AAI
The American Association of Immunologists
NEWSLETTER
WINTER 2013

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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

—Details to come—

AAI Councillors Advocate for NIH Funding on Capitol Hill

Councillors Describe Value of Immunological Research

A delegation of nine AAI Council members visited Capitol Hill in December to describe the importance of immunological research and advocate for increased NIH funding. Councillors met with members or staff from 17 congressional offices over the course of the day. The visits took place in conjunction with the fall AAI Council meeting and occurred at an optimal time on Capitol Hill, when the budget conference committee was working to reach an agreement (see *Congress Reaches Agreement, Passes Budget Which Reduces Sequestration Cuts,* next page).

Participants included AAI President Marc Jenkins, Past President Gail Bishop, Secretary-Treasurer Mitchell Kronenberg, and Councillors Dan Littman, Arlene Sharpe, Wayne Yokoyama, and JoAnne Flynn. Two *ex officio* Council members, AAI Publications Committee Chair Eugene Oltz and *The Journal of Immunology* Editor-in-Chief Pamela Fink, also participated. The Council members were accompanied by AAI Committee on Public Affairs Chair Elizabeth Kovacs, AAI Director of Public Policy and Government Affairs Lauren Gross, FASEB Director of Legislative Affairs Jennifer Zeitzer, and FASEB Legislative Affairs Analyst Meghan McCabe.

Council's message urging increased support for biomedical research and the NIH was well-received in most congressional offices. However, a number of Capitol Hill staffers cautioned that it will be difficult to provide significant funding increases to any agencies in the current fiscal climate.

(L-R) Arlene Sharpe, Marc Jenkins, Mitch Kronenberg, JoAnne Flynn in front of the U.S. Capitol Building during the fall 2013 AAI Council Capitol Hill Day

(L-R) Marc Jenkins, Representative Scott Peters (D-CA, 52nd), Mitch Kronenberg, JoAnne Flynn, Arlene Sharpe

(L-R) Gail Bishop, Health Policy Director for Senator Charles Grassley (R-IA) Rodney Whitlock, Gene Oltz, Pam Fink

(L-R) Liz Kovacs, Marc Jenkins, Staff Director for the Senate Labor, Health and Human Services, and Education Appropriations Subcommittee Adrienne Hallett, Gail Bishop, Health Policy Advisor to Senator Tom Harkin (D-IA) Andi Fristedt, Dan Littman

(L-R) Gene Oltz, Legislative Assistant to Senator Claire McCaskill (D-MO) Colleen Bell, Wayne Yokoyama, JoAnne Flynn

Congress Reaches Agreement, Passes Budget Which Reduces Sequestration Cuts

Congress has overwhelmingly approved a budget that will eliminate about one-third of the spending reductions that would have been required under sequestration over the next two years. The budget agreement, formally known as the Bipartisan Budget Act of 2013, was approved by the House of Representatives (332–94) on December 12 and by the Senate (64–36) on December 18. President Obama signed the legislation into law on December 26.

The agreement, which was announced on December 10 by Senate Budget Committee Chair Patty Murray (D-WA) and House Budget Committee Chair Paul Ryan (R-WI, 1st), provides a broad blueprint for government spending but does not set specific spending levels for federal government agencies, including NIH. Instead, it sets overall discretionary spending levels for the next two fiscal years: for FY 2014, it sets the discretionary spending cap at $1.012 trillion ($45 billion above the sequester cap level of $967 billion but $46 billion lower than the pre-sequestration cap of $1.058 trillion). As a result, science agencies likely will see an increase in funding in FY 2014, though it is unlikely that any of the agencies will return to their pre-sequestration spending levels. Very importantly, the agreement will enable departments and agencies to make strategic choices about where and how to make cuts instead of making across-the-board cuts required by sequestration.

	FY 2013	FY 2014	FY 2015
Pre-Sequestration Cap on Discretionary Spending	$1.043 trillion	$1.058 trillion	$1.086 trillion
Post-Sequestration Cap on Discretionary Spending	$986 billion (the actual level of spending in FY 2013)	$967 billion	$995 billion
Bipartisan Budget Act Cap on Discretionary Spending	N/A	$1.012 trillion	$1.014 trillion

Although agreeing on topline budget numbers is an important step forward, the House and Senate Appropriations Committees still must develop a bipartisan plan to allocate those funds by January 15, 2014, when the current continuing resolution expires. Instead of passing individual appropriations bills, Congress is likely to pass an omnibus appropriations bill that includes funding for most or all federal departments, agencies, and programs.

On December 18, FASEB sent an "e-action" alert urging recipients to contact their members of Congress to encourage them to support increased funding for science agencies. AAI encourages all members to respond to this alert to make sure that the voices of biomedical researchers are heard on Capitol Hill.

NIAID Director Anthony Fauci Briefs AAI Council

On December 3, Anthony Fauci, AAI '73, director of the National Institute of Allergy and Infectious Diseases (NIAID), continued his longstanding, annual tradition of visiting with the AAI Council during the Council's fall meeting. Fauci was accompanied by Hugh Auchincloss, AAI '83, NIAID principal deputy director, and Daniel Rotrosen, AAI '03, director of the NIAID Division of Allergy, Immunology, and Transplantation.

Fauci briefed the Council on a variety of issues, including how NIH and NIAID were affected by the federal government shutdown, the current budget situation, and the status of recently launched NIH programs. He also responded to concerns raised by Council on numerous issues, including the impact of sequestration and the urgent need to allocate additional funding to R01s.

Fauci reported that while the NIAID interim R01 payline for FY 2014 had been set at the 6th percentile for established investigators and the 10th percentile for new and early-stage investigators, the final paylines could go up once a final appropriations agreement is reached. He also noted that NIAID continues to set aside money for Bridge awards and selective pay.

AAI Launches Fourth Year of Its Public Policy Fellows Program

Applications Accepted through January 26

AAI President Marc K. Jenkins and AAI Committee on Public Affairs Chair Elizabeth J. Kovacs recently announced that AAI is accepting applications for the fourth year of its Public Policy Fellows Program (PPFP). The PPFP engages postdoctoral fellows and junior scientists in a year-long program that teaches how legislative and agency activities impact the conduct and funding of biomedical research and how AAI works on behalf of its members for the best possible outcome.

Successful applicants have the opportunity to experience advocacy firsthand on a visit to Capitol Hill and learn more about key issues through public affairs programs at the AAI annual meeting. Except for these two travel experiences, fellows do not need to leave their institutions or labs. The AAI Committee on Public Affairs keeps fellows informed and engaged throughout the year.

To date, 30 AAI members have participated in the program, and AAI looks forward to welcoming up to 10 new fellows next spring.

For program details or to apply, please visit: http://aai.org/Public_Affairs/PPFP, or contact AAI Science Policy and Legislative Affairs Specialist Jake Schumacher at jschumacher@aai.org. **Complete application packages are due by January 26, 2014.**

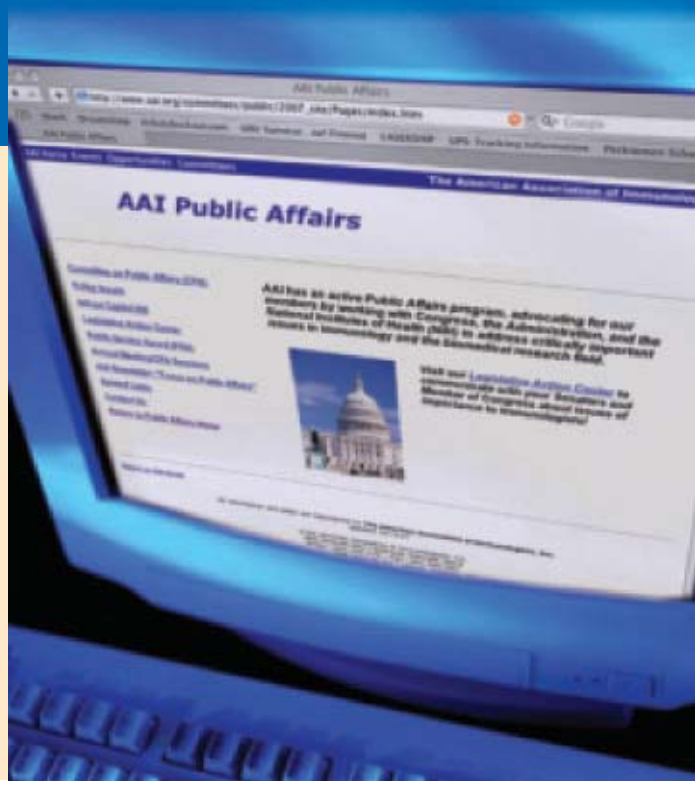
2012 AAI PPFP Capitol Hill Day

AAI Public Affairs ONLINE

Visit us to

- Learn about NIH funding
- Keep current on key policy issues
- Discover how you can help AAI in its advocacy initiatives

Go to **www.aai.org** and click on **Public Affairs.**



Members in the News

Five AAI Members Elected to Institute of Medicine

AAI members **Jeffrey Bluestone (AAI '82), Ronald Germain (AAI '78), Warren Leonard (AAI '86), Ruslan Medzhitov (AAI '00),** and **Georg Stingl (AAI '79)** were elected this fall to the Institute of Medicine (IOM). Election to the IOM is considered one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding professional achievement and commitment to service.

Jeffrey A. Bluestone, Ph.D.
Executive Vice Chancellor and Provost, University of California, San Francisco (UCSF), and A.W. and Mary Margaret Clausen Distinguished Professor of Medicine, Pathology, Microbiology, and Immunology, UCSF Diabetes Center

Jeff Bluestone's research focuses on understanding the basic processes that control T cell activation and immune tolerance in autoimmunity and transplantation, with the goal of developing novel tolerogenic drugs and cell-based therapies that will turn off selected parts of the immune system but leave the disease-fighting capabilities intact. After being the first to demonstrate that T cell signaling via cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) downregulates T cell proliferation and cytokine production, the lab has gone on to work on understanding and manipulating individual costimulatory signals to reveal new ways to promote immune tolerance. The laboratory also has a special emphasis on the important role of regulatory T cells (Tregs) in preventing autoimmune diseases, such as diabetes, and is currently working on enabling the translation of Treg-based therapy to the clinic. Bluestone's work has led to the development of a number of pro-tolerogenic immunotherapies, including CTLA-4 immunoglobulin (CTLA-4Ig), the first U.S. Food and Drug Administration (FDA)-approved drug targeting T cell costimulation in autoimmune disease and organ transplantation, a novel humanized anti-CD3 antibody for use in type I diabetes and solid organ transplantation, and the first CTLA-4 antagonists approved for the treatment of metastatic melanoma.

Bluestone is a past member of the AAI Finance Committee and AAI Publications Committee and served as an associate, deputy, and section editor for *The Journal of Immunology (The JI)*. He has also served as a major symposium speaker and chair at the AAI annual meeting.

Bluestone founded and was the first director of the Immune Tolerance Network (ITN), the largest National Institutes of Health (NIH)-funded multicenter clinical immunology research program—a consortium of more than 1,000 world-leading researchers from nearly 50 institutions engaged in testing new therapies to promote immune tolerance in transplantation, autoimmune diseases, asthma, and allergic diseases. He also founded the Juvenile Diabetes Research Foundation (JDRF) Center for Islet Transplantation and the JDRF Collaborative Center for Cell Therapy. His additional career honors and appointments include: Davis Award, Barbara Davis Center for Childhood Diabetes; Elliott Middleton Memorial Lectureship, American Academy of Allergy, Asthma, & Immunology; JDRF Scholar Award; member, American Academy of Arts and Sciences; Mary Tyler Moore and S. Robert Levine Excellence in Clinical Research Award, JDRF; American Society for Transplantation Roche Distinguished Research Award; JDRF Gerold and Kayla Grodsky Basic Science Award; Priscilla White Lecturer, Brigham and Women's Hospital, Joslin Diabetes Center; Cornell Graduate School of Medical Science Distinguished Alumnus Award; Fogarty Senior Research Fellowship; Guggenheim Senior Fellowship; American Cancer Society Faculty Scholar; and Gould Foundation Faculty Scholar.

