



THE AMERICAN
ASSOCIATION OF
IMMUNOLOGISTS

AAI NEWSLETTER

DECEMBER 2022

PLAN AHEAD FOR IMMUNOLOGY2023™

page 27

Learn about
the AAI Public
Awareness
Campaign,
page 6



AI-Powered Affinity Maturation Service

Sino Biological and Ainnocence have joined forces to establish an AI-enabled platform for antibody affinity maturation.

- Ainnocence's SentinusAI™
 - Powerful self-evolving artificial intelligence engine
 - Effectively ranks up to 10^{10} antibody sequences
 - 1-2 weeks computational HTP screening
- Combined with Sino Biological's high-throughput recombinant antibody development platform, top candidates can be expressed recombinantly at a lower cost and shorter lead time to generate affinity data with a high hit rate of 15%

Lead Time

4 weeks

High Affinity

10^3 increase

Hit Rate

15%

Service Highlights:



Screen up to 10^{10} sequence space



Direct access to sequence



No animal use



Can be combined with "humanization" module



Cost effective



Higher hit rate will be achieved on subsequent computation by incorporating wet-lab data

About SentinusAI™

SentinusAI™ is a powerful and self-evolving protein design engine created by Ainnocence. Its database contains up to 100 million human antibody sequences as well as an extensive collection of human/animal viral antigen information, resulting in high confidence prediction of binding affinity.

About Sino Biological

Sino Biological specializes in recombinant protein production and antibody development. The company routinely conducts high-throughput projects of up to 1,000 per batch. Sino Biological's manufacturing facility can also handle large-scale production at gram level.

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- 4 Executive Office
- 12 Public Affairs
- 18 Members in the News
- 20 Outreach
- 23 Education
- 25 Feature: Lessons from the Annual Meeting Roundtables
- 27 Plan Ahead for IMMUNOLOGY2023™
- 31 History
- 36 Grants and Awards Deadlines
- 38 Meetings and Events

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To see a list of AAI staff, visit
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4 Meet New Council Member Dr. Kaech



27 Plan Ahead for IMMUNOLOGY2023™



6 AAI Public Awareness Campaign

Connect with AAI!

Do you have a story or story idea for a future issue of the *AAI Newsletter*? Wish to receive AAI alerts? Send us an email! Interested in the latest news from AAI? Keep in touch through our social media channels. Follow us on social media and keep abreast of daily developments in the world of immunology.

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AAI Council Welcomes Susan Kaech

On July 1 of this year, the AAI Council welcomed **Susan M. Kaech, Ph.D. (AAI '04)**, as its newest member following her successful candidacy in the 2022 AAI Election. Dr. Kaech is serving a four-year term, after which she will be eligible for election to successive one-year terms as AAI Vice President, President, and Past President.



Dr. Kaech is a professor and the director of the NOMIS Center for Immunobiology and Microbial Pathogenesis at The Salk Institute for Biological Studies in La Jolla, CA, and holder of the NOMIS Chair. She also serves as deputy of research for the Salk Cancer Center.

Kaech's research interests have long been centered on understanding immunological memory and how long-lived memory T cells form after viral infection and vaccination. Her lab made several notable discoveries elucidating genetic and biochemical mechanisms underlying the differentiation and metabolic control of different types of effector, memory, and exhausted T cells during immune responses. Some of Kaech's foundational research involved understanding the transcriptional regulation of effector and memory CD8⁺ T cell development and differentiation and how inflammation affects the adaptive immune response to acute and viral infections. Her laboratory discovered the role of the IL-7 receptor in the formation and longevity of memory CD8⁺ T cells during viral infection. This work helped to distinguish cellular precursors of long-lived memory CD8⁺ T cells and elucidate the transcriptional networks and epigenetic modifiers that control their differentiation and formation of immunological memory.

Dr. Kaech also helped to establish the field of cancer immunometabolism by discovering that metabolic relationships exist between immune cells and tumor cells and the identity of several factors that regulate T cell metabolism and function in tumors, including diet. These discoveries have helped to build conceptual frameworks outlining how different types of effector and memory T cells form, how they are metabolically regulated within the tumor microenvironment, and new forms of therapeutic interventions for cancer. More recent projects in the Kaech laboratory involve understanding the interactions among T cells and neurons and whether memory T cells in the brain contribute to neurodegeneration. Both her current and past research have been fundamental to our understanding of how the immune system develops and adapts in health and disease and how to harness this knowledge to develop improved therapies.

"AAI plays an invaluable role in the field of scientific discovery, education, and public outreach as well as advocating to policy makers for issues important to scientists," wrote Kaech in her 2022 candidate statement. "Personally, AAI has played a significant role in my career because my first formal introduction to immunology came from attending the AAI summer course in 1999, and I have been a member and ardent supporter of AAI ever since.

"The pandemic has demonstrated more than ever our need for basic and clinical research in immunology. While infectious disease has been at the forefront of our focus, this pandemic has also elevated the need to better understand how heterogeneity in our immune responses arises through disparities in metabolism, obesity, sex, and ethnic backgrounds (i.e., genetics). The pandemic has also displayed the power of collaboration and the speed at which we can accomplish large goals when working together. Equally important, it has affirmed the critical need to educate the public on the value of vaccination in overall public health."

Kaech's election statement also outlined her long-standing commitment to opening doors for women and people of color in scientific research. She has pursued this priority through providing undergraduates opportunities in her lab, serving as director of graduate admissions, participating as a T32 grant co-director, attending Annual Biomedical Research Conference for Minoritized Scientists and Society for the Advancement of Chicanos/Hispanics and Native Americans in Science meetings, serving as a member of the Salk Advisory Council on Diversity and Equity and supporter of The Black Association at Salk, and as a participant in the Howard Hughes Medical Institute (HHMI) Exceptional Research Opportunities Program and Gilliam Fellowships Program, as well as NCI summer internships to increase racial diversity in scientific research.

An AAI member since 2004, Kaech's service prior to her election to Council included participation as an associate and then section editor for *The Journal of Immunology (The JI)*, for which she has also served as an ad hoc reviewer. She has participated as an AAI major symposium chair and speaker, as well as



Dr. Kaech (pictured front row, second from left) with lab colleagues on the campus of The Salk Institute for Biological Studies in La Jolla, CA

abstract programming chair, at numerous AAI annual meetings and has served as a faculty member for the AAI Advanced Courses in Immunology.

Kaech's additional career appointments and honors include: member, Cancer Research Institute Scientific Advisory Council; elected fellow, American Association for the Advancement of Science (AAAS); HHMI Early Career Scientist; U.S. Presidential Early Career Award for Scientists and Engineers; Fellow, American Asthma Foundation; Cancer Research Investigator Award; Edward Mallinckrodt Jr. Foundation Award; Burroughs Wellcome Career Award in Biomedical Sciences; Damon Runyon-Walter Winchell Cancer Research Fellowship; National Science Foundation (NSF) Pre-doctoral Fellowship; NSF Undergraduate Scientist; Howard Hughes Undergraduate Research Internship; and American Women in Science Scholarship.

Kaech has served as a session organizer and presenter at numerous national and international meetings and institutions, including on behalf of the National Institutes of Health (NIH) Immunology Interest Group; NIH Fellows Seminar; NIH Common Fund Workshop; National Cancer Institute Center for Excellence Annual Symposium; American Association for Cancer Research (AACR); International Cytokine and Interferon Society (ICIS); HHMI; Society for Immunotherapy of Cancer; American Society of Hematology; The Transplantation Society; Keystone Symposia; FASEB Science Research Conferences; Gordon Research Conferences; New York Academy of Science; Midwinter Conference of Immunologists; Upstate New York Immunology Conference; New England Immunology Conference;

Autumn Immunology Conference; EMBO/European Molecular Biology Laboratory; Women in Immunology – Immuno Series (Oxford, UK); Global Immunotalks; Australian Society for Immunology; Royal College of Physicians (London, England); and IUIS International Congress of Immunology.

In addition to her service on the editorial board of *The JI*, Kaech's current and past editorial board appointments include service on behalf of *Annual Reviews of Immunology*, *Current Opinions in Immunology*, *Immunity*, *Journal of Cell Biology*, *Journal of Experimental Medicine*, and *Journal of Immunology and Cell Biology*. She is a member of the AAAS, AACR, and ICIS.

Kaech received her B.S. in cell and molecular biology (magna cum laude) from the University of Washington (UW) in Seattle, WA, where she was an undergraduate researcher with advisor Charles Laird at UW and advisor Paul Neiman at the Fred Hutchinson Cancer Research Center. She received her Ph.D. in developmental biology from Stanford University, where she studied with Stuart Kim, and completed her postdoctoral training with Rafi Ahmed at Emory University.

Kaech joined the faculty of Yale University in 2004 as an assistant professor in the Department of Immunobiology, becoming an associate professor in 2009 and full professor in 2015. She was a Waldemar Von Zedtwitz Professor at Yale from 2015 to 2018 before joining The Salk Institute in 2018. In addition to her current Salk appointments, Kaech serves as an adjunct professor at the University of California, San Diego.

AAI Launches Initiative to Reach Consumers

When Gary Koretzky, M.D., Ph.D. (AAI '92), began his AAI presidency, the COVID-19 pandemic had been wreaking worldwide havoc for 18 months. He had observed AAI members working to the point of exhaustion to understand the fundamental biology of the virus, gain insights into how the immune system responds to this pathogen, and develop therapeutics and effective vaccines to combat the deadly virus. He had seen Dr. Fauci on the nightly news offering advice and trying to guide a frightened public in staying safe, but he was also aware of the mountain of misinformation making its way to the public through social media and other unreliable sources. Dr. Koretzky felt that it was the obligation of The AAI to do what it could to help.

Dr. Koretzky and the AAI Council determined that AAI could play an important role by establishing our society as a reliable source of credible information. The Council asked the AAI communications staff to create an initiative to educate the public about issues related to immunology that affect their daily lives.

“We appreciated that we have many challenges to overcome due to factors related to misinformation, mistrust, and partisanship,” said Koretzky. “However, we are convinced that AAI, as a society of experts in immunology that is not associated with governments or the pharmaceutical industry, is poised to have a positive impact, combat fear, and educate the public in a way that equips individuals to make informed decisions that are right for them.”

A plan for how to proceed was drafted by AAI Director of Communications Bethany Coulter in October 2021, and the Council approved the plan and a budget in November 2021. In December 2021, a new AAI Public Communications Committee was formed to give advice, guidance, and feedback to the communications staff in executing the plan. The 2021–2022 members are:

Deepta Bhattacharya, Ph.D.

Professor
University of Arizona
Tucson, AZ

Julie M. Jameson, Ph.D.

Associate Professor
California State University, San Marcos
San Marcos, CA

Ross Kedl, Ph.D.

Professor
University of Colorado
Aurora, CO

Brina S. Lopez, D.V.M., Ph.D.

Assistant Professor
Midwestern University
Glendale, AZ

David W. Pascual, Ph.D.

Professor and Associate Dean for Research, College of
Veterinary Medicine
University of Florida
Gainesville, FL

Tonya J. Webb, Ph.D.

Associate Professor
University of Maryland School of Medicine
Baltimore, MD

AAI also contracted with 4media group, a global media firm, to partner with the communications staff and offer their expertise in the areas of market research, strategy, media relations, and more.

The First Step: Market Research



In February 2022, 4media group started the process of interviewing key stakeholders to gain initial insights into determining what the public needs or wants to know about immunology. This was followed by consumer focus groups held in July 2022 and a large-scale consumer online survey conducted in August 2022. The findings of this consumer market research will be used to inform the next steps of the Public Communications Initiative, including strategy and messaging.

International Day of Immunology Social Media Campaign

As the market research was being conducted, AAI looked for opportunities to begin reaching out to the public and testing various media channels for doing so.

The first opportunity came when AAI was invited by the International Union of Immunological Societies to participate in the International Day of Immunology celebration. The theme for 2022 was “Vaccines,” and AAI saw this as a wonderful opportunity to conduct its first public education outreach effort prior to having market research information.

A social media campaign was created to focus on vaccines developed by AAI members throughout history that had a wide-ranging, significant impact on public health. The purpose was to teach consumers that throughout history, vaccines have been responsible for saving lives and ending epidemics, pandemics, and major outbreaks of disease—and that immunologists have played and continue to play a major role in giving us these vaccines.



The above two graphics were among those used in the International Day of Immunology social media campaign.

Throughout the month-long campaign, AAI shared information on its social media platforms about vaccines and the immunologists behind the development of or a key discovery that was foundational to the development of significant vaccines.

Each post ended with a call to action, inviting the reader to learn how vaccines are approved today. An associated link led readers to an AAI web page entitled “The Path to Vaccine Approval,” which featured an infographic created to look like a board game that walks through the various stages of pre-clinical trials, clinical trials, and the FDA approval process. The infographic is also linked to a PDF that can be downloaded and shared.

The goal was to reach 1,275,000 impressions by April 30. As of May 3, 2022, the campaign yielded the following results:

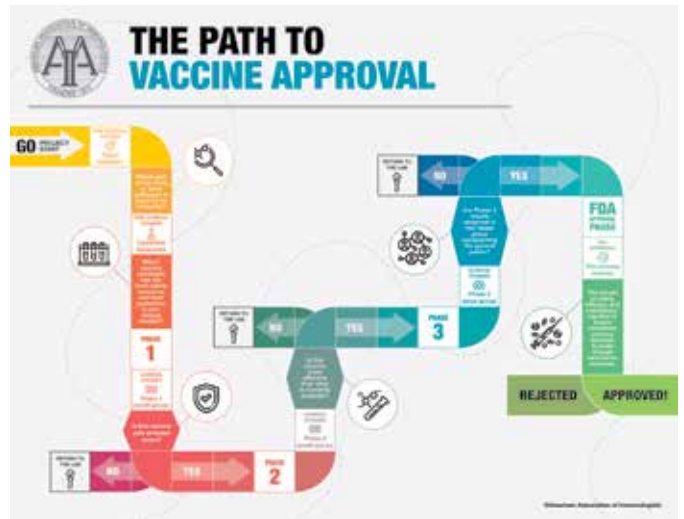
	Impressions	Clicks on Graphics	Clicks on PDF
Facebook	1,038,081	7,541	554
Twitter	545,743	941	879
LinkedIn	198,348	(not measured by LI)	318
Totals	1,782,172	8,482	1,751

From the content came the creation of a Day of Immunology web page on the AAI website, which can be found at www.aai.org/DayofImmunology.

