AAI s ppor s AACR Rall for Medical Research

Projected on jumbotron at recent Rally for Medical Research in Washington, Rep. Chris Van Hollen (D-MD) addresses attendees. , 7

AAI Holds Second Annual Public Policy Fellows Program Capitol Hill Day

The 2012–13 class of AAI Public Policy Fellows ew to Washington in early March to participate in the second annual Public Policy Fellows Program Capitol Hill Day. Despite a perilously snowy forecast, the of cial closure of the federal government, and a virtually empty downtown, the AAI fellows braved the weather and had a very full and productive day on Capitol Hill.

The 10 AAI fellows (listed below) were joined by AAI Committee on Public Affairs Chair Elizabeth Kovacs and AAI Advocacy Programs Subcommittee Chair Michael Princiotta. The program opened on the evening of March 5 with a training dinner. The featured guest speaker at the dinner was Hugh Auchincloss, AAI '83, principal deputy director of the National Institute of Allergy and Infectious Diseases (NIAID), who graciously accepted an invitation to speak for the second consecutive year. Auchincloss discussed the role of NIAID and NIH and participated in a lively conversation with the AAI fellows.

The fellows visited of ces of their own congressional delegations, as well as those of other fellows. In addition to meeting with staff, fellows met personally with six senators and ve members of Congress. The AAI fellows advocated for predictable and sustained funding for NIH, including a budget of at least $32 billion in scal year 2013. They also stressed the damaging effect that sequestration will have on biomedical research and urged lawmakers to stop these devastating cuts.

2012–13 AAI Public Policy Fellows

Ling Cao, M.D., Ph.D., University of New England

Kory Alderson Hallett, Ph.D., Oak Ridge Institute for Science and Education Fellow at DOE; University of Wisconsin–Madison

Stephanie James, Ph.D., University of Colorado School of Medicine

Joshua Obar, Ph.D., Montana State University

Hannah Phipps-Yonas, Ph.D., University of Arizona College of Medicine

Melanie Ragin, Ph.D., Fort Valley State University

Jillian Richmond, Ph.D., Massachusetts General Hospital/Harvard Medical School

Mark Rubinstein, Ph.D., Medical University of South Carolina

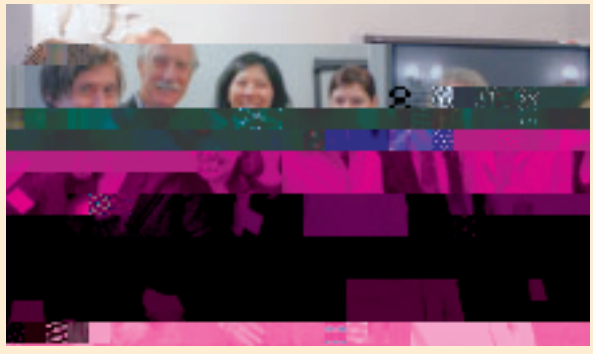
Adam Soloff, Ph.D., Medical University of South Carolina; University of Pittsburgh School of Medicine

Dina Weilhammer, Ph.D., Lawrence Livermore National Laboratory

Hugh Auchincloss

AAI Fellow Joshua Obar chatting with Sen. Max Baucus

L–R: Melanie Ragin, Sen. Tim Scott, Adam Soloff, Mark Rubinstein



L–R: Mark Rubinstein, Sen. Angus King, Ling Cao, Hannah Phipps-Yonas, AAI Director of Public Policy and Government Affairs Lauren Gross, Jillian Richmond

Unlike the House and Senate budget plans, the president's budget includes detailed plans for federal departments, agencies, and programs. It includes a budget of $31.2 billion for NIH in FY 2014, an increase of $471 million (1.5 percent) over the FY 2012 level. (Because the FY 2013 appropriations bills were not signed into law until March 2013, the White House made comparisons in its budget based on levels enacted for FY 2012.) The proposal also replaces sequestration (automatic, across-the-board cuts) with other means of de cit reduction, including $200 billion in savings from discretionary programs (one-half from defense; one-half from nondefense) over 10 years.

