



AAI

THE AMERICAN
ASSOCIATION OF
IMMUNOLOGISTS

NEWSLETTER

MARCH 2023

IMMUNOLOGY2023™

PROGRAM PREVIEW

THURSDAY, MAY 11 – MONDAY, MAY 15, 2023

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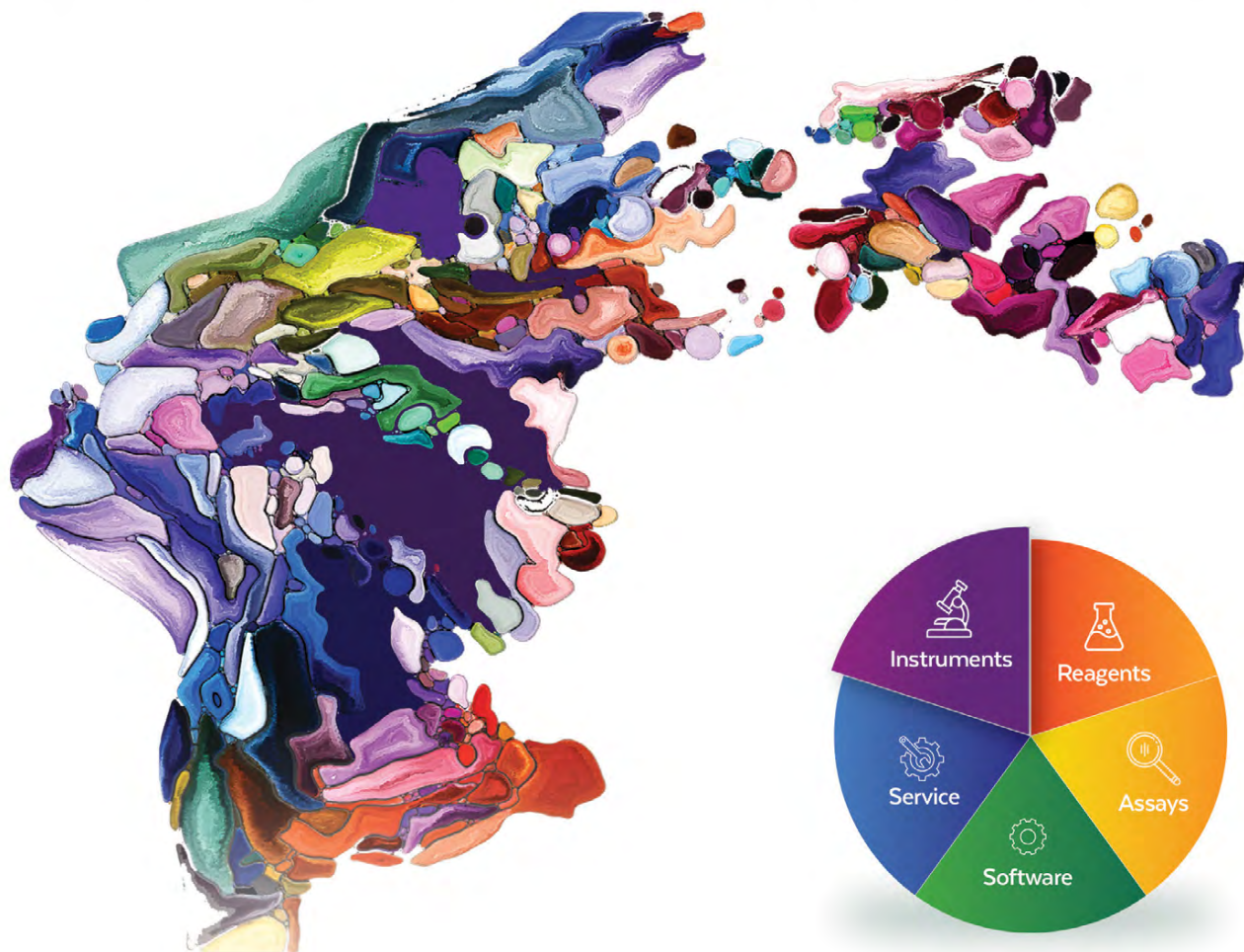
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AAI President's Invitation to IMMUNOLOGY2023™



Dear Colleagues,

As AAI President, it is my honor and privilege to invite you to attend the 106th annual meeting of The American Association of Immunologists, which will take place May 11–15, 2023, in Washington, DC—not only our nation's beautiful capital city but also a region that is home to some

immunological power houses, including the National Institute of Allergy and Infectious Diseases, the National Cancer Institute, and Johns Hopkins University. We anticipate welcoming record numbers of attendees from around the world to this meeting!

Over the past year, our amazing field of science has continued to be center stage in world news, not only because of the continuing COVID-19 pandemic but because of the outbreaks of measles, polio, and monkeypox that have occurred. These have resulted in part from the unfortunately effective misinformation campaigns that have been waged against vaccines. Science and research are under attack in a way that we have never witnessed before.

But this also gives us many opportunities to educate the public about science and specifically immunology—and the miraculous ways that our field is making a difference in human lives every single day, thanks to the immunotherapies, new vaccines, and medications that result from the dedicated work of AAI members. This is the impetus for the AAI Public Communications Initiative, which you will be hearing much more about at the annual meeting and throughout the coming year. As I did in my President's Message last summer, I gratefully acknowledge my predecessor, Gary Koretzky, for launching and continuing to contribute to this very important, long-term AAI initiative to promote and safeguard public health.

The AAI annual meeting is an opportunity for members of the global immunology community to share information with each other about their outstanding work and findings. Thanks to the thoughtful planning carried out by the AAI Program Committee and Chair Cathy Nagler, a record number of 2,030 abstracts have been submitted for this meeting, which will translate into 73 block symposia with 579 presenters and 79 poster sessions with 2,018 poster presenters covering 23 topic areas. Cutting-edge research will be featured in eight major symposia, three Distinguished Lectures, and eight awards lectures. Additionally, 19 guest scientific societies and NIH institutes have organized special sessions to highlight advances related to their missions, and AAI committees are sponsoring sessions addressing their related specialty areas.

More than 150 leading companies and institutions will showcase the newest laboratory research tools, techniques, resources, programs, and services in the AAI Exhibit Hall. Additionally, each day scientists from these organizations will present their most recent results and data in Exhibitor Workshops. Without a doubt, our meeting will again be the year's must-attend event for connecting to the latest innovations, discoveries, and technologies in the field.

The AAI annual meeting continues to offer unmatched career mentoring and networking opportunities. The program will present a series of sessions and roundtable discussions for attendees to learn about different job settings, ask questions, and receive advice about issues that impact one's career. There will be sessions to meet representatives from funding agencies who can speak about the latest developments in federal funding and grantsmanship advice. The pre-meeting and on-site AAI Jobs Board offers information about exciting new job opportunities.

As always, attendees will also enjoy unique social events that offer both networking opportunities and time to relax with colleagues. The Opening Night Welcome Reception immediately following the President's Address in the convention center will afford attendees beautiful views of the city lit up at night. New members will be able to attend a special New Member Reception just for them, giving them an opportunity to meet AAI Council members and staff. And the week will end with the IMMUNOLOGY2023™ Gala at the National Museum of American History, where attendees can explore the exhibits and dance. (Please be sure to purchase your Gala tickets in advance!)

Lastly, it will be my distinct pleasure to introduce attendees to the new AAI Chief Executive Officer, Loretta L. Doan, Ph.D., at the President's Address. Dr. Doan has taken the helm as AAI enters a new era that includes public outreach and education, and we could not be more pleased with her thoughtful and creative leadership and vision.

This is an exciting time to be an AAI member—and to be at the AAI annual meeting! I look forward to seeing you at IMMUNOLOGY2023™!

Sincerely,

Mark M. Davis, Ph.D.

A handwritten signature in black ink that reads "Mark M. Davis". The signature is fluid and cursive, with a small mark at the end of the last name.

AAI President



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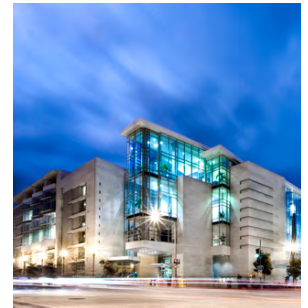
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- 3 President's Invitation to IMMUNOLOGY2023™
- 7 Program Preview: IMMUNOLOGY2023™
- 43 Executive Office
- 47 Public Affairs
- 52 Members in the News
- 54 In Memoriam
- 58 Awards
- 59 Fellowships
- 60 Outreach
- 65 History
- 71 Donor Recognition
- 73 Grants and Awards Deadlines
- 74 Meetings and Events



7 IMMUNOLOGY2023™ Program Preview



65 History: The Role of War in NIH Expansion



71 AAI Donor Recognition

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IMMUNOLOGY2023™

PROGRAM PREVIEW

All listings in the meeting program are subject to change.

AAI PRESIDENT'S PROGRAM

President's Address

THURSDAY, MAY 11 • 5:00 PM

LEVEL 3, BALLROOM AB

My Immunology Adventures

Presentation of AAI Lifetime Achievement Award prior to President's Address and acknowledgment of Distinguished Fellows of AAI Class of 2023

Mark M. Davis, HHMI, Stanford Univ. Sch. of Med., AAI President

Introduction

Leslie J. Berg, Univ. of Colorado Sch. of Med.

President's Symposium

Generously supported by BD Biosciences

SUNDAY, MAY 14 • 12:30 PM

LEVEL 3, BALLROOM AB

Frontiers of Human Immunology

Presentation of AAI Excellence in Mentoring Award prior to President's Symposium

Chair

Mark M. Davis, HHMI, Stanford Univ. Sch. of Med., AAI President

Speakers

Pamela J. Bjorkman, Caltech

Mosaic RBD nanoparticles protect against diverse sarbecovirus challenges in animal models

Akiko Iwasaki, HHMI, Yale Sch. of Med.

Immune responses to SARS-CoV-2

Bali Pulendran, Stanford Univ.