A biology graduate of Rutgers, the State University of New Jersey, and recipient of a master's degree (microbiology) also from Rutgers, Bluestone received his Ph.D. (immunology) from the Cornell Graduate School of Medical Science (Sloan-Kettering Division). He held subsequent appointments at the National Cancer Institute (NCI), NIH, as laboratory leader, senior staff fellow, and senior investigator in the Transplantation Biology Section, Immunology Branch. In 1987, he was appointed a member of the Ben May Institute for Cancer Research (BMICR) and associate professor at the University of Chicago and later held appointments as BMICR director and full professor. He founded the ITN in 1999 and joined the UCSF faculty in 2000. He serves as director of the UCSF Hormone Research Institute and is the former director of the UCSF Diabetes Center. He has served as UCSF executive vice chancellor and provost since 2010.

Ronald N. Germain, M.D., Ph.D.
Chief, Laboratory of Systems Biology, National Institute of Allergy and Infectious Diseases (NIAID), NIH

Ron Germain's research group has made key contributions to understanding major histocompatibility complex class II molecule structure–function relationships, the cell biology of antigen processing, and the molecular basis of T cell recognition. More recently, the laboratory has been focused on the details of T cell–antigen-presenting cell interactions and the relationship between immune tissue organization and control of adaptive and innate immunity. Experiments at the whole-cell, tissue, and organism level have been used to build a more complete picture of the operation of and the interface between the innate and adaptive immune systems, including experiments using novel dynamic and multiplex static imaging methods that the laboratory helped pioneer. Efforts are also underway to create computer models of immune function, both at the tissue and single-cell level. The aim of this work is to create a detailed understanding of how the complex immune system operates and to develop new tools for prediction of how the immune system will respond if perturbed, for example, by a candidate vaccine.

Selected as a 2014 AAI President's Symposium speaker, Germain was an AAI Distinguished Lecturer in 2006 and has served as a major symposium chair and speaker at the AAI annual meeting. He is a past member of the AAI Education Committee and AAI Nominating Committee and a past deputy editor for *The JI,* and has served as an instructor at the AAI Introductory Course in Immunology.

His additional career appointments and honors include: NIH Distinguished Investigator; associate director, trans-NIH Center for Human Immunology, Inflammation, and Autoimmunity; fellow, American Association for the Advancement of Science; associate (foreign) member, European Molecular Biology Organization; honorary member, Scandinavian Society for Immunology; Landsteiner Medal, Austrian Society for Allergology and Immunology; Ishizaka Lecturer, La Jolla Institute for Allergy and Immunology; Akeson Memorial Lecturer, Cincinnati Children's Hospital; Ralph Wedgwood Lecturer, World Immunology Conference, New York; Mary Lou Clements-Mann Memorial Lecturer in Vaccine Sciences, National Foundation for Infectious Diseases; Mayberry Lecturer, Northwestern University School of Medicine; Sidney Leskowitz Memorial Lecturer, Tufts University Medical School; Shraga Segal Memorial Lecturer, Ben-Gurion University, Israel; Blumenthal Lecturer, University of Minnesota; Australasian Society for Immunology Visiting Lecturer; R.G.E. Murray Lecturer, University of Western Ontario; Ernst Schering Foundation Lecturer; Benacerraf Lecturer, Dana-Farber Cancer Center, Harvard Medical School (HMS); and Institute for Scientific Information Highly Cited Researcher. He serves as an associate or advisory editor for the *Journal of Experimental Medicine (JEM), Immunity, Journal of Clinical Investigation, Current Biology,* and *Journal of Biology;* he has previously served as an editor for Immunity.

A holder of bachelor's (summa cum laude) and master's degrees from Brown University, Germain received his M.D. (magna cum laude) and Ph.D. from HMS and Harvard University, the latter for research with Baruj Benacerraf, recipient of the 1980 Nobel Prize in Physiology and Medicine. After serving as an instructor at Harvard Medical School and a pathology intern at Peter Bent Brigham Hospital, Germain was appointed an assistant (and later, associate) professor of pathology at HMS and served as a guest investigator in the Laboratory of Molecular Genetics at the National Institute of Child Health and Human Development (NICHD), NIH. He joined the NIAID Laboratory of Immunology as senior investigator in 1982 and has served as chief of the lab's Lymphocyte Biology Section since 1987. He co-founded the Immunology Interest Group and Systems Biology Interest Group at NIH and was appointed chief of the Laboratory of Systems Biology and an NIH Distinguished Investigator in 2011.

Warren J. Leonard, M.D.
NIH Distinguished Investigator; Chief, Laboratory of Molecular Immunology; Director, Immunology Center, National Heart, Lung, and Blood Institute (NHLBI), NIH

Warren Leonard's research primarily focuses on elucidating the biology, molecular mechanisms, and regulation of cytokines, particularly interleukins (ILs), that signal through the common gamma chain and determining how cytokines affect immune function. He has made numerous contributions to the field of cytokine biology, delineating the methods by which cytokines signal and influence the nature of effector and tolerogenic immune responses. His early ground-breaking studies as a fellow involved cloning the human IL-2 receptor (IL-2R) and later led to his own lab's discovery that the IL-2R gamma chain, or common gamma chain, is shared amongst several cytokines. His lab was the first to clone the IL-21R and has since shown its importance in several disease models, including cancer, and autoimmune diseases, such as lupus, uveitis, and type-1 diabetes. Leonard's research has also made significant advancements in the understanding of primary immunodeficiencies, demonstrating that underlying IL-2R gamma mutations are

linked to X-linked severe combined immunodeficiency and that other immunodeficiencies are caused by gene mutations in Janus-activated kinase 3 (JAK3) and IL-7R. His current studies continue to provide insight into the complex interplay between cytokines and immune cells during normal and pathogenic immune responses.

Leonard was the 2003 recipient of the AAI-Huang Foundation Meritorious Career Award. He is a past associate editor for *The JI* and has served as an AAI block co-chair and AAI representative to the Federation of American Societies for Experimental Biology (FASEB) Summer Research Conferences Advisory Committee. He holds journal editorial appointments for *International Immunology, Immunity,* and *Cytokine* and has held past such appointments for the *Journal of Biomedical Science, Journal of Biological Chemistry, Lymphokine and Cytokine Research, Archives of Biochemistry and Biophysics, The New Biologist,* and *Molecular Immunology.*

Leonard's additional career honors include: NHLBI Outstanding Translational Science Award; honorary Lifetime Membership Award, International Cytokine and Interferon Society (ICIS); keynote speaker, Federation of European Biochemical Societies 2nd Special Meeting on JAK/STAT signaling: model systems and beyond, Nottingham, UK; NHLBI Orloff Science Award (multiple); visiting professor, Australasian Society for Immunology; NIH Director's Award; NHLBI Mentoring Award; NIH Award of Merit (multiple); keynote speaker, Brazilian Society for Immunology/Brazilian Clinical Immunology meeting; keynote speaker, 28th Annual Mid-Atlantic Immunobiology Meeting, State College, Penn.; Outstanding Service Award, FDA Center for Biologics Evaluation and Research; fellow, American Association for the Advancement of Science; NIH Director's Award; member, American Association of Physicians; Outstanding Investigator Award, American Federation for Clinical Research Foundation; Pfizer Visiting Professor of Rheumatology and Immunology, Duke University School of Medicine; Special Recognition Award, U.S. Public Health Service; lecture in honor of Multipurpose Arthritis Center dedication, University of Michigan; member, American Society for Clinical investigation; and Award to Trainees in Clinical Research, American Federation for Clinical Research. Leonard's career and service appointments have included: ad hoc member, project grant study sections, National Institute of Diabetes and Digestive and Kidney Diseases, NIAID, NIH; contributing member, Faculty of 1000; NIH Senior Leadership Program; multiple board, officer, and committee appointments, Foundation for Advanced Education in the Sciences; publications chair, International Cytokine Society; advisory committee member, FDA; and co-organizer, inaugural meeting of the newly formed ICIS (merger of International Cytokine Society and International Society of Interferon and Cytokine Research).

A mathematics graduate (magna cum laude) of Princeton University, Leonard received his M.D. from Stanford University. After completing his medical internship at George Washington University Hospital and residency at Barnes Hospital in St. Louis, he held successive appointments as a research associate at Washington University School of Medicine, senior staff fellow in the Metabolism Branch of NCI, NIH, and senior staff fellow in the Cell Biology and Metabolism Branch, NICHD, NIH. In 1987, he was appointed assistant clinical professor of medicine at the Uniformed Services University of the Health Sciences and medical officer (research) with tenure in the Cell Biology and Metabolism Branch at NICHD. He held subsequent medical officer appointments in the Section on Pulmonary and Molecular Immunology, Office of the Director, Intramural Research Program, NHLBI, and in NHLBI's Laboratory of Molecular Immunology.

Leonard has served as chief of NHLBI's Laboratory of Molecular Immunology since 1994 and as NHLBI Immunology Center director since 2004. He was appointed an NIH Senior Investigator in 2007 and an NIH Distinguished Investigator in 2008; he also serves as an adjunct professor of pathology and laboratory medicine at the University of Pennsylvania.

Ruslan Medzhitov, Ph.D.
Investigator, Howard Hughes Medical Institute (HHMI); David W. Wallace Professor of Immunobiology, Yale School of Medicine

Ruslan Medzhitov is known for his pioneering research in innate immunity, including an early pivotal role in establishing the field of Toll-like receptors (TLRs). This early involvement has developed into a broad research program investigating the roles of TLRs and the innate immune system in myriad physiological processes. Medzhitov's lab studies interactions between the host and both pathogenic and commensal organisms and how these interactions are modulated to ensure optimal protection from infection while minimizing inflammatory pathology and, additionally, controlling intestinal epithelial homeostasis. His group also explores the regulation of inflammatory responses and the effects of chronic inflammation on processes, including tumor growth, aging, and metabolic homeostasis. Addressing how the innate and adaptive immune systems interact, Medzhitov investigates mechanisms of peripheral tolerance and allergen-induced immune responses. Finally, his lab works to better understand macrophage biology, particularly the mechanisms of inducible gene expression in these cells.

Medzhitov was the 2006 recipient of the AAI-BD Biosciences Investigator Award and has been a major symposium speaker on multiple occasions at the AAI annual meeting. He is a past member of the AAI Program Committee and has served as an instructor at the AAI Advanced Course in Immunology.

Earlier this year, Medzhitov was named the inaugural recipient of the Else Kröner-Fresenius Award, as well as co-recipient (with Yale colleague Richard Flavell, AAI '90) of the 2013 Vilcek Prize for Biomedical Science. Medzhitov's additional professional honors and appointments include: member, National Academy of Sciences; member, Yale Cancer Center; co-recipient of the Shaw Prize in Life Science and Medicine; Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Science; Emil von Behring Prize, Philipps University, Marburg; honorary doctoral degree, University of Munich; William B. Coley Award for Distinguished Research in Basic and Tumor Immunology, Cancer Research Institute; Ellison Medical Foundation Senior Scholar Award in Global Infectious Disease; Searle Scholar Award; Blavatnik Award for Young Scientists, New York Academy of Sciences; Howard Taylor Ricketts Award, University of Chicago; and United Nations Educational, Scientific and Cultural Organization (UNESCO)/The World Academy of Sciences Fellowship.