The slight boost in funding to NIH would help the iiT1_ps36 re rogram on6ided f36,60 yesierch 26 re rjec

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President Obama Launches Brain Initiative

President Obama announced a new large-scale initiative on April 2, 2013, to map the human brain. The new project, formally titled the NIH Brain Research through Advancing Innovative Neurotechnologies (BRAIN) initiative, "aims to help researchers nd new ways to treat, cure, and even prevent brain disorders such as Alzheimer's disease, epilepsy, and traumatic brain injury" (see www.whitehouse.gov/the-press-of ce/2013/04/02/fact-sheet-brain-initiative).

BRAIN is one of President Obama's "Grand Challenges" of the 21st century: "ambitious but achievable goals that require advances in science and technology to accomplish." President Obama cites the Human Genome Project as an example of a successful Grand Challenge from years past (see www.whitehouse.gov/blog/2013/04/02/brain-initiative-challenges-researchers-unlock-mysteries-human-mind).

In his FY 2014 budget (detailed above), President Obama includes nearly $110 million for BRAIN, including $50 million from the Defense Advanced Research Projects Agency, $40 million from NIH, and $20 million from the National Science Foundation. The leading NIH contributor to BRAIN will be the NIH Blueprint for Neuroscience Research, but some funding will come from NIH institutes and centers and from the NIH director's discretionary fund. At least four private-sector partners have also agreed to make contributions to the initiative.

NIH is establishing a working group, co-chaired by Cornelia "Cori" Bargmann, Rockefeller University, and William Newsome, Stanford University, to de ne the initiative's primary scienti c goals and to create a plan for achieving those goals.

In a short YouTube video promoting BRAIN (www.youtube.com/watch?feature=player_embedded&v=slQ8ELULNP0), NIH Director Francis Collins explains the primary objective of the initiative: "It aims to bring together nanoscience, engineering, and neurology to make sense of how the brain works—how circuits in the brain allow us to do all the complicated things that currently we don't understand, that will build a foundation that will help us to understand... the causes and ultimately the way to prevent and cure diseases like Alzheimer's, schizophrenia, autism, epilepsy, and traumatic brain injury." Collins also notes that the project is going to take "quite a few years."

Attendees gather at the steps of the Carnegie Library in support of the Rally for Medical Research

Thousands Gather in Washington to Support Medical Research

The American Association for Cancer Research hosted the "Rally for Medical Research" in Washington, D.C., on April 8. AAI was one of nearly 200 partnering organizations lending support of various kinds to the rally or its cause.

ABC/NPR political analyst Cokie Roberts served as emcee for the event and actress Maura Tierney was a featured speaker. Two members of Congress spoke: Rep. Chris Van Hollen (D-8th, MD), recipient of the 2011 AAI Public Service Award, and Rep.Rosa DeLauro (D-3rd, CT). President Obama and two Republican members of Congress (Rep. Jerry Moran of Kansas and Rep. David McKinley of West Virginia) sent supportive messages, which were read to the crowd.

Speaker Marc Tessier-Lavigne, Ph.D., president of the Rockefeller University and former chief scienti c of cer for Genentech, Inc., speci cally mentioned the need to better understand the immune system and stressed the importance of basic research. Other speakers included patient advocates and representatives from some of the rally's sponsoring organizations.

At one point, the crowd was led in a mass "text-Congress" moment when all attendees were asked to send text messages to Congress urging more funding for medical research.

To view the full event, please visit the Rally for Medical Research YouTube page: www.youtube.com/watch?v=Y23FFtBWzdY.

AAI was represented at the rally by AAI Director of Public Policy and Government Affairs Lauren Gross and AAI Legislative Assistant Jake Schumacher.

Testimony of Elizabeth J. Kovacs, Ph.D., Chair, Committee on Public Affairs, The American Association of Immunologists (AAI)

Submitted to the House Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies, regarding the Fiscal Year (FY) 2014 Budget for the National Institutes of Health

March 15, 2013

The American Association of Immunologists (AAI), the world's largest professional association of research scientists and physicians who are experts on the immune system, respectfully submits this testimony regarding appropriations for the National Institutes of Health (NIH) for Fiscal Year (FY) 2014. AAI recommends an appropriation of at least $32 billion for NIH for FY 2014 to enable NIH to support existing research projects, fund a limited number of outstanding new ones, and ensure that the brightest students and trainees are able to pursue careers in biomedical research in the United States.