The AAI campaign was recognized by the International Science Council as a “campaign to follow” in their Day of Immunology blog post: <https://council.science/current/blog/vaccine-promotion-day-of-immunology/>

Thanks goes to Dr. Cherié Butts, Ph.D. (AAI '10), and Dr. Jonathan Deane, Ph.D. (AAI '12), the authors of the original AAI Committee on Public Affairs white paper, “The ABCs of Clinical Trials: The Path to Vaccine Approval.” They worked closely with AAI communications staff to ensure accuracy of information as the infographic was developed.

Media Efforts at IMMUNOLOGY2022™



The above infographic used a board game theme to educate consumers about the vaccine approval process.

IMMUNOLOGY2022™ brought a second opportunity for AAI to reach out to the public. AAI contracted with 4media group to bring a production team on site to cover the annual meeting, to film footage around the meeting site, and conduct individual interviews with prescheduled interviewees on the following topics:

- how immunological discoveries translate into patient care
- COVID-19 variants and a future mucosal vaccine
- cancer immunotherapies



Syndicated news show *Business First AM* ran a story about IMMUNOLOGY2022™ and emerging immunological discoveries.

- food allergy and treatments on the horizon.

The resulting soundbites and footage were distributed as follows:

- A 30-second produced package that aired during national television morning shows in commercial spots on *CBS Saturday Morning* in DC, Philadelphia, Chicago, Tucson, and LA (total viewing audience was 1,142,356 for the news show in these markets)
- a story produced by *Business First AM*, a syndicated news program, aired 108 times on June 7 in markets across the United States (viewership of 887,800)
- a 60-second news story placed on May 27 on 899 news station websites in 176 markets (including the *LA Times*, *Miami Herald*, *Sacramento Bee*, and *Houston Chronicle*); this was posted through late



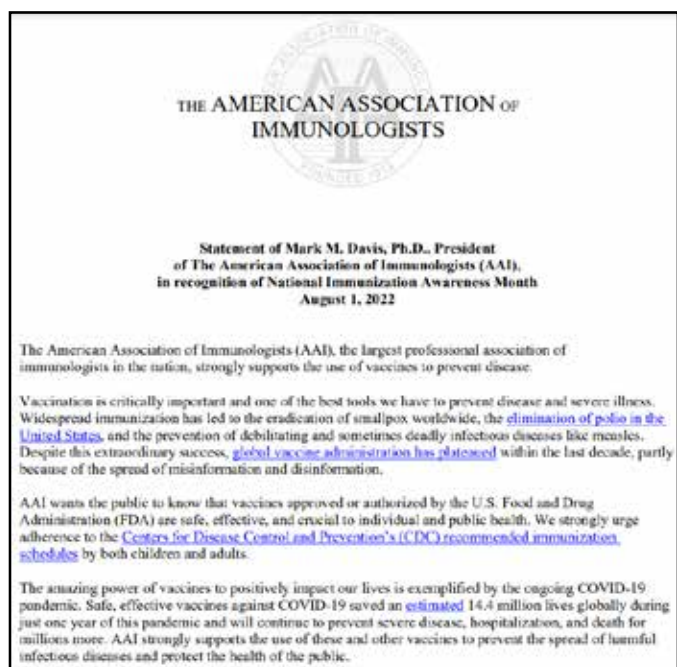
Interviews with immunologists on-site at IMMUNOLOGY2022™ resulted in several videos featuring AAI members answering questions about immunology, including the two shown above.

September and had a potential monthly viewing audience of 183,146,556

The AAI communications staff has also used segments of the full interviews to create a video series, “Immunologists Answer Your Questions,” which is shared on AAI social media, website, and YouTube channel, and has used the footage in promotions for future annual meetings. (To see these videos, visit www.aai.org/About/Immunologists-Answer-Your-Questions.)

National Immunization Awareness Month

National Immunization Awareness Month (NIAM) is an annual August observance highlighting the importance of vaccinations for all. AAI created a campaign to encourage Americans to get fully vaccinated against all preventable diseases. Parents especially were encouraged to get their children fully vaccinated before the start of the new school year. Worldwide, the rate of fully vaccinated children



Official AAI statement supporting National Immunization Awareness Month

dropped from 86% in 2019 to 81% in 2021. In the United States, the rate dropped by 14% from 2019 to 2021, and even more when looking specifically at orders for the measles vaccine—which dropped by 20%.

AAI efforts included:

- Creating a NIAM web page with additional resources at www.aai.org/NIAM
- Releasing an official statement from AAI President Mark Davis, Ph.D. (AAI '88)
- Conducting a morning news show media tour featuring AAI Councilor Avery August, Ph.D. (AAI '99)
- Sharing historical and informational posts on AAI social media related to NIAM, and boosting those



During NIAM, AAI recognized the efforts of many members in vaccine research and development.

them play in vaccine research and development in the August issues of *The Journal of Immunology*.

Following are the results of the major NIAM activities.

Media Tour

On August 11, AAI held a media tour featuring Dr. August speaking on the topic of getting back on schedule with regular immunizations, especially for children about to start the new school year. Dr. August was interviewed by



Good Day LA and *DayBreak8* in Indianapolis were among the many news stations that interviewed Dr. August about the importance of regular immunizations.

posts, targeting consumers

- Creating TikTok/Instagram videos highlighting the importance of regular immunizations
- Partnering with three social media influencers in the health/wellness space
- Securing an agreement from The Immunology Podcast to mention the NIAM campaign at the beginning of its two August episodes

- Publishing an ad thanking AAI members for the important role many of

27 news stations, including major outlets in Los Angeles, San Francisco, Sacramento, Portland, Dallas, Indianapolis, and Charlotte (NC). The majority of these interviews were recorded, and thus aired more than once.

Many of the news outlets segued from August's interview into a package about what their local schools' vaccination requirements were and where their audiences could get free childhood immunizations. The results were as follows:

- Television viewership reached more than 7.2 million
- Radio listenership reached more than 15.2 million
- Online viewership reached more than 11.6 million
- A total of 34,200,000 consumers were reached

Social Media Campaign



AAI member Julie Mirpuri, M.D. (AAI '13), an immunologist and pediatrician at UT Southwestern Medical Center, worked with AAI to create TikTok and Instagram videos. She answered three questions (see below) in a series that were released throughout the month. One longer video containing all three segments was also featured on the AAI NIAM web page and YouTube channel. The results were as follows:

AAI member Julie Mirpuri filmed a series of TikTok videos answering questions about immunization.

- Why is it important to get regular immunizations? (148,000 TikTok views; 25,990 Instagram views)
- How do immunizations protect us? (331,700 TikTok views; 2,639 Instagram views)
- How can we know that immunizations are safe? (244,400 TikTok views; 4,442 Instagram views)

Social Media Influencer Partnership

AAI partnered with three social media influencers in the health/wellness space to spread the AAI message about the importance of immunizations. All three are doctors and mothers, have large communities of followers, and strongly believe in the importance of immunizations. Each influencer created two posts and one video that highlighted the importance of immunization, mentioned AAI and NIAM, and referred their followers to the AAI NIAM web page.

- Dr. Nkeiru Orajiaka, pediatrician & mother, 24.3k followers (posts resulted in 4.5k impressions)
- Dr. Purvi Parikh, immunologist & mother, 6.8k followers (posts resulted in 3.2K impressions)
- Dr. Joanna Lewis, pharmacist & mother, 37.2k followers (posts resulted in 14.6k impressions)



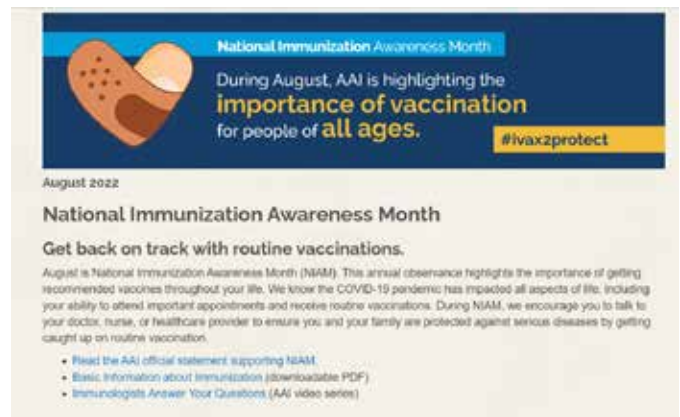
Social media influencers @pharmacistsguide and @dr_norajika created the above posts to spread the AAI message about regular immunizations.

Karen Edelblum, Ph.D. [AAI '17]) had been downloaded 2,974 times. You can listen to these episodes here:

- Episode 34: <https://immunologypodcast.com/ep-34-immunology-of-the-nervous-system-featuring-dr-jonathan-kipnis>
- Episode 35: <https://immunologypodcast.com/ep-35-inflammatory-bowel-disease-featuring-dr-karen-edelblum>

Website Traffic

Traffic to the National Immunization Awareness Month web page reached nearly 2,000 visits in the month of August and first week of September. This is traffic similar to numbers that we see on web pages related to the annual meeting or Career Awards—but over a six-week period rather than a 12-month period!



The NIAM page on the AAI website

The Immunology Podcast

The Immunology Podcast expressed interest in helping AAI promote National Immunization Awareness Month. The hosts of the podcast started their two August 2022 episodes by mentioning NIAM, AAI, and the AAI NIAM web page. As of October 31, Episode 34 (which also featured Jonathan Kipnis, Ph.D. [AAI '09]) had been downloaded 3,228 times, and Episode 35 (which featured

Next Steps in Communications Initiative Plan

AAI is very excited to continue its work on the Public Communications Initiative in 2023. Look for announcements about a new consumer website, a media partnership with The Immunology Podcast, and a general session at IMMUNOLOGY2023™ focused on communicating your science to consumers.



The Immunology Podcast featured information about NIAM and AAI in each of its August 2022 episodes.



You have the power.

Your membership in the American Association of Immunologists helps advance the field—and your career.

Being a part of AAI enables you to take an active role in helping to shape the future of immunology and attain your professional goals. You'll stand with members representing immunological research concerns on Capitol Hill. Plus, you gain access to:

- The best and brightest minds today.
- The world's largest annual all-immunology meeting.
- *The Journal of Immunology*, the preeminent peer-reviewed journal in the field, and *ImmunoHorizons*, the open-access, fully peer-reviewed AAI journal.
- Many occasions and opportunities to present your research.
- Awards/fellowships/grants to support talented scientists in every career stage.

To learn more about how your professional life is enriched by membership in AAI, call 301.634.7195 or visit www.aai.org today.





NIH Begins FY 2023 Under a Continuing Resolution

President Joe Biden signed a continuing resolution (CR) into law on September 30, 2022, one day before the beginning of fiscal year (FY) 2023, averting a government shutdown and providing Congress with additional time to complete its annual appropriations (spending) bills. The bill was approved by the House that same day (230–201) and by the Senate the day before (72–25). The CR funds the federal government at roughly last year's funding levels through December 16.

Under the CR, the National Institutes of Health began FY 2023 at its FY 2022 funding level of approximately \$45 billion. NIH Institutes and Centers (ICs) generally set conservative interim paylines under CRs. For example, the National Institute of Allergy and Infectious Diseases set its interim R01 paylines for FY 2023 at the 10th percentile for established investigators and the 14th percentile for new investigators. These will likely be adjusted upward if NIH receives a funding increase in the final FY 2023 appropriations bill. Additionally, it is typical practice for ICs to fund non-competing grant awards at 90 percent of the previously committed level until final appropriations are enacted.

Democratic Members of Congress had hoped to add a number of additional provisions to the CR, including supplemental funding to combat COVID-19 and mpox, but no such funding was included for these public health priorities. The CR does include more than \$12 billion in emergency military and economic assistance for Ukraine as well as a five-year reauthorization of the U.S. Food and Drug Administration (FDA) user fee programs. The FDA had been warning of likely furloughs and/or layoffs if the user fee programs were not reauthorized by the end of FY 2022.

Following the midterm elections in November, Congress reconvened for a “lame duck” session. AAI is hopeful that Congress will enact full-year appropriations bills for FY 2023, with a significant increase in funding for NIH, during this session and before the expiration of the CR on December 16.

Democrats Maintain Majority in the Senate, Republicans Retake the House

Congress to lose strong research champions

The 2022 midterm elections resulted in Democrats maintaining control of the Senate and Republicans taking control of the House of Representatives, but the party breakdown in both chambers did not change significantly. Democrats stand to either maintain their current majority (50 seats) or gain one seat in the Senate, while

Republicans will pick up close to 10 seats in the House. These modest gains overshadow the fact that there will be major turnover in the 118th Congress, which begins on January 3, 2023. At least 84 new Members of Congress (7 senators and 77 representatives) will take office next year, due in part to a significant number of retirements and resignations, some of which will no doubt adversely impact the research community.

The Democrats will maintain a narrow majority in the U.S. Senate in the next Congress. As of November 17, Democrats [with the support of Independents Bernie Sanders (VT) and Angus King (ME)] hold 50 seats, Republicans hold 49, and one race is still pending in Georgia [a runoff election between Senator Raphael Warnock (D-GA) and Herschel Walker (R) will be held on December 6]. The House of Representatives will flip from Democratic control to Republican control in January. At press time, Republicans hold a 221–213 edge in the House, with 218 seats being the exact number needed to hold the majority. Republicans are expected to win at least a few more seats in the House, but the majority will be slim. Nonetheless, control of the House will enable the Republicans to pursue many of their stated objectives. Key Republicans in the House, including Representative Cathy McMorris Rodgers (R-WA, 5th) who is likely to chair the House Energy and Commerce Committee (which oversees NIH), have expressed a desire to conduct investigations of Dr. Anthony Fauci, the origins of the COVID-19 pandemic, and “gain-of-function” research funded by NIH.