Medzhitov has held editorial board appointments for *Cell, Current Opinion in Immunology, Cell Host and Microbe, International Immunology,* and *Journal of Experimental Medicine (JEM)* and served as a manuscript reviewer for *Cell, Nature, Science, Nature Medicine, Nature Immunology, Immunity, Molecular Cell, Cell Metabolism, Cancer Cell, Proceedings of the National Academy of Sciences USA, Genes and Development, Current Biology, PLOS Biology, JEM,* and *Journal of Clinical Investigation.* He has served as an advisory panel appointee or reviewer for organizations including RIKEN Research Center for Allergy and Immunology, Cancer Research UK London Research Institute, Cleveland Clinic Foundation, VaxInnate Corporation, Lycera Corporation, Catabasis Pharmaceuticals, NIH, Wellcome Trust, and other European funding agencies.

A native of Tashkent, Uzbekistan, and a biology graduate of Tashkent State University, Medzhitov received his Ph.D. in biochemistry from Moscow State University. Medzhitov emigrated from Russia in 1993 to train as a UNESCO fellow in the Russell Doolittle lab at the University of California, San Diego. The following year, he joined the Charles Janeway lab at Yale as a postdoctoral fellow. In 1999, he was appointed to the Yale School of Medicine faculty as an assistant professor and has been a full professor since 2003. He has been an HHMI investigator since 2000.

Georg Stingl, M.D.
Professor and Chair, Division of Immunology, Allergy and Infectious Diseases, Department of Dermatology, Medical University of Vienna, Austria

Georg Stingl's research explores the intricacies of cutaneous immunobiology, focusing on the function of skin immunity under both homeostatic and pathological conditions and the development of immunomodulatory pharmacological molecules to combat inflammatory and neoplastic skin diseases. He has pioneered many ground-breaking advances in the discovery and characterization of homeostatic and pathological skin immunity. His early seminal work included the discovery of epidermal dendritic T cells and the identification of the immunological phenotype and function of epidermal Langerhans cells—findings fundamental to the understanding of skin immunobiology. Later studies by his lab demonstrated that Langerhans cells are targeted by human immunodeficiency virus (HIV), which led to the discovery that these cells are some of the earliest infected by HIV. Stingl's research has also made many contributions to the elucidation of cutaneous allergic disease mechanisms, showing that Langerhans cells bind IgE via the high-affinity IgE receptor and that IgE autoreactivity plays a role in atopic dermatitis. Many of Stingl's current scientific pursuits involve developing therapeutics and directing early-phase clinical trials to treat cancerous and inflammatory skin diseases, including melanoma, psoriasis, and atopic dermatitis.

Stingl has served as an associate editor for *The JI.* A member of the German National Academy of Sciences and of the Austrian Academy of Sciences, he is an executive board member of the former and a past executive board member of the latter. His additional career honors and appointments include: past president, Arbeitsgemeinschaft Dermatologische Forschung (German Society for Skin Research); past president, European Dermatology Forum; past president, European Society for Dermatological Research; secretary general, International League of Dermatological Societies; deputy editor, *Journal of Investigative Dermatology;* Karl Landsteiner Medal, Austrian Society for Allergology and Immunology; Lifetime Achievement Award, American Skin Association; Kardinal Innitzer Recognition Award, Vienna, Austria; Unna Medal, German Society of Dermatology; Stephen Rothman Award, Society for Investigative Dermatology; William Montagna Award, Society for Investigative Dermatology; Sandoz Award for Medicine; Ferdinand von Hebra Award, Austrian Dermatological Society; and honorary doctorate, Semmelweiss Medical University, Budapest.

Stingl received his M.D. from the University of Vienna, Austria, and received dermatological and basic immunological training through his medical internship and residency in the Department of Dermatology at the University of Vienna Medical School (UVMS). After serving as a visiting fellow in the Dermatology Branch at NCI, NIH, he joined the Department of Dermatology at the University of Innsbruck Medical School, where he was appointed an associate professor in 1980. He returned the following year to the Department of Dermatology at UVMS, where, in 1985, he was appointed a full professor and chief of the Division of Cutaneous Immunobiology. He later undertook a sabbatical to receive basic molecular biology training as a guest researcher in the Laboratory of Immunology, NIAID, NIH. Since 1991, he has held UVMS appointments as professor and chair of the Division of Immunology, Allergy and Infectious Diseases.

IOM

Established in 1970 by the National Academy of Sciences as both an honorific membership organization and an advisory organization, IOM serves as a national resource for independent, scientifically informed analysis and recommendations on health issues. New members are elected by current active members through a selective process that recognizes individuals who have made major contributions to the advancement of the medical sciences, health care, and public health. With their election, members make a commitment to volunteer their service on IOM committees, boards, and other activities. Projects during the past year include studies of the benefits of including physical activity in the school environment, direct health outcomes of sodium intake, regional variations in Medicare spending, child abuse and neglect in the United States, improved delivery of cancer care, the commercial sexual exploitation and sex trafficking of minors in the United States, post-deployment needs of Iraq and Afghanistan service members, gun violence research priorities in the United States, and the international problem of illegitimate and substandard medications. For more information about IOM, visit http://www.iom.edu.

Mariana Kaplan Named Chief of New NIAMS Branch

Mariana J. Kaplan, M.D., AAI '02, has been appointed chief of the newly established Systemic Autoimmunity Branch at the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), National Institutes of Health (NIH), where she undertakes leadership of a new research program focusing on adult rheumatic diseases.

Most recently, Kaplan was a professor of internal medicine in the Division of Rheumatology, Department of Internal Medicine, at the University of Michigan (UM). Her research has addressed the pathogenesis of systemic lupus erythematosus (SLE; lupus), focusing primarily on understanding the accelerated vascular damage that can occur during autoimmune disease and the role of innate immunity in lupus-related organ damage. She and her laboratory colleagues have identified aberrant cell death and impaired vascular repair mediated by type I interferons as mechanisms responsible for early cardiovascular disease in lupus patients. They have also characterized an abnormal neutrophil subset that is pathogenic in lupus and associated vascular disease and are studying the role of neutrophil extracellular traps in the pathogenesis of lupus and rheumatoid arthritis. To translate this research into possible clinical applications, Kaplan has worked to identify novel therapeutic targets and specific pharmacologic interventions that could curtail tissue damage in people with lupus and potentially other autoimmune diseases.

Kaplan is a past member of the AAI Membership Committee and has served as an associate and section editor for *The JI.* She holds editorial appointments for *Arthritis and Rheumatism, Arthritis Research and Therapy, Clinical Immunology,* and *Current Opinion in Rheumatology* and has held past such appointments for the *Encyclopedia of Medical Immunology, Frontiers in Molecular Innate Immunity, Research* [Lupus Foundation of America (LFA) E-newsletter], *Clinical Medicine Insights: Arthritis and Musculoskeletal Disorders,* and *Clinical and Diagnostic Laboratory Immunology.* She has served as ad hoc reviewer for some 30 scientific journals and on multiple review panels at NIH (including at the National Institute of Allergy and Infectious Diseases, National Heart, Lung, and Blood Institute, and NIAMS)

and for organizations, including the American College of Rheumatology (ACR), LFA, Lupus Research Institute (LRI), Arthritis Foundation, 10th International Congress on SLE, Dutch Kidney Foundation, Austrian Science Fund, Medical Research Council (UK), and Arthritis Research Campaign (UK).

Kaplan's additional career appointments and honors include: Edmund L. Dubois Memorial Lectureship, ACR Research and Education Foundation (REF); Henry Kunkel Young Investigator Award, ACR; Cutting Edge of Lupus Research Travel Grant, LRI; fellow, ACR; member, American Society for Clinical Investigation (ASCI); member, American Federation for Medical Research (AFMR); Jerome W. Conn Award for Excellence in Research, UM; Centocor Scholar Award in Rheumatology; travel scholarship, joint ASCI/Association of American Physicians meeting; Alliance for Lupus Research Award; Junior Faculty Academic Exchange Program, ACR/European League Against Rheumatism; Global Arthritis Research Network Travel Grant, ACR/REF; Gina Finzi Award, LFA; travel award, XIXth European Workshop for Rheumatology Research; Senior Rheumatology Scholar Award, ACR; AFMR/Central Society for Clinical Research Midwest Trainee Investigator Award; William D. Robinson Rheumatology Society Award, UM; Searle Educational Grant; Life Sciences Research Foundation Fellow; Excellence in Sjögren's Syndrome Research Award, Ethel Baxter-Sjögren Foundation; Thomas D. Pallela Award for Excellence in Teaching, UM; Distinguished Member/Honor Gallery, School of Medicine, National Autonomous University of Mexico (NAUM); and Gabino Barreda Medal (award given to the best students of NAUM).

Kaplan received her M.D. (summa cum laude) from the NAUM School of Medicine and subsequently trained as a research fellow and completed her residency in internal medicine at Mexico's NIH. Later, she served as a rheumatology research fellow and lecturer at UM. She received a UM faculty appointment as an assistant professor of internal medicine in 2001 and was promoted to associate professor in 2008 and full professor in 2013.

The intramural NIAMS Systemic Autoimmunity Branch will combine natural history or treatment studies with basic investigations into the etiology and/or pathophysiology of rheumatic diseases, with an emphasis on SLE and other systemic autoimmune diseases affecting adults.

Gary Koretzky Joins Weill Cornell as Graduate School Dean

Gary A. Koretzky, M.D., Ph.D., AAI '92, is the new dean of the Weill Cornell Graduate School of Medical Sciences and senior associate dean for research at Weill Cornell Medical College. The graduate school offers more than one dozen doctoral and graduate programs with partnering institution, the Sloan-Kettering Institute.

Most recently, Koretzky was the Francis C. Wood Professor of Medicine at the University of Pennsylvania (Penn) School of Medicine, where he also served as vice chair for research and chief scientific officer in the Department of Medicine. Research in the Koretzky laboratory has explored the regulation of signal transduction events that lead to hematopoietic cell development and function, primarily focusing on T cells. His group has identified and characterized a number of key signaling molecules, including the adaptor proteins SLP-76 and ADAP, which mediate interactions between signaling components downstream of immunoreceptors and integrins. The Koretzky lab makes extensive use of genetically altered mice to extract new insights into how enzymes and adaptor proteins serve as regulators of multiple lineages in the hematopoietic system. The group's analysis of how adaptor molecules regulate and integrate second messenger cascades is leading to a better understanding of how cells are activated to fight infections, as well as how signaling may go awry and cause disease.

Koretzky was an AAI President's Symposium speaker in 2009 and the recipient of the AAI-PharMingen Investigator Award in 2000. He has been a major symposium speaker and chair on multiple occasions at the AAI annual meeting, where he has also served as an abstract programming chair. He is a past member of the AAI Awards Committee, AAI Clinical Immunology Committee, and AAI Program Committee and has served as an associate and section editor for *The JI*. He has also served on multiple occasions as a faculty member for the AAI Introductory and Advanced Courses in Immunology.

A member of the Institute of Medicine (IOM) and a past president of the American Society for Clinical Investigation, Koretzky is a fellow of the American Academy of Arts and Sciences and of the American

Association for the Advancement of Science and a fellow and councillor of the American Association of Physicians. He has served on multiple National Institutes of Health (NIH) study sections and institute review panels, including at the National Cancer Institute, National Institute for Allergy and Infectious Diseases, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Child Health and Human Development, National Institute of General Medical Sciences, and National Institute on Aging. He has also served as a reviewer for the VA Merit Review Board, Arthritis Foundation, Beirne Carter Center for Immunology Research, Holland Laboratory of the American Red Cross, Taubman Prize for Excellence in Translational Medical Science, IOM, Immune Tolerance Network, American College of Rheumatology (ACR) Research and Education Fund, Charles E. Culpeper Biomedical Pilot Initiative Grant, Charles E. Culpeper Scholars in Medical Science, Pfizer Postdoctoral Fellowship Program, The Arthritis Society (Canada), Medical Research Council of Canada, Canadian Arthritis Society, Medical Research Council (UK), Burroughs Wellcome Fund (UK), Alberta Science Heritage Foundation, Israel Science Foundation, and Italian Cancer Society.