The Irreplaceable Role of NIH in Advancing Biomedical Research

NIH grants support the work of most biomedical scientists.[1] The vast majority of AAI members who work in academia depend on NIH grants to support their research at universities, colleges, and research institutions all around the country; many also teach the medical students and undergraduates who will be the next generation of physicians and researchers. Many AAI members who work in government are employed by the NIH; they depend on the NIH budget—as well as regular interaction with their private sector colleagues—to advance their work.[2] Our industry members, who generally do not receive NIH grants or awards, nonetheless depend on scienti c discoveries that are generated by NIH-funded researchers to catalyze translational research or develop products. No matter where on the spectrum of biomedical science researchers may work, they know that NIH is the lynchpin to, and essential ingredient for, success.

NIH's irreplaceable role in our nation's biomedical research enterprise is indisputable among scientists. And the partnership between government-funded research and advancements in the private sector has never been more clear or more necessary: in a recent article in Forbes, three "current and former leaders of major commercial and academic life science institutions" (Marc Tessier-Lavigne, Ph.D., P. Roy Vagelos, M.D., and Elias Zerhouni, M.D.)[3] compellingly argue that the "tiny" federal investment in NIH research has reaped "enormous bene ts—human and economic" and that "continued investment in basic science is . . . key to our economic competitiveness. America remains the world's leader in biotechnology and pharmaceutical discovery thanks to the strength of our research universities and other biomedical research institutions, which not only spawn countless biotechnology companies but also have attracted the R&D operations of most major pharmaceutical companies, which are keen to tap into our innovation." Those who suggest that the private sector can or will ll the gap left by inadequate NIH funding miss the essential point made by these internationally recognized scienti c leaders: NIH-funded research and NIH leadership provide the foundation upon which commercial discovery and development depend.

Inadequate NIH Funding Threatens Human Health and U.S. Preeminence in Medicine

America's dominance in advancing basic biomedical research, discovering urgently needed treatments and cures, and "growing" brilliant young scientists has been unchallenged for more than fty years. However, erosion of the NIH budget over the last decade has already led to the loss of grant funding among even the most highly quali ed scientists, resulting in the closure of labs, the termination or interruption of important research, and the emigration of talented scientists to other countries that are investing heavily in their futures.[4] For those scientists who are willing and able to continue, securing funding increasingly consumes their time—time that should be devoted to research and to mentoring the nation's future researchers, inventors, and innovators. And in a relatively new discipline such as immunology, where knowledge is expanding exponentially and the potential for even greater success is palpable, this shrinking of federal resources is both alarming and a squandering of precious prior federal investment.

TheImmune System and Its Impact on Disease

The functional immune system recognizes and attacks bacteria, viruses, and tumor cells inside the body. Many infectious agents, including in uenza, HIV/AIDS, tuberculosis, malaria, and the common cold, challenge—and sometimes overcome—the defenses mounted by the immune system, resulting in disease. A malfunctioning immune system can attack our normal body tissues, causing "autoimmune" diseases or disorders, including Type 1 diabetes, multiple sclerosis, rheumatoid arthritis,

asthma,

James P. Allison, Ph.D., AAI ’78, was honored this spring as the inaugural recipient of the American Association for Cancer Research-Cancer Research Institute (CRI) Lloyd J. Old Award in Immunology. The award, which

Members in the News (continued)

Paula M. Lutz, Ph.D., AAI '88, recently the dean of the College of Letters and Sciences and a professor of cell biology and neuroscience at Montana State University, has been appointed dean of the College of Arts and Sciences at the University of Wyoming (UW). At UW, Lutz will lead the college with the largest enrollment of the university's academic units, offering bachelor's degree programs in 43 disciplines, 42 master's programs, and 11 doctoral programs.

Lutz's research has focused on immunotoxicology (effect of lead on the immune system), membrane biochemistry, and surface proteins of B lymphocytes (regulation and cell-surface expression). As her administrative roles have expanded, Lutz has sustained her teaching and research endeavors, including research into the effects of lead on children's immune systems. As an administrator, Lutz is credited with notable achievements in developing innovative teaching and curricular initiatives, programs to advance research and graduate education, diversity enhancement, faculty hiring and career development, budget management, and strategic planning.

