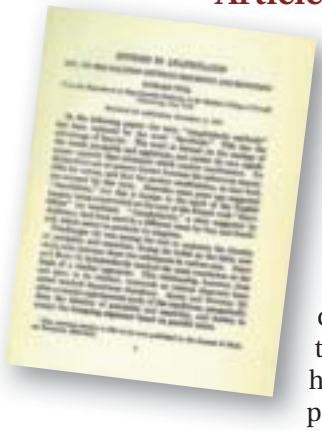
The Founding of *The Journal of Immunology*

By John Emrich (December 2011)



Owned and published by the American Association of Immunologists, *The Journal of Immunology* is inseparable from the association today. For a brief moment at the journal's founding, however, this relationship was in doubt. Only the foresight and determination of the first chairman of the AAI Council ensured that *The JI*, originally conceived of by members of another society, became associated with AAI.

"Studies in Anaphylaxis": The First Article in *The Journal of Immunology*



By Mary Litzinger (December 2011)

From its first issue in February 1916, *The Journal of Immunology* has been unafraid to take on controversial topics directly. Although humoral theories held sway in the humoral vs. cellular debate that preoccupied immunologists at the time, the editorial board of *The JI* selected as the first article a study of anaphylaxis that challenged the predominant humoral theory with a cellular alternative.

Elise Strang L'Esperance: Pioneer in Cancer Prevention and Recipient of Lasker Award

By John Emrich (January/February 2012)

Believing that early detection was the best defense against cancer, Elise L'Esperance (AAI '20) advocated annual physical examinations and developed a model for the early detection of cancer at her preventive clinic in New York City. Her initiative proved successful and enduring, earning her the Lasker Award for Clinical Medical Research in 1951.

Immunologists during the First World War: One Soldier-Scientist's Experience—Stanhope Bayne-Jones

By John Emrich and Bryan Peery (December 2012)

Just thirteen months after the founding of the American Association of Immunologists, the First World War began in Europe. The war's impact—both on the careers of individual immunologists and on medical research in general—cannot be overstated. The wartime experience of Stanhope Bayne-Jones (AAI '17, president 1930–31) illustrates the struggles endured by those researchers who left behind the laboratory to serve as physicians on the front lines.

The 1918–1919 Influenza Pandemic as Covered in *The Journal of Immunology*

By Mary Litzinger (July/August 2012)

As influenza swept across the country in 1918 and 1919, *The Journal of Immunology* became a forum for discussion of the causes of the disease as well as methods for its prevention. Although the first identification and isolation of a human influenza virus did not occur until the 1930s, this early work on influenza in *The JI* nevertheless contributed to the growing body of knowledge on the disease.

Anna Wessels Williams: Infectious Disease Pioneer and Public Health Advocate

By John Emrich (March/April 2012)

In an era fraught with concerns for public health and consumed with desires for social uplift, Anna Williams (AAI '18) broke the professional barriers facing women in science and became a pioneer in the field of infectious diseases. Her success in saving thousands of lives with her groundbreaking research on rabies, diphtheria, and trachoma serves to inspire the next generation of immunologists.

100 Years of AAI: A Look Back at Two Early Immunologists in Hawaii

By Bryan Peery and John Emrich (May/June 2013)

The idyllic island scenery of Hawaii has long served as a setting for immunological research, with two early immunologists and AAI members calling the islands home. Archibald N. Sinclair (AAI '13), a charter member of AAI, pioneered an immunological-based method for the treatment of tuberculosis on the islands, and Nils P. Larsen (AAI '23) drastically improved public health on the islands by calling for sanitary reforms in the 1920s.

PI in the Scotland Yard of Streptococcal Mysteries: Rebecca Lancefield

By John Emrich and Bryan Peery (March/April 2013)

Few early members of AAI have left a more enduring mark upon the field than Rebecca C. Lancefield (AAI '33), who developed the classification system of streptococcus that is still in use today. She dedicated much of her nearly six-decades-long career at the Rockefeller Institute for Medical Research to typing streptococci and discovering how streptococcal infections, such as rheumatic fever, were able to reoccur. By the early 1960s, her pioneering research won her widespread plaudits, including election as the first female president of AAI.

From the Archives: What's Old is New Again: Early Editors of *The JI* Act to Address Perennial Challenges in the Peer-Review and Editing Process

By John Emrich and Bryan Peery (January/February 2014)

By the mid-1930s, the ad-hoc system of peer review employed by *The Journal of Immunology* during its early years proved inadequate for handling the increased volume and specialization of articles submitted for publication. Under the keen direction of Arthur F. Coca (AAI '16), the first editor-in-chief, *The JI* editorial board recognized and addressed these challenges, ensuring *The JI* retained its reputation as the preeminent journal in the field of immunology. Minutes of the two 1937 meetings concerning the re-organization of the editorial board and changes in the peer-review process accompany the article, and annotated versions are available on the AAI website at www.aai.org/about/history.

A Legacy of Advocacy Is Born as AAI Confronts McCarthyism

By Bryan Peery and John Emrich (November/December 2013)

The anti-communist wave that swept across the American political landscape in the 1950s affected every sector of society, including biomedical research. When rumors arose in 1954 that the NIH was blacklisting scientists on political grounds, the AAI Council entered the realm of public policy for the first time, drafting a resolution defending scientific freedom and calling for the distribution of grants based solely on scientific merit.

Creating a Buzz in the Field of Immunology: Mary Hewitt Loveless and the Development of Venom Therapy for the Prevention of Sting-Induced Anaphylaxis

By Bryan Peery and John Emrich (Winter 2013)

A middle-aged woman running through her garden with butterfly net in hand may not be the first image that pops into one's head when thinking of immunologists in the 1950s, but this is precisely how Mary Hewitt Loveless (AAI '41) spent her summer days, catching wasps and bees for use in her research. She pioneered the use of venom extracts to treat hypersensitivity to Hymenoptera stings in the early 1950s and soon moved on to inducing live stings in her office at a time when injections of commercially available whole-body extracts remained the recommended treatment. Loveless steadfastly defended her unconventional methods for over twenty-five years before they gained acceptance in the broader scientific community.

The Emergence of Immunology in Pittsburgh

By Bryan Peery and John Emrich (March/April 2014)

AAI members have played significant roles in earning Pittsburgh its reputation as a major center for biomedical research. Young immunologists like Jonas Salk (AAI '47) and Frank Dixon (AAI '50, president 1971–72) first seized the opportunity for independence and career advancement offered by the nascent research program at the University of Pittsburgh in the late 1940s and early 1950s. Today, several prominent AAI members continue to call the city home.

To learn more about the many initiatives of the AAI Office of History and Archives, visit the history section of the AAI website, www.aai.org/about/history.

Authors, Contributors, and Advisors:

John S. Emrich, Ph.D., AAI Historian and Archivist

Bryan D. Peery, Ph.D., AAI Assistant Historian

Mary T. Litzinger, Ph.D., AAI Manager of Educational and Career Development Programs

Elizabeth R. Walsh, Ph.D., AAI Science Liaison

Applying Darwinian Principles to the Job Search

If Darwin were to read your resumé would he consider you "fit"? That is, would he deem you ready to enter the applicant pool in the job market? In Darwinian principles, an animal must develop traits that confer a selective advantage over its competition to survive and contribute to raising the fitness level of the gene pool. Applying the same principle to career development is useful, although daunting. Are we not required to rise above our competition for the positions we seek? How, though, are we to do our jobs in the labs and develop attributes that set us apart from the crowd of other applicants? In a recent interview with AAI Science Liaison Elizabeth Walsh (AAI '11), Derek Haseltine, director of career services in the College of Professional Studies at George Washington University and frequent career workshop leader and speaker at the AAI annual meeting, shared some of his thoughts on inventive ways to build essential skills adaptable to many career paths.

Given the limitations on most trainees' time and means, are there any essential skill sets that you see as providing job seekers the "biggest bang for the buck"?

Derek Haseltine

I hate to use a "dirty" word, but one of the most important skills is networking. You can attend organized networking events to make new contacts, but interactions there can often feel forced and awkward. In many cases, I've experienced better networking after the event by contacting people via a friendly email. Even people I didn't have a chance to meet.

Organizing your own seminars or discussion groups is an excellent way to build leadership, communication, and networking skills vital to career development, and hosting these events doesn't have to be costly if you mine local talent and individuals who require no compensation. One great success story began with a group of students meeting to discuss management-consulting case studies. The sessions evolved into a club with a formal business-consulting speaker series. The group was so successful that consulting firms began cold-contacting the club leaders to volunteer to participate in seminars, and the group is now considering becoming a non-profit consulting firm.