His additional career honors and appointments include: Lee C. Howley Sr. Prize for Arthritis Research; Arthur K. Asbury Outstanding Faculty Mentor Award, Penn School of Medicine; NIH MERIT Award; Stanley N. Cohen Biomedical Research Award, Penn School of Medicine; Senior Fellow of the American Asthma Foundation; Henry Kunkel ACR Young Investigator Award; Established Investigator Award, American Heart Association; Carver Clinician Scientist Award, University of Iowa ("Iowa"); ACR Senior Rheumatology Scholar Award; and Henry Christian Award, American Federation for Clinical Research.

Koretzky is the editor in chief of *Immunological Reviews* and a consulting editor for the *Journal of Clinical Investigation (JCI)*. He has served as an ad hoc reviewer for over 30 journals and held editorial board appointments with *Nature Reviews Immunology, Signal Transduction, Arthritis Research, JCI, Tissue Antigens, International Journal of Molecular Medicine,* and *Journal of Experimental Medicine.*

A graduate of Cornell University, Koretzky received his M.D. and Ph.D. from Penn. He completed a residency in internal medicine and a fellowship in rheumatology at the University of California, San Francisco, where he also undertook additional postdoctoral research in microbiology and immunology. In 1991, he was appointed an assistant professor at the Iowa College of Medicine, where he went on to hold associate and then full professor appointments. His additional Iowa appointments included service as a member and then director of the Interdisciplinary Graduate Program in Immunology, director of the Medical Scientist Training Program, a program leader at the Iowa Cancer Center, and an executive committee member at the Iowa Center on Aging.

Koretzky returned to the Penn School of Medicine in 1999 as a professor of pathology and laboratory medicine and director of the Signal Transduction Program at the Abramson Family Cancer Research Institute, where he also served as executive committee chair. During his tenure at Penn, he held additional appointments as chief of the Division of Rheumatology in the Department of Medicine, associate director of the combined M.D.-Ph.D. program, executive committee member for the graduate programs in immunology and in cellular and molecular biology, and co-leader of the immunology program at Penn's Abramson Cancer Center.

GRIP

Grant Review for Immunologists Program

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

AAI is pleased to offer a program to match new PIs with established PIs who have significant, successful grant writing careers. The Grant Review for Immunologists Program (GRIP) invites new PIs to submit an outline or NIH-style abstract to the GRIP coordinator who, with the assistance of a small volunteer subcommittee, will attempt to match the topic of the proposal with the research experience of an established PI. Matches will be made as quickly as possible to allow new PIs to meet upcoming NIH grant deadlines. Participation is strictly voluntary and is not intended to supplant internal mentoring programs.

GRIP is now accepting both new PI and established PI participants. Please send your CV and a brief description of either your potential research project (new PIs) or grant reviewing experience (established PIs) to infoaai@aai.org (please write "GRIP" in the subject line).

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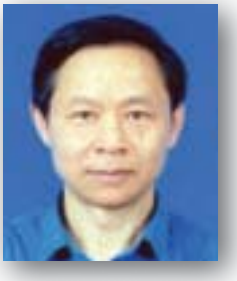
Program details at **aai.org/Education/GRIP**

Song Guo Zheng Appointed PSU Professor and Autoimmunity Research Director



Song Guo Zheng, M.D., Ph.D., AAI '04, was recently appointed a professor of medicine and director of autoimmunity research at Penn State University (PSU) Hershey College of Medicine.

Zheng's research, aimed at identifying keys to effective treatment of patients with autoimmune diseases and prevention of transplanted organ rejection, focuses on the development and function of $CD4^+CD25^+Foxp3^+$ regulatory T cells (Tregs). His laboratory has characterized molecular mechanisms controlling the differentiation and maintenance of induced Tregs (iTregs), including establishing the ability of TGF-ß and all-trans retinoic acid to induce naïve T cells to become iTregs. Zheng's group has also analyzed the stability of natural Tregs (nTregs) and iTregs under inflammatory conditions. Finally, they have described the relationship between gingival mesenchymal stem cells and Tregs.

Zheng has been the recipient on multiple occasions of the AAI Junior Faculty Travel Award and the AAI Laboratory Travel Grant to attend the AAI annual meeting. Zheng's additional career honors include: ACR Edmund L. Dubois Memorial Lectureship; International Congress of Immunology 2010 Immunology Award; American College of Rheumatology (ACR) plenary session speaker; Outstanding Youth Scientist Award, National Natural Science Foundation of China; James R. Klinenberg M.D. Award, Arthritis Foundation (AF); Young Scientist Travel Award, AF; Freda Newton Memorial Scholar Award, Arthritis National Research Foundation; Teva Neuroimmunology Award (multiple), Federation of Clinical Immunology Societies; Wright Foundation Fellowship; Arthritis National Research Foundation Fellowship; International Union Against Cancer Fellowship; second place, National Science and Technology Advance Award (China), and Young Cancer Research Award, European Cancer Conference, 1995.

A member of the ACR and the European Association for Cancer Research, Zheng has served on a National Institutes of Health study section and on review panels for the National Cancer Institute, National Institute of Arthritis and Musculoskeletal and Skin Diseases, the Southern California Clinical and Translational Science Institute, National Science Center (Poland), South Africa National Science Foundation, Multiple Sclerosis Research Australia, Zumberge Foundation, American Heart Association, ACR Within Our Reach Fund, and the National Nature Science Foundation of China. He is a past executive editor for the *American Journal of Clinical and Experimental Immunology*; a past associate editor for the *International Journal of Clinical and Experimental Medicine, International Journal of Biomedical Science,* and *American Journal of Translational Research;* and has provided editorial service for additional journals, including *Rheumatology: Current Research, Journal of Molecular Cell Biology, PLoS ONE,* and *Journal of Molecular Cell Biology.*

Zheng received his M.D. in 1984 from China's Anhui Medical University and his Ph.D. (molecular immunology) in 2011 from the French National Center of Scientific Research and the University of Orleans. His graduate education in China included study in immunology and pathology at China's Fudan University/Shanghai Medical College (FU/SMC), an internship/residency at Shanghai Zhabei Hospital, a medical residency in the Department of Surgery at Guichi Hospital, and a pathology fellowship at the FU/SMC Cancer Hospital. At the latter institution, he later held appointments as an assistant professor in the Department of Pathology and then as an associate professor in the Laboratory of Molecular Biology.

Subsequently, he served as a visiting scientist in the Department of Pathology and Laboratory Medicine at the University of California, Los Angeles, School of Medicine. In 2000, Zheng undertook a postdoctoral fellowship in the Division of Rheumatology and Immunology at the University of Southern California's Keck School of Medicine, where he was appointed an assistant professor in 2004 and an associate professor in 2010. He assumed his new PSU appointments on July 1, 2013.

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 appointment by contacting **mwcuddy@aai.org.**

Thank you!

Leonard A. Herzenberg, Ph.D., AAI '68

1931 – 2013

Longtime AAI member Len Herzenberg, a prominent immunologist and past recipient of the AAI Lifetime Achievement Award, died on October 27 at the age of 81 after suffering a stroke in early October. His work, including the pioneering of flow cytometry and development of the first FACS cell sorters and related technology, revolutionized the field. Dr. Herzenberg served on multiple AAI committees and on the editorial board of The Journal of Immunology. AAI extends condolences to his wife and fellow immunologist, Leonore Herzenberg, Ph.D. (AAI '74), their family, and many colleagues and friends.

The following tribute was authored by past Herzenberg trainee Mario Roederer, Ph.D., and appears with his kind permission.

Len Herzenberg passed away peacefully on October 27 at Stanford Hospital after a brief illness; he was 81. Lee Herzenberg, his wife of 60 years and life-long partner in science, was at his side.

We have lost a great scientist and innovator, a wonderful mentor, colleague, and friend.

Len was perhaps best known for bringing flow cytometry to the field of immunobiology. He was among the first to recognize the power of single cell analysis and how it could revolutionize our understanding of the immune system. In the late 1960s he put together a team at Stanford University to build the first fluorescence-based cytometers, using electrostatic charging of drops to sort individual cells. It is remarkable that almost 45 years later, the fundamental technology still has not changed, and has become a workhorse in nearly every immunology laboratory.

Len's laboratory was also responsible for bringing hybridoma technology to the US, from his sabbatical in Cesar Milstein's laboratory. At the time, Len uniquely recognized the incredible potential it had for transforming clinical and basic research and therapeutics; he urged early commercialization and distribution of useful hybridomas. His laboratory isolated many of the first monoclonal antibodies against human and mouse leukocytes, paving the way for decades of research. The laboratory made key contributions to defining MHC, the functions and differentiation of B cell and T cell subsets, and the genetics of mouse immunology.

During the 50 years that Len led the laboratory, he trained nearly 100 postdoctoral fellows and graduate students, a great many of whom have gone on to become world-renowned scientists in their own right. Over the years, Len was recognized with numerous prestigious awards: he was a member of the National Academy of Sciences, and was awarded the Novartis Immunology prize in 2004, and the Kyoto prize in 2006.

Notably, Len's contributions were not limited to science. He and Lee were always very active politically and socially -- working to overcome the backwards attitudes underlying McCarthyism, eugenics, nuclear proliferation, and later, the early stigmas and misinformation surrounding the early HIV epidemic. Len felt that scientists have a responsibility to bring their knowledge to the public forum to try to rectify misinformation and misguided politics.

Earlier this year, I had the privilege to interview Len and Lee for a special series in *Annual Reviews of Physiology (ARP)*. They discussed many of these sociopolitical issues, and how that influenced their research. Both the video (about an hour long) and the text are available online; I recommend watching the video to listen to Len and Lee's remarkable stories in their own words. Links are listed below.

I hope everyone takes a moment, when next viewing a FACS plot, running a sample, or analyzing sorted cells, to think about the many contributions that Len made to the field, and the enormous impact he has had. As one of his postdoctoral trainees, I am grateful for his mentoring and strive to emulate his commitment to science in my own laboratory.

Mario Roederer, Ph.D., Senior Investigator, ImmunoTechnology Section, Vaccine Research Center, NIAID, NIH

To view the ARP Video cited above, visit www.annualreviews.org/doi/story/10.1146/multimedia.2013.08.15.195.

To view a transcript of the ARP interview text, visit www.annualreviews.org/doi/abs/10.1146/annurev-physiol-021113-170355.

A Stanford University retrospective on the life and career of Len Herzenberg is available at www.med.stanford.edu/ism/2013/october/obit-herzenberg.html.

Redwan Moqbel, Ph.D., AAI '96

1947 – 2013

The following tribute to AAI member Redwan Moqbel was published by the University of Alberta and appears here with the kind permission of the Moqbel family.

Dr. Redwan (Ridvan) Moqbel, MMI* Cross-Appointed Faculty, has died.

Redwan (Ridvan) Moqbel passed away on October 9 in Winnipeg after a protracted battle with cancer.

Redwan was born August 14, 1947, in a border town on the Iraq/Iran frontier, to a family whose history is linked with the earliest days of the Baha'i Faith. Redwan served the Baha'i community in the UK and Canada in volunteer capacities, including as a member of the national governing council of the Baha'i community of the United Kingdom for 13 years.

Redwan was a speaker of rare eloquence, clarity, and depth whose spiritual beliefs were firmly anchored in Baha'u'llah's writings and whose abundant humor was never at the expense of others. His life-long focus was on creating unity. He loved everyone but particularly youth whom he mentored on three continents. In confirmation of his efforts, Redwan received the Lieutenant Governor of Manitoba's Award for the Advancement of Interreligous Understanding in January 2013.