In 2002, Lutz became the first female dean (College of Arts and Sciences) at the University of Missouri-Rolla

Professor Otto Götze, who devoted his scienti c and medical life to innate immunity and, in particular, to the alternative pathway of complement, died February 4, 2013, in Göttingen after a long illness at age 77. Hewas head of the Department of Immunology at the University of Göttingen from 1979 to 2003.

Otto Götze was born on August 2, 1935, in Recklinghausen in the Ruhr area of Germany. His family moved soon thereafter to Hamburg, where Otto spent his childhood and adolescence. He was always proud of his roots, and his attitude was indeed typical for a “Hanseatic” character:8ic” charmmuo his

the cell surface as integral membrane proteins, which, upon activation-induced aggregation, relay signals into the cell in a manner similar to immunoglobulins. [6-7] This fascinating concept, however, could not be veri ed.

A second interest was the quantitation of complement activation. Together with J. Hinrich Peters, Otto successfully used the monoclonal antibody technology, which was still in its infancy, resulting in an arsenal of anti-complement monoclonal antibodies raised in his lab in that decade. [8] These reagents, originally generated to characterize membrane complement proteins, later served as valuable tools for complement quantitation in various clinical settings. The methods in hybridoma technology were later published in the form of a laboratory manual. [9] This book, known as the "green book" for its cover when rst published in German, retained that name even when the cover of the subsequent, internationally distributed English version changed to blue.

Two highlights from his scienti c achievements with therapeutic implications date to this period. First is the generation of blocking anti-C5a antibodies and their successful application in a pig sepsis model; [10] second is the characterization of an anti-C5 monoclonal antibody (N19-8) which was the rst to successfully block both C5a release and activation of the terminal pathway. [11] This antibody was the forerunner of Eculizumab, the humanized monoclonal complement blocker that was used to treat almost 400 critically ill patients in Germany during the enterohaemorrhagic Escherichia coli O104:H4 outbreak. [12]

Concurrent with these research activities, Otto was establishing a modern, routine diagnostic laboratory for immunological parameters at the university clinics. As in his other endeavors, he quickly made his mark in medical faculty administration as dean and vice dean and as a member of numerous university and clinical boards.

With CD59 yet to be discovered, the role of complement in xenotransplantation and cell regulation completely neglected, and in the absence of anti-complement drugs, many scientists in immunology in the 1980s were convinced that complement was dead! Otto, instead, constantly motivated his co-workers to remain faithful to the originally chosen eld of complement, while at the same time advising junior members of his group to develop an independent quali cation in a related eld such as nephrology, dermatology, or microbiology. At the end of the decade, he received the gold medal of the European Complement Network for his life-long achievements in complement research and on behalf of the European complement society—and one of us (RW) had the pleasure of delivering the laudatory speech.

His fourth scienti c period extended from 1990 until Otto's retirement in September 2003, an event marked by an international symposium held in his honor. During this 12-year period, a coincidental exchange of reagents led to a fruitful cooperation with Otto's good friend from his Freiburg period, the late biochemist Kurt Jungermann. Together, they identi ed the liver as a target of complement activation and, thus, established the modulatory effect of complement on metabolism. [13]

Unlike many colleagues, Otto effectively stopped working in science almost immediately upon becoming an emeritus professor; the 2003 symposium marked the nal point in a successful career as an active scientist, as documented in more than 120 publications, including several "citation classics." Less than 10 percent of his publications were not directly related to complement, illustrating the life-long focus of his scienti c interests. The DFG continuously supported his research throughout his career. In addition to numerous medical students who completed their dissertations in his lab, nine Ph.D. students graduated, and three postdocs trained under his guidance. Two of his lab scientists fell in love with one another in his lab and started a family. Together with 23 co-workers, colleagues, and other scholars, they signed the obituary notice.

Otto in uenced many scientists who today work not only in immunology but also in related elds, including dermatology, nephrology, transplantation medicine, and microbiology. He encouraged international exchanges on the part of his staff through attendance at international conferences and stays abroad. He kept his scholars on a long leash, displaying con dence that they did not require day-to-day guidance to achieve scienti c success. He was a fair senior advisor who fostered, above all, the autonomy of his scholars.