Systems biological analysis of immunity to infection and vaccination

Petter Brodin, Imperial Col. London, England, and Karolinska Inst., Sweden
Human immune system development



Mark M. Davis



Leslie J. Berg



Pamela J. Bjorkman



Akiko Iwasaki



Bali Pulendran



Petter Brodin

2023 President's Symposium Preview

Frontiers of Human Immunology



While it has been absolutely necessary to use inbred mice to understand the basics of the immune system, and there is much more that can be learned in the decades to come, I think of human immunology in particular as the next major frontier of the field. Difficult for sure, but no longer impossible, it offers

the prospect of both a more complete understanding of immunology's complexities in the real world of genetic and environmental influences and the opportunity to fulfill the promise of our discipline to fully realize the potential of the field to impact human health. Despite huge translational successes in vaccines and cancer immunotherapies, there has not been much progress in other areas. Even vaccination has had many failures.

One indicator of how little basic immunology has impacted general medicine is that complete blood cell counts, or CBCs, were introduced in 1959 and measure five white cell types, with lymphocytes comprising one of the five. It is hard not to be embarrassed by the fact that, while immunology may be the most "happening" field in biology (in my opinion), its formidably diverse cell profile isn't evident in basic medical practice.

While that remains a challenge to be overcome, in this symposium I want to celebrate some of the key immunologists who have thrown caution to the wind and tackled challenges that are among the most daunting in human immunology.

Pamela J. Bjorkman, Ph.D. (AAI '95), is the David Baltimore Professor of Biology and Biological Engineering at the California Institute of Technology (Caltech). She had an epic debut in immunology with the 1987 publication of two papers solving the crystal structure of the first MHC molecule. As a graduate student and then postdoc in the lab of Don Wiley at Harvard, Dr. Bjorkman showed a peptide in the groove of a human class I MHC molecule, revealing in a glance how the previously mysterious process of MHC-restricted T cell recognition worked. She was also among the first structural biologists to realize that mastering recombinant methods for protein production were key to both having enough material for crystallography and being able to focus on a particular set of questions. This has been a guiding principle of her own lab at Caltech, where she has led the field in understanding the structural aspects of antibodies that drive immune responses to multiple pathogens, particularly HIV and SARS-CoV-2. Bjorkman has received many honors and awards, including the AAI-PharMingen (now AAI-BD Biosciences) Investigator Award, the Paul

Ehrlich and Ludwig Darmstaedter Prize, and the National Institutes of Health Director's Pioneer Award. She has been elected to several prestigious scientific bodies, such as the U.S. National Academy of Sciences and the American Academy of Arts and Sciences.

Akiko Iwasaki, Ph.D. (AAI '00), is a Sterling Professor of Immunobiology and Dermatology and of Molecular, Cellular, and Developmental Biology and of Epidemiology at Yale University, and an Investigator at the Howard Hughes Medical Institute. Dr. Iwasaki is also the Vice President of AAI. She is widely recognized for her groundbreaking work on infectious diseases, in both mouse models and in human cohorts, including recent work on sex differences in COVID-19 patients and research on "long COVID." Other notable works include an analysis of Toll-like receptor control of adaptive immune responses, the development of a mouse Zika virus model, and a broad focus on mucosal immunity. Iwasaki has also led the field on what a next-generation, more effective SARS-CoV-2 vaccine could be, showing the marked effectiveness of a nasal formulation in a mouse model. She is also well known as an advocate for women in science. Iwasaki has received many awards, including two from AAI: the AAI-BD Biosciences Investigator Award and the AAI-Thermo Fisher Meritorious Career Award. Her additional honors include the Howard Taylor Ricketts Award and her recent election to the U.S. National Academy of Sciences and the National Academy of Medicine.

Bali Pulendran, Ph.D. (AAI '00), is the Violetta Horton Professor of Pathology and professor of microbiology and immunology at Stanford University School of Medicine. He is well known for discoveries early in his career showing that there were multiple types of dendritic cells, each with distinct functions. He later established himself as a leader in a systems analysis of human vaccine responses, realizing that vaccination with approved human vaccines, coupled with information-rich methods such as gene array analysis, provided an ideal way to capture a human immune system "in motion" and identify key variables in an immunologically agnostic approach. This led to many specific insights into vaccine responses, and seminal comparisons between vaccines. This was at a time, 15 years ago, when conventional wisdom held that good science needed to be "hypothesis driven." Given how little was known about human immune responses at the time, however, such advice would have just been a recycling exercise from the inbred mouse canon, effectively blocking the discovery of new factors and mechanisms which his group found in spades. Similarly groundbreaking has been his recent work showing unexpected innate immune responses in COVID-19 and vaccine responses. Dr. Pulendran has been in great

demand as a keynote speaker at many national and international meetings and has received no less than two NIH MERIT awards.

Petter Brodin, M.D., Ph.D. (AAI '22), is the Garfield Weston Chair of Neonatology and Professor of Paediatric Immunology at Imperial College London, as well as an Associate Professor of Immunology at the Karolinska Institute in Stockholm. He did absolutely seminal work in my group as a postdoc on a systems analysis of a twin cohort, showing that much of immune variation was not genetically determined but shaped by environmental factors and increased with age. Since 2015, his own group has pioneered the study of pediatric immunology, showing that infants who were born naturally versus

by cesarian delivery start off very distinctly in terms of their immune systems but then converge after several months. He has also performed very innovative studies of sex differences and the microbiome's influence on children. Dr. Brodin is an elected Fellow of the Henry Kunkel Society and has been honored as recipient of the Göran Gustavsson Award from the Swedish Royal Academy of Science and as a Wallenberg Academy Fellow in Medicine and Medical Technology.

Please join me in recognizing the inspiring work of these accomplished researchers by attending their presentations at this year's AAI President's Symposium at IMMUNOLOGY2023™.

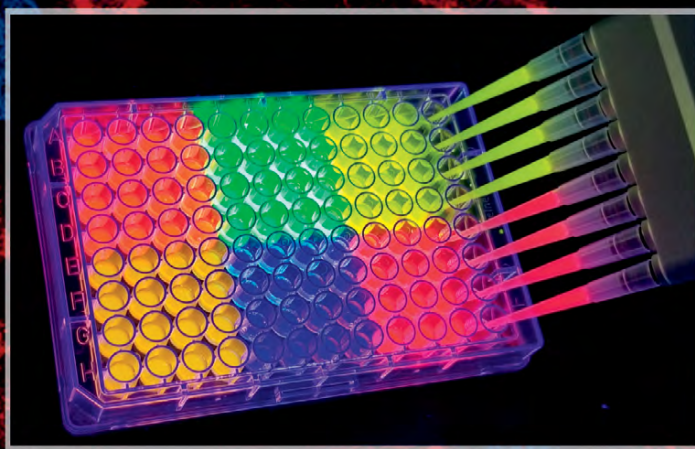
IMMUNOLOGY2023™ Public Health and Safety Policy

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 posted on www.immunology2023.org. All meeting attendees will be required to comply with the AAI COVID-19 policy.

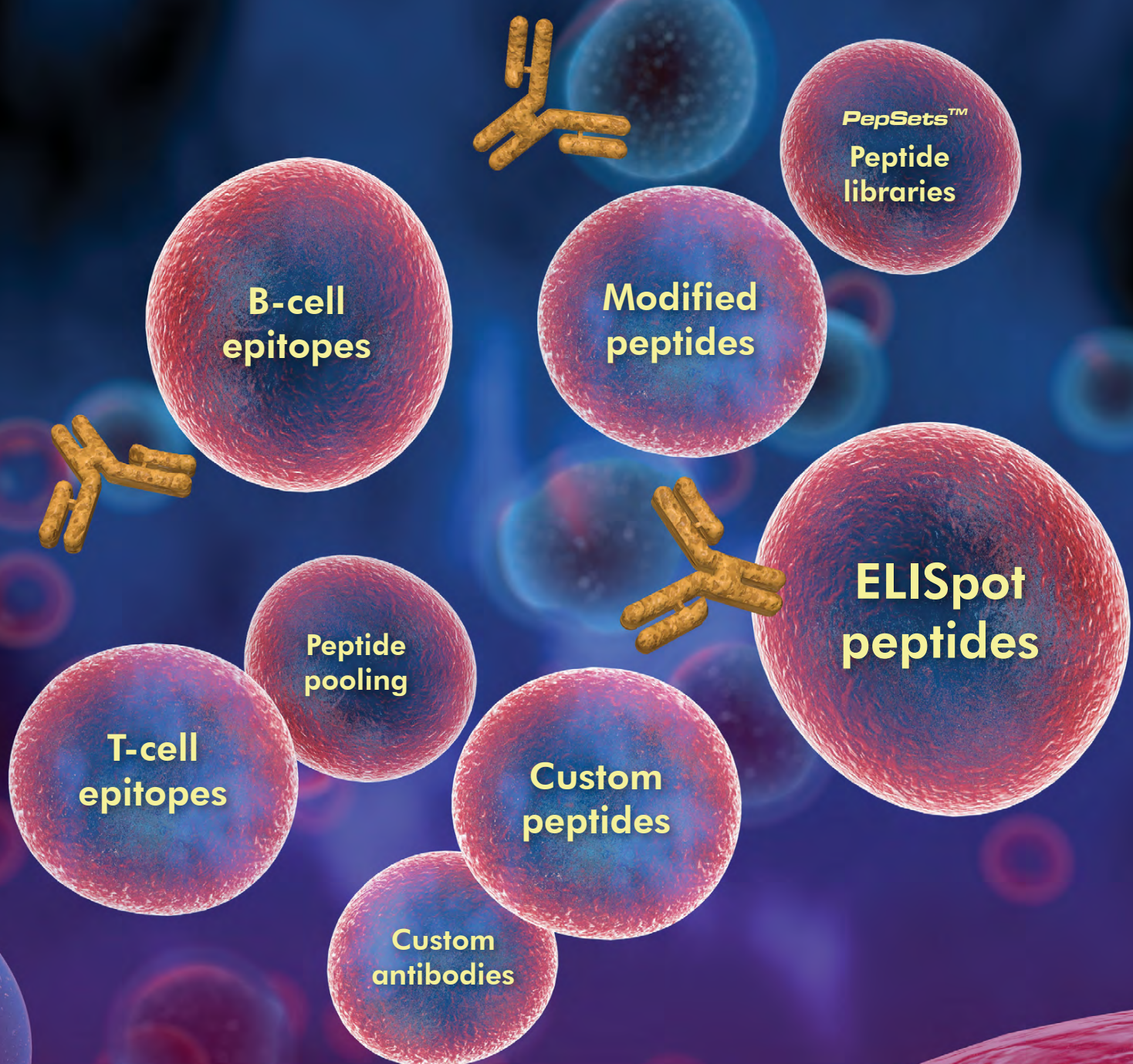


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The American Association of Immunologists proudly announces the 2023 class of Distinguished Fellows of AAI.