Congressional retirements will also lead to the loss of some outstanding champions for biomedical research. Two AAI Public Service Award winners in important leadership roles will retire from the U.S. Senate at the end of the year: Senator Richard Shelby (R-AL), who is the top Republican on the Senate Appropriations Committee, and Senator Roy Blunt (R-MO), who is the top Republican on the Senate Labor, Health and Human Services, Education, and Related Agencies Appropriations Subcommittee (which funds NIH). With Senators Shelby and Blunt just two of the many strong NIH supporters from both parties who will no longer serve in Congress, AAI and others in the biomedical research community will have an important role to play in identifying new NIH champions and informing new Members of Congress about the need for a strong and robustly funded NIH.

AAI Participates in 10th Annual “Rally Hill Day”

On September 14, AAI was pleased to participate in the Rally for Medical Research Capitol Hill Day



Pictured from left: Schumacher, Mattila, Congressman Mike Doyle, and Dr. Donald DeFranco



Dr. Kamal Khanna (pictured left) and Joshua Mattila

(Rally Hill Day), an event that brings together a wide range of stakeholders each year to advocate for a common goal: increasing funding for NIH. Rally Hill Day, which AAI has cosponsored since its inception in 2013, was held in person for the first time in three years due to the COVID-19 pandemic. A total of 250 participants from more than 30 states met with about 190 congressional offices.

AAI was formally represented on Capitol Hill by Kamal Khanna, Ph.D. (AAI '09), associate professor at NYU Langone Health, Joshua Mattila, Ph.D. (AAI '12), assistant professor at the University of Pittsburgh School of Public Health, and AAI Senior Manager of Science Policy and Legislative Affairs Jake Schumacher. Drs. Khanna and Mattila both gained experience meeting with their congressional representatives through their participation

in the AAI Public Policy Fellows Program (Khanna served from 2011–2012 and Mattila from 2020–2021).

A “Reception to Celebrate Medical Research” was held in the Rayburn House Office Building on September 13 to further generate support for medical research and excitement for Rally Hill Day. Attendees heard remarks from Representatives Kathy Castor (D-FL, 14th), David Trone (D-MD, 6th), and Fred Upton (R-MI, 6th); Senator Dick Durbin (D-IL); Lawrence Tabak, D.D.S., Ph.D., who is currently performing the duties of the NIH Director; and Francis Collins, M.D., Ph.D., who at the time was the acting presidential science advisor. The presentations were inspiring, particularly those delivered by the Members of Congress who demonstrated a true passion for and commitment to biomedical research.

During Rally Hill Day, Mattila and Schumacher met with a subset of the Pennsylvania congressional delegation, while Khanna and others met with part of the New York delegation. In each meeting, they delivered three core messages: Members of Congress were thanked for the recent robust funding increases for NIH, including the \$2 billion increase for FY 2022; urged to support a \$49 billion-base budget for FY 2023, an increase of about \$4 billion; and asked to complete the annual appropriations bills in a timely manner.

In connection with Rally Hill Day, AAI President Mark Davis, Ph.D. (AAI '88), said the following:

“NIH is an indispensable part of the biomedical research enterprise, supporting a robust portfolio of basic research that is the foundation for the development of vaccines, treatments, and cures. Discoveries made by NIH-funded immunologists have helped lead to many critically important advances, including most recently the rapid development of vaccines against COVID-19 and of numerous immunotherapies to treat a wide range of cancers. NIH’s significant investment in training and supporting early career researchers also helps ensure a strong pipeline of immunologists and other research scientists who can help the U.S. maintain its preeminent role in advancing medical research.”

Biden Administration Releases National Biodefense Strategy and Implementation Plan

The Biden Administration recently released a “National Biodefense Strategy and Implementation Plan” for “countering biological threats, enhancing pandemic preparedness, and achieving global health security.” This plan, which incorporates lessons learned from the COVID-19 pandemic, aims to coordinate the U.S. government’s efforts across agencies to better assess, prevent, respond to, and recover from biological threats.

The plan is centered around five main goals:

1. “Enable risk awareness and detection to inform decision-making across the biodefense enterprise
2. Ensure biodefense enterprise capabilities to prevent bioincidents

- 3. Ensure biodefense enterprise preparedness to reduce the impact of bioincidents
- 4. Rapidly respond to limit the impacts of bioincidents
- 5. Facilitate recovery to restore the community, the economy, and the environment after a bioincident”

The President’s budget for FY 2023 includes \$88.2 billion in mandatory funding over five years to be spread across government agencies to fund the pandemic preparedness efforts that are laid out in this plan. Earlier this year, AAI issued a statement on the President’s budget expressing strong support for the pandemic preparedness plan and the associated funding request.

In addition to reconfirming the Administration’s commitment to develop vaccines against new threats within 100 days, this plan aims to increase vaccine uptake by 85 percent, develop pathogen-specific tests within 30 days, deploy accurate diagnostics within 90 days of biological threat onset, and maintain clinical trial capacity and infrastructure so therapeutic testing can begin immediately. Many of the activities laid out in the plan can also be applied to ongoing health challenges like seasonal flu and malaria.

Renee Wegrzyn Begins Role as Inaugural Director of ARPA-H



The much-anticipated announcement of the inaugural director of the Advanced Research Projects Agency for Health (ARPA-H) came in mid-September, when President Biden announced his intent to appoint Renee Wegrzyn, Ph.D., to lead the agency. Dr. Wegrzyn has experience as, among other things, a program manager in the Biological Technologies Office at the Defense Advanced Research Projects Agency (DARPA) and as vice president of business development at Ginkgo Bioworks, where she oversaw projects using synthetic biology to combat infectious diseases.

Wegrzyn was sworn in on October 11 and thus began her leadership of the new agency which is designed to tackle

some of the largest and most complex challenges to human health in a bold high-risk, high-reward manner. Congress allocated \$1 billion to ARPA-H in the FY 2022 appropriations bill in funding that is available for three years.

Dr. Wegrzyn succeeds Acting Deputy Director Adam Russell, D.Phil., who had been leading the agency since June 2022. During a recent presentation to the NIH Council of Councils, Dr. Russell stressed the importance of stakeholder feedback and encouraged organizations and individuals to submit public comments to arpahcomments@arpa-h.gov.

CSR Releases Strategic Plan for 2022–2027

The NIH Center for Scientific Review (CSR) recently released its final Strategic Plan for 2022–2027. The plan has five main goals that are aimed at supporting CSR’s mission of ensuring that all NIH grant applications receive “fair, independent, expert, and timely scientific reviews—free from inappropriate influences—so NIH can fund the most promising research.” It also includes key objectives such as increasing diversity within the reviewer pool and CSR staff, reviewing and changing the peer-review process to reduce bias, and ensuring that applications are scored by appropriate scientific review groups. To view the plan in its entirety, please visit <https://public.csr.nih.gov/sites/default/files/2022-09/CSR-strategic-plan.pdf>.

CPA Chair Peter Jensen Issues Statement on Whether the COVID-19 Pandemic is Over

CPA Chair Peter Jensen issued a statement (see <https://bit.ly/3ut9fNG>) in October responding to questions regarding whether the COVID-19 pandemic is over. The statement highlights the extraordinary progress that has been made in combatting COVID-19, including the rapid development of safe and effective vaccines. Jensen cautions, however, that “while remarkable progress has been made, hundreds of Americans are still dying from COVID-19 each day and millions are suffering from symptoms of Long COVID,” and urges all who are eligible “to get fully vaccinated and boosted.”

The full statement is reprinted on page 15.

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[linkedin.com/company/the-american-association-of-immunologists/](https://www.linkedin.com/company/the-american-association-of-immunologists/)

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THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

October 14, 2022

In response to recent questions about whether the COVID-19 pandemic is over, AAI Committee on Public Affairs Chair Peter Jensen, M.D., released the following statement:

Since the COVID-19 pandemic was first declared in March of 2020, scientists and public health officials have made extraordinary progress in combatting this deadly and disruptive disease. Rapidly developed vaccines against SARS-CoV-2 (the virus that causes COVID-19) have [saved tens of millions of lives](#). And other vital tools, including antiviral treatments and at-home rapid antigen tests, together with important mitigation measures like masking, have enabled us to better protect ourselves. In fact, worldwide COVID-19 deaths have dramatically declined and are now at one of the [lowest weekly levels](#) since the pandemic began.

While remarkable progress has been made, hundreds of Americans are still dying from COVID-19 each day and millions are suffering from symptoms of Long COVID. Despite this, vaccination rates remain low in some populations, especially among young children and those eligible for the new bivalent booster. While we are all anxious to put the pandemic fully behind us, we must continue to do all we can to control COVID-19 and to protect those who are most vulnerable. AAI therefore urges all eligible Americans to get fully vaccinated and boosted against COVID-19, and to follow the Centers for Disease Control and Prevention's [isolation](#) or [exposure](#) guidance when you have, or think you may have, COVID-19.

Application Period Open for the 2023–2024 AAI Public Policy Fellows Program

AAI is now accepting applications for the 2023–2024 Public Policy Fellows Program (PPFP). The PPFP engages early career researchers in a year-long program that explores how federal legislative action and agency activities impact the conduct and funding of biomedical research, and how AAI works with and on behalf of its members for the best possible outcomes.

PPFP participants will travel to Washington, DC, (at the expense of AAI) for a two-day Capitol Hill Day program. Fellows are also required to attend the AAI annual meeting (the 2023–2024 Fellows must attend

IMMUNOLOGY2023™ in Washington, DC), where they will meet at an orientation dinner and participate in a broader program of activities. Aside from these two travel experiences, Fellows do not need to leave their institutions or labs. Participants learn about advocacy throughout the fellowship year via video conference calls and communication with members of the AAI Committee on Public Affairs (CPA) and AAI public affairs staff.

The deadline to apply for this year's program is **January 18, 2023**. Application instructions and materials can be found at www.aai.org/PPFP. Please send any questions about the PPFP to AAI Senior Manager of Science Policy and Legislative Affairs Jake Schumacher at jschumacher@aai.org.

Become an AAI Public Policy Fellow and Visit Capitol Hill with AAI!



The AAI Public Policy Fellows Program (PPFP) provides early career researchers (within 15 years of their terminal degrees) with the opportunity to participate in the public policy and advocacy activities of AAI. Become an advocate for biomedical research, for the National Institutes of Health (NIH), and for your profession . . . there has never been a more important time for you to speak up and speak out!

PPFP participants meet monthly with AAI public affairs staff and select members of the AAI Committee on Public Affairs to learn about the role of the President, Congress, and the NIH in determining and implementing the policies that affect biomedical research. AAI also teaches Fellows how to advocate for, and help shape, the policies that guide their careers, and engages them in special projects, including developing and refining resources for Capitol Hill visits. Through the PPFP, you can do all of this without leaving your job, and you will “graduate” ready to take on whatever lies ahead!

The fellowship year culminates in a trip to Washington, DC, to visit your Congressional representatives to describe your science, discuss the importance of immunology, and make your best case for increased funding for NIH!



Apply by January 18, 2023

Visit www.aai.org/Public-Affairs/PPFP for details.

For more information or to apply, contact AAI Senior Manager of Science Policy and Legislative Affairs Jake Schumacher (jschumacher@aai.org).

“The Public Policy Fellows Program (PPFP) is a fun, impactful experience that I wish I could do twice! Walking on Capitol Hill and meeting my representative and senators is an experience I will never forget! NIH support in Congress is not universal. The PPFP offers researchers a chance to show Congress the importance of scientific research. Until the PPFP, I had no idea how empowering and impactful visiting my representative and senators on Capitol Hill could be. The PPFP gave me the confidence and knowledge to become a successful advocate. I firmly believe that all scientists should join this program and learn how to become successful advocates. If scientists don’t advocate for funding, we can’t complain when research funding doesn’t increase.”

— **Nicholas Hess, Ph.D. (2019–2020 PPFP), Postdoctoral Research Associate, University of Wisconsin, Madison, Madison, WI**



“The PPFP offers fellows a bit of everything: interactions with fellow scientists, insight as to how science is funded, and an opportunity to play an important role in helping our elected officials better understand the importance of scientific research. Through the PPFP, I gained skills and now work more closely with my state’s elected officials to move forward science-backed legislation to improve vaccination rates in our community.”

— **Stephanie James, Ph.D., M.B.A. (2012–2013 PPFP), Associate Professor, Rueckert-Hartmann College of Health Professions, Denver, CO**

“The PPFP exposed me to health science policy and helped me appreciate the intricate process that governs biomedical science research funding. The opportunity to connect with like-minded folks across U.S. institutions and with my federal government representatives was a valuable experience. Moving forward, I feel better equipped to be a positive advocate for American biomedical science policy and to enact positive change on a local and national level. Jake, Lauren, and the AAI Committee on Public Affairs were excellent mentors and colleagues throughout the process.”

— **Cody C. McHale, Ph.D. (2021–2022 PPFP), Assistant Professor of Medicine, Levine Cancer Institute Atrium Health, Charlotte, NC**



“The PPFP was a great experience to learn about public policy and connect with talented scientists nationwide. The day on Capitol Hill was genuinely fun—a rush of adrenaline talking with Senator Elizabeth Warren (D-MA) and an unexpected ride on the Capitol subway system! When interviewing for a senior management role in academia, I successfully harnessed my PPFP experience to demonstrate the importance of concise communication (distilling complex research into key points) to advocate for change.”

— **Srin Ranasinghe, Ph.D. (2016–2017 PPFP), Associate Director, Center for Immuno-Oncology, Dana-Farber Cancer Institute, Boston, MA**

“The PPFP changed how I understood the biomedical enterprise by providing insight into how policymakers and STEM advocates engage with each other to improve training and public health. On a tactical level, it was very rewarding to have learned skills through the PPFP that enabled me to effectively work closely with other trainees to help advocate for NIH funding.”

— **Caleph B. Wilson, Ph.D. (2011–2012 PPFP), Director, Axion Biosystems, New York, NY**



MEMBERS IN THE NEWS

Sallusto, Polić, and Pickl Elected to European Federation of Immunological Societies (EFIS) Board

AAI members **Federica Sallusto, D.Sc. (AAI '14)**, **Bojan Polić, M.D., Ph.D. (AAI '13)**, and **Winfried F. Pickl, M.D. (AAI '08)**, have been elected to the EFIS Board for 2022–2024. The EFIS represents 35 European immunology societies. The main goals of EFIS are to support immunological research and education, as well as to strengthen scientific interaction amongst its members.