Otto was an outstanding scientist, devoted physician, and engaged teacher—and it was very sad seeing him

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References

AAI offers condolences to the families, friends, and colleagues of the following members whose deaths were recorded during the past year (since July 1, 2012):

Brigitte A. Askonas, Ph.D., D.Sc.
London, England
AAI '77

Fionula Mary Brennan, Ph.D.
London, England
AAI '12

Robert Guthrie Burrell, Ph.D.
Morgantown, West Virginia
AAI '65

Sheldon G. Cohen, M.D.
Chevy Chase, Maryland
AAI '64

Shreevrat Goenka, Ph.D.
Indianapolis, Indiana
AAI '11

Otto Götze, M.D.
Göttingen, Germany
AAI '72

Shyr-Te Ju, Ph.D.
Charlottesville, Virginia
AAI '80

Hilary Koprowski, M.D.
Philadelphia, Pennsylvania
AAI '46

Norman L. Letvin, M.D.
Boston, Massachusetts
AAI '82

Takayuki Matsumoto, M.D., Ph.D.
Nishinomiya, Japan
AAI '00

Bernardetta Nardelli, Ph.D.
Bethesda, Maryland
AAI '93

Stanley G. Nathenson, M.D.
Bronx, New York
AAI '68

James K. Roche, M.D., Ph.D.
Charlottesville, Virginia
AAI '87

Robert D. Stout, Ph.D.
Louisville, Kentucky
AAI '76

Karen A. Sullivan, Ph.D.
New Orleans, Louisiana
AAI '77

Constantine H. Tempelis, Ph.D.
Berkeley, California
AAI '71

Byron H. Waksman, M.D.
Lexington, Massachusetts
AAI '50

Nils Paul Larsen, M.D., AAI '23

A Religious Upbringing

Although Nils P. Larsen did not call Hawaii home until well into adulthood, his impact on Hawaiian medicine and public health was no less signi cant than Sinclair's. Born in Stockholm, Sweden, on June 15, 1890, Larsen was the sixth of seven children born to a tailor struggling to support his growing family. Overpopulation and successive crop failures were impoverishing life in Sweden, impelling approximately 330,000 Swedes to immigrate to the United States during the 1880s. When Nils was only three years old, the Larsen family joined the ranks of those who hoped to nd a better life in the New World. After settling brie y in Peeksville, New York, Nils's father, a devout man, relocated the family to Bridgeport, Connecticut, where he helped start a church for the Swedish Evangelical Mission Covenant, a Lutheran denomination founded in Chicago in 1885. While attending public school in Bridgeport, Larsen held part-time jobs to help support his family, including work in a steel mill during the summers of his high school years.[15]

Nils P. Larsen, ca. 1955
Courtesy of Queen's Heritage Collection, Queen's Medical Center

Larsen attended the Massachusetts Agricultural College (now the University of Massachusetts, Amherst), where he intended to study forestry. Although he began to abandon the formal religious dogmas embraced by his pious father, Larsen remained committed to the Christian ideal of helping others that lay at the heart of the Social Gospel movement of the era. He became actively involved in student religious groups on campus, including the YMCA and the College Christian Association. While attending one religious conference, at which missionaries relayed accounts of their travels, Larsen learned that there was only one doctor for every one million people in China. He decided then that he wanted to become a physician, not out of any special yearning to solve scienti c problems but out of his deep-seated commitment to social justice and community service.[16]

Early Career, War, and Marriage

After graduating from Massachusetts Agricultural College in 1913, Larsen attended Cornell Medical School in New York City, earning his M.D. in 1916. He then interned in the pathology department at New York Hospital and took additional courses in biological chemistry at Columbia University. When the United States entered the First World War in April 1917, Larsen was commissioned as a rst lieutenant in the Medical Corps of the U.S. Army and was deployed to Belgium the following May. While in Belgium, he received news that his younger sister had died of tuberculosis. Absorbing this loss during the in uenza pandemic that ravaged families across the globe likely motivated his later work to combat tuberculosis.

In the spring of 1919, Larsen was promoted to major, awarded the Silver Star for his valor during combat, and released from active duty. That summer, he made his rst trip to Hawaii, where he visited his older brother David, a plant pathologist, who was now a manager of a sugar plantation. Following his vacation, he returned to New York to teach at Cornell Medical School and serve as assistant visiting physician in pediatrics at Bellevue Hospital. These years in New York, from 1919 to 1922, proved to be some of Larsen's most productive for clinical research and writing. He published case studies on allergic reactions, asthma, and pneumonia in the Journal of the American Medical Association and The Journal of Immunology.[17]

In September 1921, Larsen married Sara "Sally" Lucas, whom he had met two years earlier during his Hawaiian vacation. Although the two had not kept in touch following Larsen's return to New York, Sally was apparently impressed by Larsen during his visit to Hawaii and contacted him upon her arrival in New York from Honolulu to start a confectionary. The extent to which the confectionary materialized is unclear, but, within months, the couple wed.