Redwan obtained his Ph.D. in 1976 at the University of London, UK (London School of Hygiene and Tropical Medicine). He became a faculty member at London's National Heart and Lung Institute in 1980. He was among the first to identify the immunological cell types that regulate asthma and allergy.

Recruited to the Department of Medicine, University of Alberta as a professor in 1995, he served as the director of the Pulmonary Research Group. There he received such prestigious awards as Alberta Heritage Medical Senior Scholar, Heritage Scientist, and Heritage Senior Investigator.

In 2008, Redwan became professor and head of the Department of Immunology at the University of Manitoba, and professor emeritus at the University of Alberta. He was well recognized for his mentorship of young biomedical scientists, whom he encouraged to adopt "a noble goal."

An international authority on the immuno-molecular basis of asthmatic inflammation, in particular the role of eosinophils, Redwan compiled a research record that garnered him numerous distinctions and awards. The International Eosinophil Society, of which he was a founding member, awarded him its highest honor, The Paul Ehrlich Award, and named a mentoring award after him. The society further honored him with the prestigious Service Award in recognition of his "cardinal leadership" and innovative research.

A recent example of his work as a champion reconciler was his role in organizing a scientific conference in which protagonists in the controversy over Lyme Disease came together in an atmosphere of mutual respect.

Aggressive treatment for sinus cancer in 2006 resulted in a cure for Redwan, but beginning in 2009 he suffered recurrences with metastatic lung and chest wall cancer. He accepted his ordeals with gratitude, grace, and fortitude.

Left to cherish his memory are his wife, Shar Mitchell, Redwan's son, Sam Moqbel (Amy and grandsons Thomas and Evan), Redwan's daughter, Marianne Greenhowe (Gordon and grandson Oliver), Shar's father, Jack Mitchell, Shar's children, Gabriel Lenz (Erica Carlisle), Colby Lenz, and Asher Lenz (Emily Dragoman), Redwan's brother, Sarmad, sister Sharaf, their families in Iraq, and hundreds of friends worldwide.

In lieu of flowers, contributions can be made to:

- The Canadian Lyme Disease Foundation, (www.canlyme.com), 9131 – 118th St., Edmonton, AB T6G 1T6, Canada, or
- CancerCare Manitoba Foundation, (www.cancercarefdn.mb.ca), 1160-675 McDermot Ave., Winnipeg, MB R3E 0V9, Canada, or
- Riverview Health Centre Foundation (3E) Palliative Unit (http://www.riverviewhealthcentre.com), 1 Morley Avenue, Winnipeg, MB R3L 2P4, Canada

** Department of Medical Microbiology and Immunology, University of Alberta*

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

Of the many images one might conjure of immunologists in the 1950s, one of the least likely might be that of a middle-aged woman, butterfly net in hand, chasing wasps in her garden. Yet, this is precisely how one eminent immunologist, Mary Hewitt Loveless (AAI '41), may have appeared on a typical summer day during that decade. An allergist and clinical immunologist, Loveless pioneered the use of venom, which she meticulously obtained from wasps and bees in her own backyard, to treat patients who were susceptible to anaphylaxis when stung by these insects of the order Hymenoptera. It is her work in developing and refining this allergy treatment, the first successful venom immunotherapy for patients with hypersensitivity to Hymenoptera stings, for which she is best remembered today.

Mary Hewitt Loveless's passport photo, 1955

Fiercely independent, Loveless was not afraid to engage in unconventional research methods. While her innovative approach to allergy treatment was largely ignored for much of her career, her persistence over more than one-half century of research ultimately won her accolades as the rest of the field embraced her methods.

Early Life

Mary Hewitt was born in Clovis, California, on April 28, 1899, to British immigrant parents who had fled an economic depression in England in the late nineteenth century. Settling in the southern California farming community in the 1890s, they found their economic conditions only moderately improved.[1] To attend college, Mary worked part-time as a waitress and secretary to pay her way through Stanford University, receiving a B.A. in biology in 1921. Encouraged by the faculty to pursue a degree in medicine, she entered medical school at Stanford as one of only two women in a class of 25 and earned her M.D. in 1925.[2] She married that same year and took the surname Loveless, the name she would use for the rest of her life, although the marriage soon ended in divorce.[3]

Following a medical internship year at San Francisco General Hospital, Loveless remained in the city to open a private practice. She also worked part-time for the California Department of Public Health and as an assistant in medicine at Stanford Medical School. It was while holding one of the Stanford staff appointments in the allergy clinic at Children's Hospital during the early 1930s that Loveless first became interested in allergy research.[4]

Loveless attributed her first opportunity to formalize her studies of allergy to a chance but fortuitous vacation encounter in 1935 with a London physician to the royal family.[5] It was not his access to Buckingham Palace that proved consequential for Loveless but rather his acquaintance with Robert A. Cooke (AAI '20), a renowned allergist at the Asthma and Allergy Clinic at Roosevelt Hospital in New York City. Given Loveless's interest and experience in allergy, the physician wrote a personal letter of introduction to Cooke for her and suggested that she stop in New York before returning to the Bay Area.[6]

1 In 1988–89, Sheldon G. Cohen (AAI '64) corresponded with Loveless and interviewed her over the telephone. This overview of Loveless's early life is drawn from the following two articles, which Cohen wrote based on his notes on those conversations: "In Conversation with Mary Hewitt Loveless, M.D.," *Allergy Proceedings* 10, no. 2 (1989): 153–55; "Loveless on Wasp Venom and Allergy Immunity. Part 1," *Journal of Allergy and Clinical Immunology* 112, no. 6 (2003): 1248–52.

2 Cohen, "In Conversation with Mary Hewitt Loveless, M.D.," 154; ibid., "Loveless on Wasp Venom and Allergy Immunity. Part 1," 1248.

3 Cohen, "Loveless on Wasp Venom and Allergy Immunity. Part 1," 1248.

4 Ibid.

5 Unfortunately, if Loveless named the physician with whom she met in her conversations with Cohen, he did not include it in his accounts. Cohen, "In Conversation with Mary Hewitt Loveless, M.D.," 154; ibid., "Loveless on Wasp Venom and Allergy Immunity. Part 1," 1248.

6 Ibid.

Loveless seized this opportunity to meet a pioneering researcher in allergy. She met with Cooke upon her return to the United States and was invited to stay as a guest researcher for three weeks to study the treatment of hay fever patients with injections of pollen extracts. Loveless must have impressed Cooke, for he offered her a research fellowship that kept her at Roosevelt Hospital for the next three years.[7]

Studies on Hay Fever and Blocking Antibodies

When Loveless arrived at Roosevelt Hospital in 1935, Cooke's laboratory was attempting to determine the mechanism by which ragweed pollen extracts offered protection to individuals who suffered from hay fever. Anecdotal evidence of the effectiveness of such treatment was readily available, as the practice had been used in clinics for nearly 20 years, but no one really understood how the treatment worked. By transfusing serum from treated patients to untreated patients, Cooke and his colleagues demonstrated that the immunity produced by pollen extract injections was transferrable, and they concluded that a blocking antibody specific to ragweed pollen must be responsible.[8] Loveless helped determine that this antibody was contained in the pseudoglobulin serum fraction[9] and demonstrated that even nonallergic patients produced it when injected with pollen extract.[10]

Department of Medicine, Cornell University Medical College, faculty and staff, 1946; Mary Hewitt Loveless is seated in back row, 4th from left

Medical Center Archives of NewYork-Presbyterian/Weill Cornell

Mary Hewitt Loveless with Michael Heidelberger, no date

Stanford Medical History Center

Loveless continued her studies of blocking antibodies and the use of pollen extracts in treating hay fever after her departure from the Cooke laboratory in 1938 for a joint appointment as an assistant physician at New York Hospital and instructor of medicine at Cornell University Medical College.[11] Here, Loveless published her "Immunological Studies of Pollinosis" as a series of five articles in *The Journal of Immunology* from 1940 to 1943.[12] In the first of these articles, she described the thermostable property of the blocking antibody, providing a method of separating the blocking antibody from the reagin using heat and allowing her to determine that the thermostable antibody exerted its neutralizing effect by binding antigen directly.[13]

7 Ibid.

8 Robert A. Cooke, James H. Barnard, Selian Hebald, and Arthur Stull, "Serologic Evidence of Immunity with Coexisting Sensitization in a Type of Human Allergy (Hay Fever)," *Journal of Experimental Medicine* 62, no. 6 (1935): 733–50.

9 Arthur Stull, Mary Glidden, and Mary Loveless, "Protein Content of Human Serum," *Journal of Allergy* 7, no. 4 (1936): 333–36.

10 Robert A. Cooke, Mary Loveless, and Arthur Stull, "Studies on Immunity in a Type of Human Allergy (Hay Fever): Serologic Responses of Non-Sensitive Individuals to Pollen Injections," *Journal of Experimental Medicine* 66, no. 6 (1937): 689–96.

11 Cohen, "In Conversation with Mary Hewitt Loveless, M.D.," 155.

12 Mary Hewitt Loveless, "Immunological Studies of Pollinosis," *The Journal of Immunology* 38, no. 1 (1940): 25–50; ibid., 41, no. 1 (1941): 15–34; ibid., 44, no. 1 (1942): 1–8; ibid., 47, no. 2 (1943): 165–80; ibid., 47, no. 4 (1943): 283–92.

13 Mary Hewitt Loveless, "Immunological Studies of Pollinosis: I. The Presence of Two Antibodies Related to the Same Pollen-Antigen in the Serum of Treated Hay-Fever Patients," *The Journal of Immunology* 38, no. 1 (1940): 25–50.

To develop her skills in immunochemistry and further her understanding of blocking antibodies and their antigens, Loveless took advantage of a 1946 sabbatical to study under Michael Heidelberger (AAI '35, president 1946–47, 1948–49) at Columbia University College of Physicians and Surgeons.[14] Even as she developed advanced laboratory techniques, Loveless remained first and foremost a clinician committed to improving immunotherapy for the treatment of her allergy patients through clinical experimentation. At the 1946 AAI annual meeting in Atlantic City, she reported successfully applying the principles and techniques she had developed in treating hay fever to a patient who was allergic to insulin.[15] At times, her methods were highly controversial—perhaps none more so than when she injected patients with mineral oil emulsions, based on Jules Freund's (AAI '24, president 1955–56) adjuvant, in the hopes of maximizing the duration of immunity between boosters.[16]

The Turn to Insect Venom Allergies

In 1946, a colleague at Cornell asked Loveless if she knew of any treatment to prevent systemic allergic responses to insect stings. The colleague's mother had twice suffered near-fatal anaphylactic reactions to bee stings, and he thought Loveless's success in treating hay fever patients might enable her to help his mother.[17]

Stinger being extracted from hand

U.S. Department of Agriculture; Photo by Scott Bauer

Honey bee

Wikimedia Commons; Photo by Daniel Schwen

Hypersensitivity to Hymenoptera stings was known to be a relatively rare but severe condition. Physicians had reported hypersensitive patients experiencing a wide array of potentially fatal symptoms following stings, including a dramatic drop in blood pressure, coronary artery spasms, and swelling of the throat. Hypersensitivity to Hymenoptera venom was far less common than hypersensitivity to pollen, but, as one team of allergists noted, there was one crucial difference between the two: "In the former, inadequate protection may mean the difference between life and death; in the latter the difference is simply between comfort and discomfort."[18]

When Loveless began her studies on wasp-sting allergies, epinephrine was the primary means of preventing fatalities from anaphylactic shock. It had proved to be quite effective at combating anaphylactic reactions when administered immediately following a sting. But allergists were interested in preventing the onset of symptoms by desensitizing hypersensitive individuals. Beginning in 1939, clinicians reported success in desensitizing patients with whole-body extracts made by grinding up whole insects, leading many clinicians to conclude that "the sensitizing agent seems to be in the entire body of the insect."[19] Loveless began her experiments on Hymenoptera desensitization using whole-body extracts in 1948, but, after running chemical analysis on the whole-body extracts and pure venoms, she challenged what was then the conventional wisdom, arguing that the allergens were concentrated in the venom and hypothesizing that venom therapy would, for that reason, prove more effective than a regimen of whole-body extract injections.[20]

14 Cohen, "Loveless on Wasp Venom and Allergy Immunity. Part 1," 1249.

15 Mary Hewitt Loveless, "Coexistence of Two Antibodies for Crystalline Insulin in Human Serum," Abstracts of 1946 AAI Annual Meeting, *Federation Proceedings* 5, no. 1 (1946): 250.