I also know of one student-initiated science-writing group that actually became incorporated more formally into their institution's curriculum. The group laid the foundation for forming a course and helped determine relevant content to make the class successful. That initiative looks great on a resumé.

Could you suggest strategies to make networking easier for the introverted scientist?

If you're introverted, you might consider volunteering in some way for a networking event. Perhaps you could help coordinate the registration process in advance. This kind of engagement can help to break the ice and provide a built-in conversation opener with people you encounter there.

If talking to strangers is difficult for you, look for opportunities that allow you to network indirectly or on behalf of an organized entity. Getting involved with a national or institutional postdoctoral or graduate student association offers great opportunities to network with peers, professionals, and faculty within and outside your campus. Examine your institution's event calendar for career panels and seminars that are of interest to you. Consider contacting the sponsor to ask if you can participate in the speaker recruitment or hosting responsibilities. These roles give you standing for approaching people unselfconsciously.

All of these activities are outside of the lab. Are there ways trainees can build resumé-worthy skills within the lab?

If you have limited time to spend on professional development outside of the lab, you can still find ways to improve "soft" skills within the lab. Mentoring an undergraduate student or joining departmental committees that plan educational retreats, journal clubs, speaker seminars, or faculty searches are avenues for gaining fundamental leadership experience. Most academic curricula also have built-in opportunities to develop grant-writing and other essential writing skills for both academic and non-academic posts.

You note that good communications skills are essential to all career tracks. Can you suggest ways to build communication skills?

Certainly, presenting your work at professional scientific meetings develops these skills, but you should also seek out speaking opportunities that are a little outside your comfort zone to demonstrate that you can communicate with an audience broader than one composed solely of experts in your field. You can contribute to training programs for younger students at your institution or children at local schools. Volunteer to talk to an undergraduate class about careers in science or participate in a high school science day. Speaking at one of these events is a unique exercise, because it requires you to break your science down into something that is both understandable and engaging to young people. It's almost like producing a commercial.

There are also organized clubs you can join to develop communication skills. For example, Toastmasters International[1] is a group for professionals focused on refining leadership and presentation skills. Some of my former advisees have benefited from participation in this group. I remember one international student, in particular, who was an excellent scientist but had difficulty conveying his work and engaging his audience during oral presentations. He went through the Toastmasters program and, just one year later, received a prize for his presentation during our campus seminar series.

[1] http://www.toastmasters.org/

The use of social media and professional networking sites has increased tremendously in the past few years. How can these resources be used to promote professional development?

Very carefully. You have to use these sites thoughtfully. If you do, you can improve your visibility to employers to a remarkable degree. There are countless blogging sites where you can demonstrate and improve your writing prowess. Incorporate your scientific background, and hyperlink your LinkedIn profile on a micro-blogging site like Tumblr to raise awareness of you and your work. You might even attract potential employers to your profile.

You can also join discussion threads on professional networking sites to raise your visibility to prospective employers, but you need to use a strategic approach. Many trainees join group discussions only to indicate that they are looking for jobs. That's a generally unproductive tactic that actually detracts from the site's value to the group. Starting a discussion about a subject of interest to you or writing an insightful comment on a thread that is already active can yield better results. A former mentee's posting of a science-writing thread on a forum prompted two big-name journalists to join the conversation and connect with her off-line to discuss career options.

Do you have any other advice for trainees beginning their job search?

Try not to get caught up in conveying the minutia of your science on a CV. Your body of work is important, but if you want to survive in today's job market, you need to be able to present prospective employers with the big picture of who you are and what you can bring to the table, beyond what you've done at the bench. That's why skill-building is so important. Featuring these activities on your CV can help you stand out from other job seekers and give you the competitive edge with a hiring committee.

Had he written a career-development treatise, Darwin would have probably agreed wholeheartedly with the following principle, although likely stating it in somewhat different terms: he who has developed desirable employee traits will engender a selective advantage, ensuring the continued evolution of his career. Let's call it "The Origin of Employability."

Elizabeth Walsh, Ph.D., AAI Science Liasion

AAI Outreach Program

AAI continues to enrich career development opportunities for scientists through the association's Outreach Program. AAI, each year, supports selected member-led immunology meetings that provide speaking opportunities and awards to young investigators. AAI was pleased to sponsor keynote speakers and oral and poster abstract sessions at two conferences this past winter: the American Association of Veterinary Immunologists (AAVI) Mini-symposium and Student Poster Presentation Competition at the Conference of Research Workers in Animal Diseases (CRWAD) annual meeting and the Midwinter Conference of Immunologists (MCI).

American Association of Veterinary Immunologists

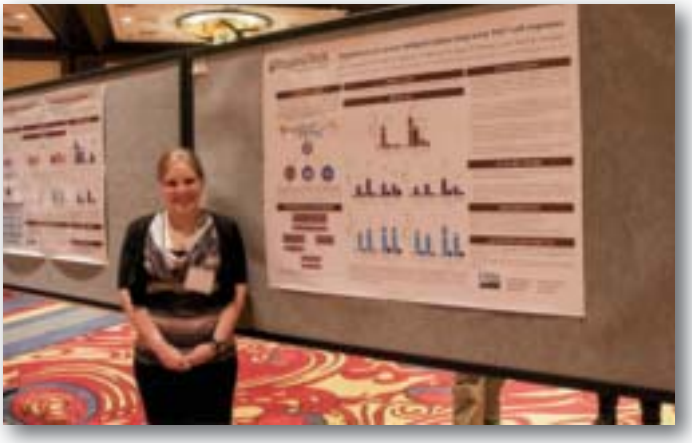
The AAVI again in 2013 hosted a scientific session and student abstract competition at the CRWAD meeting, held December 8-10 in Chicago. Crystal Loving (AAI '13) organized the AAVI Mini-symposium titled "Vaccine Design—Targeting the Immune System," which covered a wide range of topics and species within the overarching theme of vaccines in the context of immunology. Ian Tizard, the 2013 recipient of the AAI-sponsored AAVI Distinguished Veterinary Immunologist Award, delivered the immunology keynote address, aptly entitled, "The future of veterinary immunology: The emerging role of the intestinal microbiota in regulating almost anything!"

For the third consecutive year, AAI provided support for the AAVI Student Presentation Competition, sponsoring three oral and three poster presentation awards. The competition, which drew participants from four countries, featured presentations on a host of topics and animal species, including cattle, pigs, and horses. AAI oral presentation awardees were Valerie Ryman (1st place), William Raphael (2nd place), and Sally Robinson (3rd place). Poster presentation winners were Mari Lehtimaki (1st place), Jagadish Hiremath (2nd place, AAI '14), and Alejandro Benítez-Guzmán (3rd place).

Midwinter Conference of Immunologists

The 53rd Annual MCI drew approximately 175 immunologists, January 25–28, 2014, to its seaside setting at the Asilomar Conference Grounds in Pacific Grove, California. MCI Executive Director Christel H. Uittenbogaart (AAI '84) presided. Terri M. Laufer (AAI '99) and Arthur Weiss (AAI '81) served as co-chairs for the conference. Weiss introduced the AAI-sponsored Dan H. Campbell Memorial Lecturer Abul K. Abbas (AAI '78), detailing Abbas's many accomplishments and delighting the crowd by showing a University of California, San Francisco, student-produced music video that featured Abbas. Abbas chose a more straightforward delivery for his keynote address: "Controlling autoimmunity: the balance of effector and regulatory T cells."

The conference featured talks by two 2014 AAI Career Award recipients. This year's AAI-Life Technologies Meritorious Career Award recipient Timothy A. Springer (AAI '79) used a video of a rain dance to suggest an instructive analogy of how integrins function as force-regulated signaling machines.



First place poster winner at the 2013 AAVI Student Presentation Competition Mari Lehtimaki (photo courtesy of the American Association Of Veterinary Immunologists)

MCI 2014 AAI Oral Abstract Presenters:

Back row (l-r) Imran Khan; Lauren Higdon; Emma Kuan; Carrie Lucas; Front row (l-r) Chris Martin; Guo Fu; Jeanette Tenthorey*; Sterling Eckard*
**AAI Ray Owen Young Investigator Award Recipient, Oral Abstract*

Carl H. June (AAI '87), the 2014 AAI-Steinman Award for Human Immunology Research recipient, spoke on "Engineering T cells to overcome tumor immunosuppression."

Eight young scientists' abstracts were selected by the conference organizers to be presented during the AAI-sponsored Oral Poster Presentation Session. David Scott (AAI '73) moderated the lively and varied session, which featured topics ranging from the molecular basis of the inflammasome's recognition of bacterial ligands to an analysis of p110-delta mutants in human immunodeficiencies.