Dr. Sallusto was named president of the EFIS Board. She is professor of medical immunology at the ETH Zurich and group leader of the cellular immunology laboratory at the Institute for Research in Biomedicine in Bellinzona, Switzerland. Among her recent contributions are the discovery of

skin-homing T cells and the characterization of non-classic Th1 cells induced by bacteria and of two distinct types of pathogen-specific Th17 cells with pro-inflammatory and regulatory properties. To learn more about her work, visit <https://micro.biol.ethz.ch/research/sallusto.html>.



Dr. Polić was named president-elect of the EFIS Board. He is a professor at the University of Rijeka in Croatia. His major scientific interests include immune responses involved in the development of insulin resistance and Type 2 diabetes mellitus in obesity/viral infection, and the biological roles of the NKG2D

receptor. To learn more about his work, visit <http://hid.hr/bojan-polic>.



Dr. Pickl was named secretary of the EFIS Board. He is a professor and head of the division of cellular immunology and immunohematology at the Institute of Immunology, Medical University of Vienna, Austria. He has made critical contributions to the molecular and functional

characterization of T cell activation antigens and monocyte-derived dendritic cells. More recently, he has directed his main scientific interests towards the better

definition of the immunological synapse formed between professional antigen-presenting cells and T lymphocytes. Learn more about Pickl's work at www.meduniwien.ac.at/hpl/phd-immunologie/research-laboratories/winfried-f-pickl-md.

Read the full announcement at www.efis.org/the-federation/board/board.html.

Karagiannis and Othy Receive The Society for Leukocyte Biology (SLB) Excellence in Leukocyte Biology Early-Career Award

George Karagiannis, D.V.M., Ph.D. (AAI '19), and **Shivashankar Othy, D.V.M., Ph.D. (AAI '13)**, have received the SLB Excellence in Leukocyte Biology Early-Career Award. This awards program was created to recognize excellence in the work of early career and mid-career SLB members.



Dr. Karagiannis is a professor at the Albert Einstein College of Medicine. His areas of research include molecular/cellular responses of tumor and immune microenvironments to cytotoxic chemotherapy. Learn more about his work at <https://www.karagiannislabs.com>.



Dr. Othy is a researcher at the University of California, Irvine College of Medicine. He has a background in veterinary medicine and research experience in lymphocyte dynamics and calcium signaling. To learn more about his work, visit <https://sites.uci.edu/shivashankarothy/>.

Read the full announcement at <https://bit.ly/3ER5mso>.

Springer Receives 2022 Albert Lasker Basic Medical Research Award



Timothy A. Springer, Ph.D. (AAI '79), has received the 2022 Albert Lasker Basic Medical Research Award. This award honors scientists for discoveries concerning the integrins, key mediators of cell-matrix and cell-cell adhesion in physiology and disease.

Dr. Springer is a Latham Family Professor and professor of biological chemistry and molecular pharmacology at Harvard Medical School and principal investigator,

for the division of hematology/oncology, at Boston Children's Hospital. His academic interests focus on how protein conformational change, together with tensile force, activates integrins, von Willebrand factor, the transforming growth factor- β -family, and adhesins on malaria sporozoites, and discovering new binding partners. This work has translational implications for other infections and immune-mediated diseases. To learn more about his work, visit <https://timothyspringer.org>.

Read the full award announcement at <https://bit.ly/3Vwcqkh>.

Lieberman, Shao, and Dixit Receive the William B. Coley Award

Judy Lieberman, M.D., Ph.D. (AAI '96), Feng Shao, Ph.D. (AAI '18), and Vishva Dixit, M.D. (AAI '16), have received the William B. Coley Award from the Cancer Research Institute. This award is given to one or more scientists for seminal discoveries in the field of basic immunology and cancer immunology.



Dr. Lieberman is a professor of pediatrics at Harvard Medical School and chair of the Program in Cellular and Molecular Medicine at Boston Children's Hospital. Her research interests include cytotoxic T lymphocytes (CTLs), key cells in the immune defense against viral infection and cancer, and their

role in antiviral immunity. Her lab is also studying the molecular pathways used by CTLs to induce cell death. To learn more about her work, visit www.childrenshospital.org/research/researchers/judy-lieberman.



Dr. Shao is an investigator and deputy director at the National Institute of Biological Sciences in Beijing, China. Shao's laboratory is interested in studying molecular mechanisms of bacterial infection and host innate immunity defense. To learn more about his work, visit www.nibs.ac.cn/en/yjsjyimgshow.php?cid=5&sid=6&id=777.



Dr. Dixit is vice president of Early Discovery Research at Genentech. His discoveries have provided mechanistic insight for new clinical treatments, including immunotherapy in cancer patients. To learn more about his work, visit www.gene.com/scientists/our-scientists/vishva-dixit.

Read the full award announcement at <https://bit.ly/3VOeHHL>.

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for more information!

AAI Outreach Program Update

The AAI Outreach Program provides career development opportunities for young investigators by supporting podium and poster presentation awards at member-organized immunology meetings throughout the United States. The program most recently provided sponsorship at the conferences highlighted in this section.

American Physician Scientists Association (APSA) Annual Meeting

The 17th Annual American Physician Scientists Association (APSA) meeting was held April 8–10 in Chicago, IL, and was organized in part by the Association of American Physicians, The American Society of Clinical Investigation, and APSA. The meeting drew approximately 350 attendees and featured four plenary sessions focused on human health, as well as career development sessions dedicated to addressing the needs and challenges of young physician scientists. AAI supported five Young Investigator Awards for outstanding poster presentations focused on research in the field of immunology. The awardees were:

- Yongjoo Cho, graduate student, Medical University of South Carolina
- Udaysankar Chockanathan, graduate student, University of Rochester School of Medicine and Dentistry
- Caitlin Brynna Dingwall, graduate student, Washington University School of Medicine
- Pearl A. Sutter, graduate student, University of Connecticut School of Medicine
- Kalyan Tripathy, graduate student, Washington University School of Medicine

Woods Hole Immunoparasitology Conference (WHIP)

The 25th Annual Woods Hole Immunoparasitology Conference (WHIP) was held as a hybrid event on April 10–13 at the Marine Biological Laboratory in Woods Hole, MA. WHIP is an international meeting that provides opportunities for researchers to showcase and discuss cutting-edge research in immunoparasitology. Meeting organizers Elia Tait Wojno, Ph.D. (AAI '15), assistant professor, University of Washington, and Jude Uzonna, D.V.M., Ph.D., professor, University of Manitoba, Canada, welcomed 151 attendees (70 in person and 81 virtual) to four days of scientific presentations and networking.

The meeting featured a diverse program of keynote speakers, educational sessions, poster presentations, and social hours. The educational sessions and poster presentations described research on immune responses to

a variety of helminth parasites, *Leishmania*, *Toxoplasma*, malaria parasites, *Cryptosporidium*, and others. Keynote speakers included Keke Fairfax, Ph.D. (AAI '14), associate professor, University of Utah, who delivered a keynote address entitled “Understanding the Role of Helminth Antigens in Reprogramming Mammalian Immunity”; Tania Watts, Ph.D. (AAI '90), professor, University of Toronto, Canada, who discussed “Monocyte-Derived APC and Signal 4 for T Cell Activation”; and Boris Striepen, Ph.D., professor, University of Pennsylvania, who presented a lecture on “The Biology of Intestinal Parasitism by *Cryptosporidium*.” This meeting continues to support the growth and career development of trainees in immunoparasitology and to assist in promoting the independent careers of new principal investigators.

AAI supported eight Young Investigator Awards at the WHIP Conference, three for podium presentations, three for poster presentations, and two for poster lightning talks.

The awardees for podium presentations included:

- Julia Alvarez, graduate student, University of California, Merced
- Ryan Pardy, Ph.D., postdoctoral fellow, University of Pennsylvania
- Edward Vizcarra, graduate student, University of California, Riverside



WHIP meeting organizers Uzonna (far left) and Wojno (far right) pictured with AAI Young Investigator Awardees for podium presentation Vizcarra, Alvarez, and Pardy

Translational Research Cancer Centers Consortium (TRCCC) Annual Meeting

The 24th Annual Translational Research Cancer Centers Consortium (TRCCC) meeting, which hosted more than 200 attendees, was held June 6–8 at the Seven Springs Mountain Resort in Seven Springs, PA. The meeting was organized by Elizabeth A. Repasky, Ph.D. (AAI '02), professor, Roswell Park Comprehensive Cancer Center; Robert Baiocchi, M.D., Ph.D., professor, Ohio State University; David Klinke, Ph.D. (AAI '12), professor, West Virginia University; Thomas Mace, Ph.D., assistant professor, Ohio State University; and Wei-Zen Wei, Ph.D. (AAI '81), professor, Wayne State University. This year's meeting, entitled "Advancements in Immunotherapy and the Tumor Microenvironment Landscape," presented an opportunity to emphasize exciting progress in laboratory and clinical research and the development of novel cancer immunotherapies among the cancer centers in the mid-Atlantic region of the United States and Ontario, Canada. The program showcased 60 podium presentations by graduate students and postdoctoral fellows and close to 100 poster presentations.

This year's meeting featured three keynote addresses. Zihai Li, M.D., Ph.D. (AAI '01), professor and founding director, Pelotonia Institute for Immuno-Oncology, Ohio State University, spoke about "Cancer, Sex Bias, and T Cells: What is the Mechanistic Connection?"; Eugene Oltz, Ph.D. (AAI '95), professor and chair, Ohio State University, and editor-in-chief of *The Journal of Immunology*, presented a lecture on "Wiring Schemes for Innate and Adaptive Lymphoid Cells"; and Jonathan Bramson, Ph.D., professor, McMaster University, Ontario, Canada, gave a presentation on "Engineered T Cell Therapy: CAR, TAC, SAR—A Rose by Any Other Name?"

AAI sponsored 12 Young Investigator Awards for podium presentations at the TRCCC annual meeting. The awardees were:

- Andrea Amitrano, Ph.D., postdoctoral fellow, Roswell Park Comprehensive Cancer Center
- Lawrence Andrews, Ph.D. (AAI '22), postdoctoral fellow, University of Pittsburgh
- Jennifer Bone, graduate student, Nurix Therapeutics
- Rebecca Burchett, graduate student, McMaster University, Ontario, Canada
- Joshua Eggold, Ph.D., postdoctoral fellow, University of Pennsylvania
- James Glassbrook (AAI '19), graduate student, Wayne State University
- Brandon McClellan (AAI '20), graduate student, University of Michigan
- Debasmita Mukherjee, graduate student, Ohio State University



Uzonna (far left) and Wojno (far right) pictured with AAI Young Investigator Awardees for poster presentation Ferguson, Lanzar, and Oyesola



Uzonna (far left) and Wojno (far right) pictured with AAI Young Investigator Awardees for podium lightning talks Orchanian and Federman

The awardees for poster presentations included:

- Annabel Ferguson, graduate student, University of Pennsylvania
- Zachary Lanzar, graduate student, University of Pennsylvania
- Oyebola Oyesola, D.V.M. (AAI '20), postdoctoral fellow, NIAID, NIH

The awardees for poster Lightning Talks included:

- Hannah Federman, graduate student, Rutgers, The State University of New Jersey
- Stephanie Orchanian, graduate student, University of California, Irvine



Pictured (from left) are TRCCC Past President Repasky and 2022 meeting organizer Mace with Young Investigator Awardees Bone, Schafer, Amitrano, Steinberger, Burchett, Glassbrook, Shaw, Andrew, Mukherjee, McClellan, Eggold, and TRCCC President Klinke.

- Benjamin Murter (AAI '21), graduate student, University of Pittsburgh
- Johanna Schafer, Ph.D. (AAI '20), postdoctoral fellow, Ohio State University
- Lauren Shaw, graduate student, University of Pennsylvania
- Kayla Steinberger, graduate student, West Virginia University



AAI Courses in Immunology

2023 Introductory Course in Immunology

July 11–16, 2023

UCLA Luskin Conference Center, Los Angeles, California

Course Director: Helen S. Goodridge, Ph.D.,
Cedars-Sinai Medical Center

2023 Advanced Course in Immunology

July 23–28, 2023

The Westin Copley Place, Boston, Massachusetts

Course Director: Wayne M. Yokoyama, M.D., DFAAI,
Washington University School of Medicine

Visit www.aai.org/ImmunologyCourses
for more information.

AAI Education Committee Highlight: Teaching Tools

In 2016, the AAI Education Committee initiated a new session focused on improving immunology education: the Immunology Teaching Interest Group (ITIG). The ITIG is an informal group comprised of past speakers and attendees of the ITIG sessions, including current immunology educators spanning a range of institutions and levels. It serves as a resource for novel teaching tools and practices that can be implemented in courses to enhance immunology education. The session has grown from an audience of 20 in 2016 to more than 200 participants today. Because of the great interest in this topic, the AAI Newsletter features "Teaching Tools" articles highlighting ITIG presentations.

Improving the Combined Use of Voiceover Slide Presentations and Review Games



John K. Cusick, Ph.D. (AAI '17)
associate professor of immunology, cell biology, and biochemistry, California Northstate University, Elk Grove, CA

Active learning pedagogies have been increasingly explored to either supplement or replace traditional lectures to achieve better

educational outcomes. The combined use of pre-assigned voiceover slide presentations (voiceovers) and in-class gaming permits students to watch a voiceover at home at a convenient time of their choosing. Class time can then be used to reinforce concepts and achieve higher orders of Bloom's taxonomy by actively engaging students with their peers in friendly competitions, such as Jeopardy-style games. Drawing on the whiteboard or showing review slides can emphasize important concepts and clarify misconceptions after challenging questions have been encountered in a review game.

I currently use voiceovers and gaming for medical students with class sizes of approximately 100 students. I use Camtasia to make immunology voiceovers, as I enjoy the editing features to add highlights, arrows, or drop images into the PowerPoint slides. Other recording options, such as Panopto, exist and can be considered as well. If making voiceovers is deemed too labor intensive, faculty can use reading assignments, handouts, or alternate voiceovers available on the internet as pre-assigned work to enable more frequent use of review games in the classroom.