Sally's mother appears to have been equally decisive and proactive as her daughter. Upon learning of an opening for a pathologist at Queen's Hospital in Honolulu, she mentioned Larsen to the administrators. If she was seizing upon a possible means of bringing her daughter back to Hawaii, she succeeded. Larsen was offered the position in July of 1922 and promptly accepted it.[18]

15. Janine A. Powers, "Worlds Beyond Medicine: Nils P. Larsen's Impact on Hawai'i," Hawaiian Journal of History 39 (2005): 92–93.

16. Ibid., 93–94.

17. Russell L. Cecil and Nils P.Larsen, "Clinical and Bacteriologic Study of One Thousand Cases of Lobar Pneumonia," Journal of the American Medical Association 79, no. 5 (1922): 343-49; Nils P.Larsen, Royce Paddock, and H. L. Alexander, "Bronchial Asthma and Allied Conditions: Clinical and Immunological Observations," The Journal of Immunology 7, no. 2 (1922): 81–95; Nils P.Larsen, A. V.R. Haigh, Harry L. Alexander, and Royce Paddock, "The Failure of Peptone to Protect against Anaphylactic Shock and Allergic Conditions," The Journal of Immunology 8, no. 5 (1923): 409–24.

18. Powers, "Worlds Beyond Medicine," 96; Janine A. Powers, "From Medicine to Art: Nils Paul Larsen (1890–1964)" (Ph.D. diss., University of Hawaii, 2003), 22.

At Queen's Hospital

Larsen immediately impressed the administrators of Queen's Hospital. In 1924, he was appointed the hospital's medical director, a position he held until 1942. Named for Queen Emma, its most enthusiastic champion, Queen's Hospital was founded in 1859 to provide medical care to a rapidly dwindling Hawaiian population. Occupying a major port of call on trade routes across the Paci c, the Hawaiian population was, at that time, besieged bme,

Continued next page

Hawaii—A Researcher's Paradise

Speaking before the Hawaii Medical Association at Queen's Hospital in April 1935, Nils Larsen noted, "The type of observations possible here are endless and many of them cannot be made anywhere else in the world."

For a century, AAI has ful lled its founders' mission "to promote by its concerted efforts scienti c research" through its annual meetings, The Journal of Immunology (The JI), awards, and the activities of its many committees.

In 2011, in anticipation of this year's AAI Centennial, AAI launched the AAI History website, which continues to evolve as a living archive, adding resources produced for, during, and after the celebration of the 100-years milestone during the AAI Annual Meeting in Hawaii, May 3–7, 2013. The following features are being incorporated on the website to chronicle the history of AAI and the role our members and immunology have played in pushing forward the boundaries of knowledge in biology and medicine.

AAI Oral History Project

In spring 2012, the AAI Of ce of History and Archives began coordinating oral history interviews of past AAI presidents conducted by Dr. Brien Williams, an award-winning professional oral historian. The interviews offer unique insight into the lives, works, and personalities of modern immunologists. The interviews also provide personal re ections on the emergence of the eld of immunology during the 20th and 21st centuries.

Notable Members of AAI

Among myriad distinguished AAI members are many who have been awarded the highest honors in the scienti c world. The membership of AAI has included 25 Nobel Laureates, 48 Lasker recipients, and more than 200 recipients of a dozen of the most prestigious national and international awards for science and immunology.