"It was wonderful to meet young scientists interested in the whole spectrum of immunology from the microscopic to the macroscopic. It was clear that all the participants were excited to share their work, and the scientists attending the oral abstract session really enjoyed the talks," said AAI Science Liaison Elizabeth Walsh (AAI '14), who was in attendance on behalf of AAI.

As in the past two years, AAI sponsored eight Ray Owen Young Investigator Awards for outstanding poster and oral presenters. Following attendees' impromptu rendition of "Happy Birthday" for Weiss, he and Laufer presented the poster awards to three graduate students—Kevin Barry (AAI '13), Neha Deshpande (AAI '12), and Frederic Duval—and three postdoctoral fellows—Bryan Becklund (AAI '13), Laura Snell, and Michael Waterfield. Recipients selected from the AAI Oral Poster Presentation Session were Jeanette Tenthorey and Carrie Lucas (AAI '09).

MCI AAI Award Winners (l-r) Carrie Lucas (oral); Neha Deshpande (poster); Bryan Becklund (poster); Kevin Barry (poster)

MCI AAI Poster Award winner Michael Waterfield (photo courtesy of Martha Zuniga)

MCI Chairpersons Art Weiss, Terri Laufer (photo courtesy of Martha Zuniga)

MCI AAI Poster Award Winners Laura Snell, Frederic Duval (photo courtesy of Martha Zuniga)

Jellyfish performing underwater acrobatics at the Monterey Bay Aquarium

2014 AAI Trainee Achievement and Early/Mid-Career Faculty Award Recipients

PFIZER-SHOWELL TRAVEL AWARD

To recognize the professional promise of an early-career investigator

Support for this award is generously provided through an endowment from Henry J. Showell and Pfizer, Inc.

Edward A. Miao, M.D., Ph.D.

Assistant Professor
University of North Carolina, Chapel Hill

LUSTGARTEN-eBIOSCIENCE MEMORIAL AWARD

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

Support for this award is generously provided by eBioscience, an Affymetrix company.

Guangyong Peng, M.D., Ph.D.

Associate Professor
St. Louis University School of Medicine

CHAMBERS-eBIOSCIENCE MEMORIAL AWARD

To advance the career of an early-career scientist who attends the AAI annual meeting for the purpose of presenting immunology research specifically in the area of cancer biology

Support for this award is generously provided by eBioscience, an Affymetrix company.

Irving C. Allen, Ph.D.

Assistant Professor
Virginia Polytechnic Institute and State University

LEFRANÇOIS-BIOLEGEND MEMORIAL AWARD

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

This award is generously supported by BioLegend and donations from friends and colleagues of Dr. Lefrançois.

Kristine-Ann G. Buela

Graduate Student
University of Pittsburgh

AAI-LIFE TECHNOLOGIES TRAINEE ACHIEVEMENT AWARDS

To recognize promising trainees in the field of immunology

Support for these awards is generously provided by Life Technologies Corporation.

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Baoyu Liu, Ph.D.

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Carrie L. Lucas, Ph.D.

Postdoctoral Fellow
NIAID, NIH

Nathan Mathewson

Graduate Student
University of Michigan Medical School

Melissa Y. Tjota

Graduate Student
University of Chicago

Noah J. Tubo, Ph.D.

Postdoctoral Fellow
University of Minnesota

Award recipients are determined by a two-tier review process, with semi-finalists selected by the AAI Abstract Programming Chairs and finalists selected by the AAI Awards Committee.

2014 AAI TRAINEE ABSTRACT AWARDEES

Awarded to AAI Trainee Members (students and postdoctoral fellows) whose first-author abstracts are selected for presentation in AAI Block Symposia. NEW this year: award amounts vary according to recipient's years of consecutive AAI membership.

Supported, in part, by BD Biosciences and Ancell Corporation

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University of Alabama, Birmingham

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University of California, Davis

Feng Liu, Ph.D.
Centers for Disease Control and Prevention

Houpu Liu
University of Texas Medical Branch

Jianyun Liu, Ph.D.
Indiana University School of Medicine

Yujie Liu, Ph.D.
Children's Hospital of Philadelphia

Carrie L. Lucas, Ph.D.
National Institute of Allergy and Infectious Diseases, NIH

Kate A. Markey, MBBS, Ph.D.
Queensland Institute of Medical Research

Joel Mathews, D.O., Ph.D.
Harvard School of Public Health

Viveka Mayya, Ph.D.
NYU Rangone Medical Center

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University of Maryland, Baltimore

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Duke University

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University of Iowa

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Harvard University

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Wistar Institute

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St. Jude Children's Research Hospital

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St. Jude Children's Research Hospital

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Feinstein Institute for Medical Research

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Mount Sinai School of Medicine

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University of Rochester

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National Cancer Institute, NIH

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University of Pittsburgh

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Brown University

Melissa Yuwono Tjota
University of Chicago

Smanla Tundup, D.O., Ph.D.
University of Georgia

Stina Lisa Urban
University of Massachusetts Medical School

Kristi J. Warren, Ph.D.
Johns Hopkins Medicine

Casandra M. Washington Philipson
Virginia Bioinformatics Institute

Alan Michael Watson, Ph.D.
University of Pittsburgh

Brian M. Weist, Ph.D.
University of California, Berkeley

Xiangshu Wen, M.D., Ph.D.
University of Southern California

Joel R. Wilmore, Ph.D.
University of Pennsylvania

Yanping Xiao, D.O., Ph.D.
Dana-Farber Cancer Institute

Guang Yang
Duke University

Wenliang Zhang, Ph.D.
University of Massachusetts Medical School

SECOND-YEAR MEMBERS

Alexander J. Adami
University of Connecticut Health Center

Scott M. Anthony
University of Texas MD Anderson Cancer Center

Olufolakemi Awe
Indiana University School of Medicine

Sonali Bracken
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Drexel University College of Medicine

Brian Mark Janelsins, Ph.D.
National Institute of Allergy and Infectious Diseases, NIH

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University of Texas Southwestern Medical Center

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Emory University

Jonathan P. McNally
Cincinnati Children's Hospital Medical Center

Lauren M.F. Merlo, Ph.D.
Lankenau Institute for Medical Research

Amina Metidji
National Institute of Allergy and Infectious Diseases, NIH

Albanus O. Moguche
University of Washington

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St. Jude Children's Research Hospital

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SUNY Upstate Medical University

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Michael Quinn
Thomas Jefferson University

Brendan Kearney Reed
Mayo Clinic

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Saint Louis University School of Medicine

Louis N. Schoettle
Arizona State University

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University of California, Davis

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Texas Tech University Health Sciences Center

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Thomas Jefferson University

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Washington University in St. Louis

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Roswell Park Cancer Institute

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University of Chicago

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Wayne State University

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National Cancer Institute, NIH

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Tufts University Sackler School of Biomedical Sciences

Alex W. Wessel
National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH

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Harvard School of Public Health

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University of Cincinnati

Jean-Christophe Beltra
CHU Sainte Justine Research Center

Michelle L. Bolner
University of Texas MD Anderson Cancer Center

S. A. Bora
Pennsylvania State University

Jillian Helena Bradley
Georgia Regents University

Adam L. Burrack
University of Colorado

Kristina Stoermer Burrack
University of Colorado School of Medicine

Sandra Cascio, Ph.D.
University of Pittsburgh

Cierra Nichole Casson
University of Pennsylvania

Pablo Francisco Céspedes Donoso, Sr., D.V.M., Ph.D.
Pontificia Universidad Católica de Chile

Krishnendu Chakraborty, Ph.D.
University of Pittsburgh

Samantha A. Chalmers
Albert Einstein College of Medicine

Kenji Chamoto, Ph.D.
Ontario Cancer Institute/Princess Margaret Cancer Centre

Shilpak Chatterjee, Ph.D.
Medical University of South Carolina

Hao-Sen Chiang, Ph.D.
Massachusetts General Hospital

Wai Po Chong, Ph.D.
National Eye Institute, NIH

Olesya Y. Chornoguz
Johns Hopkins University

Michael G. Constantinides
University of Chicago

Heather R. Conti, Ph.D.
University of Pittsburgh

Alan M. Copenhaver
University of Pennsylvania

Christine Morel Coquery
University of Virginia

Guoliang Cui, Ph.D.
Yale University

Alan Dale Curtis, II
East Carolina University

Abhishek Das, Ph.D.
Children's Hospital Boston

Mark Dell'Aringa
Duke University

Jillian M. Dietzold
Rutgers University

Qing Ding, Ph.D.
University of Pittsburgh Medical Center

Katherine Doll
University of Iowa

Daniel F. Dwyer
Harvard University

Jason S. Ellis, Ph.D.
University of Missouri

Leonardo Daniel Estrada
University of Texas Southwestern Medical Center

Roger Alan Fecher
University of Cincinnati/Cincinnati Children's Hospital Medical Center