16 Mary Hewitt Loveless, "Application of Immunologic Principles to the Management of Hay Fever, Including a Preliminary Report on the Use of Freund's Adjuvant," *American Journal of the Medical Sciences* 214, no. 5 (1947): 560–67; ibid., "Repository Immunization in Pollen Allergy," *The Journal of Immunology* 79, no. 1 (1957): 68–79.

17 Mary Hewitt Loveless, "The Sting: Prophylactic Venom Prevents Disaster," *Modern Medicine,* May 15, 1976, 54.

18 Harry L. Mueller and Lewis W. Hill, "Allergic Reactions to Bee and Wasp Stings," *New England Journal of Medicine* 249, no. 18 (1953): 729.

19 Robert L. Benson, "Diagnosis of Hypersensitiveness to the Bee and to the Mosquito: With Report on Successful Specific Treatment," *Archives of Internal Medicine* 64, no. 6 (1939): 1306–27; quote from Mueller and Hill, "Allergic Reactions to Bee and Wasp Stings," 727.

20 Mary Hewitt Loveless and William R. Fackler, "Wasp Venom Allergy and Immunity," *Annals of Allergy* 14, no. 5 (1956): 347–66. Fackler was a recent Cornell Medical College graduate who served as Loveless's research assistant. Loveless later explained that she included Fackler's name on the article to encourage him to enter the field of allergy research, but her generosity had little effect, as he "preferred to be a general country doctor in a small town somewhere." Loveless quoted in Cohen, "Loveless on Wasp Venom and Allergy Immunity. Part 1," 1250.

There was one tremendous obstacle to venom immunotherapy at the time: pure venom was not readily available. Undeterred, Loveless collected the insects herself, explaining in the methods section of her groundbreaking 1956 paper, "Each autumn live wasps are procured either individually in the field with butterfly nets or, preferably, in intact hives so that uniformity of species is assured."[21] She then anesthetized the insects and carefully removed their venom sacks, which she refrigerated for up to one year before grinding them up and injecting the venom into her patients. Although a tedious process, she grew quite proficient at it, reporting in 1964 that, after dissecting an estimated 30,000 insects over the years, she could "do a bug a minute."[22]


MEDICINE

Shots and bugs fight a rare but serious menace

August's Deadly Stings

Mary Hewitt Loveless as featured in "August's Deadly Stings," *Life*, August 9, 1963, p. 57

In 1953, Loveless began a small trial that involved injecting patients with progressively increasing doses of venom over the course of one or two days. Uncertainty regarding her patients' tolerance thresholds made this a dangerous procedure for her to undertake. Although Loveless noted that "in most instances" the treatment was accomplished "with only slight systematic reactions," she conceded, albeit rather euphemistically, that "in three patients, … the manifestations approximated (briefly) those described by the subject for his accidental stinging episode."[23] In other words, she had induced anaphylaxis in these subjects in her clinic. By 1956, she had determined a standardized schedule and reported that anaphylactic reactions "were entirely avoided."[24] Moreover, a series of live sting tests in her office, as well as accidental stings suffered by her patients outside of her clinic, suggested that her venom immunotherapy was effective.

Mary Hewitt Loveless, 1946

Medical Center Archives of NewYork-Presbyterian/ Weill Cornell

Even after she was named emeritus professor of medicine upon her retirement from Cornell University Medical College in 1964, Loveless continued refining her techniques, keeping wasps and bees in the garden of her Westport, Connecticut, home and treating allergy patients in her private practice, which she maintained for another 25 years. By 1976, she had treated over 300 patients with her venom immunotherapy and reported that six venom sacs injected over the course of a few hours could provide protection for up to one year.[25] Furthermore, she had begun replacing the annual booster shots of venom with live stings in her clinic for those of her patients who consented. Ten of her patients who lived in remote areas even "learned to net, chill, and apply the suitable species of wasp to the leg—with epinephrine and professional aid close at hand."[26]

The Loveless Legacy

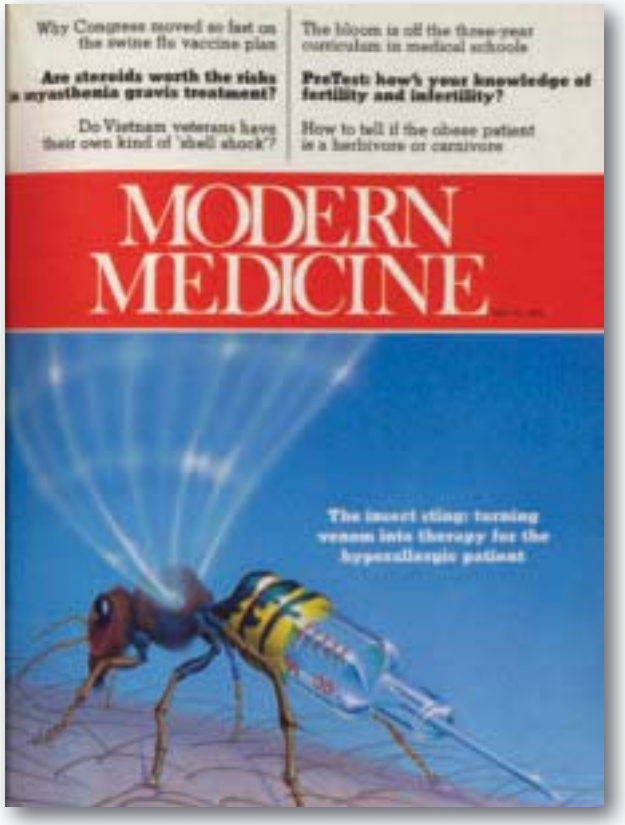
Loveless's "Wasp Venom Allergy and Immunity" was reprinted as the inaugural "landmark article" in *Allergy Proceedings* in 1989, but it was not welcomed as such when it was first published in 1956.[27] For the most part, scientists seemed to pay little attention at all, as whole-body extract remained the recommended treatment for Hymenoptera allergy. The popular press, however, was enamored with Loveless and her procedures. *Life* introduced Loveless's treatment regimen to a popular

21 Ibid., 347.
22 "August's Deadly Stings," *Life*, August 9, 1963, 58.
23 Loveless and Fackler, "Wasp Venom Allergy and Immunity," 355.
24 Ibid., 364.
25 Mary Hewitt Loveless, "The Sting: Prophylactic Venom Prevents Disaster," *Modern Medicine*, May 15, 1976, 54–57.
26 Ibid., 57.
27 Mary Hewitt Loveless and William R. Fackler, "Wasp Venom Allergy and Immunity (1956)," Landmark Article, *Allergy Proceedings* 10, no. 2 (1989): 157–60.

audience with the article "August's Deadly Stings" in 1963.[28] Fourteen years later, it was the colorful Loveless whom *Newsweek* profiled under the title, "Fighting Hives," although more recent entrants into the field of venom therapy were responsible for the acceptance of her technique among clinicians.[29]

The broader scientific community did not begin to embrace venom therapy until 1974, when, almost 20 years after Loveless first suggested using pure venom, Lawrence M. Lichtenstein (AAI '67), Martin D. Valentine (AAI '72), and Anne Kagey-Sobotka (AAI '78) of the Johns Hopkins University School of Medicine reported a single case in which they used honeybee venom to immunize a patient after whole-body extract failed to produce the desired effect.[30] Making only passing reference to Loveless's work, they noted, "Although some investigators have suggested treatment with the appropriate venoms, this treatment is not, in fact, possible within the constraints of federal regulations."[31] Even this reference was not to Loveless's 1956 article but rather to a follow-up study that she reported in *The Journal of Immunology* in 1962.[32]

The group at Hopkins published the results of a single-blind controlled trial on venom therapy in 1978.[33] They divided 60 patients into three groups, treating the first with venom, the second with whole-body extract, and the third with a placebo. Of the 18 patients treated with venom who agreed to a sting test, only one had mild systemic reactions. Members of the whole-body and placebo groups, on the other hand, fared so poorly that the trials were terminated early. Seven of the 11 of those treated with whole-body extract suffered severe systemic reactions following the sting test, as did seven of the 12 who received a placebo. Whole-body extract, the treatment method that had been favored by allergists since 1939, proved no more effective than the placebo. The following year, in 1979, the U.S. Food and Drug Administration finally approved venom-sac extracts for use in the therapeutic treatment of patients with Hymenoptera venom allergies.[34]



Cover of the May 15, 1976, issue of *Modern Medicine*, featuring Mary Hewitt Loveless's article, "The Sting: Prophylactic Venom Prevents Disaster"

Anterior view of a bald-faced hornet, *Dolichovespula maculata*

Centers for Disease Control and Prevention; Photo by Dr. Gary Alpert, Harvard University

28 "August's Deadly Stings," *Life*, August 9, 1963, 57–60.

29 Matt Clark with Dan Shapiro, "Fighting Hives," *Newsweek*, April 11, 1977, 65–66.

30 Lawrence M. Lichtenstein, Martin D. Valentine, and Anne K. Sobotka, "A Case for Venom Treatment in Anaphylactic Sensitivity to Hymenoptera Sting," *New England Journal of Medicine* 290, no. 2 (1974): 1223–27.

31 Ibid., 1224.

32 Ibid., 1227; Mary Hewitt Loveless, "Immunization in Wasp-Sting Allergy through Venom-Repositories and Periodic Insect Stings," *The Journal of Immunology* 89, no. 2 (1962): 204–15.

33 Kevin J. Hunt, Martin D. Valentine, Anne K. Sobotka, Allen W. Benton, Frank J. Amodio, and Lawrence M. Lichtenstein, "A Controlled Trial of Immunotherapy in Insect Hypersensitivity," *New England Journal of Medicine* 299, no. 4 (1978): 157–61.

34 Martin D. Valentine, "Loveless on Wasp Venom and Allergy Immunity. Part 2," *Journal of Allergy and Clinical Immunology* 112, no. 6 (2003): 1254.