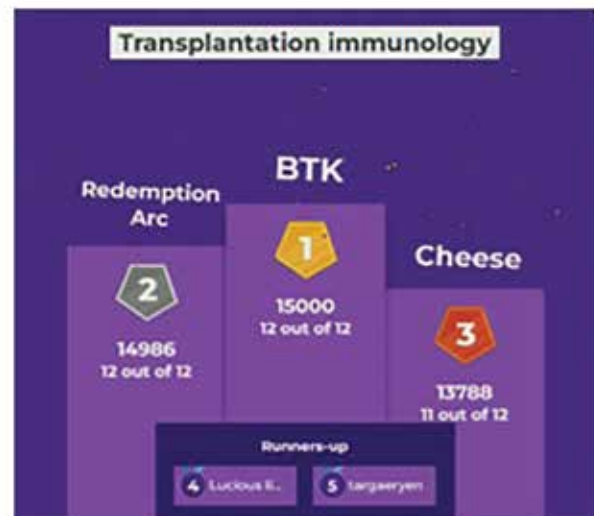
I previously published a Jeopardy review game (doi.org/10.15766/mep_2374-8265.10485) that uses team clickers and a team leaderboard, which enable all students to actively consider each question in groups of five to six, even if the class size is more than 100 students. This game can be used with team clickers, but should be carefully reworked for individual instructors' needs and clicker

Mucosal Immunity I	Mucosal Immunity II	Mucosal Immunity III	Food allergies	Celiac Disease
\$100	\$100	\$100	\$100	\$100
\$200	\$200	\$200	\$200	\$200
\$300	\$300	\$300	\$300	\$300
\$400	\$400	\$400	\$400	\$400
\$500	\$500	\$500	\$500	\$500

Jeopardy-style game

technology. Additional platforms for team competitions using team clickers and team leaderboards are now available. For example, one includes the advantage of permitting teams to periodically wager points on questions (<https://turningtechnologies-5.wistia.com/medias/w1r5f49fax>), which helps keep all teams engaged.

Kahoot review games are another web-based platform that can be used either in the classroom or virtually and permits students to use cell phones instead of clickers.



Kahoot leaderboard



Sample question from a review game

The character limits associated with Kahoot can be circumvented by importing slides containing longer stems and answer choices; importing review slides can help emphasize important concepts after a question has been considered. I used Kahoot virtually by streaming the muted game (to prevent audio feedback) through BigBlueButton and using Zoom breakout rooms to permit students to compete as teams.

We have been conducting an IRB-approved study to obtain feedback from medical students, and the students overwhelmingly prefer the combined use of voiceovers and gaming versus traditional lectures. Additionally, students overwhelmingly favor multiple short voiceovers (e.g., up to 15 minutes) over longer voiceovers, and appreciate having simple, recall-type questions embedded within

the voiceovers. Furthermore, students prefer beginning the in-class session with a question-and-answer review of the main topics covered in the voiceover before beginning the review game. We are currently using formative exams to ascertain whether the combined use of voiceovers and gaming leads to better outcomes versus lectures.

In summary, students strongly prefer gaming over traditional lectures, and the use of voiceovers provides the opportunity to use gaming more frequently. These lead to increased student satisfaction, and we hypothesize they also lead to improved educational outcomes.

Acknowledgements: The author would like to thank Pranshul Goel, Justin Tang, Alyssa Abram, Yennie Shyu, and Valerie Gerriets, Ph.D., for their help with this study.

Lessons from the Annual Meeting Roundtables

Each year at The American Association of Immunologists (AAI) annual meeting, the Committee on the Status of Women, the Education Committee, and the Minority Affairs Committee offer roundtable sessions that give early career immunologists an opportunity to speak with experienced immunologists about a wide range of career topics—everything from what it is like to work in a particular job setting to how to address challenges in advancing one's career. The advice shared in these mini-mentoring sessions is invaluable. The AAI Newsletter has invited mentors from these sessions to share their knowledge with our readership.

Careers in Federal Agencies and Careers in Government



Augustine

Swinburne A.J. Augustine, Ph.D. ('04), and **Michelle C. Robillard, M.S.,** U.S. Environmental Protection Agency (EPA), Office of Research & Development, Cincinnati, OH

Disclaimer: The authors are writing in their personal capacity and not as representatives of the U.S. EPA or the U.S. federal government.



Robillard

Early in the spring of 2022, Michelle and I were invited to lead roundtable discussions on working as immunologists in the federal government and federal agencies at IMMUNOLOGY2022™ in Portland, OR, on May 8. This was the organization's first in-person annual meeting since the COVID-19 pandemic began, and we were

delighted to see sold-out crowds of enthusiastic conference participants from across the globe showing very high levels of interest in working for the federal government.

Our sessions entailed sharing our experiences with the different types of scientific careers that one could engage in as either permanent or contract federal employees, including laboratory (bench), field, and administrative careers, among others. We also shared our experiences with the application process on USAJOBS (www.usajobs.gov), the official website for job postings throughout the federal government; onboarding; training; Diversity, Equity, Inclusion, and Accessibility (DEIA); and opportunities for growth. These topics, incidentally, were the “hot topics” that participants were clamoring to learn more about.

Our main advice was that if fame and fortune were the primary motivators for the audience, then the

federal government may not be the best place to work. Conversely, if people were driven by a burning desire to serve the American people, then government/public service would be an excellent fit. As major examples, we highlighted the superlative careers of Francis Collins, M.D., Ph.D., who recently retired as director of the National Institutes of Health after 12 years of exemplary leadership, and Anthony Fauci, M.D. (AAI '73), who will be stepping down from his federal government posts at the end of 2022 after serving as director of the National Institute of Allergy and Infectious Diseases for 38 years and as chief medical advisor to President Joe Biden. Dr. Fauci is well known for guiding the nation through the ongoing COVID-19 pandemic.

Opportunities to serve in the federal government are vast and varied. For example, in addition to being a principal investigator in the U.S. EPA Center for Public Health and Environmental Assessment, where I (Dr. Augustine) am engaged in developing rapid, cost-effective, and noninvasive salivary antibody multiplex immunoassays to investigate immune responses to environmental pathogens and stressors, I am a volunteer member of the Federal Emergency Management Agency's Surge Capacity Force. In that capacity, I was deployed twice in support of President Biden's COVID-19 National Vaccination Campaign, where I assisted federal, state, and local officials in crafting an effective message to combat vaccine disinformation and encourage vaccination, while also assisting with the actual drawing up of vaccines to be administered by medical staff. In fact, while on deployment to Tucson, AZ, I presented my research and led a roundtable on Careers in Government at Virtual IMMUNOLOGY2021™.

Our top five tips for participants include:

1. Set up a profile on USAJOBS and include your résumé, keywords, and desired locations. Follow the instructions on the site very carefully.
2. When a position of interest appears, first ensure that you meet the eligibility requirements to



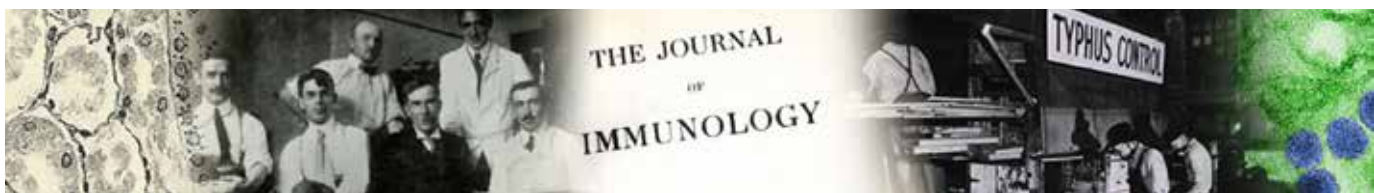
Augustine spoke passionately about his work in the federal government to a table full of interested attendees at IMMUNOLOGY2022™.

apply for the position (e.g., citizenship, internal or external applicants), then modify your résumé to fit the position and ensure that your educational background and skills match what the position requires. Be thorough!

3. When applying, complete the questionnaire honestly. Your responses will be matched to your résumé, so review step #1.
4. If you qualify and are scheduled for an interview, be confident in your responses and highlight your strengths. Engage the interviewers. Remember, you have already conquered the first hurdle and made the certification. The rest is up to you to convince them that you are the right person for the position.
5. Build your network. Conferences such as the AAI annual meetings are the perfect occasions to meet experts in your field who are federal government employees. Speak up, introduce yourself, ask questions, and exchange contact information.

Ultimately, the most-asked question was, why did you want to work for the government? Internal AAI polls taken after the sessions revealed that participants were satisfied with our responses and were motivated to seek federal government employment. Our hope is that we represented our employer well enough to encourage more young scientists to join the federal government and advance the cutting-edge research that we conduct.

In closing, it takes a very special person to dedicate their life to public service. It is especially fulfilling when that service includes using our knowledge, skills, and abilities to enhance the health and welfare of our fellow citizens. Of the two authors, Dr. Augustine has served the American people in varying capacities for more than 23 years, while Ms. Robillard is just beginning her career. Even given the differences in time served, we both feel honored to have been given the opportunity to serve our nation and our fellow citizens.



More Than 100 Years of AAI History

Visit www.aai.org/history for stories of immunology past and present, the Oral History Project, and the AAI Timeline, which chronicles 100-plus years of immunology history—and more.

PLAN AHEAD FOR **IMMUNOLOGY2023™**



INFORMATION TO HELP YOU PLAN YOUR ATTENDANCE AT **IMMUNOLOGY2023™**

Mark your calendar—
IMMUNOLOGY2023™ will be
held Thursday through Monday,
May 11–15, in Washington, DC.
The 106th AAI annual meeting in
our nation's capital will feature
incredible science!

Plan Ahead for IMMUNOLOGY2023™

Website

For the most up-to-date information, please visit www.immunology2023.org to explore the scientific program, abstract submission and abstract-driven sessions, career advancement sessions and events, travel awards, social events, registration, discounted hotel accommodations, visiting the District of Columbia, and more. You can also download, print, email, and share the IMMUNOLOGY2023™ Call for Abstracts.

Dates and Location

IMMUNOLOGY2023™ will be held Thursday, May 11 – Monday, May 15, 2023, at the Walter E. Washington Convention Center in Washington, DC. Temperatures in May average 76 degrees F for highs and 54 degrees F for lows, offering visitors beautiful spring days to enjoy the Mall, the Tidal Basin, and the city's many monuments. For information on sights to see, things to do, and places to dine, visit <https://washington.org>.

Other important dates:

December 6, 2022

Registration Opens

December 19, 2022

Abstract Submission Closes

Travel Awards and Grants Applications Due

March 31, 2023

Early Registration Discount Ends

April 17, 2023

Discounted Hotel Rates End

Scientific Program

The President's Address by AAI President Mark M. Davis, Ph.D. (AAI '88), officially starts the meeting on Thursday evening, May 11. Dr. Davis's talk is entitled "My Immunology Adventures." The 2023 AAI Lifetime Achievement Award will be presented during this event.

On Day 4 of the meeting (Sunday), Davis will chair the President's Symposium, "Frontiers of Human Immunology." This session will feature leaders in the field, including Pamela J. Bjorkman, Ph.D. (AAI '95), Petter Brodin, M.D., Ph.D. (AAI '22), Akiko Iwasaki, Ph.D. (AAI '00), and Bali Pulendran, Ph.D. (AAI '00). The 2023 AAI Excellence in Mentoring Award will also be presented during this event.

Each full day of the meeting concludes with a Distinguished Lecture presented by one of three outstanding scientists: Doug R. Green, Ph.D., DFAAI (AAI '08), Carla V. Rothlin, Ph.D. (AAI '08), and Leslie J. Berg, Ph.D., DFAAI (AAI '94). Eight Major Symposia, each featuring five to six speakers, will address topics of immediate interest. Sessions organized by NIH institutes/centers, national and international guest societies

representing multiple subdisciplines, and many AAI committees will present intriguing research. This dynamic lineup of exciting science and more can be viewed at www.immunology2023.org.

Abstracts

The most interactive part of any scientific meeting is the presentation of unpublished data in the form of abstracts. Select abstracts will be presented in podium presentations (Block Symposia), and all abstracts will be featured in Poster Sessions in the Exhibit Hall. Poster Sessions will be scheduled daily during dedicated time, unopposed by any other sessions.

Abstract submission opened on November 1, 2022, and will close December 19, 2022. To submit an abstract, visit www.immunology2023.org/abstracts.

Abstract topic categories include:

- Antigen Processing and Presentation
- Basic Autoimmunity
- Cellular Adhesion, Migration, and Inflammation
- **NEW!** Corporate Immunology
- Cytokines and Chemokines and their Receptors
- Hematopoiesis and Immune System Development
- Immediate Hypersensitivity, Asthma, and Allergic Responses
- Immune Mechanisms of Human Disease
- Immune Response Regulation: Cellular Mechanisms
- Immune Response Regulation: Molecular Mechanisms
- Immunology Education
- Innate Immune Responses and Host Defense: Cellular Mechanisms
- Innate Immune Responses and Host Defense: Molecular Mechanisms
- Lymphocyte Differentiation and Peripheral Maintenance
- Microbial, Parasitic, and Fungal Immunology
- Mucosal and Regional Immunology
- Technological Innovations in Immunology
- Therapeutic Approaches to Autoimmunity
- Transplantation Immunology
- Tumor Immunology
- Vaccines and Immunotherapy
- Veterinary and Comparative Immunology
- Viral Immunology

Career Development

In addition to the latest scientific advances in the field, IMMUNOLOGY2023™ will offer professional development sessions for scientists at every career stage. Two perennially popular sessions are the Careers in Science Lecture and Roundtables (sponsored by the AAI Education Committee and the Committee on the Status of Women) and the Careers Roundtables and Speed Networking Session (sponsored by the AAI Minority Affairs Committee). These interactive sessions feature experienced scientists ready to answer your career questions and lead discussions on many career-oriented topics. Tickets are required and can be purchased during the meeting registration process.