John R. Ferdinand
National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH

Josephine Giles
Yale University

Sarah Ruth Gonzales
University of Texas Southwestern Medical Center

Chunqing Guo, Ph.D.
Virginia Commonwealth University

Xiaohuan Guo, Ph.D.
University of Chicago

Jennie A. Hamilton
University of Alabama, Birmingham

Bryan Harris
Fox Chase Cancer Center

Lifei Hou, Ph.D.
Harvard Medical School

Chia-Lin Hsu
Northwestern University

Ruozhen Hu, Ph.D.
University of Utah

Zhuting Hu
Dartmouth College

Matthew Hufford, Ph.D.
Indiana University School of Medicine

Makoto Inoue, Ph.D.
Duke University School of Medicine

Ejaj Intisar
University of Southampton

Jill A. Ippolito
Loyola University, Chicago

Yuval Itan, Ph.D.
Rockefeller University

Sohyun Sophia Jeon
University of Pittsburgh

Hyun-Bae Jie, Ph.D.
University of Pittsburgh

Derek D. Jones, Ph.D.
University of Pennsylvania

Jessica N. Jones, Ph.D.
University of Texas at Austin

Saghar Kaabinejadian, Pharm.D., Ph.D.
University of Oklahoma Health Sciences Center

Shannon M. Kahan, Ph.D.
University of Alabama, Birmingham

Masashi Kanayama, Ph.D.
Duke University

Senta Kapnick
National Human Genome Research Institute, NIH

Shilpa Keerthivasan, Ph.D.
University of Chicago

Domenick Edward Kennedy
Loyola University Chicago

B. Kim, Ph.D.
Case Western Reserve University

Marie Kim
University of Iowa

Yuthana Kongprachaya
Chatham University

Dmitri Ivanovich Kotov
University of Minnesota

Akshay T. Krishnamurty, D.M.D.
University of Washington

Pawan Kumar, Ph.D.
University of Pittsburgh

Brandon Kwong, Ph.D.
National Cancer Institute, NIH

Long Kwan Metthew Lam
University of Pittsburgh

Tonika Lam
University of California, Irvine

Brian Latimer
Drexel University College of Medicine

Yelena V. Lerman
University of Rochester Medical Center

Guanqiao Li
University of Pittsburgh

Davinna L. Ligons, Ph.D.
National Cancer Institute, NIH

Jason Jakob Lomueller, Ph.D.
University of Pittsburgh

Xiaoming Lu, Ph.D.
Cincinnati Children's Hospital Medical Center

Peder J. Lund
Stanford University

Ankit Malik
Michigan State University

Sarah M. McCormick, Ph.D.
Johns Hopkins University

Kaitlin L. McDaniel
Pennsylvania State University

Carlos Alberto Mier Aguilar
Universidad Nacional Autónoma de México

Zbigniew Mikulski, Ph.D.
La Jolla Institute for Allergy and Immunology

Eslam Mohamed
Georgia Regents University

Juan Ignacio Moliva
Ohio State University

Andrew J. Monteith
University of North Carolina-Chapel Hill

Giora I. Morozov, M.D., Ph.D.
National Institute of Allergy and Infectious Diseases, NIH

Munir M. Mosaheb
Boston University

Gayatri Mukherjee, Ph.D.
Albert Einstein College of Medicine

Rithun Mukherjee, Ph.D.
Fred Hutchinson Cancer Research Center

Michael Bradford Murphy, Ph.D.
University of Connecticut Health Center

Colleen S. Netherby
Roswell Park Cancer Institute

Rebecca J. Nusbaum
University of Texas Medical Branch

Thomas F. O'Brien, Ph.D.
Duke University

Susan A. Olalekan
Rush University Medical Center

Claire E. O'Leary
University of Pennsylvania

Nandakumar Packiriswamy, D.V.M.
Michigan State University

Lindsey E. Padgett
University of Alabama, Birmingham

Antonio J. Pagan, Ph.D.
University of Washington

Benjamin V. Park
Johns Hopkins University

Jihye Park, Ph.D.
Beth Israel Deaconess Medical Center

Rhiannon Penkert, Ph.D.
St. Jude Children's Research Hospital

Oanh H. Pham
University of California, Davis

Binh L. Phong
University of Pittsburgh

Erica M. Pimenta
Rutgers University

Andrew E. Pincetic, Ph.D.
Rockefeller University

Rebecca R. Pompano, D.O., Ph.D.
University of Chicago

Dana Michelle Previte
University of Pittsburgh

Kamalakannan Rajasekaran, Ph.D.
Blood Research Institute, BloodCenter of Wisconsin

Roshni Rao
University of South Carolina

Arianne Catherine Richard
National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH

Keven Mara Robinson, M.D.
University of Pittsburgh Medical Center

David L. Rose
University of Georgia

Carolyn E. Rydyznski
University of Cincinnati

Robert P. Sheehan, Jr.
University of Pittsburgh

Boyoung Shin
University of Alabama, Birmingham

Kim R. Simpfendorfer, Ph.D.
Feinstein Institute for Medical Research

Tej Pratap Singh, Ph.D.
National Institute of Allergy and Infectious Diseases, NIH

Tripti Singh, M.D.
University of Pittsburgh

Samantha R. Slight-Webb, Ph.D.
Oklahoma Medical Research Foundation

Chetna Soni, Ph.D.
Pennsylvania State University College of Medicine

Emily Y. Spaulding
Albert Einstein College of Medicine

Erietta Stelekati, Ph.D.
University of Pennsylvania

Nikolaos Svoronos
University of Pennsylvania

Elia Dion Tait Wojno, Ph.D.
University of Pennsylvania

Connie Tat
University of Texas Health Science Center at San Antonio

Katherine G. Taylor
National Institute of Allergy and Infectious Diseases, NIH

Roslyn Ann Taylor
University of Connecticut Health Center

Patsharaporn Techasintana, M.D.
University of Missouri

Jeffrey Teoh
University of Virginia

Maria Themeli, M.D., Ph.D.
Memorial Sloan-Kettering Cancer Center

Emily A. Thompson
University of Minnesota

Lance R. Thurlow, Ph.D.
University of North Carolina, Chapel Hill

Jie Tian, Ph.D.
Jiangsu University

Giraldina Trevejo-Nunez, M.D.
University of Pittsburgh

Noah J. Tubo, Ph.D.
University of Minnesota - Twin Cities

Nicholas J. van Panhuys, Ph.D.
National Institute of Allergy and Infectious Diseases, NIH

Asha Purnima Veerappan Ganesan, Ph.D.
Thomas Jefferson University

Nekeithia S. Wade, Ph.D.
University of Virginia

Jia C. Wang
University of British Columbia

Xinxin Wang
Washington University in St. Louis

Clara Y. Westwell-Roper
University of British Columbia

Natasha Whibley, Ph.D.
University of Pittsburgh

Jeffrey L. Wong
University of Pittsburgh

Weiwei Wu
Institute of Biophysics, Chinese Academy of Sciences

Yumin Xia, M.D., Ph.D.
Albert Einstein College of Medicine

Douglas H. Yamada
University of California, Los Angeles

Rui Yang, M.B.Ch.B.
University of Vermont

Soo Jung Yang, Ph.D.
University of California, Berkeley

Shuyu Yao, D.V.M., Ph.D.
Indiana University School of Medicine

Karim Yatim, M.D.
University of Pittsburgh

Autumn Gabrielle York
University of California, Los Angeles

Hongmin Yun, M.D., Ph.D.
University of Pittsburgh

Zachary Bestor Zalinger
University of Pennsylvania

Kimberly J. Zanotti, Ph.D.
National Institute on Aging, NIH

Baojun Zhang, Ph.D.
Duke University Medical Center

Fei Zhao
University of Toronto

Peilin Zheng, Ph.D.
Texas Children's Hospital, Baylor College of Medicine

Jianzhong Zhu, Ph.D.
University of Pittsburgh

Quan Zhuang
University of Pittsburgh

Haoyang Zhuang, Ph.D.
University of Florida

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Duke University

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Mayo Clinic

Ian Belle
Duke University

Yihua Cai, Ph.D.
University of Louisville

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University of Rochester

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Dartmouth College

Elizabeth V. Clarke, M.S., M.P.H.
University of California, Irvine

Sherrie J. Divito, M.D., Ph.D.
Harvard Medical School

Rodney Dixon Dorand, Jr.
Case Western Reserve University

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University of Chicago

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Uniformed Services University of the Health Sciences