Members of the Hopkins group later acknowledged, to varying degrees, Mary Hewitt Loveless's role in pioneering venom therapy. In 1977, Kagey-Sobotka, the most junior member of the research team, dedicated her dissertation to Loveless, "who, thirty years ago, first suggested the appropriateness of venom immunotherapy."[35] Valenine later contributed an article on the significance of Loveless's research to "The Allergy Archives" series in the *Journal of Allergy and Clinical Immunology.*[36] Lichtenstein, however, remained somewhat skeptical, pointing out that Loveless "never carried out controlled studies" and questioning "whether her once- or twice-a-year sting regimen was really effective."[37]

The same fierce independence and penchant for the unconventional that drew criticism also won Loveless many admirers. Robert A. Good (AAI '57, president 1975–76), in his AAI President's Address, recounted one instance in which Loveless's boldness contributed, at least indirectly, to a major discovery in basic immunology. Speaking in front of a large audience at the Fifth International Congress of Allergology and Clinical Immunology in Madrid in 1964, Kimishige Ishizaka (AAI '58, president 1984–85) presented experimental results that demonstrated that IgA-rich fractions contained reagins and suggested that IgA might be the reaginic immunoglobulin. Good recalled that Ishizaka's talk "convinced me and, I think, almost everyone present," but Loveless rose to challenge Ishizaka's hypothesis. She reported having a patient who produced reagins, though he lacked IgA entirely. Ishizaka graciously thanked Loveless and, with this new insight, returned to his research. Within two years, he had discovered, isolated, and purified IgE and identified it as the reagin.[38]

It may have taken decades for some of her scientific achievements to be fully appreciated, but by the time of her death in 1991, Mary Hewitt Loveless was held in high regard by her peers. The AAI tribute to Loveless noted that she "stood out among a very small group

Honey bees on honeycomb

U.S. Department of Agriculture; Photo by Scott Bauer

of Association members from whose work a rational understanding of asthma and human allergic disease would evolve," and recognized her as a "pioneer clinical immunologist."[39]

Even after her death, Loveless contributed to the field of immunology. An avid investor who amassed a sizable estate by carefully following the stock market on a daily basis, she bequeathed nearly $4 million to her alma mater, Stanford University School of Medicine, "for the benefit of immunologic research and study of life-threatening allergies."[40] Stanford, in turn, established an endowed chair in her honor, the Mary Hewitt Loveless, M.D., Professorship in the School of Medicine, a title held by Stephen J. Galli (AAI '80) since it was first awarded in 1999. ■

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

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

35 Quoted in ibid., 1252.

36 Ibid., 1252–54.

37 Lawrence M. Lichtenstein, "Reply," Correspondence, *Journal of Allergy and Clinical Immunology* 96, no. 6 (1995): 1019.

38 Robert A. Good, "Runestones in Immunology: Inscriptions to Journeys of Discovery and Analysis," *The Journal of Immunology* 117, no. 5 (1976): 1416; Kimishige Ishizaka, Teruko Ishizaka, and Margaret M. Hornbrook, "Physicochemical Properties of Reaginic Antibody, IV. Presence of a Unique Immunoglobulin as a Carrier of Reaginic Activity," *The Journal of Immunology* 97, no. 1 (1966): 75–85; ibid., "V. Correlation of Reaginic Activity with E-Globulin Antibody," *The Journal of Immunology* 97, no. 4 (1966): 840–53.

39 Reprinted in "In Memoriam: Mary Hewitt Loveless, M.D., (1899–1991)," *Allergy Proceedings* 12, no. 5 (1991): 359.

40 Cohen, "Loveless on Wasp Venom Allergy and Immunity. Part 1," 1252.

AAI Outreach Program: Update on AAI Support for Early Career Scientists at Selected Immunology Conferences

In addition to the robust awards program for early-career scientists who attend the AAI annual meeting, the association, since 2011, has also supported opportunities for early-career scientists to present their research at selected immunology conferences throughout the United States. AAI was pleased to continue its sponsorship of AAI Young Investigator awards at the recent Colorado Immunology Conference, La Jolla Immunology Conference, and Upstate New York Immunology Conference.

14th Annual Colorado Immunology Conference (CIC)

Approximately 200 scientists gathered at the Vail Cascade Resort and Spa September 11 through 13 for the 2013 CIC, chaired by Laurel Lenz, AAI '05. This year's attendees were joined by a contingent of French immunologists, including the lecturer for the AAI-supported Pixie Campbell Memorial Lecture, Marie Malissen, who presented her work on identifying novel molecular components of CD28 co-stimulatory signaling pathways using ENU mutagenesis screens in mice.

Among 62 posters presented by trainees, judges selected the four best posters from both the graduate student and postdoctoral fellow submissions for AAI Young Investigator Awards. The recipients of the AAI Awards were graduate students Kristen Jacobsen, Nathan Pennock, AAI '13, Amy Stone, and Katie Waugh; and postdoctoral fellows Chiara Babolin, Christina Christianson, Lisa Peterson, and Anatoly Rubtsov, AAI '12. Having received the most votes from the judges, Jacobsen, Stone, Christianson, and Peterson were also given opportunities to present their research in short talks on the final day of the conference. Stone received the additional honor of being selected by the Embassy of France Office of Technology for a grand prize which will support her travel to a scientific meeting in France.

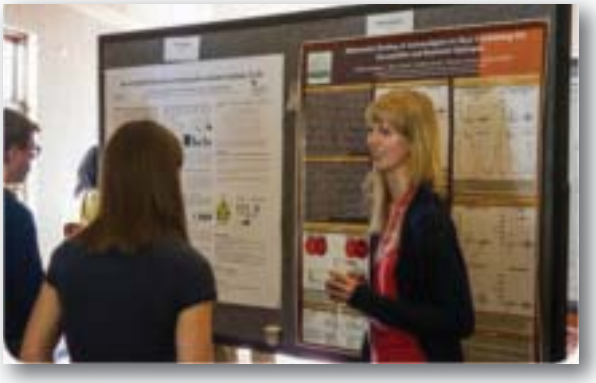
39th Annual La Jolla Immunology Conference (LJIC)

An all-time high of more than 390 scientists attended the 39th Annual LJIC, which was held at The Salk Institute for Biological Research October 8 through 10. The conference was chaired by Stephen Schoenberger, AAI '05, and Alessandra Franco, AAI '98. AAI President Marc Jenkins, AAI '88, delivered the keynote address, "The $CD4^+$ T cell response to bacterial infection."

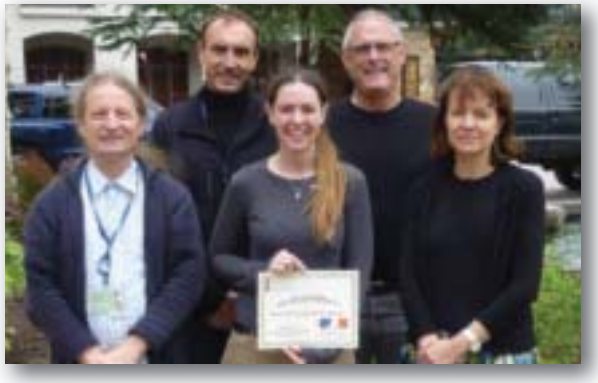
Jenkins presented ten AAI Young Investigator Awards on the final night of the conference at a Gala Awards Dinner held at the renowned Birch Aquarium at the Scripps Research Institute. The five awardees for best oral presentation were Gregory Donaldson, Guo Fu, Florence Lambolez, AAI '12, Iftach Shaked, and Andrea Wolf. The five winners for best poster presentation were Bryan Becklund, AAI '13, Richard Hanna, AAI '13, Christian Klammt, José Luis Maravillas-Montero, and Sara McBride. In addition to presenting the keynote address and awards, Jenkins stressed the value of AAI membership in his remarks from the podium.

16th Annual Upstate New York Immunology Conference (NYIC)

The 16th Annual NYIC was held in Bolton Landing, New York, at the Sagamore Resort and Conference Center on Lake George October 20 through 23. The conference was organized by James Drake, AAI '01, Katherine MacNamara, AAI '11, Dennis Metzger, AAI '82, and representatives from nine other institutions, all ably assisted by Dawn Bellville of the Albany Medical College.



An immunology graduate student presenting a poster on her work at one of the CIC poster sessions



Amy Stone (an AAI Young Investigator Awardee at the CIC; center) surrounded by (L-R) Bernard Malissen, Eric Vivier, John Cambier, Marie Malissen

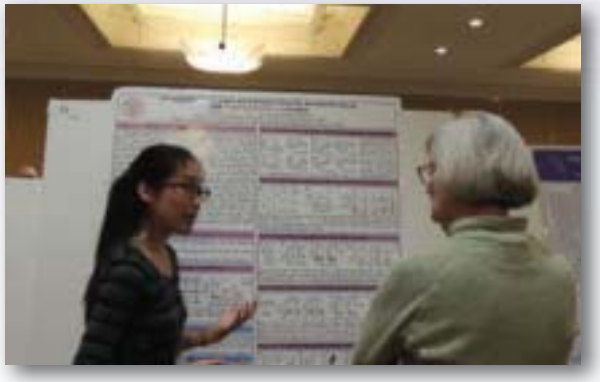
Keynote speakers were Pamela J. Fink, AAI '87, Editor-in-Chief of *The Journal of Immunology,* who lectured on "Post-thymic T Cell Maturation," and Christopher A. Hunter, AAI '96, who spoke on "Predators, Prey, and Police–Imaging Strategy in the Immune System." Fink also led an informative workshop on "Dos and Don'ts When Writing and Publishing a Scientific Manuscript," in which she gave attendees helpful strategies for writing a paper and mediated a lively discussion on the review process.

Jennifer H. Meyers, AAI '07, AAI Senior Science Coordinator, with help from Hunter, Edith M. Lord, AAI '78, and Jonathan A. Harton, AAI '04, presented certificates to the twenty recipients of the AAI Young Investigator Awards: Christopher S. Anderson, Gregory J. Berry, Justin Bryce Callaway, Tara Capece, AAI '13, Sara Beth Cohen, Michael Davies, Shawn M. Egan, Alison Elizabeth Gaylo, AAI '13, Weishan Huang, AAI '10, Kathleen M. Kokolus, AAI '12, Amy Ku, Amanda McCabe, AAI '12, Colleen Netherby, Megan A. Peppenelli, Stephanie N. Sass, Haley Spangler, AAI '11, Catherine Stevenson, Heidi R. Tucker, David Williamson, and Bethany Winans.

(L-R) Marc Jenkins with AAI Young Investigator Awardees for best poster presentations at the LJIC: Bryan Becklund, Sara McBride, Christian Klammt, José Luis Maravillas-Montero (Richard Hanna not pictured)

(L-R) Jenkins with AAI Young Investigator Awardees for best oral presentations at the LJIC: Guo Fu, Andrea Wolf, Florence Lambolez, Iftach Shaked, Sara McBride (accepting for Gregory Donaldson, not pictured)

Immunology graduate students dressed to kill for the "Casino night" dinner celebration, held the first night of the CIC



AAI Young Investigator Awardee Weishan Huang presenting her poster to Pamela Fink at the NYIC

Jonathan Harton, Edith Lord, Jennifer Meyers (top left) with AAI Young Investigator Awardees at the NYIC

The Sagamore Resort and Conference Center, site of the 16th NYIC

Welcome to all new AAI Members! Your membership in AAI benefits you, your area of research, your member colleagues, and the field.

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

AAI Welcomes New Members (2013) Attains New Record-High Membership

Having grown from 54 members in 1913 to 7,790 for 2013, AAI membership has risen to **an all-time high!** AAI has a stronger voice than ever, one that advocates on your behalf, especially for vital NIH funding and reduced regulatory burdens.

Members are proud of their association with AAI and benefit from career development programs, networking opportunities, scientifically strong meetings and courses, and a top-ranking scientific journal, *The Journal of Immunology.*

Listed below are the 460 new Regular and Associate members added in 2013. Also added in 2013 were a record 884 new Trainee members! To view the list, go to: www.aai.org/Membership/newmemberlist.pdf.