The AAI Education Committee will sponsor two popular sessions: Careers in Biotech, a panel discussion with networking afterward, and the Immunology Teaching Interest Group, which will focus on strategies to improve the teaching of immunology. The committee will also co-sponsor a new networking session, “Sip and Learn: Speed Networking with Immunology Educators” (co-sponsored by *ImmunoHorizons*).

Other sessions and resources include:

- How to Convert Your CV into a Résumé
- How to Convert Your CV into a Résumé: One-on-One Consultation
- Interviewing for a Job
- How to Have a Successful Postdoctoral Experience
- NIH Grants Workshop: Demystifying the Grant Application Submission, Review, and Funding Processes
- NIH Grant Review and Funding Information Room
- Jobs Board (for employers and job hunters)

Travel Awards

Travel award and grant applications opened November 1, 2022, and will close December 19, 2022. The following awards assist successful applicants with travel support to attend the meeting:

- Lefrançois-BioLegend Award
- Chambers-Thermo Fisher Scientific Award
- Lustgarten-Thermo Fisher Scientific Award
- Pfizer-Showell Travel Award
- AAI Undergraduate Faculty Travel Grant
- AAI Early Career Faculty Travel Grant
- AAI Laboratory Travel Grant
- AAI Trainee Abstract Award
- AAI Trainee Poster Award

- AAI-Thermo Fisher Trainee Achievement Award
- AAI Minority Scientist Travel Award

You can learn about the details of each of these awards by visiting www.aai.org/TravelAwards.

Registration and Housing

Registration opens December 6, 2022. To register and access the early bird rates, go to www.immunology2023.org/register.

Make your hotel reservations now to take advantage of special discounted rates for IMMUNOLOGY2023™. Rooms are booked on a first-come, first-served basis. To get the best price and selection, visit www.immunology2023.org/hotels/. (Rates will expire on April 17, 2023.)

Exhibit Hall

The Exhibit Hall at IMMUNOLOGY2023™ will bring attendees and exhibitors together for three days of exhibit displays, poster presentations, networking opportunities, and Exhibitor Workshops hosted by exhibiting companies. Attendees can assess products, services, and technologies designed to support and advance their research. It is estimated that over 150 companies will exhibit. Attendees participating in the “Passport to Prizes Raffle” will be entered to win American Express gift cards.

Social Events

Social events at the AAI annual meetings are always the ideal occasion to reunite with old friends and meet new colleagues!

Following the President’s Address on Thursday, May 11, join the **Opening Night Welcome Reception** in the convention center. Connect with friends, make new acquaintances, plan your week, and enjoy beautiful views of our nation’s capital city. One complimentary drink ticket is included. **Registered attendees only. Attendees must be 21 years of age or older.**

The IMMUNOLOGY2023™ Gala will take place on Sunday, May 14, at the Smithsonian’s National Museum of American History. We are hard at work finalizing the details; please check www.immunology2023.org for up-to-date information. Tickets will be available for purchase during the registration process. **Attendees must be 21 years of age or older.**

COVID-19 Policy

AAI will make known its meeting attendance COVID-19 policy, which will be based on available public health and scientific data, no later than April 1, 2023. The updated AAI COVID-19 policy will be available at www.immunology2023.org. All meeting attendees will be required to comply with the AAI COVID-19 policy.



IMMUNOLOGY2023™

THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

MAY 11-15, 2023 | WASHINGTON, DC

WWW.IMMUNOLOGY2023.ORG

IMPORTANT DATES

AWARDS

- Career Awards Nominations Now Open
- Career Awards Nominations Due. October 12, 2022
- Travel Award & Grant Applications Open November 1, 2022
- Travel Award & Grant Applications Due. December 19, 2022

HOUSING

- Discounted Housing Reservations Now Open
- Discounted Hotel Rates End April 17, 2023

ABSTRACT SUBMISSION

- Abstract Submission Opens. November 1, 2022
- Abstract Submission Closes. December 19, 2022

REGISTRATION

- Registration Opens December 6, 2022
- Early Registration Discount Ends March 31, 2023

IMMUNOLOGY2023™ attendees receive deep discounts on hotels in the official AAI room block. Reserve yours now at www.IMMUNOLOGY2023.org. Book now, pay later!



The Nobel Laureates of AAI

Nobel Prize medal
NIH

The story of the Nobel Prizes begins in 1850 in the Paris laboratory of the Italian chemist Ascanio Sobrero, where a young Alfred Nobel first encountered nitroglycerine. Sobrero had discovered the unstable and highly explosive chemical three years earlier and Nobel, against Sobrero's advice, sought to find commercial uses for it. Eventually, after causing an accidental explosion that killed his younger brother, Nobel developed a stable, solid compound of nitroglycerine that he called dynamite. His invention transformed mining and engineering, allowing for feats of construction that would have been impossible without such explosive power.

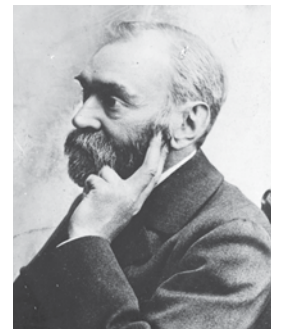


Dynamite blast during excavation of Panama Canal, ca 1904–1914
Digital Library of the Caribbean

Of course, dynamite also had military applications. Nobel had somewhat naively believed that dynamite was so frighteningly powerful that it would make war obsolete. According to his biographer, the truth was driven home in 1888 when Nobel opened a newspaper and read his own obituary, which called him a “merchant of death.”

The newspaper writer had confused Alfred Nobel with his brother Ludvig, who had in fact died. Not wanting to be remembered as a war profiteer, he decided to use his wealth for good and thus established the Nobel Prizes to recognize “those who have conferred the greatest benefit to humankind.”¹ Unfortunately, no copy of the alleged obituary has ever been located. Nobel never spoke publicly about the actual inspiration behind the prizes.²

After a long career of invention and engineering, Nobel stipulated in his will that 94 percent of his estate would be invested, with the interest funding the prizes. The initial five categories of achievement were physics, chemistry, physiology or medicine, literature, and peace, and were to be awarded with “no consideration...given to nationality.”³ The arrangement angered his family members, who expected to inherit the sizable fortune, as well as many



Alfred Nobel
Library of Congress

of his fellow Scandinavians, who were incensed that awardees from other countries would be considered.⁴

Immunology Recognized

Alfred Nobel died in 1896, and the first Nobel Prizes were awarded in 1901. The very first prize in Physiology or Medicine was awarded to Emil von Behring for his work on serum therapy, which had laid the foundation for the early field of immunology. Future prizes would confirm the centrality of immunological research to the larger biomedical field and to public health in the world at large.

Since 1901, Nobel Prizes have been awarded to 27 AAI members for their innovation and achievements in immunology and related disciplines. They range from early 20th century discoveries elucidating fundamental properties of blood to more recent breakthroughs that have led to better understanding and successful clinical



Emil von Behring's Nobel Prize Certificate
Wikimedia Commons

treatments of both ancient scourges like cancer and novel diseases such as COVID-19. Four laureates spanning nearly 80 years of the association have served as AAI Presidents: Karl Landsteiner (AAI 1922, president 1927–28), John F. Enders (AAI 1936, president 1952–53), Baruj Benacerraf (1957, president 1973–74), and James P. Allison (AAI 1978, president 2001–02). Immunologists continue to make important scientific advances and discoveries with broad-reaching possibilities, offering the potential every year for another AAI member to be given this honor. No more than 15 years have ever elapsed between instances of the prize being bestowed on an immunologist, and on two occasions AAI members have been honored in successive years.

The Nobel laureates of AAI hail from all over the world, with the prize going to scientists from Australia, Belgium, France, Germany, Japan, Switzerland, and the United Kingdom, as well as the United States. Several laureates are immigrants to the United States, including Landsteiner, born in Austria; Benacerraf, who immigrated from Venezuela; and Salvador Luria, who left fascist Italy in 1938.

Here we present brief profiles of some of the AAI Nobel laureates, representing a selection of the immunological developments to be recognized since 1919. In a previous article, the work of Enders, Thomas Weller (AAI 1943), and Frederick Robbins (AAI 1952) on culturing the poliovirus was featured.⁵ Full profiles of all laureates are available on the AAI website at www.aai.org/Nobel.

Bordet (1919)

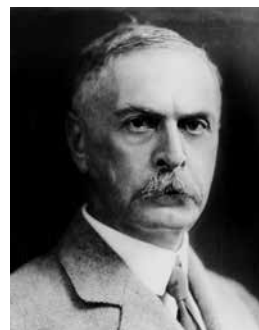


Jules Bordet
AAI Archives

Jules Bordet (AAI 1960) was the first AAI member to be awarded the Nobel Prize in Physiology or Medicine “for his discoveries relating to immunity.” His peers had previously nominated Bordet in 1902 along with Emile Roux (who never won the prize himself), and Bordet had received additional nominations each year since 1908. Although he won the 1919 prize, an obscure rule in Nobel’s will meant that he would not receive it until the next year. Bordet did not even know he had won until 1920, when the announcement was made while he was traveling in the United States.⁶

In the award ceremony, the Nobel committee recognized the critical importance of immunology as a field as well as Bordet’s specific contributions, particularly his discovery of complement and his development of complement fixation tests that led to a wide range of further discoveries and diagnostics.⁷

Landsteiner (1930)



Karl Landsteiner
AAI Archives

Karl Landsteiner was the first Nobel Laureate to be an active AAI member at the time of the award, which was given in 1930 “for his discovery of human blood groups.” Although Landsteiner had made his initial findings in 1900, the importance of blood groups was not widely realized until 1910. When *The Journal of Immunology* was founded in 1916, Landsteiner’s impact was obvious in the many studies on

blood groupings that were published in the early volumes. The Nobel committee also acknowledged the legal and forensic doorways that blood typing opened, as now blood samples could be used to rule out crime suspects or potential fathers in a paternity dispute.⁸

Stanley (1946)

Wendell Stanley (AAI 1957) holds the distinction of being the only member of AAI to receive the Nobel Prize in Chemistry, which he shared with John Howard Northrop



Wendell Stanley
AAI Archives

in 1946 “for their preparation of enzymes and virus proteins in a pure form.” Prior to Stanley’s research, the physical nature of viruses was unknown. In the 1930s, he managed to crystalize the tobacco mosaic virus, ending the debate and demonstrating that viruses were particles too small to be filtered or seen by the equipment of the day. Further experimentation showed that viruses were composed of

proteins and RNA, which explained how they are replicated. Stanley’s work transformed the field of virology and was a key step in understanding how to produce immunity to viruses.⁹ Later in his career, Stanley turned his attention to cancer, and announced to a skeptical audience at the 1956 National Cancer Conference: “I believe the time has come when we should assume that viruses are responsible for most, if not all, kinds of cancer.”¹⁰

Edelman and Porter (1972)



Gerald Edelman
AAI Archives

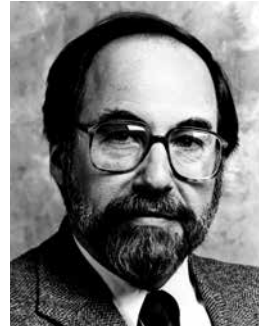


Rodney Porter
AAI Archives

Gerald Edelman (AAI 1970) and Rodney Porter (AAI 1973) shared the 1972 Nobel Prize in Physiology or Medicine “for their discoveries concerning the chemical structure of antibodies.” Working independently in 1959, both scientists had broken antibody molecules into fragments to see how their properties would be altered. Porter split an antibody with the enzyme papain, and found that it divided into three fragments, two of which retained the ability to combine with its antigen. Edelman separated the antibody into several chains with no such capability. The well-known Y-shaped model of the antibody comes from Porter’s explanation that the chains Edelman found were arranged into branches, and it is the specific arrangement of elements that enables reactivity to antigens.

The Nobel Committee’s press release for the award contained a rather back-handed compliment to the field: when Edelman and Porter “provided a clear picture of the structure and mode of action of a group of biologically particularly important substances... they laid a firm foundation for truly rational research, something that was previously largely lacking in immunology.”¹¹

Baltimore (1975)



David Baltimore
AAI Archives

David Baltimore (AAI 1984) received the 1975 Nobel Prize for Physiology or Medicine, sharing it with Renato Dulbecco and Howard Temin “for their discoveries concerning the interaction of tumor viruses and the genetic material of the cell.” In 1970, following Dulbecco’s discovery that genetic material from DNA tumor viruses actually remains in and is replicated by host cells, Baltimore and Temin

both found an enzyme in RNA tumor viruses that could form DNA from an RNA template. This enzyme became known as reverse transcriptase.¹²

The discovery of reverse transcriptase allowed for the development of several new microbiological advances and technologies, including enrichment of cellular mRNA, molecular cloning, and the discovery of oncogenes.¹³

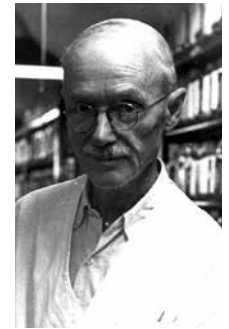
Benacerraf, Dausset, and Snell (1980)



Baruj Benacerraf
AAI Archives



Jean Dausset
AAI Archives



George Snell
Southwest Harbor Public Library

Baruj Benacerraf, Jean Dausset (AAI 1975), and George Snell were awarded the 1980 Nobel Prize in Physiology or Medicine “for their discoveries concerning genetically determined structures on the cell surface that regulate immunological reactions.” Independently, the three scientists made key contributions that built on one another: Snell discovered the role of the histocompatibility gene H-2 in transplant rejection; Dausset showed the existence of H-2 in humans; and Benacerraf discovered the immune response (*Ir*) genes.¹⁴ Together, these findings elucidated the major histocompatibility complex (MHC), which is a component of the immune system of all vertebrates.¹⁵

Jerne, Kohler, and Milstein (1984)

Niels Jerne (AAI 1965) won the 1984 Nobel Prize in Physiology or Medicine “for theories concerning the specificity in development and control of the immune system,” sharing the prize with Georges Kohler (AAI 1985) and César Milstein (AAI 1979), who were honored for “the discovery of the principle for production of monoclonal



Niels Jerne
AAI Archives



Georges Kohler
AAI Archives



César Milstein
AAI Archives

antibodies.” Jerne “outlined the development of modern immunology” in three crucial theories: (1) that specific antibody response is predetermined in the womb; (2) that lymphocytes “learn” to distinguish self from non-self in the thymus where they are exposed to histocompatibility antigens; and (3) that antibodies can stimulate the production of anti-antibodies in a cascading manner that finds equilibrium under normal conditions. The third of these, known as the “Network Theory,” provided the foundation for numerous translational applications ranging from allergy and infectious disease treatment to transplantation and autoimmune disorder management.¹⁶

Kohler and Milstein developed the hybridoma technique for producing monoclonal antibodies by fusing antigen-immunized cells to immortalized myeloma cells, effectively creating a factory for antigen-specific antibodies. Without their innovation, we would not have had one of the most important treatments for immunocompromised and immunosuppressed people during the COVID-19 pandemic.