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University of Pittsburgh

Brian J. Franz
Albany Medical College

Yaoyao Fu
Pennsylvania State University

Yoichi Furuya, Ph.D.
Albany Medical College

Sara Gibson
University of Alabama, Birmingham

Hannah Priyadarshini Gideon, Ph.D.
University of Pittsburgh School of Medicine

Hongwei Gu, Ph.D.
Nanjing University

Jasmin Herz, Ph.D.
National Institutes of Neurological Disorders and Stroke, NIH

Shaomin Hu, M.D., Ph.D.
Pennsylvania State University

Matthew B. Huante
University of Texas Medical Branch

Arshad Khan, Ph.D.
University of Texas Health Science Center at San Antonio

Jihye Kim, D.V.M.
Korea Advanced Institute of Science and Technology

Myunghoo Kim
Purdue University

Devesha Hrishikesh Kulkarni, Ph.D.
Washington University in St. Louis

Satyendra Kumar, Ph.D.
University of Illinois College of Medicine

Rafael Assumpção Larocca, Ph.D.
Beth Israel Deaconess Medical Center

Priscilla Lee
Ohio State University

Michael Levinson
University of Alabama, Birmingham

Junwei Li, Ph.D.
Texas Tech University Health Sciences Center

Stephen K. Li
Western University

Yan Li, M.D.
Cleveland Clinic

Brandon M. Linz
University of North Carolina, Chapel Hill

Ailing Liu, Ph.D.
University of Pittsburgh

Bo Liu
Cincinnati Children's Hospital Medical Center

Jeremy M. Lott, Ph.D.
University of Pittsburgh

Ana Citlali Marquez
University of British Columbia

Payal Mittal, D.O., Ph.D.
University of Connecticut Health Center

Arunesh Pullaniparambil Mohandas
Women and Children's Health Research Institute

Matthew Morris
Virginia Tech University

Jayakumar R. Nair, Ph.D.
Roswell Park Cancer Institute

Somashekarappa Gowda Nanjappa, D.V.M., Ph.D.
University of Wisconsin, Madison

Martin Souren Naradikian
University of Pennsylvania

Quang Tam Nguyen, Ph.D.
Albany Medical College

Patrick Kwadwo Nuro-Gyina
Ohio State University

Megan A. O'Connor
Geisel School of Medicine at Dartmouth

Tej K. Pareek, Ph.D.
Case Western Reserve University

Liliana Perez, Ph.D.
Indiana University School of Medicine

Noe Rodriguez Rodriguez
Beth Israel Deaconess Medical Center

Sean O. Ryan, Ph.D.
Case Western Reserve University

Divya Sagar
Drexel University College of Medicine

Emily-Joy Farah Samli
University of Georgia

Nathan J. Schuldt, Ph.D.
University of Minnesota

Christina Slota
National Institute on Aging, NIH

Carolyne K. Smith
University of Michigan

Marie-Clare B. St. Rose, Ph.D.
University of Connecticut Health Center

Naomi Tsurutani, Ph.D.
University of Connecticut Health Center

Uzodinma N. Uche
University of Pittsburgh

Isaah Vincent, Ph.D.
University of Virginia

Allen M. Vong
University of Massachusetts Medical School

Xuefeng Wang, D.O., Ph.D.
University of Pittsburgh School of Medicine

Yaya Wang, Ph.D.
University of Minnesota

Julie Mikele Ward
Oklahoma Medical Research Foundation

Hayley Warsinske
University of Michigan

Neva B. Watson
SUNY Upstate Medical University

Jiaxi Wu
University of Texas Southwestern Medical Center

Linlin Yang, Ph.D.
Pennsylvania State University

Yan Ye
University of North Dakota

Osamu Yoshida, M.D., Ph.D.
University of Pittsburgh

Xiaofei Yu, Ph.D.
Virginia Commonwealth University

Anthony Elston Zamora
University of California, Davis

Monan Angela Zhang
University Health Network/Toronto General Research Institute

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Holly Algood, Ph.D.
Assistant Professor, Tennessee Valley Healthcare System/Vanderbilt University

Nadia Anikeeva, Ph.D.
Research Instructor, Thomas Jefferson University

Amandeep Bajwa, Ph.D.
Assistant Professor, University of Virginia

Santanu Banerjee, Ph.D.
Assistant Professor, University of Minnesota

Uttiya Basu, Ph.D.
Assistant Professor, Columbia University

Sergejs Berdnikovs, Ph.D.
Research Assistant Professor
Northwestern University

Alexey Y. Berezhnoy, D.V.M., Ph.D.
Assistant Professor, University of Miami

David G. Brooks, Ph.D.
Assistant Professor, University of California, Los Angeles

Kevin W. Bruhn, Ph.D.
Assistant Researcher, Los Angeles Biomedical Research Institute

Judy L. Cannon, Ph.D.
Assistant Professor, University of New Mexico School of Medicine

Xuefang Cao, M.D.,Ph.D.
Assistant Professor, Roswell Park Cancer Institute

Christian Capitini, M.D.
Assistant Professor, University of Wisconsin

Xuanhong Cheng, Ph.D.
Assistant Professor, Lehigh University

Megan A. Cooper, M.D.,Ph.D.
Assistant Professor, Washington University in St. Louis

Melissa A. Cunningham, M.D.,Ph.D.
Assistant Professor, Medical University of South Carolina

Yang D. Dai, Ph.D.
Assistant Member, Torrey Pines Institute for Molecular Studies

Hélène Decaluwe, M.D.,Ph.D.
Assistant Professor, CHU Sainte-Justine Research Center

Chuanlin Ding, Ph.D.
Assistant Professor, University of Louisville

Rong Fang, M.D.,Ph.D.
Assistant Professor, University of Texas Medical Branch

Todd A. Fehniger, M.D., Ph.D.
Assistant Professor, Washington University School of Medicine

Viviana P. Ferreira, D.V.M., Ph.D.
Assistant Professor, University of Toledo College of Medicine and Life Sciences

Brian T. Fife, Ph.D.
Assistant Professor, University of Minnesota

Mallika Ghosh, Ph.D.
Assistant Professor, University of Connecticut Health Center

Hongbing Guan, M.D., Ph.D.
Assistant Professor, University of South Carolina School of Medicine

Beichu Guo, Ph.D.
Assistant Professor, Medical University of South Carolina

Fukun Guo, Ph.D.
Assistant Professor, Children's Hospital Medical Center

Neetu Gupta, Ph.D.
Assistant Professor, Cleveland Clinic Foundation

James Harker, Ph.D.
Sir Henry Dale Fellow, Imperial College London

Laurie E. Harrington, Ph.D.
Assistant Professor, University of Alabama, Birmingham

Anwar M. Hashem, Ph.D.
Assistant Professor, King Abdulaziz University

Xiao He, M.D.,Ph.D.
Research Assistant Professor, University of Utah

Jodi F. Hedges, Ph.D.
Assistant Research Professor, Montana State University

Ana Hernandez, Ph.D.
Head, Regulatory Antibodies Project, Center for Molecular Immunology
Havana, Cuba

Young-Min Hyun, Ph.D.
Research Assistant Professor, University of Rochester Medical Center

Ali R. Jazirehi, Ph.D.
Assistant Professor, David Geffen School of Medicine at University of California, Los Angeles

Daniel Kahn, M.D., Ph.D.
Assistant Professor, University of California, Los Angeles

Kamal Khanna, Ph.D.
Assistant Professor, University of Connecticut Health Center

Marat Khodoun, Ph.D.
Research Assistant Professor, University of Cincinnati College of Medicine

Ilona Kryczek, Ph.D.
Research Assistant Professor, University of Michigan

Elizabeth A. Leadbetter, Ph.D.
Assistant Member, Trudeau Institute

Jae-Kyung Lee, Ph.D.
Assistant Professor, Emory University School of Medicine

Wenqing Li, Ph.D.
Staff Scientist, National Cancer Institute, NIH

Lin Lin, M.D., Ph.D.
Assistant Research Professor, Los Angeles Biomedical Research Institute

Sarah Long, Ph.D.
Research Assistant Member, Benaroya Research Institute

Carolina B. Lopez, Ph.D.
Assistant Professor, University of Pennsylvania

Crystal L. Loving, Ph.D.
Research Immunologist, USDA-Agricultural Research Service-National Animal Disease Center

Xin M. Luo, Ph.D.
Assistant Professor, VA-M.D. Regional College of Veterinary Medicine, Virginia Tech University