The JI "Pillars of Immunology" Commentaries

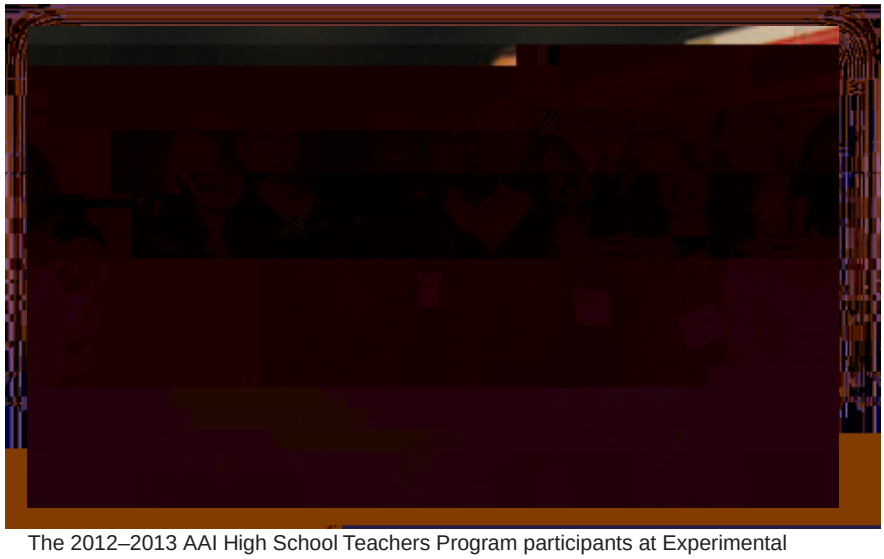
The Pillars of Immunology feature in The JI presents commentaries on published articles that have come to be regarded as classics in the eld, along with republication of the original article. To date, articles published from 1953 to 1997 have been featured, affording younger immunologist /CREO_o257 BMC 836 BMC (the)Tj EMC /CR3O_o237 BMC pp [(ortunitology)]TJ EMC /CR3O_o238 BMC (to)Tj

High School Teachers in AAI Summer Research Program Present Model Curricula at EB

Participants in the 2012–13 AAI High School Teachers Summer Research Program in Immunology gathered at the Experimental Biology meeting (EB), April 20–24, in Boston, Massachusetts. The teachers showed their enthusiasm and fortitude as they traveled to Boston in the midst of a historic city lockdown and manhunt in connection with the marathon bombings there. Fortunately, this situation was successfully resolved prior to the opening of the meeting on April 20.

The AAI program supports high school teachers' participation in a four- to six-week summer research experience in the laboratories of AAI members. Prior to starting in the laboratory, teachers are supported in attending the AAI Introductory Course in Immunology held in July at the University of Pennsylvania. Following the teachers' mentored lab experiences, an educational consultant assists them with the development of innovative curricula based on their summer projects for use in their own classrooms. The teachers also are given an opportunity to share their projects at a national meeting, and the curricula are archived to be available to the public on the AAI website. Teachers in this year's AAI program participated at EB in professional development activities sponsored by The American Physiological Society (APS) and its "Frontiers in Physiology" program for middle and high school science teachers. This opportunity allowed them to interact with other science teacher fellows from other societies. "We thank APS for this opportunity for these high school biology teachers, and we thank APS K–12 Program Coordinator Margaret Shain for the warm welcome and assistance that she provided the teachers on site at the meeting," said AAI Manager of Educational and Career Development Programs Mary Litzinger.

At EB, the AAI teachers presented posters on their summer research experiences and the classroomncevities



The 2012–2013 AAI High School Teachers Program participants at Experimental Biology 2013 (L-R): Amanda Smith, Jared Rashford, Retha Prescod, program director Clinton Mathias, Lesli Horowitz, Stephen Biscotte, Judy Birschbach, Heidi Anderson, Nichole Kellerman