Doherty and Zinkernagel (1996)



Peter Doherty
AAI Archives



Rolf Zinkernagel
AAI Archives

The 1996 Nobel Prize in Physiology or Medicine went to Peter Doherty (AAI 1976) and Rolf Zinkernagel (AAI 1976, DFAAI 2019) “for their discoveries concerning the specificity of the cell mediated immune defense.” Their research showed that when a cell has been infected by a virus, a lymphocyte must recognize two factors in that cell before killing it: MHC antigens and the virus. This simultaneous recognition of and distinction between both self and non-self factors is one of the checks that limits the

cellular immune system from activating inappropriately.¹⁷ Understanding that the strongest T cell responses are elicited by “altered self” targets led to advances in transplantation, vaccine development, and treatment of autoimmune and infectious diseases.

Prusiner (1997)



Stanley Prusiner
AAI Archives

Stanley Prusiner (AAI 1981) received the 1997 Nobel Prize in Physiology or Medicine “for his discovery of Prions—a new biological principle of infection.” When one of his patients died of Creutzfeldt-Jakob Disease (CJD), Prusiner decided to identify the mysterious infectious agent that was neither bacterium nor virus. Knowing that the CJD and similar diseases such as kuru and scrapie were transmitted via brain tissue, he eventually produced from hamster brains a preparation containing the agent: a single protein he named a proteinaceous infectious particle, or “prion” for short. Prusiner’s 1982 discovery came just in time to help inform the management of the “mad cow disease” epidemic of bovine spongiform encephalitis (BSE) in the United Kingdom.¹⁸

Allison and Honjo (2018)



James Allison
AAI Archives



Tasuku Honjo
Nobel Committee

The most recent Nobel laureates in AAI are James Allison and Tasuku Honjo (AAI 1988), who won the 2018 Nobel Prize in Physiology or Medicine “for their discovery of cancer therapy by inhibition of negative immune regulation.” Curing cancer has always been one of the most sought-after goals in medical science, and the immunotherapy that Allison and Honjo made possible is one of the most promising developments in history. Working with the T cell protein CTLA-4, understood to act as a “brake” on the immune system, Allison discovered a way of “releasing the brake” and letting the T cells attack tumor cells when they otherwise would not. Honjo identified a second brake protein that worked differently but also proved effective in attacking cancer.¹⁹

Allison and Honjo certainly will not be the last AAI members to be recognized by the Nobel Committee, as the field continues to produce important research with wide applications in both basic and translational realms.

Other Nominations

Although the Nobel nominations are sealed for 50 years, the available records show that many other AAI members have been recommended for the award, some several times. Among the presidents of AAI, John Kolmer (AAI 1913, president 1917–18), Hans Zinsser (AAI 1917, president 1919–20), Rufus Cole (AAI 1917, president 1920–21), Frederick Novy (AAI 1920, president 1924–25), Ludwig Hektoen (AAI 1919, president 1926–27), Karl F. Meyer (AAI 1922, president 1940–41), Thomas Francis Jr. (AAI 1930, president 1949–50), and Colin MacLeod (AAI 1937, president 1951–52) were all nominated once. Thomas Rivers (AAI 1921, president 1933–34) received nominations

in two years, and Alphonse Dochez (AAI 1920, president 1931–32) in three. The two past presidents with the most frequent nominations are Michael Heidelberger (AAI 1935, president 1946–47, 1948–49), nominated 18 times between 1937 and 1962, and Oswald T. Avery (AAI 1920, president 1929–30), with 18 between 1932 and 1957.

Nearly all of these nominations were in Physiology or Medicine, but occasionally a member has been nominated for the Chemistry prize as well. Understandably, the Nobel Committee issues the prizes to scientists in a wide range of fields, but hardly a year has gone by that an immunologist has not been considered for the highest honor in science.

For more in-depth profiles of every one of the 27 AAI Nobel laureates, including their background, research, and influences, visit the AAI History site at www.aai.org/Nobel.

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- ³ “Alfred Nobel’s Will.”
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- ¹² “The Nobel Prize in Physiology or Medicine 1975,” NobelPrize.org, accessed October 7, 2022, <https://www.nobelprize.org/prizes/medicine/1975/press-release/>.
- ¹³ John M. Coffin and Hung Fan, “The Discovery of Reverse Transcriptase,” *Annual Review of Virology* 3, no. 1 29-51, <https://doi.org/10.1146/annurev-virology-110615-035556>.
- ¹⁴ “The Nobel Prize in Physiology or Medicine 1980,” NobelPrize.org, accessed October 6, 2022, <https://www.nobelprize.org/prizes/medicine/1980/press-release/>.
- ¹⁵ Derry Roopenian, “A Methods Paper That Led to Much More,” *The Journal of Immunology* 192, no. 1 3-4, <https://doi.org/10.4049/jimmunol.1303010>.
- ¹⁶ “The Nobel Prize in Physiology or Medicine 1984,” NobelPrize.org, accessed October 6, 2022, <https://www.nobelprize.org/prizes/medicine/1984/press-release/>.
- ¹⁷ “The Nobel Prize in Physiology or Medicine 1996,” NobelPrize.org, accessed October 7, 2022, <https://www.nobelprize.org/prizes/medicine/1996/press-release/>.
- ¹⁸ “The Nobel Prize in Physiology or Medicine 1997,” NobelPrize.org, accessed October 6, 2022, <https://www.nobelprize.org/prizes/medicine/1997/press-release/>.
- ¹⁹ “The Nobel Prize in Physiology or Medicine 2018,” NobelPrize.org, accessed October 6, 2022, <https://www.nobelprize.org/prizes/medicine/2018/press-release/>.

AAI Grants and Awards Deadlines 2022

December 19

AAI Travel Awards to IMMUNOLOGY2023™, Washington, DC

- **Prizes/Awards:** Awards in 11 categories recognizing the promise and bolstering the professional development of investigators of all career stages through support for travel to the AAI annual meeting
- **Eligibility:** AAI members in good standing who meet specific conditions for each award (see program details at link below)
- **Details:** www.aai.org/TravelAwards
- **Contact:** awards@aai.org

2023

January 20

AAI Public Policy Fellows Program

- **Prize/Award:** Up to 10 one-year fellowships through which participants explore how federal legislative action and agency activities impact the conduct and funding of biomedical research and how AAI works with, and on behalf of, AAI members for the best possible outcome. Participants travel to Washington, DC, for a two-day program on Capitol Hill and participate in AAI public affairs activities at the AAI annual meeting
- **Eligibility:** Early career AAI member researchers who are within 15 years of having received their terminal degree and are committed to a career in biomedical research and to learning about and participating in the public policy and legislative activities of AAI
- **Details:** www.aai.org/PPFP
- **Contact:** jschumacher@aai.org

February 15

AAI Travel for Techniques Awards Winter Cycle

- **Prize/Award:** Multiple awards providing up to \$1,500 each in reimbursement of travel expenses for a visit to another laboratory, specifically to learn a technique beneficial to the award applicant's research
- **Eligibility:** AAI regular and associate member scientists with independent research programs; awarded travel may be that of the applicant, applicant's trainee, or applicant's lab member (traveler must be an AAI member); award selection is based on relevance of the technique to the applicant's program and financial need
- **Details:** www.aai.org/TravelforTechniques
- **Contact:** awards@aai.org

March 15

AAI Careers in Immunology Fellowships

- **Prize/Award:** Multiple awards in support of the laboratories of AAI member principal investigators (PIs), each providing one year's salary for a graduate student or postdoctoral fellow working in the PI's lab
- **Eligibility:** Any AAI member principal investigator with less than \$350,000 (excluding PI salary) in annual direct costs who seeks salary support for an AAI member trainee working in the PI's lab
- **Details:** www.aai.org/CIFP
- **Contact:** fellowships@aai.org

March 15

AAI High School Teachers Summer Research Program in Immunology

- **Prize/Award:** Multiple awards providing high school science teachers with the opportunity to participate in a four- to six-week, hands-on summer research experience in the lab of an AAI member; program provides stipend, assistance from an educational consultant in developing an innovative classroom curriculum to be published by AAI on the program website, support to attend a national professional meeting to present program experiences, and support to attend the three-day AAI Introductory Course in Immunology, Part I, to learn the basic principles of the discipline
- **Eligibility:** High school teachers seeking creative ways to bring the excitement of cutting-edge research and discovery to their classrooms while developing their ability to cultivate the next generation of talented biomedical investigators and enhance public understanding of the critical nexus between basic research and human health
- **Details:** www.aai.org/HSTProgram
- **Contact:** infoaai@aai.org



The 2022 participants in the High School Teachers Research Program at the AAI Introductory Course in Immunology in Los Angeles

Non-AAI Grants and Awards

Visit the AAI website at www.aai.org/GrantsAwardsDeadlines for links to non-AAI grant and award program listings and deadlines.



SPECIAL DISCOUNTS FOR AAI MEMBER AUTHORS

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

For complete details on manuscript submission to *The JI*, please visit www.jimmunol.org, contact *The JI* office at 301-634-7197, or email infoji@aai.org.



MEETINGS AND EVENTS

Mark Your Calendar for These Important Dates!

Dear readers, please note that the meetings listed on these pages were still scheduled at press time, but due to the global COVID-19 pandemic, cancellations may occur. Please check an individual meeting's website to confirm that it is still scheduled.

2023

January 17–21

SITC Cancer Immunotherapy Winter School (hybrid meeting)

The University of Texas at Austin,
AT&T Hotel and Conference Center,
Austin, TX

www.sitcancer.org/education/winter-school2023

January 22–24

Annual Conference of Research Workers in Animal Diseases (hybrid meeting)

Chicago, IL

<https://crwad.org/>

January 27–29

WAO - PASAAI Pan-Arab Allergy Meeting

Le Meridien Hotel, Dubai, United Arab Emirates (UAE)

<https://sciencepro.me/wao-pasaai.html>

January 28–31

Midwinter Conference of Immunologists at Asilomar

Asilomar Hotel and Conference Grounds,
Pacific Grove, CA

www.midwconfimmunol.org/

February 15–17

Lorne Infection and Immunity Conference

Mantra Lorne, Lorne, Victoria,
Australia

www.lorneinfectionimmunity.org/

February 18–22

Biophysical Society (BPS) Annual Meeting 2023

San Diego Convention Center,
San Diego, CA

www.biophysics.org/2023meeting/

February 23–25

American Society of Transplantation (AST): Cutting Edge of Transplantation (CEoT) Transplant Summit 2023

Westin Kierland Hotel, Scottsdale, AZ

www.myast.org/ceot23

March 2–5

American Association for the Advancement of Science (AAAS) Annual Meeting (hybrid)

Walter E. Washington Convention Center,
Washington, DC

<https://meetings.aaas.org/>

March 15–17

EACR-AACR Basic and Translational Research Conference: Immune Responses and DNA Repair: Cancer Fields Converging

Firenze Fiera, Florence, Italy

www.eas2023.org/

April 14–19

American Association for Cancer Research (AACR) Annual Meeting 2023

Orange County Convention Center,
Orlando, FL

www.aacr.org/meeting/aacr-annual-meeting-2023/

April 16–19

Keystone Symposia: Myeloid Cells: Development, Diversity and Distinct Biological Roles (Joint meeting with Innate Immunity: From Innate Sensing to Adaptive Responses)

Snowbird Resort, Snowbird, UT

www.kestonesymposia.org/conferences/conference-listing/meeting?eventid=6900

April 18–22

Cold Spring Harbor Laboratory Meeting: Systems Immunology (hybrid)

Cold Spring Harbor Laboratory, Cold Spring Harbor, New York

<https://meetings.cshl.edu/meetings.aspx?meet=SYSIMM&year=23>

April 19–20

International Congress on Autoimmunity

Rome, Italy

<https://autoimmunity.global-summit.com/>

April 20–23

American Physiology Summit

Long Beach Convention Center, Long Beach, CA

www.physiology.org/professional-development/meetings-events/american-physiology-summit-2023?SSO=Y

April 23–26

Woods Hole Immunoparasitology Meeting (WHIP) 2023

Woods Hole, MA

<https://medicine.utah.edu/pathology/microbiology-immunology/whip>

May 4–7

WCO-IOF-ESCEO 2023: World Congress on Osteoporosis, Osteoarthritis, and Musculoskeletal Diseases

CCIB Congress Center, Barcelona, Spain

www.wco-iof-esceo.org/

May 11–15

IMMUNOLOGY2023™

106th AAI Annual Meeting

Walter E. Washington Convention Center, Washington, DC

www.immunology2023.org



May 16–20

American Society of Gene and Cell Therapy (ASGCT) 26th Annual Meeting (hybrid)

Los Angeles Convention Center, Los Angeles, CA

<https://annualmeeting.asgct.org/>

May 17–19

Australian and New Zealand Society for Immunology (ASI) Mucosal Immunology & Microbiome Symposium

Noosa, Queensland, Australia

www.immunology.org.au/events/2023-ASI-Mucosal-Immunology-and-Microbiome-Symposium/

May 18-19

Inflammatory Brain Disorders Conference 2023 (free and hosted by Neuroimmune Foundation and accredited in collaboration with The Wisconsin Medical Society)