This program recognizes members for distinguished careers and outstanding scientific contributions as well as their service to AAI and the immunology community. It honors active, long-term members (25 or more years) who have demonstrated one or more of the following: excellence in research accomplishment in the field of immunology; exceptional leadership to the immunology community in academia, foundations, nonprofits, industry, or government at a national or international level; notable distinction as an educator. Election as a Distinguished Fellow occurs annually and is among the highest honors bestowed by AAI. Distinguished Fellows bear the designation “DFAAI.”



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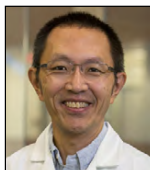
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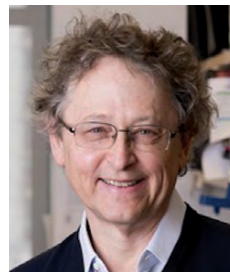
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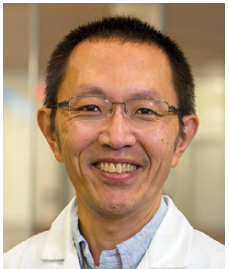
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Thomas Jefferson University*
www.jefferson.edu/university/research/researcher/researcher-faculty/sigal-laboratory.html

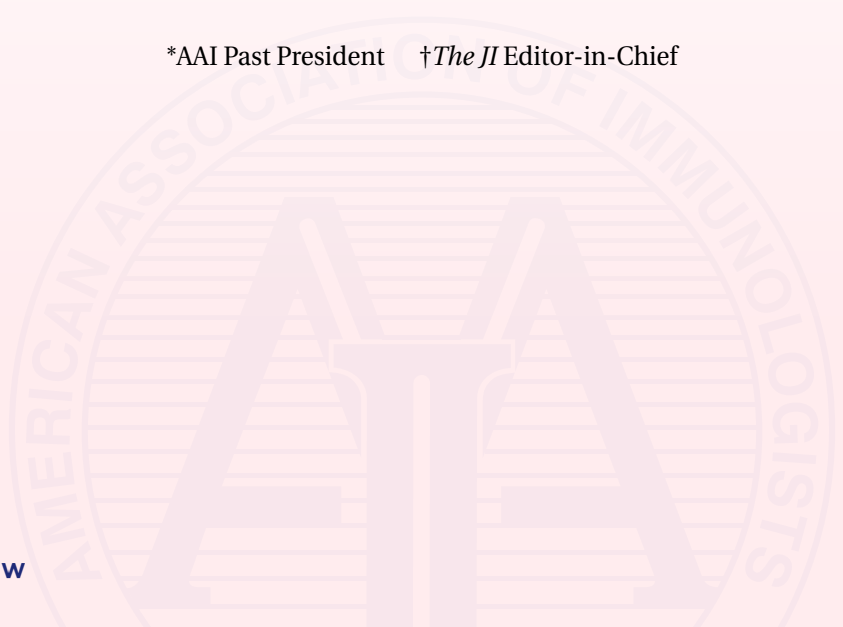


**Timothy A. Springer,
Ph.D., DFAAI
(AAI '79)**
*Latham Family Professor
Boston Children's Hospital and
Harvard Medical School*
www.timothyspringer.org



**Jenny P.-Y. Ting, Ph.D.,
DFAAI* (AAI '97)**
*William R. Kenan Jr.
Distinguished Professor
University of North Carolina,
Chapel Hill*
www.med.unc.edu/microimm/directory/jenny-ting-phd/

*AAI Past President †*The JI* Editor-in-Chief



AAI BUSINESS MEETING AND AWARDS PRESENTATIONS

FRIDAY, MAY 12 • 8:00 AM

LEVEL 2, ROOM 202B

Chair

Loretta L. Doan, AAI Chief Executive Officer

AAI reports on the “state of the association” to its members at every AAI annual meeting. Members will hear from the CEO, the Secretary-Treasurer on the financial standing of AAI, the editors-in-chief of *The Journal of Immunology* (*The JI*) and *ImmunoHorizons* (*IH*) on the status of AAI journals, the chair of the Committee on Public Affairs on important public policy issues, and other items of interest for the membership.

Selected 2023 AAI awards will also be presented during this session, including the AAI Distinguished Service Awards and the AAI Meeting Awards.

AAI Distinguished Service Award Presentations

Cherié L. Butts, Ph.D. (AAI '10)

Biogen

The AAI Distinguished Service Award recognizes Dr. Butts for outstanding service to AAI as chair and member of the AAI Minority Affairs Committee, 2011–2017.

Clifford V. Harding, M.D., Ph.D., DFAAI (AAI '91)

Case Western Reserve Univ.

The AAI Distinguished Service Award recognizes Dr. Harding for outstanding service to AAI as chair and member of the AAI Committee on Public Affairs, 2009–2016.

AAI Meeting Awards Presentations

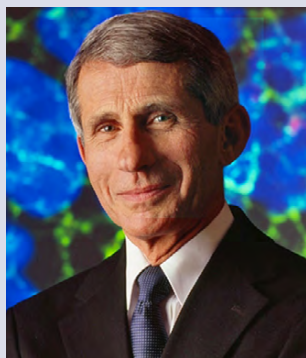
AAI annually provides hundreds of AAI Meeting Awards and Grants to recognize the promise and promote the professional development of investigators of all career stages.

- AAI-Thermo Fisher Trainee Achievement Awards
- Chambers-Thermo Fisher Scientific Memorial Award
- Lefrançois-BioLegend Memorial Award
- Lustgarten-Thermo Fisher Scientific Memorial Award
- Pfizer-Showell Award

Acknowledgments

- AAI Trainee Abstract Awards
- AAI Trainee Poster Awards
- AAI Early Career Faculty Grants
- AAI Laboratory Grants
- AAI Undergraduate Faculty Grants
- AAI Minority Scientist Awards

For information on all AAI Awards, visit www.aai.org/awards.



SPECIAL SESSION

FRIDAY, MAY 12 • 7:00 PM – 8:00 PM

Pandemic Preparedness and Response: Lessons from COVID-19

LEVEL 3, BALLROOM AB

AAI is delighted to welcome Anthony S. Fauci, M.D., DFAAI (AAI '73), to deliver this important and timely plenary lecture. Dr. Fauci, who recently stepped down from his position as director of the National Institute of Allergy and Infectious Diseases after 38 years, is the former chief medical advisor to President Joseph R. Biden Jr.



AAI CAREER AWARDS

AAI PROUDLY PRESENTS THE 2023 AAI CAREER AWARDS FOR OUTSTANDING RESEARCH ACHIEVEMENTS AND CAREER SERVICE.

AAI Lifetime Achievement Award



Lewis L. Lanier
Univ. of California, San Francisco

AAI Distinguished Service Award



Cherié L. Butts
Biogen

AAI Distinguished Service Award



Clifford V. Harding
Case Western Reserve Univ.

AAI Excellence in Mentoring Award



Yasmine Belkaid
NIAID, NIH

AAI-Steinman Award for Human Immunology Research



David A. Hafler
Yale Sch. of Med.

AAI-Thermo Fisher Meritorious Career Award



Hao Wu
Harvard Med. Sch. and Boston Children's Hosp.

AAI-BioLegend Herzenberg Award



Shane Crotty
La Jolla Inst. for Immunology

AAI-BD Biosciences Investigator Award



Gregory F. Sonnenberg
Weill Cornell Med.

AAI Vanguard Award



Robert J. Binder
Univ. of Pittsburgh

FASEB Excellence in Science Early-Career Investigator Award



Smita Krishnaswamy
Yale Univ.

FASEB Excellence in Science Lifetime Achievement Award



Arlene H. Sharpe
Harvard Med. Sch.

AAI ASPIRE Awards



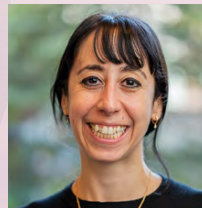
Todd Bradley
Children's Mercy Kansas City



Hitesh Deshmukh
Cincinnati Children's Hosp. Med. Ctr.



Rebecca Martin
Virginia Commonwealth Univ.



Gabrielle Rizzuto
Memorial Sloan Kettering Cancer Ctr.



Tuoqi Wu
Univ. of Texas Southwestern Med. Ctr.



Melody Yue Zeng
Weill Cornell Med.

CAREER AWARDS

Each year AAI recognizes the extraordinary professional achievements and career promise of its members. The following are the recipients of the 2023 AAI Career Awards being presented at **IMMUNOLOGY2023™**.

AAI Lifetime Achievement Award Presentation

THURSDAY, MAY 11 • 5:00 PM

LEVEL 3, BALLROOM AB

This award recognizes a member for a career of extraordinary scientific achievement and exceptional leadership and service to AAI.

Chair

Mark M. Davis, HHMI, Stanford Univ. Sch. of Med., AAI President

Dr. Davis will introduce the awardee and present the award prior to the start of the President's Address.



Presented to
**Lewis L. Lanier, Ph.D.,
DFAAI (AAI '80)**

Univ. of California, San Francisco

Dr. Lanier is honored in recognition of a career of extraordinary scientific achievement in the area of natural killer cell biology and for

contributions to AAI and fellow immunologists.

AAI Distinguished Service Awards Presentations

FRIDAY, MAY 12 • 8:00 AM

LEVEL 2, ROOM 202B

This award recognizes members for outstanding service to the AAI community and the field of immunology.

Chair

Loretta L. Doan, AAI Chief Executive Officer
AAI President Mark M. Davis will present these awards during the AAI Business Meeting.



Presented to
**Cherié L. Butts, Ph.D.
(AAI '10)**

Biogen

Dr. Butts is recognized for outstanding service to AAI as chair and member of the AAI Minority Affairs Committee, 2011–2017.



**Clifford V. Harding, M.D.,
Ph.D., DFAAI (AAI '91)**

Case Western Reserve Univ.

Dr. Harding is recognized for outstanding service to AAI as chair and member of the AAI Committee on Public Affairs, 2009–2016.

AAI-BioLegend Herzenberg Award Presentation and Lecture

Generously supported by BioLegend

FRIDAY, MAY 12 • 12:30 PM

LEVEL 2, ROOM 202A

This award recognizes an individual who has made exemplary research contributions to the field of B cell biology.