Ashutosh K. Mangalam, Ph.D.
Assistant Professor, Mayo Clinic

Stephen O. Mathew, Ph.D.
Assistant Professor, University of North Texas Health Science Center

Maureen Ann McGargill, Ph.D.
Assistant Member, St. Jude Children's Research Hospital

Halima Moncrieffe, Ph.D.
Researcher, Cincinnati Children's Hospital Medical Center

Kerri A. Mowen, Ph.D.
Assistant Professor, The Scripps Research Institute

Yvonne M. Mueller, Ph.D.
Assistant Professor, Drexel University College of Medicine

Meera G. Nair, Ph.D.
Assistant Professor, University of California, Riverside

Johannes Nowatzky, M.D.
Assistant Professor, NYU School of Medicine

Pushpa Pandiyan, Ph.D., Sc.D.
Assistant Professor, Case Western Reserve University

Chandrashekhar Pasare, Ph.D.
Assistant Professor, University of Texas Southwestern Medical Center

Marion Pepper, Ph.D.
Assistant Professor, University of Washington

Georgia Perona-Wright, Ph.D.
Assistant Professor, University of British Columbia

Vadim I. Pivniouk, Ph.D.
Research Assistant Professor, University of Arizona

Daniel Popkin, M.D.,Ph.D.
Assistant Professor, Case Western Reserve University

Ziaur Rahman, M.D., Ph.D.
Assistant Professor, Pennsylvania State University, Hershey Medical Center

Giorgio Raimondi, Ph.D.
Assistant Professor, Johns Hopkins University

Govindarajan Rajagopalan, D.V.M., Ph.D.
Assistant Professor, Mayo Clinic

Murugesan Rajaram, Ph.D.
Research Assistant Professor, Ohio State University

Amali Samarasinghe, Ph.D.
Instructor, University of Tennessee Health Science Center

Yongming Sang, Ph.D.,ScD
Assistant Professor, Kansas State University College of Veterinary Medicine

Sadhak Sengupta, Ph.D.
Assistant Professor, Boston University School of Medicine

Wenhai Shao, Ph.D.
Assistant Professor, Temple University School of Medicine

Jyotika Sharma, Ph.D.
Assistant Professor, University of North Dakota

Rajesh K. Sharma, Ph.D.
Assistant Professor, University of Louisville

Rangaiah Shashidharamurthy, Ph.D.
Assistant Professor, Philadelphia College of Osteopathic Medicine

JianRong Sheng, Ph.D.
Assistant Professor, University of Chicago

Brian S. Sheridan, Ph.D.
Assistant Professor, University of Connecticut Health Center

Mari L. Shinohara, Ph.D.
Assistant Professor, Duke University

Lisa M. Shollenberger, Ph.D.
Assistant Research Scientist, University of Georgia

Nevil J. Singh, Ph.D.
Assistant Professor, University of Maryland School of Medicine

Greg A. Snyder, Ph.D.
Assistant Professor, University of Maryland, Baltimore

Jianxun Song, Ph.D.
Assistant Professor, Pennsylvania State University College of Medicine

Christian Stehlik, Ph.D.
Assistant Professor, Northwestern University

Keer Sun, Ph.D.
Assistant Professor, University of Nebraska Medical Center

Mark S. Sundrud, Ph.D.
Assistant Professor, The Scripps Research Institute

Steven Templeton, Ph.D.
Associate Professor, Indiana University School of Medicine

Nagaraja Thirumalapura, DVM, Ph.D.
Assistant Professor, University of Texas Medical Branch

Paul Thomas, Ph.D.
Assistant Member, St. Jude Children's Research Hospital

Mark A. Travis, Ph.D.
Lecturer, University of Manchester

Hubert Tse, Ph.D.
Assistant Professor, University of Alabama, Birmingham

Kevin B. Urdahl, M.D., Ph.D.
Assistant Professor, Seattle Biomedical Research Institute

Stephen N. Waggoner, Ph.D.
Assistant Professor, Cincinnati Children's Hospital Medical Center

Hanspeter Waldner, M.S.,Ph.D.
Assistant Professor, Pennsylvania State University College of Medicine

Fengyi Wan, Ph.D.
Assistant Professor, John Hopkins University

Yisong Wan, Ph.D.
Assistant Professor, University of North Carolina, Chapel Hill

Baomei Wang, M.D.,Ph.D.
Research Scientist, University of Louisville

Jing H. Wang, M.D.,Ph.D.
Assistant Professor, University of Colorado Anschutz Medical Campus

Li Wang, Ph.D.
Assistant Professor, Geisel School of Medicine at Dartmouth

Shengjun Wang, Ph.D.
Principal Investigator, The Affiliated People's Hospital, Jiangsu University

Pamela A. Wearsch, Ph.D.
Assistant Professor, Case Western Reserve University

Jinsheng Weng, M.D.,Ph.D.
Instructor, University of Texas M.D. Anderson Cancer Center

Bin Xu, Ph.D.
Assistant Professor, Virginia Tech University

Zhenming Xu, Ph.D.
Assistant Professor, University of Texas Health Science Center at San Antonio

Yutao Yan, M.D.,Ph.D.
Assistant Professor, School of Medicine, Hangzhou Normal University

Jun-Qi Yang, Ph.D.
Research Assistant Professor, University of Cincinnati

Yuhong Yang, M.D.
Research Assistant Professor, Ohio State University Medical Center

Jui-Hung Yen, Ph.D.
Assistant Professor, Indiana University School of Medicine

V. Laxmi Yeruva, Ph.D.
Assistant Professor, Arkansas Children's Hospital Research Institute

Dahui You, Ph.D.
Assistant Professor, University of Tennessee Health Science Center

Jacob S. Yount, Ph.D.
Assistant Professor, Ohio State University

Qigui Yu, M.D., Ph.D.
Assistant Professor, Indiana University School of Medicine

Weiming Yuan, Ph.D.
Assistant Professor, University of Southern California

Ming Zhang, M.D., Ph.D.
Assistant Professor, SUNY Downstate Medical Center

Xin Zhang, M.D., Ph.D.
Staff Scientist, Ochsner Clinic Foundation

Xiaojing Zheng, M.D.,Ph.D.
Instructor, University of North Carolina, Chapel Hill

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Anil K. Bamezai, Ph.D.
Professor, Villanova University

Devavani Chatterjea, Ph.D.
Associate Professor, Macalester College

Troy D. Cline, Ph.D.
Assistant Professor, California State University, Chico

Kari Dugger, Ph.D.
Assistant Professor, University of South Alabama

Kenneth Field, Ph.D.
Associate Professor, Bucknell University

Vitaly V. Ganusov, Ph.D.
Assistant Professor, University of Tennessee

Keith E. Garrison, Ph.D.
Associate Professor, St. Mary's College of California

John M. González, M.D., Ph.D.
Associate Professor, Universidad de los Andes

Vandana Kalia, Ph.D.
Assistant Professor, Pennsylvania State University

Clinton B. Mathias, Ph.D.
Assistant Professor, Western New England University

Heather A. Minges Wols, Ph.D.
Associate Professor, Columbia College, Chicago

Manoj K. Mishra, Ph.D.
Associate Professor, Alabama State University

Nicholas Pullen, Ph.D.
Assistant Professor, William Woods University

Miriam Rodriguez-Sosa, M.D., Pharm. D., Ph.D.
Professor, Universidad Nacional Autonoma de Mexico

Surojit Sarkar, Ph.D.
Assistant Professor, Pennsylvania State University

Tzvia Segal-Abramson, Ph.D.
Professor, San Jose State University

Laurie P. Shornick, Ph.D.
Associate Professor, Saint Louis University

Michelle Snyder, Ph.D.
Associate Professor, Towson University

Rebekah Taylor, Ph.D.
Assistant Proessor, Frostburg State University

Luis I. Terrazas, Ph.D.
Professor, Facultad de Estudios Superiores Iztacala, Universidad Nacional Autónoma de México

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Pascale Alard, Ph.D.
Associate Professor, University of Louisville

Ulus Atasoy, M.D.
Associate Professor/Vice Chair of Research, University of Missouri, Columbia

Betsy J. Barnes, Ph.D.
Associate Professor, Rutgers University, Biomedical and Health Sciences

Zissis C. Chroneos, Ph.D.
Associate Professor, Pennsylvania State University College of Medicine

Joan M. Cook-Mills, Ph.D.
Associate Professor, Northwestern University, Feinberg School of Medicine

Janice J. Endsley, Ph.D.
Associate Professor, University of Texas Medical Branch

John Farrar, Ph.D.
Associate Professor, University of Texas Southwestern Medical Center