Virtual

www.neuroimmune.org

May 21–25

American Society for Reproductive Immunology (ASRI) Annual Meeting 2023

Santa Fe, NM

<https://theasri.org/2023-Meeting>

May 21–26

International Conference on ImmunoMetabolism: Molecular and Cellular Immunology of Metabolism

Avra Imperial Hotel & Conference Center, Crete, Greece

www.aegeanconferences.org/src/App/conferences/view/164

May 22–25

Italian Society of Immunology, Clinical Immunology and Allergology (SIICA) Congress 2023

Polo Zanotto, University of Verona, Verona

<https://siica.it/siica-xiv-national-congress-2023-siica2023/>

June 3–7

American Transplant Congress (ATC) 2023

San Diego Convention Center, San Diego, CA

<https://atcmeeting.org/>

June 6–9

Canadian Society for Immunology (CSI) Annual Conference 2023

Hotel Le Chéribourg, Orford, Quebec

www.csi-sci.ca/scientific_meeting_2023.html

June 15–19

American Society for Microbiology (ASM) Microbe 2023

Houston, TX

<https://asm.org/Events>

June 20–23

Federation of Clinical Immunology Societies (FOCIS) Annual Meeting 2023

Boston Marriot Copley Place, Boston, MA

www.focisnet.org/meetings/focis-2023/

June 28–30

Cell Symposium: Myeloid cells: From development to function and dysfunction

Shanghai Jiao Tong University, Shanghai, China

www.cell-symposia.com/myeloidcells-2023/

July 12–14

European Mucosal Immunology Group Meeting (EMIG2023)

University of Bern, Bern, Switzerland

<https://emig2023.ch/>

August 3–4

Immunology Group of Victoria (IGV) Scientific Meeting 2023

Location to be announced

www.immunology.org.au/events/2023-IgV-Scientific-Meeting/

August 20–24

International Congress of Neuroimmunology, International Society for Neuroimmunology (ISNI)

Quebec City, Canada

www.isniweb.org/16th-isni-congress-quebec-city-canada/

August 31–September 5

International Complement Workshop 2023

Newcastle, United Kingdom

www.complement.org/ICW-2023

Fall 2023 (exact dates TBD)

17th International Workshop on Langerhans Cells and Related Myeloid Cells of the Skin

Jerusalem, Israel

www.lc2021.org

September 2023

International Endotoxin & Innate Immunity Society (IEIIS) 2023 Meeting

Cleveland, OH

<https://ieiis.org/ieiis-2023-meeting/>

September 1–5

29th International Complement Workshop 2023

New Castle, United Kingdom

www.complement.org/

September 5–8

Meeting on Regulating with RNA in Bacteria and Archaea

Hilton Bayfront, St. Petersburg, FL

<https://microbialrna.meeting.com/>

September 26–29

German Society for Immunology (Dgfi) Joint Meeting with French Society of Immunology (IFC) 2023

Strasbourg, France

<https://dgfi.org/terminel>

September 26–29

Society for Natural Immunity (NK2023)

Scandic Holmenkollen Park Hotel, Oslo, Norway

www.nk2023.org/

September 27–30

Society for Leukocyte Biology (SLB) 2023

University of Georgia Conference Center, Athens, GA

www.leukocytebiology.org/2023-meeting

MEETINGS AND EVENTS

September 27–October 1

Society of General Physiologists: Mapping the Pain Landscape – From Molecules to Medicine

Marine Biological Laboratory, Woods Hole, Massachusetts, USA

www.sgpweb.org/sgpfuturemeetings

October 14–17

The Obesity Society: Obesity Week 2023

Dallas, TX

<https://obesityweek.org/attend/future-dates/>

October 15–18

International Cytokine & Interferon Society (ICIS) Annual Meeting 2023

Divani Caravel Hotel, Athens, Greece

<https://athens.cytokinesociety.org/>

October 16–19

25th Annual Upstate New York Immunology Conference (NYIC)

The Otesaga Resort Hotel, Cooperstown, NY

www.amc.edu/NYIC/index.cfm

October 16–20

American Society for Histocompatibility and Immunogenetics (ASHI) Annual Meeting 2023

San Antonio Marriott Rivercenter, San Antonio, TX

<https://2022.ashi-hla.org/future-meeting-dates>

October 18–22

American Society of Tropical Medicine & Hygiene (ASTMH) Annual Meeting

Hyatt Regency Chicago, Chicago, IL

www.astmh.org/annual-meeting/past-meetings#Future%20Annual%20Meetings

October 22

International Society for Vaccines (ISV) Annual Congress 2023

Lausanne, Switzerland

<https://isv-online.org/>

October 26–28

Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS): The National Diversity in STEP Conference

Portland, OR

www.sacnas.org/conference

October 28–31

American College of Veterinary Pathologists (ACVP) 2023 Annual Meeting

Chicago Marriott Downtown Magnificent Mile, Chicago, IL

www.acvp.org/page/Future_Meetings

November 1–5

American Society of Human Genetics (ASHG) Annual Meeting 2023

Washington, DC

www.ashg.org/meetings/future-past/

November 1–5

Society for Immunotherapy of Cancer (SITC) Annual Meeting 2023

San Diego Convention Center, San Diego, CA

www.sitcancer.org/education/annualmeeting/archive

November 17–21

International Veterinary Immunology Symposium (IVIS) 2023 (virtual)

<http://ivis2023.org/>

November 27–December 2

IUIS 2023: 18th International Congress of Immunology

Cape Town, South Africa

<https://iuis2023.org/>

December 1–3

World Allergy Congress (WAC) 2023
Bangkok, Thailand

www.worldallergy.org/meetings

December 2–6

American Society for Cell Biology (ASCB): Cell Bio 2023 - An ASCB/EMBO Meeting

Boston, MA

www.ascb.org/meetings-events/future-ascb-meetings/

December 4–7

British Society for Immunology Congress (BSI) 2023 (hybrid)

Belfast, Northern Ireland

www.immunology.org/events/british-society-immunology-congress-2023

December 4–8

Australian and New Zealand Society for Immunology (ASI) Annual Scientific Meeting

University of Auckland, Auckland, New Zealand

www.asi2023.org/

December 11–15

American Geophysical Union (AGU) Fall Meeting 2023

San Francisco, CA

www.agu.org/Plan-for-a-Meeting/AGUMeetings

2024

January 19–23

Annual Conference of Research Workers in Animal Diseases

Chicago, IL

<https://crwad.org/save-the-date-for-crwad-2023/>

Feb 10–14

Biophysical Society (BPS) Annual Meeting 2024

Pennsylvania Convention Center, Philadelphia, PA

www.biophysics.org/upcoming-annual-meetings

April 22–25

Canadian Society for Immunology (CSI) Annual Conference 2024

The Banff Centre, Banff, Alberta, Canada

www.csi-sci.ca/Scientific_Meeting.html

May 8–11

American Society of Gene and Cell Therapy (ASGCT) 27th Annual Meeting

Baltimore Convention Center, Baltimore, MD

<https://asgct.org/annual-meeting/future-annual-meetings>

June 1–5

American Transplant Congress (ATC) 2024

Pennsylvania Convention Center, Philadelphia, PA

<https://atcmeeting.org/future-dates>

July 2024

International Congress of Mucosal Immunology (ICMI) 2024

Copenhagen, Denmark

www.socmucimm.org/meetings-events/upcoming-meetings-events/

Sept. 1–4

7th European Congress of Immunology (ECI): Conquering Challenges with Immunology

Dublin, Ireland

<https://eci2024.org/>

Oct. 20–23

International Cytokine & Interferon Society (ICIS) Annual Meeting 2024

Seoul, Korea

<https://cytokinesociety.org/meetings/future-meetings/>

Oct. 21–25

American Society for Histocompatibility and Immunogenetics (ASHI) Annual Meeting 2024

Marriott Anaheim, Anaheim, CA

<https://2022.ashi-hla.org/future-meeting-dates>

Oct. 23–27

American Society of Tropical Medicine & Hygiene (ASTMH) Annual Meeting

New Orleans Ernest N. Morial Convention Center, New Orleans, LA

www.astmh.org/annual-meeting/past-meetings#Future%20Annual%20Meetings

Oct. 31–Nov 2

Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS): The National Diversity in STEP Conference

Phoenix, AZ

www.sacnas.org/conference

Nov. 3–6

The Obesity Society: Obesity Week 2024 (hybrid meeting)

San Antonio, TX

<https://obesityweek.org/attend/future-dates/>

Nov. 5–9

American Society of Human Genetics (ASHG) Annual Meeting 2024

Denver, CO

www.ashg.org/meetings/future-past/

Nov. 6–10

Society for Immunotherapy of Cancer (SITC) Annual Meeting 2024

George R. Brown Convention Center, Houston, TX

www.sitcancer.org/education/annualmeeting/archive

Nov. 16–19

American College of Veterinary Pathologists (ACVP) 2024 Annual Meeting

Hyatt Regency Seattle, Seattle, WA

www.acvp.org/page/Future_Meetings

The Journal of Immunology

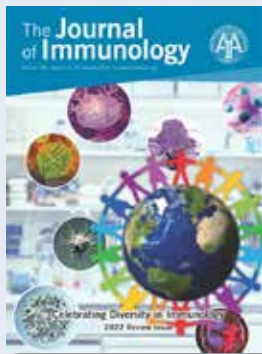
Topical Reviews Collections



The Journal of Immunology Topical Reviews collection provides an authoritative, up-to-date overview of critical areas in immunology. These reviews focus on rapidly developing topics and provide an indication of future directions.

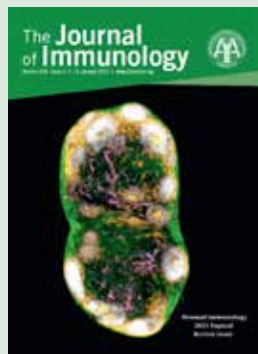
2022: Celebrating Diversity in Immunology

www.jimmunol.org/cc/diversity



2021: Stromal Immunology: Frameworks for Development and Response

www.jimmunol.org/stromal



2020: Neuroimmunology: To Sense and Protect

www.jimmunol.org/neuroimmunology



Summer Opportunity for High School Science Teachers

AAI HIGH SCHOOL TEACHERS SUMMER RESEARCH PROGRAM IN IMMUNOLOGY

Looking for creative ways to bring the excitement of discovery to your classroom? Participate in the American Association of Immunologists (AAI) High School Teachers Summer Research Program. You'll enjoy hands-on experience in cutting-edge research, using the latest tools and techniques. And you'll take home a number of new lab exercises for use in your classes.

This national program supports high school science teachers' participation in a 4–6 week summer research experience in the laboratories of AAI members. If you are selected,

- AAI will locate an AAI member in your area to serve as your mentor for the summer.
- You will receive a stipend for working in the laboratory of your AAI mentor.
- An educational consultant will assist you with the development of an innovative curriculum to be shared nationally.
- You will be supported to attend a national professional meeting to present your experiences, and
- Prior to starting in the lab, you will be supported in attending the 3-day AAI Introductory Course in Immunology, Part I, held in July in Los Angeles, California. There, you'll learn the basic principles of the discipline. (www.aai.org/IntroCourse).



Apply today for this exciting professional development opportunity! Applications are due March 15.

Complete details and application forms can be found at:

www.aai.org/HSTProgram

Contact **Mary T. Litzinger, Ph.D.**, with any questions: mlitzinger@aai.org or **301.634.7820**.



AAI is a professional association dedicated to advancing the discipline of immunology and representing the interests of scientists engaged in research in the field. AAI sponsors the High School Teachers Summer Research Program in Immunology in an effort to cultivate the next generation of talented investigators and enhance public understanding of the critical nature of basic research to human health.

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Find ideas for incorporating the excitement of immunology into your classroom!

Recent topics include:

- *A Bioinformatics Approach to Systemic Lupus Erythematosus and Autoimmunity*
- *Exploring the Link Between Regulatory T Cells and Tumor Growth: A Lesson in the Immune System and Cancer*
- *How Can Students Combine Computational Biology Tools with a Laboratory Model to Analyze Changes in the Human Gut Microbiome?*
- *Vaccines and Herd Immunity*

Take advantage of this free educational resource!

To view the complete teaching material archive, visit www.aai.org/HSTArchive.

The American Association of Immunologists



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EDITOR-IN-CHIEF

The Journal of Immunology

The American Association of Immunologists, Inc. (AAI) seeks applicants for the position of Editor-in-Chief (EIC) for its flagship publication, *The Journal of Immunology* (*The JI*), the most-cited journal in immunology.

The EIC is responsible for maintaining *The JI* as a definitive resource within the research community. The EIC will do so by ensuring the scientific excellence of the content and the integrity of the peer-review process. To that end, the EIC will recommend an editorial board for appointment by the AAI Publications Committee and approval by the AAI Council; be responsible for the oversight of editorial conduct and the peer-review process; address concerns of authors; and make final decisions on manuscript publication. The EIC will address allegations of author misconduct and act in accordance with *The JI* Editorial Policies and Practices, and AAI policy.

The EIC is responsible to the AAI Publications Committee and, ultimately, to the AAI Council, and is an *ex officio* member of both groups.

Applicants are expected to have an accomplished scientific career in immunology or a related field with a significant publication record, in addition to appropriate editorial experience. Candidates should possess strong leadership qualities, intellectual vision, and outstanding interpersonal skills. Applicants must be active members of AAI in good standing.

Candidates should understand and be ready to immediately address the competitive nature of publishing in the current open-access environment.

The term of service for this position is from January 1, 2024, to June 30, 2028. The appointed EIC is expected to overlap with the incumbent EIC starting July 1, 2023, to ensure a smooth transition of responsibilities. This position is considered to be part-time and while the EIC receives substantial support from the AAI journals' staff, the successful candidate should expect to spend at least 20 hours per week on EIC duties. A stipend and associated expenses are provided. Travel to the AAI annual meeting and two Council meetings per year is required.

Interested individuals should submit a curriculum vitae, a succinct letter of interest and qualifications, and a statement on their ideas for the direction of *The JI* in its pursuit of scientific excellence and innovation.

Applications will be accepted through February 17, 2023.

Please e-mail: EICsearch@aai.org



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