Chair

Gary A. Koretzky, Cornell Univ. and Weill Cornell Med., AAI Past President
AAI President Mark M. Davis will introduce the awardee and present the award prior to the start of the lecture.



Presented to
**Shane Crotty, Ph.D.
(AAI '04)**

La Jolla Inst. for Immunology

Long-lived and high-quality antibody and memory B cell responses regulated by Tfh cells and germinal centers

Dr. Crotty is honored in recognition of exemplary research contributions that have been integral to understanding B lymphocyte regulation by T lymphocytes, including the critical role of T follicular helper (Tfh) cells.

**FASEB Excellence in Science
Early-Career Investigator Award
and Lecture**

FRIDAY, MAY 12 • 1:30 PM

LEVEL 3, BALLROOM A

This award recognizes excellence, innovation, leadership, and mentorship of a female early career investigator whose research has contributed significantly to a particular discipline in biological science.

Chair

Beth A. Garvy, Univ. of Kentucky Col. of Med., FASEB Vice President for Science Policy
Dr. Garvy will introduce the awardee and present the award prior to the start of the lecture.



Presented to
Smita Krishnaswamy,
Ph.D. (AAI '21)

Yale Univ.

*Deep geometric and topological
analyses characterizing and
predicting immune responses*

Dr. Krishnaswamy is honored in recognition of the impact of her many research, teaching, and community efforts on the scientific community.

**AAI-BD Biosciences Investigator
Award Presentation and Lecture**

Generously supported by BD Biosciences

FRIDAY, MAY 12 • 4:30 PM

LEVEL 3, BALLROOM AB

This award recognizes an early career investigator who has made outstanding contributions to the field of immunology.

Chair

Akiko Iwasaki, HHMI, Yale Sch. of Med., AAI Vice President
AAI President Mark M. Davis will introduce the awardee and present the award immediately prior to the lecture.



Presented to
Gregory F. Sonnenberg,
Ph.D. (AAI '13)

Weill Cornell Med.

*Innate regulation of immunity,
inflammation, tolerance, and
cancer*

Dr. Sonnenberg is honored in recognition of outstanding research contributions in identifying innate lymphoid cells and elucidating their role in regulating immunity in health and disease.

AAI ASPIRE Awards Symposium

SATURDAY, MAY 13 • 11:30 AM

LEVEL 2, ROOM 202A

These awards recognize early career research accomplishments and professional promise in the field of immunology.

Chairs

Joan Goverman, Univ. of Washington, AAI Secretary-Treasurer
Akiko Iwasaki, HHMI, Yale Sch. of Med., AAI Vice President
AAI President Mark M. Davis will introduce the awardees and present the awards immediately prior to the symposium.



Presented to
Todd Bradley, Ph.D.
(AAI '16)

Children's Mercy Kansas City

*Natural killer cell
immunoregulation of the HIV-1
antibody response*



**Hitesh Deshmukh, M.D.,
Ph.D. (AAI '22)**

*Cincinnati Children's Hosp.
Med. Ctr.*

*Establishing lifelong trajectories
of pulmonary health before and
after birth*



Rebecca Martin, Ph.D.
(AAI '18)

Virginia Commonwealth Univ.

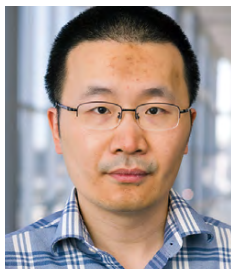
*Targeting dendritic cell
metabolism promotes allergen
tolerance in asthma*



**Gabrielle Rizzuto, M.D.,
Ph.D. (AAI '22)**

Mem. Sloan Kettering Cancer Ctr.

***Glycan-dependent mechanisms of
fetomaternal tolerance***



Tuoqi Wu, Ph.D. (AAI '19)

*Univ. of Texas Southwestern
Med. Ctr.*

***Transcriptional regulation of long-
term T cell immunity***



**Melody Yue Zeng, Ph.D.
(AAI '20)**

Weill Cornell Med.

***Immune regulation by the gut
microbiome in early life***

**AAI-Thermo Fisher Meritorious Career
Award Presentation and Lecture**

Generously supported by Thermo Fisher Scientific

SATURDAY, MAY 13 • 4:30 PM

LEVEL 3, BALLROOM AB

This award recognizes a mid-career scientist for outstanding research contributions to the field of immunology.

Chair

Gary A. Koretzky, Cornell Univ. and Weill Cornell Med.,
AAI Past President

*AAI President Mark M. Davis will introduce the awardee
and present the award immediately prior to the lecture.*



Presented to

Hao Wu, Ph.D. (AAI '18)

*Harvard Med. Sch. and Boston
Children's Hosp.*

***Inner workings on the
inflammasome engine***

Dr. Wu is honored in recognition of outstanding research contributions on the structural basis of innate immune signaling.

**FASEB Excellence in Science Lifetime
Achievement Award and Lecture**

SATURDAY, MAY 13 • 1:30 PM

LEVEL 3, BALLROOM A

This award recognizes excellence, innovation, leadership, and mentorship of a female established investigator whose research has contributed significantly to a particular discipline in biological science.

Chair

Cherié L. Butts, Biogen, FASEB Treasurer

*Dr. Butts will introduce the awardee and present the award
prior to the start of the lecture.*



Presented to

**Arlene H. Sharpe, M.D.,
Ph.D., DFAAI (AAI '96)**

Harvard Med. Sch.

The biology behind PD-1 blockade

Dr. Sharpe is honored in recognition of her influence in the field of immunology through both groundbreaking research and commitment to training and mentoring the next generation of scientists.

**AAI Vanguard Award Presentation
and Lecture**

*Generously supported by BD Biosciences and
sponsored by the Minority Affairs Committee*

SUNDAY, MAY 14 • 11:15 AM

LEVEL 2, ROOM 202B

This award recognizes an underrepresented member investigator noted for significant scientific achievement and exemplary career success.

Chair

Tonya J. Webb, Univ. of Maryland Sch. of Med., AAI
Minority Affairs Committee Chair

*AAI President Mark M. Davis will introduce the awardee
and present the award immediately prior to the lecture.*



Speaker

**Robert J. Binder, Ph.D.
(AAI '02)**

Univ. of Pittsburgh

***Key pathways in
immunosurveillance of cancer***

Dr. Binder is honored in recognition of his significant

contributions to the field of antigen presentation and exemplary commitment to teaching and service.

AAI Excellence in Mentoring Award Presentation

SUNDAY, MAY 14 • 12:30 PM

LEVEL 3, BALLROOM AB

This award recognizes a member for exemplary career contributions to a future generation of scientists.

Chair

Mark M. Davis, HHMI, Stanford Univ. Sch. of Med., AAI President

Dr. Davis and Dr. Shruti Naik, New York Univ. Grossman Sch. of Med., will introduce the awardee and present the award prior to the start of the President's Symposium.



Presented to
Yasmine Belkaid, Ph.D.
(AAI '13)

NIAID, NIH

Dr. Belkaid is honored in recognition of her dedication to the profession through outstanding mentoring of more than 70 doctoral

and postdoctoral trainees.

AAI-Steinman Award for Human Immunology Research Presentation and Lecture

SUNDAY, MAY 14 • 4:30 PM

LEVEL 3, BALLROOM AB

This award recognizes an individual who has made significant contributions to the understanding of immune processes underlying human disease pathogenesis, prevention, and therapies.

Chair

Mark M. Davis, HHMI, Stanford Univ. Sch. of Med., AAI President

Dr. Davis will introduce the awardee and present the award prior to the start of the lecture.



Presented to
David A. Hafler, M.D.
(AAI '84)

Yale Sch. of Med.

Treg biology: Insights into immunology by the study of human disease

Dr. Hafler is honored in recognition of significant contributions in the area of autoimmunity, opening novel possibilities for treatment.

For descriptions and details of all sessions, please visit www.immunology2023.org.



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

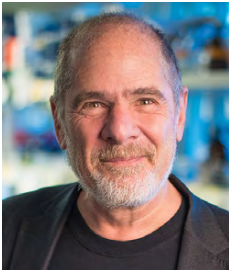
Visit www.aai.org/ImmunologyCourses
for more information.

DISTINGUISHED LECTURES

All of the 2023 Distinguished Lectures are generously supported by BD Biosciences

Chair

Cathryn R. Nagler, Univ. of Chicago, AAI Program Committee Chair



Start Me Up: Early Events in T Cell Activation Influence Long-Term Cell Fate

FRIDAY, MAY 12 • 6:00 PM

LEVEL 3, BALLROOM AB

Douglas R. Green, Ph.D., DFAAI (AAI '84)

St. Jude Children's Res. Hosp.



Principles of Resolving and Non-resolving Inflammation

SATURDAY, MAY 13 • 6:00 PM

LEVEL 3, BALLROOM AB

Carla V. Rothlin, Ph.D. (AAI '08)

Yale Sch. of Med.