Venugopal Gangur, D.V.M., Ph.D.
Associate Professor, Michigan State University

Rachel Gerstein, Ph.D.
Associate Professor, University of Massachusetts Medical School

Renukaradhya J. Gourapura, Ph.D.
Associate Professor, Ohio State University

Yukai He, M.D., Ph.D.
Associate Professor, Georgia Regents University Cancer Center

Vijaya Iragavarapu-Charyulu, Ph.D.
Associate Professor, Florida Atlantic University

Pooja Jain, Ph.D.
Associate Professor, Drexel University College of Medicine

Susan Jarvi, Ph.D.
Associate Professor, University of Hawaii, Hilo

Jiu Jiang, Ph.D.
Research Associate Professor, Drexel University College of Arts and Sciences

Christopher L. Kepley, Ph.D.
Associate Professor, Joint School of Nanosciemce and Nanoengineering, University of North Carolina, Greensboro

Kimberly D. Klonowski, Ph.D.
Associate Professor, University of Georgia

Michele M. Kosiewicz, Ph.D.
Associate Professor, University of Louisville

Gregoire Lauvau, Ph.D.
Associate Professor, Albert Einstein College of Medicine

Jiong Li, Ph.D.
Associate Professor, State Key Laboratory of Biotherapy, West China Hospital, Sichuan University

Quanzhen Li, Ph.D.
Associate Professor, University of Texas Southwestern Medical Center

Yuan Liu, M.D., Ph.D.
Associate Professor, Georgia State University

Lonnie P. Lybarger, Ph.D.
Associate Professor, University of Arizona

Laura Mandik-Nayak, Ph.D.
Associate Professor, Lankenau Institute for Medical Research

Masoud H. Manjili, D.V.M.,Ph.D.
Associate Professor, Virginia Commonwealth University

Porunelloor Mathew, Ph.D.
Associate Professor, University of North Texas Health Science Center

Craig T. Morita, M.D., Ph.D.
Associate Professor, University of Iowa College of Medicine

Ashlesh K. Murthy, M.D., Ph.D.
Associate Professor, Midwestern University

Barbara S. Nikolajczyk, Ph.D.
Associate Professor, Boston University School of Medicine

Mahyar A. Nouri-Shirazi, D.V.M., Ph.D.
Associate Professor, Florida Atlantic University

Hongwei Qin, M.D.,Ph.D.
Associate Professor, University of Alabama, Birmingham

Violeta Rus, M.D., Ph.D.
Associate Professor, University of Maryland School of Medicine

Shashikumar K. Salgar, D.V.M., Ph.D.
Laboratory Research Director, Madigan Army Medical Center

Buka Samten, M.D.
Associate Professor, University of Texas Health Science Center at Tyler

Kimberly S. Schluns, Ph.D.
Associate Professor, University of Texas MD Anderson Cancer Center

Udai P. Singh, Ph.D.
Associate Professor, University of South Carolina School of Medicine

John Stambas, Ph.D.
Associate Professor, Deakin University

Jiaren Sun, M.D., Ph.D.
Associate Professor, University of Texas Medical Branch

Joanne Turner, Ph.D.
Associate Professor, Ohio State University

Luis Ulloa, Ph.D.
Associate Professor, Rutgers University - New Jersey Medical School

Min Wu, M.D.,Ph.D.
Associate Professor, University of North Dakota

Na Xiong, Ph.D.
Associate Professor, Pennsylvania State University

Wenyue Xu, Ph.D.
Associate Professor, Third Military Medical University

Mingtao Zeng, Ph.D.
Associate Professor, Texas Tech University Health Sciences Center

Hui Zhang, Ph.D.
Associate Research Professor, Washington State University

Xian Zhang, Ph.D., D.V.M.
Associate Professor, Medical University of South Carolina

Song Zheng, M.D.,Ph.D.
Principal Investigator, Pennsylvania State University, Hershey

2014 AAI MINORITY SCIENTIST TRAVEL AWARDEES

Supported by a grant to the Federation of American Societies for Experimental Biology (FASEB) from the National Institute of General Medical Sciences (NIGMS), National Institutes of Health [FASEB MARC Program: T36-GM08059-31]

Daniel Abebayehu
Graduate Student, Virginia Commonwealth University

Hiam Abdala-Valencia, Ph.D.
Research Associate, Northwestern University, Feinberg School of Medicine

George W. Agak, Ph.D.
Postdoctoral Fellow, David Geffen School of Medicine at University of California, Los Angeles

Bianca L. Bautista
Graduate Student, University of Massachusetts Medical School

Preston Burnley
Graduate Student, University of North Texas Health Science Center

Javier Cabrera
Graduate Student, University of Minnesota

Chavez E. Carter
Graduate Student, Cornell University

Rodney Dixon Dorand, Jr.
Graduate Student, Case Western Reserve University

Felicia Diante Emery
Graduate Student, University of Tennessee Health Science Center

Akinola O. Emmanuel
Graduate Student, University of Chicago

Mayya Geha, M.D.
Fellow, Children's Hospital Boston/ Harvard Medical School

Kasalina N. Kiwanuka
Graduate Student, Virginia Commonwealth University

Joseph Larkin, III, Ph.D.
Assistant Professor, University of Florida

Stephania Libreros
Graduate Student, Florida Atlantic University

Monica Macal, Ph.D.
Postdoctoral Fellow, University of California, San Diego

Hadijat M. Makinde
Graduate Student, Rush University Medical Center

Ryan J. Martinez
Graduate Student, Emory University

Temet M. McMichael
Graduate Student, Ohio State University

Albanus O. Moguche
Graduate Student, University of Washington

Crystal Morales, Ph.D.
Postdoctoral Fellow, University of Connecticut Health Center

Munir M. Mosaheb
Graduate Student, Boston University

Susan A. Olalekan
Graduate Student, Rush University Medical Center

Michael Opata, Ph.D.
Postdoctoral Fellow, University of Texas Medical Branch

Antonio J. Pagan, Ph.D.
Postdoctoral Fellow, University of Washington

Amber M. Papillion
Graduate Student, SUNY Upstate Medical University

Mesias Pedroza, Ph.D.
Postdoctoral Fellow, Baylor College of Medicine

Pablo A. Penaloza-MacMaster, Ph.D.
Postdoctoral Fellow, Beth Israel Deaconess Medical Center and Harvard Medical School

Amina Abdul Qayum
Graduate Student, Virginia Commonwealth University School of Medicine

Sesquile Ramon
Postdoctoral Fellow, Harvard Medical School

Pablo A. Romagnoli, Ph.D.
Postdoctoral Fellow, University of Connecticut Health Center

Eric Scott
Graduate Student, University of North Carolina, Chapel Hill

Kindra N. Stokes
Graduate Student, Cornell University

Marie-Clare B. St. Rose, Ph.D.
Postdoctoral Fellow, University of Connecticut Health Center

Damian L. Turner, Ph.D.
Postdoctoral Fellow, Columbia University

Rebecca A. Wilshusen
Graduate Student, University of Nebraska Medical Center

FACULTY/STUDENT AWARDS

Bolaji Thomas, Ph.D.
Assistant Professor, Rochester Institute of Technology—Student: **Jenelle Noble**

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You have the power.

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GRANT AND AWARD DEADLINES

July 15

AAI Careers in Immunology Fellowship

- **Prize/Award:** Fellowship providing one year of salary support for an AAI member's trainee (graduate student or postdoctoral fellow) whose position may be in danger of being defunded and whose support is merited based on a combination of potential of the trainee, merit of the project, quality of the environment, and financial need
- **Eligibility:** AAI regular members in good standing who are independent research scientists with no more than $250,000 in annual direct costs from grants and/or institutional support and whose application demonstrates the need for funding in support of a designated graduate student or early-stage postdoctoral fellow within the lab, especially one whose position is in danger of being defunded; the designated trainee must be an AAI trainee member in good standing
- **Details:** http://www.aai.org/Awards/Fellowship.html
- **Contact:** fellowships@aai.org

July 31

Lupus Research Institute (LRI) Distinguished Innovator Awards

- **Prize/Award:** Up to four awards of $250,000 in annual funding for a term of up to four years in support of research that looks beyond suppression of manifestations of lupus and toward development of interventions aimed at reversing or preventing the disease
- **Eligibility:** Outstanding scientists proposing novel, hypothesis- or discovery-driven proposals in research (based on human and/or animal models) that aims to uncover the fundamental causes of lupus and thereby offer new directions toward a potential lupus cure, prevention, or highly effective therapy
- **Details:** http://www.lupusresearchinstitute.org/2014-distinguished-innovator-awards
- **Contact:** Laura Hack, Grants Administrator: (212) 685 4118; lhack@lupusny.org