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

REGULAR

United States

Alabama

Jun Li, Ph.D.
Birmingham, AL

Chad Steele, Ph.D.
Birmingham, AL

Arizona

Joseph N. Blattman, Ph.D.
Tempe, AZ

Peter A. Cohen, M.D.
Scottsdale, AZ

California

Christopher D. C. Allen, Ph.D.
San Francisco, CA

Shaikh M. Atif, Ph.D.
Davis, CA

Hozefa S. Bandukwala, Ph.D.
La Jolla, CA

Phillip W. Berman, Ph.D.
Santa Cruz, CA

Catherine A. Blish, M.D., Ph.D.
Stanford, CA

Manish J. Butte, M.D., Ph.D.
Stanford, CA

Eugene Chiang, Ph.D.
South San Francisco, CA

Efthalia Chronopoulou, Ph.D.
San Diego, CA

Diane M. Da Silva, Ph.D.
Los Angeles, CA

Soumita Das, Ph.D.
La Jolla, CA

Weiting Du, Ph.D.
Duarte, CA

Emily Gogol, Ph.D.
San Francisco, CA

Jane Grogan, D.O., Ph.D.
South San Francisco, CA

Ramesh C. Halder, Ph.D.
Los Angeles, CA

Yuan-Ping Han, Ph.D.
Temple City, CA

Rachael Jackman, Ph.D.
San Francisco, CA

Susan S. Kim, M.D., Ph.D.
Sacramento, CA

Florence Lambolez, Ph.D.
La Jolla, CA

Marion Lanteri, Ph.D.
San Francisco, CA

Jinfang Liao, M.D., Ph.D.
Sunnyvale, CA

Shao-Lee Lin, M.D., Ph.D.
Foster City, CA

Shravan Madireddi, Ph.D.
San Diego, CA

Alina I. Marusina, Ph.D.
Sacramento, CA

Everett Meyer, M.D., Ph.D.
Stanford, CA

Gregory Moe, Ph.D.
Oakland, CA

Arumugam Palanichamy, Ph.D.
San Francisco, CA

Anil K. Panigrahi, M.D., Ph.D.
Menlo Park, CA

Emily Park, Ph.D.
San Jose, CA

Narendiran Rajasekaran, Ph.D.
Stanford, CA

Jurg Rohrer, Ph.D.
La Jolla, CA

Christopher A. Scott, Ph.D.
San Diego, CA

Eric J. Seeley, M.D.
San Francisco, CA

Vaughn Smider, M.D., Ph.D.
La Jolla, CA

Stefanie Sowinski, Ph.D.
San Francisco, CA

Erica Lyn Stone, Ph.D.
La Jolla, CA

Rosane M. B. Teles, Ph.D.
Los Angeles, CA

Paul J. Utz, M.D.
Stanford, CA

Eric Verdin, M.D.
San Francisco, CA

Yibing Wang, Ph.D.
San Jose, CA

Candace Winstead, Ph.D.
San Luis Obispo, CA

Ali A. Zarrin, Ph.D.
South San Francisco, CA

Ye Zheng, Ph.D.
La Jolla, CA

Huaijun Zhou, Ph.D.
Davis, CA

Colorado

Shaodong Dai, Ph.D.
Denver, CO

Edwin F. de Zoeten, Ph.D.
Aurora, CO

Marcela I. Henao-Tamayo, M.D., Ph.D.
Fort Collins, CO

Amy McKee, Ph.D.
Aurora, CO

Beth Tamburini, Ph.D.
Denver, CO

Tracy L. Webb, D.V.M., Ph.D.
Fort Collins, CO

Connecticut

Denise Hammond-McKibben, Ph.D.
Danbury, CT

Patty Lee, M.D.
New Haven, CT

Gil Mor, M.D., Ph.D.
New Haven, CT

Mei-Ling Yang, Ph.D.
New Haven, CT

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Wilmington, DE

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Brian C. Betts, M.D.
Tampa, FL

Mark J. Cameron, Ph.D.
Port Saint Lucie, FL

Pearlie Epling-Burnette, Ph.D.
Tampa, FL

Tomar Ghansah, Ph.D.
Tampa, FL

Laura A. Solt, Ph.D.
Jupiter, FL

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Atlanta, GA

Masayuki Hirano, Ph.D.
Atlanta, GA

Sang-Moo Kang, Ph.D.
Atlanta, GA

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Atlanta, GA

Balazs Rada, Ph.D.
Athens, GA

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Atlanta, GA

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Fort Wayne, IN

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Jincun Zhao, Ph.D.
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Kansas City, MO

Bumsuk Hahm, Ph.D.
Columbia, MO

Aslam A. Khan, Ph.D.
Columbia, MO

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Fulton, MO

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St. Louis, MO

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Hamilton, MT

Mark T. Quinn, Ph.D.
Bozeman, MT

Agnieszka Rynda-Apple, Ph.D.
Bozeman, MT

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Clay Center, NE

Amanda E. Ramer-Tait, Ph.D.
Lincoln, NE

Nevada

Manas Mandal, Ph.D.
Henderson, NV

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Lebanon, NH

Li Wang, Ph.D.
Lebanon, NH

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Jersey City, NJ

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Los Alamos, NM

Gopi Mara-Koosham, Ph.D.
Albuquerque, NM

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Buffalo, NY

Vilma Decman, Ph.D.
Tarrytown, NY

Joji Fujisaki, M.D., Ph.D.
New York, NY

Steve Georas, M.D.
Rochester, NY

Benchang Guo, Ph.D.
Manhasset, NY

Boris M. Hartmann, Ph.D.
New York, NY

Aimin Jiang, Ph.D.
Buffalo, NY

Lei Jin, Ph.D.
Albany, NY

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AAI Courses in Immunology

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

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.

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

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.

For more information visit
www.aai.org/Education/Courses

Please direct inquiries to **meetings@aai.org** or **301-634-7178**.

Financial support for underrepresented minority scientists is available through the FASEB MARC Program.
Visit: **http://marc.faseb.org**.

GRANT AND AWARD DEADLINES

February 12

American Asthma Foundation Scholar Awards

- **Prize/Award:** Awards to early- to mid-career scientists in the United States support research in all investigative fields that may reveal new pathways in the pathogenesis of asthma; each award provides $150,000 per year for two years, with the possibility of an additional $150,000 for a third year, based on progress and potential; studies may involve laboratory or clinical investigation, including genetic and epidemiological studies; studies of humans are encouraged
- **Eligibility:** Investigators from nonprofit research organizations in the United States whose initial independent faculty appointment at the level of assistant professor or equivalent was not before February 1, 2004; applicants should have an independent research program with national-level, independent funding; there is no citizenship requirement
- **Details:** http://www.americanasthmafoundation.org/funding-2014
- **Contact:** Valerie Dougherty: vdougherty@americanasthma.org; (415) 514-0730

March 1

2015 FASEB Excellence in Science Award

- **Prize/Award:** UUnrestricted research grant of $10,000 in recognition of outstanding career achievement on the part of a woman scientist who has contributed significantly to advanced understanding of a particular discipline of biological science
- **Eligibility:** Nominees typically are women who are senior in their field and nationally known for outstanding contributions in research, leadership, and mentorship; nominators and nominees must be members of at least one FASEB member society (but do not have to belong to the same society)
- **Details:** http://www.faseb.org/About-FASEB/Awards/Excellence-in-Science-Award.aspx
- **Contact:** Linda Stricker: lstricker@faseb.org; (301) 634-7092

April 1

Cancer Research Institute Irvington Postdoctoral Fellowships

- **Prize/Award:** Fellowships of up to $164,500 over three years to fund and train young immunologists/cancer immunologists at leading universities and research centers; funding supports the cost of stipend or salary, insurance, and other research-related expenses, such as travel to conferences and meetings
- **Eligibility:** Applicants working in areas directly related to cancer immunology, who, at the time of award activation, have a doctoral degree but less than five years of relevant postdoctoral experience (note to M.D. applicants: residency years are not included in this calculation); an eligible project must fall into the broad field of immunology and show relevance to solving the cancer problem
- **Details:** http://www.cancerresearch.org/grants-programs/grants-fellowships/cri-irvington-postdoctoral-fellowships
- **Contact:** grants@cancerresearch.org; (212) 688-7515

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Meetings and Events Calendar

Mark Your Calendar for These Important Dates!

2014

January 25-28, 2014
53rd Midwinter Conference of Immunologists at Asilomar
Asilomar Conference Grounds
Pacific Grove (near Monterey), California
www.midwconfimmunol.org

February 26-March 2, 2014
2014 BMT Tandem Meeting
Gaylord Texan Hotel & Convention Center
Grapevine, Texas
www.cibmtr.org/Meetings/Tandem/pages/

March 30-April 4, 2014
Gordon Research Conference: Regulated Proteolysis of Cell Surface Proteins
Four Points Sheraton/Holiday Inn Express
Ventura, California
www.grc.org/programs.aspx?year=2014&program=regulprot

April 4-6, 2014
The Yin and Yang of Inflammation
Trudeau Institute, Saranac Lake, NY
(at the High Peaks Resort, Lake Placid, NY)
Contact: Seminar2014@TrudeauInstitute.org

April 26-30, 2014
Experimental Biology (EB) (APS, ASPET, ASIP, ASN, AAA, ASBMB)
San Diego Convention Center, San Diego, CA
Contact: eb@faseb.org

May 2, 2014
Pittsburgh Immunology Symposium, Environmental and Cell-Intrinsic Factors Governing the Immune Response
Department of Immunology, University of Pittsburgh School of Medicine
www.2014immunology.pitt.edu

May 2-6, 2014
IMMUNOLOGY 2014™
AAI Annual Meeting
The David L. Lawrence Convention Center, Pittsburgh, PA
www.immunology2014.org

May 17-21, 2014
CYTO 2014 (International Society for Advancement of Cytometry)
Ft. Lauderdale, FL
Contact: rjaseb@faseb.org

May 21-24, 2014
American Society of Gene & Cell Therapy (ASGCT) 17th Annual Meeting
Washington, DC
www.asgct.org/meetings-educational-programs/asgct-annual-meetings/2014-annual-meeting

June 9-13, 2014
Modeling Mucosal Immunity: Summer School & Symposium
Virginia Bioinformatics Institute
Virginia Tech, Blacksburg, VA
www.modelingimmunity.org/education/

June 16-19, 2014
Merinoff World Congress 2014: B-1 Cell Development and Function
Tarrytown House Estate
Tarrytown, NY
molmed.org/events/world-congress/2014

June 21-25, 2014
The American Society for Virology 33rd Annual Scientific Meeting
Colorado State University
Fort Collins, CO
www.asv.org

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

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

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

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

2015

February 11-15, 2015
2015 BMT Tandem Meeting
San Diego, CA
www.cibmtr.org/Meetings/Tandem/

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
www.aai.org/Meetings/Future_Meeting.html

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

October 9-13, 2015
ASBMR 37th Annual Meeting
Seattle, WA
www.asbmr.org

November 5-8, 2015
14th International Workshop on Langerhans Cells
Kyoto, Japan
www.lc2015.jp

2016

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

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

August 21-26, 2016
ICI 2016: International Congress of Immunology 2016
Melbourne, Australia
http://ici2016.org/

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Celebrating 100 Years 1913-2013

Chronicling the AAI Legacy

Commemorative Literature. 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 Founding of *The Journal of Immunology*
- Immunologists during the First World War: One Soldier-Scientist's Experience
- The 1918–1919 Influenza Pandemic as covered in *The Journal of Immunology*
- The Science at the First AAI Annual Meeting
- Anna Wessels Williams, M.D.: Infectious Disease Pioneer and Public Health Advocate
- Elise Strang L'Esperance, M.D.: Pioneer in Cancer Prevention and Recipient of Lasker Award
- "Studies in Anaphylaxis": The First Article in *The Journal of Immunology*
- Rebecca Lancefield, Ph.D. (AAI 1933; President 1961–62): PI in the Scotland Yard of Streptococcal Mysteries
- 100 Years of AAI in Hawaii: A Look Back at Two Early Immunologists on the Islands

AAI Website

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

- Profiles of AAI Nobel and Lasker recipients
- AAI history articles published in the *AAI Newsletter*
- An eBook of commentaries on "Pillars" articles from *The Journal of Immunology*
- Illustrated AAI Centennial Timeline
- Oral History Project—exclusive interviews offering a rare glimpse into the lives and times of influential immunologists
- AAI StoryBooth—attendees' favorite immunology career recollections, recorded at IMMUNOLOGY 2013™

Visit www.aai.org/About/History to explore the history of AAI