Linking Variations in T Cell Receptor Signaling to Changes in Gene Expression and T Cell Function

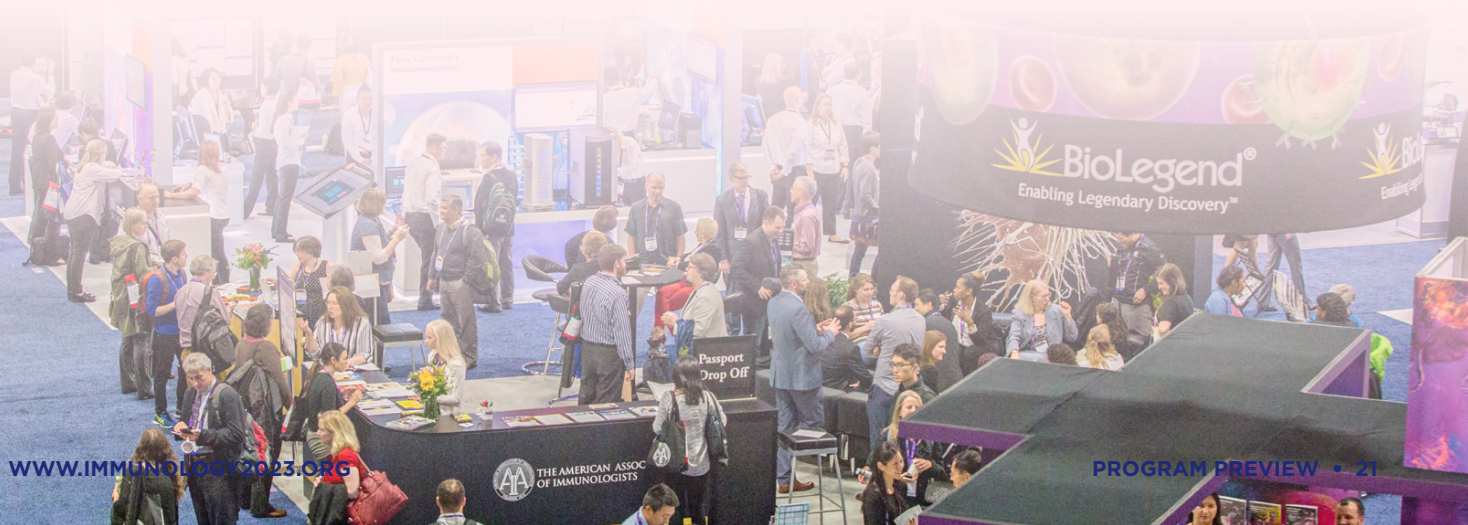
SUNDAY, MAY 14 • 6:00 PM

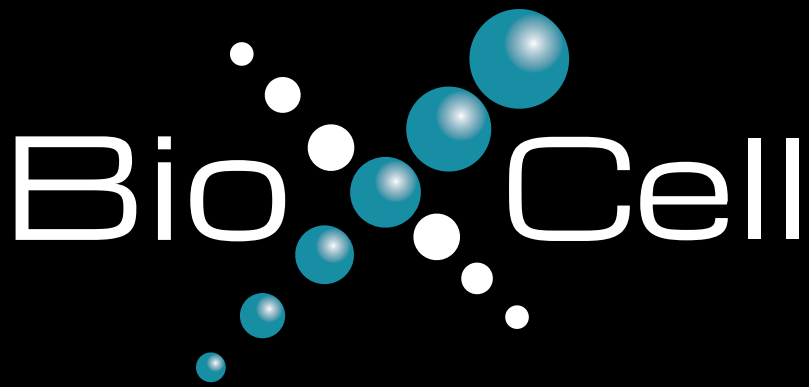
LEVEL 3, BALLROOM AB

Leslie J. Berg, Ph.D., DFAAI (AAI '94)

Univ. of Colorado Sch. of Med.

For descriptions and details of all sessions, please visit www.immunology2023.org.





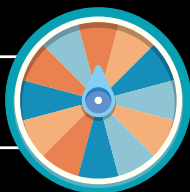
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MAJOR SYMPOSIA

FRIDAY, MAY 12 • 8:00 AM – 11:30 AM

Major Symposium A

Peripheral Neuroimmune Interactions

LEVEL 3, BALLROOM A

Chairs

Daniel Mucida, HHMI, Rockefeller Univ.

Esther Borges Florsheim, Arizona State Univ.

Speakers

Daniel Mucida, HHMI, Rockefeller Univ.

Neuro-immune interactions in the gut

Esther Borges Florsheim, Arizona State Univ.

Mast cell-derived lipid mediator promotes food aversion

Caroline L. Sokol, Massachusetts Gen. Hosp.

Neuroimmune circuits drive allergic immunity

Catherine Dulac, HHMI, Harvard Univ.

Neural circuits of sickness behavior

Ivan E. de Araujo, Icahn Sch. of Med. at Mount Sinai

Neural control of gut homeostasis

Felipe Almeida de Pinho Ribeiro, Washington Univ. Sch. of Med. in St. Louis

Sensory control of immunity

Major Symposium B

Cell Death and Immunity: Caspases and Beyond

LEVEL 3, BALLROOM B

Chairs

Francis K. Chan, Duke Univ.

Sunny Shin, Univ. of Pennsylvania Perelman Sch. of Med.

Speakers

Sunny Shin, Univ. of Pennsylvania Perelman Sch. of Med.

Inflammasome-mediated anti-bacterial defense

Megan H. Orzalli, Univ. of Massachusetts Chan Med. Sch.

Activation and inhibition of cutaneous antiviral immunity

Julie M. Blander, Weill Cornell Med.

Phagocytic mode of non-canonical NLRP3 inflammasome activation: implications to pyroptosis and immunity

Francis K. Chan, Duke Univ.

Necroptosis in anti-viral immunity and tumor immunotherapy

Weiping Zou, Univ. of Michigan

Ferroptosis in tumor immunity

Kodi K. Ravichandran, Washington Univ. Sch. of Med. in St. Louis

Eating lessons from phagocytes and the implications to immunity

SATURDAY, MAY 13 • 8:00 AM – 11:30 AM

Major Symposium C

Mechanisms of Innate Immune Memory and Tissue Adaptation

LEVEL 3, BALLROOM A

Chairs

Shruti Naik, New York Univ. Grossman Sch. of Med.

Joseph C. Sun, Mem. Sloan Kettering Cancer Ctr.

Speakers

Ruslan Medzhitov, HHMI, Yale Sch. of Med.

Tissue homeostasis and inflammation

Luis B. Barreiro, Univ. of Chicago

Genetic and epigenetic determinants of inter-individual variation in innate immune responses to infectious agents

Timothy E. O'Sullivan, Univ. of California, Los Angeles

Transcriptional and epigenetic control of natural killer cell memory

Ai Ing Lim, Princeton Univ.

Pre-birth immune education

Steven Z. Josefowicz, Weill Cornell Med.

Epigenetic memory of inflammation and infection in hematopoietic progenitor cells

Shruti Naik, New York Univ. Grossman Sch. of Med.

Adaptive and maladaptive immune-epithelial interactions

Major Symposium D

Aging, Obesity, and Adverse Immune Responses

LEVEL 3, BALLROOM B

Chairs

Lydia Lynch, Brigham and Women's Hosp.

Andrew E. Hogan, Maynooth Univ., Ireland

Speakers

Lydia Lynch, Brigham and Women's Hosp.

Uncoupling the effects of obesity from dietary lipids on cancer development

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Andrew E. Hogan, Maynooth Univ., Ireland
MAITabolism: Unravelling the impact of obesity on human MAIT cells and their contribution to disease

Semir Beyaz, Cold Spring Harbor Lab.
Dietary regulation of stem cell–immune cell–microbiome interactions that influence cancer

Susan M. Kaech, Salk Inst.
You are what you eat: nutrient preferences by effector and exhausted T cells

Alison E. Ringel, MIT
Dietary factors that shape immunity in tumors

SUNDAY, MAY 14 • 8:00 AM – 11:30 AM

Major Symposium E

Engineering at the Interface of Immunology and Immunotherapy

LEVEL 3, BALLROOM A

Chairs

Jeffrey A. Hubbell, Univ. of Chicago
Susan N. Thomas, Georgia Tech

Speakers

Jeffrey A. Hubbell, Univ. of Chicago
Engineering cytokines to modulate regiospecific function

Evan A. Scott, Northwestern Univ.
Engineering synthetic nanocarriers for targeted immune modulation

Jennifer H. Elisseeff, Johns Hopkins Univ.
Engineering immune-stromal crosstalk regulating tissue structure

Sai T. Reddy, Swiss Fed. Inst. of Tech., Zurich, Switzerland
Synthetic coevolution of neutralizing antibodies and SARS-CoV-2

James J. Moon, Univ. of Michigan
Engineering strategies to modulate the gut microbiome and immune system

Susan N. Thomas, Georgia Tech
Engineered lymph node drug delivery and disease modeling technologies enable next-generation approaches in cancer immunotherapy

Major Symposium F

Environmental Drivers of Myeloid Cells

LEVEL 3, BALLROOM B

Chairs

Jessica A. Hamerman, Benaroya Res. Inst.
De'Broski R. Herbert, Univ. of Pennsylvania Sch. of Vet. Med.

Speakers

Jessica A. Hamerman, Benaroya Res. Inst.
Monocyte differentiation during inflammation

De'Broski R. Herbert, Univ. of Pennsylvania Sch. of Vet. Med.
Myeloid-derived IL-33 regulates host immunity

Paul Kubes, Univ. of Calgary, Canada
Loss of resident macrophage identity induced by local environmental changes

Mark B. Headley II, Fred Hutchinson Cancer Res. Ctr.
Immunosurveillance of the lung by specialized dendritic cell populations

Amariliz Rivera, Rutgers New Jersey Med. Sch.
Novel insights on the role of interferons as regulators of pulmonary antifungal immunity

Miriam Merad, Icahn Sch. of Med. at Mount Sinai
Dendritic cell molecular and functional diversity in human tumors

MONDAY, MAY 15 • 8:00 AM – 11:30 AM

Major Symposium G

Mucosal Immunity in Health and Disease

LEVEL 3, BALLROOM A

Chairs

Ivaylo I. Ivanov, Columbia Univ.
Manuela Raffatellu, Univ. of California, San Diego

Speakers

Kathy D. McCoy, Univ. of Calgary, Canada
Microbes and metabolites: shaping mucosal immunity

Isaac M. Chiu, Harvard Med. Sch.
Nociceptor neuron regulation of gut barrier function and immunity

Manuela Raffatellu, Univ. of California, San Diego
New insights on mucosal immunity to Enterobacteriaceae

Ivaylo I. Ivanov, Columbia Univ.
Homeostatic functions of commensal Th17 cells

Suzanne Devkota, Cedars-Sinai Med. Ctr.
Immunological and physiological responses to gut bacterial translocation in humans

Dan R. Littman, HHMI, New York Univ. Grossman Sch. of Med.
Microbiota guidance of T cell differentiation

Major Symposium H

Immunity to Emerging Pathogens: COVID-19 and Beyond

LEVEL 3, BALLROOM B

Chairs

James E. Crowe Jr., Vanderbilt Univ. Med. Ctr.

Laura M. Walker, Invivyd

Speakers

James E. Crowe Jr., Vanderbilt Univ. Med. Ctr.

Human monoclonal antibodies for emerging infections

Laura M. Walker, Invivyd

Evolution of antibody immunity following Omicron breakthrough infection

Robert A. Seder, NIAID, NIH

Scientific and clinical development of monoclonal antibodies to prevent malaria

Mark T. Esser, AstraZeneca

From the lab to the jab: Lessons learned from the development of AstraZeneca's long-acting antibody combination (Evusheld) for the prevention and treatment of COVID-19

Amy L. Hartman, Univ. of Pittsburgh

Combating the threat of Rift Valley fever virus infection in utero

All session information is subject to change.