August 1

Fulbright Israel Post Doctoral Fellowships for American Researchers

- **Prize/Award:** Eight fellowships of $20,000 in annual funding for two years to supplement host institution postdoctoral stipends; limited health insurance for grantees; orientation meetings and other grantee events during the academic year
- **Eligibility:** U.S. citizens who have received their Ph.D. degrees no earlier than April 2012, do not hold a tenure-track position, and are commencing during the 2015-2016 academic year at least two years of post-doctoral research at an accredited institution of higher education in Israel
- **Details:** http://j.mp/Fulbright_Postdoc_Soc
- **Contact:** Jordanna Enrich, Assistant Director: (202) 686-6233; jenrich@iie.org

August 4

Lupus Research Institute (LRI) Novel Research Grants

- **Prize/Award:** Multiple awards of $100,000 in annual funding for a term of up to three years for exceptionally creative, innovative research projects proposing novel approaches to major challenges in basic, translational, or clinical investigation in lupus; successful proposals will advance novel hypotheses and/or technologies with the potential to stimulate new research directions and propel the field forward
- **Eligibility:** Established and new investigators from diverse disciplines (including scientists who may not have worked in lupus) who hold advanced degrees and are affiliated with institutions of higher learning in the United States
- **Details:** http://www.lupusresearchinstitute.org/new-research-grants-novel-approaches-lupus
- **Contact:** Laura Hack, Grants Administrator: (212) 685 4118; lhack@lupusny.org

The American Association of Immunologists

Future AAI Annual Meetings

Mark Your Calendar for the Premier Annual Immunology Event!

2015

IMMUNOLOGY 2015™
May 8–12
New Orleans, Louisiana

2016

IMMUNOLOGY 2016™
May 13–17
Seattle, Washington

2017

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

Meetings and Events Calendar

Mark Your Calendar for These Important Dates!

2014

July 12-17, 2014
AAI Introductory Course in Immunology
Long Beach Convention Center
Long Beach, CA
aai.org/Education/Courses/Intro

July 27-August 1, 2014
AAI Advanced Course in Immunology
Seaport World Trade Center
Boston, MA
aai.org/Education/Courses/Advanced

August 20-21, 2014
2nd International Meeting on Nerve-Driven Immunity: Neurotransmitters and Neuropeptides In The Immune System and In Neuroimmune Dialogues
Nobel Forum, Karolinska Institute
Stockholm, Sweden
ndimeetings.org

September 11-13, 2014
3rd Annual International Graduate Student Immunology Conference (IGSIC 2014)
University of Texas Southwestern Medical Center
Dallas, TX
igsic2014.wordpress.com

September 12-16, 2014
ASBMR 36th Annual Meeting
Houston, TX
asbmr.org

September 15-16, 2014
4th Mastering Immunogenicity Conference
British Consulate-General, Boston, MA
proimmune.com/ecommerce/page.php?page=immunogenicity4

September 29-October 1, 2014
EMBO Conference on Innate Lymphoid Cells
Institut Pasteur, Paris, France
www.ilc1.org

September 29-October 1, 2014
2014 HudsonAlpha-Science/AAAS Conference on ImmunoGenomics
HudsonAlpha Institute of Biotechnology Campus, Huntsville, AL
haig.aaas.org

September 30-October 2, 2014
39th Annual La Jolla Immunology Conference
The Salk Institute, La Jolla, CA
events.liai.org/meetings/ljic/index.html

October 9, 2014
Cancer Immunology and Immunotherapy: Delivering the Promise, Center for Cancer Research, National Cancer
Institute, NIH, Bethesda, MD
ncifrederick.cancer.gov/events/CancerImmunology/default.asp

October 15-19, 2014
2014 SACNAS National Conference
Los Angeles, CA
sacnas.org/events/national-conf

October 19-22, 2014
17th Annual New York State Immunology Conference
Sagamore Resort and Conference Center
Bolton Landing, NY
amc.edu/NYIC

October 23-25, 2014
SLB-IEIIS2014
(Joint Meeting of the Society for Leukocyte Biology and the International Endotoxin and Innate Immunity Society)
Salt Lake City, UT
slbieiis2014.org

October 26-29, 2014
Cytokines2014
(Annual Meeting of the International Cytokine and Interferon Society - ICIS)
Melbourne, Australia
cytokines2014.com

November 6-9, 2014
SITC 2014 - 29th Annual SITC Meeting
Gaylord National Hotel & Convention Center
National Harbor, MD
sitcancer.org/sitc-meetings

November 10-14, 2014
11th International Workshop - IMMUNOTHERAPY 2014: Chronic Inflammation in Cancer and Autoimmunity: Revisiting the Links Havana, Cuba
immunotherapy2014.cim.co.cu/IT-2014

November 12-15, 2014
ABRCMS 2014
San Antonio, TX
abrcms.org

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

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

Meetings and Events Calendar

Mark Your Calendar for These Important Dates!

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
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 11-15, 2015
The American Society for Virology 34th Annual Scientific Meeting
The University of Western Ontario
London, Ontario, Canada
asv.org

September 6–9, 2015
ECI 205: 4th European Congress of Immunology
Vienna, Austria
eci-vienna2015.org

2016

February 18-22, 2016
2016 BMT Tandem Meeting
Honolulu, HI
cibmtr.org/Meetings/Tandem

May 13–17, 2016
IMMUNOLOGY 2016™
AAI Annual Meeting
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
Washington, D.C.
aai.org/Meetings/Future_Meeting.html

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

New AAI Awards Programs for 2014!

The American Association of Immunologists annually honors the research achievements and professional promise of over 850 scientists through fellowships, career awards, and travel grants. In 2014, AAI launched two exciting awards programs, adding significantly to its already robust support for scientists.

AAI Careers in Immunology Fellowship

Receive salary support for a graduate student or postdoctoral fellow in your lab.

APPLICATION DEADLINE: JULY 15

These fellowships provide AAI member PIs with one year of salary support for a graduate student or postdoctoral fellow in their labs.

Direct inquiries to fellowships@aai.org.

AAI Travel for Techniques Award Program

Obtain support for travel to learn a technique.

APPLICATION DEADLINES: THE 15TH OF JUNE, OCTOBER, AND FEBRUARY

The Travel for Techniques Award is given to member PIs, reimbursing up to $1,500 in expenses for travel to learn a new technique.

Direct inquiries to tft@aai.org.

Apply at www.aai.org/awards

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The Proud History of AAI

1913–2014

Explore the history of AAI at www.aai.org/about/history

Chronicling the AAI Legacy. AAI staff historians and scientists are rigorously researching, archiving, and publishing materials to preserve the proud heritage of the association. Articles posted in the history section of the AAI website, www.aai.org/about/history, include:

- The Founding of AAI
- The Science at the First AAI Annual Meeting
- The Founding of *The Journal of Immunology*
- "Studies in Anaphylaxis": The First Article in *The Journal of Immunology*
- Elise Strang L'Esperance: Pioneer in Cancer Prevention and Recipient of Lasker Award
- Immunologists during the First World War: One Soldier-Scientist's Experience—Stanhope Bayne-Jones
- The 1918–1919 Influenza Pandemic as Covered in *The Journal of Immunology*
- Anna Wessels Williams: Infectious Disease Pioneer and Public Health Advocate
- 100 Years of AAI: A Look Back at Two Early Immunologists in Hawaii
- PI in the Scotland Yard of Streptococcal Mysteries: Rebecca Lancefield
- From the Archives: What's Old is New Again: Early Editors of *The JI* Act to Address Perennial Challenges in the Peer-Review and Editing Process
- A Legacy of Advocacy Is Born as AAI Confronts McCarthyism
- Creating a Buzz in the Field of Immunology: Mary Hewitt Loveless and the Development of Venom Therapy for the Prevention of Sting-Induced Anaphylaxis
- The Emergence of Immunology in Pittsburgh

AAI Website

The history section of the AAI website continues to evolve as a living archive. Current and future resources include:

- AAI history articles published in the *AAI Newsletter*
- Oral History Project—exclusive interviews offering a rare glimpse into the lives and times of influential immunologists
- Digital Immunology Timeline, including all the images from the physical Centennial Timeline as well as citations for the scientific events
- Profiles of notable AAI members, including AAI Nobel and Lasker recipents, and past presidents and officers
- An eBook of commentaries on "Pillars" articles from *The Journal of Immunology*
- AAI Story Booth—attendees' favorite immunology recollections, recorded at IMMUNOLOGY 2013™ and IMMUNOLOGY 2014™