Heidi Anderson

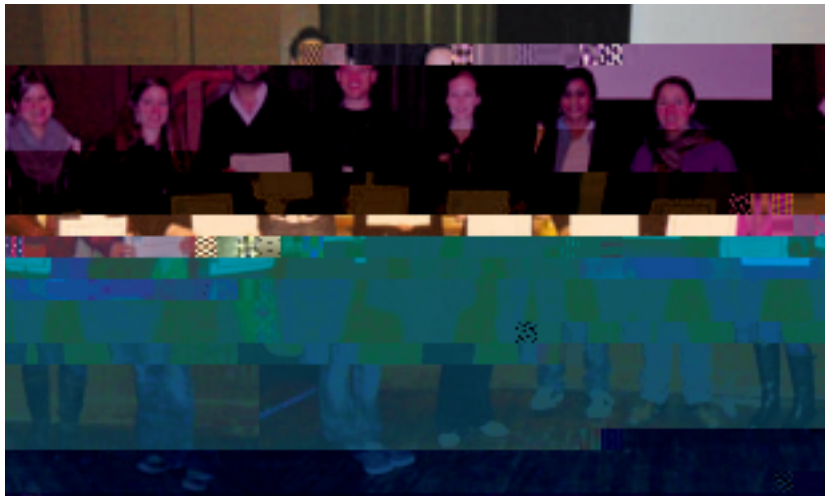
Judy Birschbach

Stephen Biscotte

52nd Midwinter Conference of Immunologists

Scientists and trainees gathered at the 52nd Midwinter Conference of Immunologists (MCI), held January 26–29, at the Asilomar Conference Grounds in Paci c Grove, California. Christel Uittenbogaart, AAI '84, is the executive director of MCI, and Kristin A. Hogquist, AAI '95, and Gregory M. Barton, AAI '09, were chairs of this year's conference.

AAI sponsored the Dan H. Campbell Memorial Lecture, given by Anjana Rao, AAI '90. At the beginning of her lecture on "Signaling in Gene Expression," Rao re ected on the legacy of Campbell, former AAI president (1972–73) and a founder of MCI in 1961.



AAI Awardees at 2013 Midwinter Conference of Immunologists (L–R): Kelsey Sivick, Elizabeth Wohlfert, Arya Khosravi, Eric Gschweng, Amanda Fox, Shivani Srivastava, Rebekka Duhen (Judith Mandl not shown)

AAI also sponsored the six Ray Owen Poster Awards, which recognized outstanding poster presentations by graduate students and postdoctoral fellows; the two Ray Owen Young Investigator Awards, which honored outstanding oral presentations by students and postdocs; and an oral presentation session, at which students, postdocs, and early-career faculty gave short research talks. AAI Manager of Educational and Career Development Programs Mary Litzinger represented AAI at the conference.

The Ray Owen Poster Awards were given to:

Graduate Students:

Eric Gschweng, University of California, Los Angeles

Amanda Fox, University of California, Davis

Arya Khosravi, California Institute of Technology

Postdoctoral Fellows:

Rebekka Duhen, AAI '13, University of Washington

Kelsey Sivick, University of California Berkeley

Elizabeth Wohlfert, National Institute of Allergy and Infectious Diseases, NIH

The Ray Owen Young Investigator Awards were given to:

Graduate Student

Shivani Srivastava, University of Washington

Postdoctoral Fellow

Judith Mandl, National Institute of Allergy and Infectious Diseases, NIH

Meetings and Events Calendar

Mark Your Calendar for These Important Dates!

2013

May 28–June 1, 2013
ISIR2013—Building Bridges in Reproductive Immunology
Boston Park Plaza Hotel
Boston, Massachusetts
www.regonline.com/builder/site/Default.aspx?EventID=1144379

June 5–6, 2013
6th International Singapore Symposium of Immunology
Matrix Level 2 Auditorium
Biopolis, Singapore
http://sgsi.org.sg

June 15–16, 2013
Making and Breaking the Left-Right Axis: Laterality in Development and Disease Immunology
Fiesta Americana Grand Coral Beach Resort
Cancun, Mexico
www.developmental-biology.org/meetings/index.php?c=Mexico

June 16–20, 2013
17th International Congress of Developmental Biology/72nd

2015

February 11–15, 2015
2015 BMT Tandem Meeting
San Diego, California
www.cibmtr.org/Meetings/Tandem/index.html

March 28–April 1, 2015
Experimental Biology (EB) (APS, ASPET, ASIP, ASN, AAA, ASBMB)
Boston, Massachusetts
Contact:eb@faseb.org

May 8–12, 2015
IMMUNOLOGY 2015™
AAI Annual Meeting
New Orleans, Louisiana
www.aai.org/Meetings/Future_Meeting.html

July 11–15, 2015
The American Society for Virology 34rd Annual Scienti c Meeting
The University of Western Ontario
London, Ontario, Canada
www.asv.org

October 9–13, 2015
ASBMR 37th Annual Meeting
Seattle, Washington
www.asbmr.org

2016

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

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

THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS
9650 Rockville Pike, Bethesda, MD 20814-3994