For descriptions and details of all sessions, please visit www.immunology2023.org.



gives immunologists a forum to publish their incremental work—insightful and potentially impactful stepping stones that add to the greater knowledge and benefit other researchers!

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COMMITTEE-SPONSORED SESSIONS AND EVENTS

CLINICAL IMMUNOLOGY COMMITTEE

FRIDAY, MAY 12 • 10:15 AM – 12:15 PM

Human Immunological Diseases and Pathologies: Current Standards of Care, Mechanisms of Action, and Unmet Needs

LEVEL 2, ROOM 202B

Chairs

Erica L. Stone, GigaGen, AAI Clinical Immunology Committee Chair

Thomas A. Wynn, Pfizer

Presenters will be announced soon. Please visit www.immunology2023.org for updates.

COMMITTEE ON PUBLIC AFFAIRS

FRIDAY, MAY 12 • 10:15 AM – 12:15 PM

“My Lab Is Recruiting Postdocs:” Policy Approaches to Address the Needs of Today’s Biomedical Research Workforce

LEVEL 2, ROOM 207B

Chair

Peter E. Jensen, Univ. of Utah, AAI Committee on Public Affairs Chair

Tullia C. Bruno, Univ. of Pittsburgh

Speakers

Ericka Boone, Director, Division of Biomedical Research Workforce, NIH

Greg M. Delgoffe, Univ of Pittsburgh

EDUCATION COMMITTEE

FRIDAY, MAY 12 • 11:00 AM – 1:00 PM

Immunology Teaching Interest Group: Enhancing Your Immunology Teaching

LEVEL 2, ROOM 209ABC

Chairs

Sumali Pandey, Minnesota State Univ., Moorhead

Damian L. Turner, Williams Col.

Panelists

Viviane Boaventura, Oswaldo Cruz Fndn., Fed. Univ. of Bahia, Brazil

ImmunoAlvo board game for dynamic teaching of immunology

William H. Carr, Medgar Evers Col., CUNY

Easing the pain of group work with an ice-breaker activity: “A case in point: from active learning to the job market”

Nadeem Fazal, Chicago State Univ. Col. of Phrm.

A case for teaching basic immunology through scientific journalism: lesson taught by a coronavirus went viral!

Lindsey D. Hughes, Yale Sch. of Med.

A perfect fit: 3D-printed kit to teach students principles of antigen-antibody recognition and herd immunity

Breakout Session Leaders

Vitaly V. Ganusov, Univ. of Tennessee, and **Edith Porter**, California State Univ., Los Angeles

Use of the AAI curriculum recommendations in an undergraduate immunology course

Tomas Helikar, Univ. of Nebraska, Lincoln, **Louis B.**

Justement, Univ. of Alabama at Birmingham, **Sumali**

Pandey, Minnesota State Univ., Moorhead, and **Rebekah**

T. Taylor, Frostburg State Univ.

Modeling immunological networks in an educational setting using Cell Collective

Aimee Pugh-Bernard, Univ. of Colorado Anschutz Med. Campus

The use and creation of analogies as a teaching tool for understanding immunology

Rebecca Rivard, Gwynedd Mercy Univ.

Immune Battle: use of a board game to help improve student understanding of immune function

SUNDAY, MAY 14 • 10:15 AM – 12:15 PM

Careers in Biotech: Panel Discussion and Networking

Generously supported by BD Biosciences

LEVEL 2, ROOM 209ABC

Chair

H. Kiyomi Komori, Kinevant

Panelists

Louise M. D’Cruz, BD Biosciences

Ian T. Saunders, Janssen Res. and Development

Thomas A. Wynn, Pfizer

**EDUCATION COMMITTEE,
COMMITTEE ON THE STATUS
OF WOMEN**

SATURDAY, MAY 13 • 11:45 AM – 1:15 PM

Careers in Science Lecture and Roundtables

LEVEL 1, WEST SALON GH

Chair

Dorina Avram, Moffitt Cancer Ctr., AAI Committee on the Status of Women Chair

Speaker

Gwendalyn J. Randolph, Washington Univ. Sch. of Med. in St. Louis

Avoiding tokenism—choosing your seat at the table

Registration Fee: \$30 (lunch included)

**EDUCATION COMMITTEE,
IMMUNOHORIZONS**

SUNDAY, MAY 14 • 8:30 AM – 10:00 AM

Sip and Learn: Speed Networking with Immunology Educators

LEVEL 1, WEST SALON GH

Chairs

Nicholas A. Pullen, Univ. of Northern Colorado, AAI Education Committee Chair

Heather A. Bruns, Univ. of Alabama at Birmingham, *ImmunoHorizons* Senior Editor

Mentors

Aimee Bernard, Univ. of Colorado

Melanie Gubbels Bupp, Randolph-Macon Col.

Stephanie James, Regis Univ.

Robin Orozco, Univ. of Kansas

Sumali Pandey, Minnesota State Univ.

Rebecca Rivard, Gwynedd Mercy Univ.

Fernanda Rosa, Texas Tech Univ.

Jastaranpreet Singh, Univ. of Toronto

Michelle Swanson-Mungerson, Northwestern Univ., Chicago Col.

Michael Volin, Northwestern Univ.

(More names to be announced!)

Registration Fee: \$15 (includes coffee)

MINORITY AFFAIRS COMMITTEE

FRIDAY, MAY 12 • 12:00 PM – 2:15 PM

Careers Roundtables and Speed Networking Session

Generously supported by the Dept. of Immunobiology, Yale Sch. of Med.

LEVEL 1, WEST SALON GH

Chair

Tonya J. Webb, Univ. of Maryland Sch. of Med., AAI Minority Affairs Committee Chair

Registration Fee: \$30 (lunch included)

SUNDAY, MAY 14 • 11:15 AM – 12:15 PM

AAI Vanguard Award Presentation and Lecture

Generously supported by BD Biosciences

LEVEL 2, ROOM 202B

See page 19 for details.

PROGRAM COMMITTEE

THURSDAY, MAY 11 • 2:00 PM – 4:00 PM

Back to School: A Review of Four Fast-Moving Fields

LEVEL 2, ROOM 202A

Chairs

Cathryn R. Nagler, Univ. of Chicago, AAI Program Committee Chair

Chandrashekhar Pasare, Cincinnati Children's Hosp. Med. Ctr.

Speakers

Judith A. James, Oklahoma Med. Res. Fndn.

Cross-reactive B cells

Chandrashekhar Pasare, Cincinnati Children's Hosp. Med. Ctr.

Mechanisms of microbial and non-microbial (sterile) innate inflammation

Timothy E. O'Sullivan, Univ. of California, Los Angeles
CRISPR-Cas9 tools and technology in immunity

Golnaz Vahedi, Univ. of Pennsylvania Perelman Sch. of Med.

Advances in single-cell analysis

PUBLICATIONS COMMITTEE

SATURDAY, MAY 13 • 10:15 AM – 12:15 PM

Spotlight on AAI Journals

LEVEL 2, ROOM 202B

Chairs**Daniel J. Campbell**, Benaroya Res. Inst., AAI Publications Committee Chair**Eugene M. Oltz**, Ohio State Univ. Col. of Med., Editor-in-Chief, *The Journal of Immunology***Speakers****Nitya Jain**, Harvard Med. Sch.*RXR α regulates the development of resident tissue macrophages***Todd Bartkowiak**, Vanderbilt Univ.*Systems immunology analyses of STAT1 gain-of-function immune phenotypes reveal heterogeneous response to IL-6 and broad immunometabolic roles for STAT1***Tiffany Taylor**, Univ. of Pittsburgh*Roles of IL-17-responsive transcription factors in regulating oropharyngeal candidiasis***Joshua J. Obar**, Geisel Sch. of Med. at Dartmouth*Alveolar macrophages: controllers of the antifungal interferon response***Zhichao Fan**, UConn Health*CFTR in regulating monocyte recruitment and integrin function***Vanessa Espinosa**, Rutgers New Jersey Med. Sch.*Neutrophils license the maturation of monocytes into effective antifungal effectors*

VETERINARY IMMUNOLOGY COMMITTEE

FRIDAY, MAY 12 • 12:30 – 2:30 PM

Immunological Approaches to (Re)emerging and Global Zoonotic Threats

LEVEL 2, ROOM 207B

Chair**Janice C. Telfer**, Univ. of Massachusetts, Amherst**Speakers****Rudra Channappanavar**, Oklahoma State Univ. Col. of Vet. Med.**Joan Lunney**, USDA, ARS**Bronwyn M. Gunn**, Washington State Univ. Col. of Vet. Med.

For descriptions and details of all sessions, please visit www.immunology2023.org.

GUEST SESSIONS

AAI welcomes the following guest societies and sessions at **IMMUNOLOGY2023™**.

American Society for Tropical Medicine and Hygiene (ASTMH) Symposium

SUNDAY, MAY 14 • 10:15 AM – 12:15 PM

Immunoparasitology: Perspectives by Top Trainees, Early Career, and Established ASTMH Researchers

LEVEL 1, ROOM 102AB

Chairs and speakers will be announced shortly. Visit www.immunology2023.org for the most up-to-date information.

American Society of Transplantation (AST) Symposium

SUNDAY, MAY 14 • 10:15 AM – 12:15 PM

Cutting Edge Research in Transplantation Tolerance, Rejection, and Infection

LEVEL 2, ROOM 202A

Chairs

Valeria R. Mas, Univ. of Maryland Sch. of Med.
Leonardo V. Riella, Massachusetts Gen. Hosp.

Speakers

Keri E. Lunsford, Rutgers New Jersey Med. Sch.
Liver transplant multi-omic assessment of immune frailty

Anoma Nellore, Univ. of Alabama at Birmingham
Memory B cells in pregnancy sensitization

Mandy L. Ford, Emory Univ.
Risky memory T cell subsets in transplantation

Paolo Cravedi, Icahn Sch. of Med. at Mount Sinai
Inducing regulatory T cells for allograft survival

Canadian Society for Immunology (CSI) Symposium

SATURDAY, MAY 13 • 12:30 PM – 2:30 PM

The Ontogeny and Functioning of the Immune System: Lessons from Non-mammalian Systems

LEVEL 1, ROOM 101

Chairs

Edan Foley, Univ. of Alberta, Canada
Jason N. Berman, Univ. of Ottawa and Children's Hosp. of Eastern Ontario Res. Inst., Canada

Speakers

Edan Foley, Univ. of Alberta, Canada
Single-cell resolution of the zebrafish intestinal immune response to a Vibrio cholerae infection

Jason N. Berman, Univ. of Ottawa and Children's Hosp. of Eastern Ontario Res. Inst.
Leveraging the zebrafish model for preclinical studies of the immune microenvironment in cancer

Francesca Di Cara, Dalhousie Univ., Canada
Drosophila immunity

Shayan Sharif, Univ. of Guelph, Canada
Chicken immunity and viral pathogens

W. Brent Derry, Univ. of Toronto, Canada
C. elegans innate immunity

Chinese Society of Immunology, Taiwan (CSIT) Symposium

SATURDAY, MAY 13 • 10:15 AM – 12:15 PM

Novel Strategies for the Prevention and Therapy of SARS-CoV-2 Infection

LEVEL 1, ROOM 101

Chairs

Shie-Liang Hsieh, Genomics Res. Ctr., Academia Sinica, Taiwan
Jr-Shiuan Lin, Nat. Taiwan Univ., Taiwan

Speakers

Shie-Liang Hsieh, Genomics Res. Ctr., Academia Sinica, Taiwan

Targeting the CLEC2- CLEC5A/TLR2 axis to attenuate SARS-CoV-2-induced immunothrombosis

Kuo-I Lin, Genomics Res. Ctr., Academia Sinica, Taiwan
Vaccination with a glyco-engineered SARS-CoV-2 spike protein confers cross-strain protection in mice

Shih-Jen Liu, Nat. Hlth. Res. Inst., Taiwan
Strategies of DNA vaccination against COVID-19

Che-Ming Hu, Inst. of Biomedical Sci., Academia Sinica, Taiwan
Breaking down the T cell induction barrier with modular nanotechnology for anticancer and antiviral applications

European Federation of Immunological Societies (EFIS) Symposium

SUNDAY, MAY 14 • 3:45 PM – 5:45 PM

Fundamental Lessons Learned from the Clinic

LEVEL 2, ROOM 204ABC

Chairs

Bojan Polić, Univ. of Rijeka, Croatia
Rami Bechara, Université Paris-Saclay, France

Speakers

Bojan Polić, Univ. of Rijeka, Croatia
Immune-endocrine regulation of blood glucose in a strong non-lethal viral infection

Eva Martínez-Cáceres, Germans Trias i Pujol Hosp., Badalona, Spain
Cell-based tolerogenic therapies: from bench to bedside, and back

Luke A. J. O'Neill, Trinity Col., Dublin, Ireland
Macrophage immunometabolism and the regulation of inflammation

S. Marieke van Ham, Sanquin Res., Netherlands
Insights into human B cell differentiation upon infection and vaccination

David C. Wraith, University of Birmingham, United Kingdom
The mechanism of antigen-specific immunotherapy of autoimmune diseases

German Society for Immunology (DGfI) Symposium

FRIDAY, MAY 12 • 12:30 PM – 2:30 PM

Immune Competence in Tissues

LEVEL 2, ROOM 202B

Chairs

Dietmar Zehn, Tech. Univ. of Munich, Germany
Christina E. Zielinski, Leibniz Inst. for Natural Product Res. and Infection Biology, Hans Knöll Inst., Germany

Speakers

Dietmar Zehn, Tech. Univ. of Munich, Germany
Dynamics and maintenance of resident CD8⁺ T cells in the intestine

Christina E. Zielinski, Leibniz Inst. for Natural Product Res. and Infection Biology, Hans Knöll Inst., Germany
Regulation of human T helper cells by the tissue microenvironment

Georg Gasteiger, Max-Planck Res. Group for Systems Immunology, Univ. of Würzburg, Germany
Tissue niches of resident lymphocytes

Maike Hofmann, Med. Ctr., Univ. of Freiburg, Germany
T cell responses in chronic viral hepatitis

Wolfgang Kastenmüller, Max-Planck Res. Group for Systems Immunology, Univ. of Würzburg, Germany
Spatiotemporal orchestration of cellular immunity

Christine S. Falk, Medizinische Hochschule Hannover, Germany
T and NK cell chimerism in human lung transplantation

International Complement Society (ICS) Symposium

FRIDAY, MAY 12 • 3:45 PM – 5:45 PM

Location Matters: The Evolving Roles of Cell-Autonomous and Local Complement

LEVEL 1, ROOM 101

Chairs

Ben Afzali, NIDDK, NIH
Marcela Pekna, Univ. of Gothenburg, Sweden

Speakers

Niki M. Moutsopoulos, NIDCR, NIH
Chew on that: complement and the oral cavity

Markus Bosmann, Boston Univ.
Take a breath: local complement in lung pathologies

Marcela Pekna, Univ. of Gothenburg, Sweden
Anaphylatoxins and astrocyte responses

Brahm H. Segal, Univ. at Buffalo, SUNY
The unexpected contributions of local complement in ovarian cancer

International Cytokine and Interferon Society (ICIS) Symposium

SATURDAY, MAY 13 | 10:15 AM – 12:15 PM

Understanding and Modulating Cytokine Activity through Structural Knowledge

LEVEL 1, ROOM 102AB

Chairs

Juan L. Mendoza, Univ. of Chicago
Ignacio Moraga, Univ. of Dundee, United Kingdom

Speakers

Matthew C. Franklin, Regeneron Pharma.
Structural insights into the assembly of gp130 family cytokine signaling complexes

Juan L. Mendoza, Univ. of Chicago
The native JAK-JAK geometry in the type III IFN signaling complex limits the functional potency

Dylan Daniel, CytomX Therapeut.
Designing conditionally activated probody cytokines to localize antitumor activity to cancers

Ignacio Moraga, Univ. of Dundee, United Kingdom
Manipulating cytokine activities in different extracellular microenvironments

Jamie B. Spangler, Johns Hopkins Univ.
Dissecting immune biology using de novo engineered cytokines

International Society of Developmental and Comparative Immunology (ISDCI) Symposium

SUNDAY, MAY 14 • 8:00 AM – 10:00 AM

Where Immune Mechanisms Came From: Immune Function from Flies to Frogs and Many Organisms Between!

LEVEL 1, ROOM 101

Chairs and speakers will be announced shortly. Visit www.immunology2023.org for the most up-to-date information.

International Society of Neuroimmunology (ISNI) Symposium

FRIDAY, MAY 12 • 12:30 PM – 2:30 PM

Neuroimmune Interactions in CNS Development, Repair, and Disease

LEVEL 1, ROOM 101

Chairs and speakers will be announced shortly. Visit www.immunology2023.org for the most up-to-date information.

Korean Association of Immunologists and Association of Korean Immunologists in America (KAI & AKIA) Symposium

SATURDAY, MAY 13 • 3:45 PM – 5:45 PM

Immune Cell Communications in Cancer and Inflammation

LEVEL 1, ROOM 101

Chairs

Minsoo Kim, Univ. of Rochester
Su-Hyung Park, Korea Advanced Inst. of Sci. and Tech., South Korea

Speakers

Eun D. Lee, Virginia Commonwealth Univ.
Targeting ERAP2 for cancer therapy

Eun Young Choi, Seoul Nat. Univ. Col. of Med., South Korea
Actin and microtubule cross-talks in immune synapse and the application to CAR T cell therapy

Chang-Duk Jun, Gwangju Inst. of Sci. and Tech., South Korea
T cell microvilli shedding as a mechanism of T cell clonal expansion

Myong-Hee Sung, NIA, NIH
Double knock-in reporter mice reveal NF- κ B trajectories in signaling, immune cell development, and aging

National Cancer Institute (NCI, NIH) Symposium

SUNDAY, MAY 14 • 8:00 AM – 10:00 AM

Harnessing Immune Cell Function in the Immunosuppressive Tumor Environment

LEVEL 1, ROOM 102AB

Chairs and speakers will be announced shortly.
Visit www.immunology2023.org for the most up-to-date information.

National Institute of Allergy and Infectious Diseases (NIAID, NIH) Symposium

FRIDAY, MAY 12 • 3:45 PM – 5:45 PM

Organoid Cultures and Novel Mouse Models

LEVEL 2, ROOM 207B

Chairs

Joy Liu, NIAID, NIH
Mark T. Heise, Univ. of North Carolina, Chapel Hill

Speakers

Lisa E. Wagar, Univ. of California, Irvine
Modeling human adaptive immune responses with tonsil organoids

Calvin J. Kuo, Stanford Univ. Med. Sch.
Modeling tissue-resident immunity in organoids

Mark T. Heise, Univ. of North Carolina, Chapel Hill
Complex genetic architecture underlies regulation of respiratory virus immune responses in the collaborative cross

Paolo Casali, UT Health, San Antonio, Long Sch. of Med.
Construction of mice with a fully human immune system mounting class-switched, hypermutated, and neutralizing antibody response

Barbara Rehermann, NIDDK, NIH
Wild mouse microbiota in preclinical models of inflammation and metabolism

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS, NIH) Symposium

FRIDAY, MAY 12 • 3:45 PM – 5:45 PM

Somatic Mutations in Non-malignant Diseases

LEVEL 1, ROOM 102AB

Chairs and speakers will be announced shortly.
Visit www.immunology2023.org for the most up-to-date information.

National Institute of Environmental Health Sciences (NIEHS, NIH) Symposium

SUNDAY, MAY 14 • 3:45 PM – 5:45 PM

Developmental Immunotoxicology

LEVEL 2, ROOM 209ABC

Chairs and speakers will be announced shortly.
Visit www.immunology2023.org for the most up-to-date information.

National Institute on Aging (NIA, NIH) Symposium

FRIDAY, MAY 12 • 10:15 AM – 12:15 PM

Mucosal Immunity, Microbiome, and Aging

LEVEL 1, ROOM 101

Chairs

Mulualem E. Tilahun, NIA, NIH
Elizabeth J. Kovacs, Univ. of Colorado, Denver

Speakers

Elizabeth J. Kovacs, Univ. of Colorado, Denver
Inflammaging, burn trauma, and the gut-lung axis

Marta Rodriguez-Garcia, Tufts Univ. Sch. of Med.
Aging compromises neutrophil-mediated innate protection against HIV in the human female genital tract

Noah W. Palm, Yale Sch. of Med.
Mapping uncharted landscapes of host-microbiota communication

Yanjiao Zhou, Univ. of Connecticut Sch. of Med.
The gut microbiome and immune responses in young and old mice on an intermittent-fasting diet

Society for Immunotherapy of Cancer (SITC) Symposium

SATURDAY, MAY 13 • 8:00 AM – 10:00 AM

Building the Antitumor Repertoire

LEVEL 2, ROOM 207A

Chairs

Lisa H. Butterfield, Univ. of California, San Francisco
Stephen P. Schoenberger, La Jolla Inst. for Immunology

Speakers

Lisa H. Butterfield, Univ. of California, San Francisco
Dendritic cell dysfunction and making better vaccines

Stephen P. Schoenberger, La Jolla Inst. for Immunology
NeoAg identification

Neeha Zaidi, Johns Hopkins Univ.
Ras antigen vaccines, GVAX vaccines, and pancreatic cancer combinations

Gordon J. Freeman, Dana-Farber Cancer Inst.
Checkpoint modulation of the T cell repertoire

Society for Mucosal Immunology (SMI) Symposium

FRIDAY, MAY 12 • 12:30 PM – 2:30 PM

Protecting the Barrier from Invaders

LEVEL 3, BALLROOM B

Chairs

Gretchen E. Diehl, Mem. Sloan Kettering Cancer Ctr.
Kathryn A. Knoop, Mayo Clin.

Speakers

Gretchen E. Diehl, Mem. Sloan Kettering Cancer Ctr.
Commensal regulation of gut immunity to pathogens

Kathryn A. Knoop, Mayo Clin.
Early life protection in the intestine

Amanda M. Jamieson, Brown Univ.
Polymicrobial lung infections

Nichole R. Klatt, Univ. of Minnesota Med. Sch.
Vaginal microbiome and HIV infection

Society for Natural Immunity (SNI) Symposium

FRIDAY, MAY 12 • 12:30 PM – 2:30 PM

NK Cells and ILCs in Cancer

LEVEL 1, ROOM 102AB

Chairs

Todd A. Fehniger, Washington Univ. Sch. of Med. in St. Louis
Mariapia A. Degli-Eposti, Monash Univ., Australia

Speakers

Karl-Johan Malmberg, Univ. of Oslo, Norway
Transfer learning reveals NK cell states in the tumor microenvironment

John B. Sunwoo, Stanford Univ. Sch. of Med.
CD103⁺ NK cells and cancer

Gabriela M. Wiedemann, Tech. Univ. of Munich, Germany
Transcriptional and epigenetic regulation of NK cell antitumor functions

Heather M. McGee, City of Hope Nat. Med. Ctr.
Radiation-induced innate lymphoid cell activation in the liver tumor microenvironment

For descriptions and details of all sessions, please visit www.immunology2023.org.



IMMUNOLOGY2023™

THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

VISIT THE AAI JOBS BOARD

**A FREE RECRUITING SERVICE FOR IMMUNOLOGY2023™ REGISTRANTS AND EXHIBITORS.
POST ONLINE AND MEET ON-SITE! WWW.IMMUNOLOGY2023.ORG/JOBS-BOARD**

For Job Seekers

Whatever your career stage, use this career service to enhance your professional development.

■ JOB POSTINGS

Review the online AAI Jobs Board to identify postings you wish to pursue. View new postings through April 21, 2023. Watch for additional on-site postings in the Exhibit Hall.

■ DIRECT ACCESS TO RECRUITERS

Job postings will include recruiters' email addresses so that you can contact them directly.

For Employers

Advertise your position on the virtual Jobs Board located on the IMMUNOLOGY2023™ website. Include a contact email to receive inquiries directly.

■ ADVANCE POSTINGS

Postings are being accepted via a web submission form and will remain online until the end of the meeting. Employers must be registered participants or exhibitors of IMMUNOLOGY2023™ at the time of submission.

Advance postings must be submitted to AAI by April 21, 2023.

■ ON-SITE POSTINGS

After **April 21, 2023**, employers may still advertise a job on the IMMUNOLOGY2023™ Jobs Board by visiting the AAI Office in the Washington Convention Center between 9:00 AM and 5:00 PM. Ads submitted on-site will be posted on the Jobs Board in the Exhibit Hall.

REACH THE MOST QUALIFIED CANDIDATES AND SAVE ON RECRUITING COSTS

Take advantage of this complimentary hiring opportunity.

AAI CAREER DEVELOPMENT SESSIONS

In addition to committee-sponsored sessions, **IMMUNOLOGY2023™** will provide the following career development programs. AAI will also sponsor a Jobs Board during the meeting.

FRIDAY, MAY 12 • 9:00 AM – 10:00 AM

How to Convert Your CV into a Résumé
LEVEL 2, ROOM 209ABC

Chair

Ericka Ochoa, AAI

Speaker

Derek J. Haseltine, Hertz Fndn.

FRIDAY, MAY 12 • 11:00 AM – 1:00 PM

Immunology Teaching Interest Group: Enhancing Your Immunology Teaching
LEVEL 2, ROOM 209ABC

See page 27 for details.

FRIDAY, MAY 12 • 12:00 PM – 2:15 PM

Careers Roundtables and Speed Networking Session

Generously supported by the Dept. of Immunobiology, Yale Sch. of Med.

LEVEL 1, WEST SALON GH

See page 28 for details.

SATURDAY, MAY 13 • 10:15 AM – 11:15 AM

Interviewing for a Job
LEVEL 2, ROOM 209ABC

Chair

Ericka Ochoa, AAI

Speaker

Derek J. Haseltine, Hertz Fndn.

SATURDAY, MAY 13 • 11:45 AM – 1:15 PM

Careers in Science Lecture and Roundtables

LEVEL 1, WEST SALON GH

See page 28 for details.

SATURDAY, MAY 13 • 12:30 PM – 2:30 PM

NIH Grants Workshop: Demystifying the Grant Application Submission, Review, and Funding Processes

LEVEL 2, ROOM 209ABC

Chair

Alok Mulky, Center for Scientific Review (CSR), NIH

Panelists

Timothy Gondre-Lewis, NIAID, NIH

Lillian Kuo, NCI, NIH

Xinrui Li, CSR, NIH

SUNDAY, MAY 14 • 8:30 AM – 10:00 AM

Sip and Learn: Speed Networking with Immunology Educators

LEVEL 1, WEST SALON GH

See page 28 for details.

SUNDAY, MAY 14 • 10:15 AM – 12:15 PM

Careers in Biotech: Panel Discussion and Networking

Generously supported by BD Biosciences

LEVEL 2, ROOM 209ABC

See page 27 for details.

MONDAY, MAY 15 • 9:00 AM – 10:00 AM

How to Have a Successful Postdoctoral Experience

LEVEL 1, ROOM 102AB

Chair

Mary T. Litzinger, AAI

Speaker

Lori Conlan, Office of Intramural Training and Education (OITE), NIH

For descriptions and details of all sessions, please visit www.immunology2023.org.



SOCIAL EVENTS

New Member Reception (By Invitation Only)

Generously supported by BD Biosciences and sponsored by the Membership Committee

THURSDAY, MAY 11 • 4:00 PM – 4:45 PM

(BADGE AND INVITATION REQUIRED)

Are you a new AAI Regular, Associate, or Postdoctoral Fellow member? Please join us for a special reception welcoming you to AAI and perhaps your very first AAI annual meeting! AAI President Mark Davis will say a few words, and you will have the opportunity to meet and mingle with AAI Council members, AAI staff, members of the Membership Committee, and other fellow new members! *Light refreshments will be served.*

IMMUNOLOGY2023™ Opening Night Welcome Reception

THURSDAY, MAY 11 • 6:15 PM – 7:30 PM

OUTSIDE OF BALLROOM AB (ON LEVEL 3)

(BADGE REQUIRED)

Following the President's Address, 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 and attached to your name badge.

Attendees must be 21 years of age or older.



Minority Affairs Committee (MAC) Social Hour (By Invitation Only)

Generously supported by the Dept. of Immunobiology, Yale Sch. of Med., and sponsored by the MAC

FRIDAY, MAY 12 • 8:00 PM – 9:30 PM

(BADGE AND INVITATION REQUIRED)

One of the most important and meaningful aspects of the annual meeting is connection! The MAC Social Hour is an evening gathering for participants in the annual MAC Careers Roundtables session to reconvene for relaxed, informal networking. Soft drinks and hors d'oeuvres will be served. *Invitations will be issued to meeting attendees registered to attend the MAC Careers Roundtables and Speed Networking Session.*

IMMUNOLOGY2023™ Gala

Generously supported by BioLegend

SUNDAY, MAY 14 • 7:00 PM – 10:00 PM

NATIONAL MUSEUM OF AMERICAN HISTORY

(BADGE AND TICKET REQUIRED)

The **IMMUNOLOGY2023™ Gala** will be held at the National Museum of American History. Attendees will have the opportunity to view highly acclaimed exhibitions that tell the extraordinary story of the American people, including the Star-Spangled Banner; The American Presidency; First Ladies; The Price of Freedom; and America On the Move, which features objects ranging from Thomas Jefferson's lap desk, Kermit the Frog, George Washington's uniform, Dorothy's ruby slippers, to the first car to cross the United States, and thousands more.*

Attendance details are available during the online registration process. Attendees must be 21 years of age or older.

**Please note that objects can rotate in and out of exhibition so we cannot guarantee that all items listed will be on display for the event.*



IMMUNOLOGY2023™

GALA

SUNDAY, MAY 14 • 7:00 PM – 10:00 PM

NATIONAL MUSEUM OF AMERICAN HISTORY

Constitution Avenue between 12th and 14th Streets, NW, Washington, DC

JOIN US

in one of the most-visited DC museums, which houses highly acclaimed exhibitions that tell the extraordinary story of the American people.

Attendees will see exhibits such as the Star-Spangled Banner; The American Presidency; First Ladies; The Price of Freedom; and America On the Move, which features objects ranging from Thomas Jefferson's lap desk, Kermit the Frog, George Washington's uniform, Dorothy's ruby slippers, to the first car to cross the United States, and thousands more.*

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POSTER SESSIONS AND BLOCK SYMPOSIA

Abstracts of unpublished, original research are slated for presentation at **IMMUNOLOGY2023™** during Poster Sessions and Block Symposia (podium presentations of poster data). All abstracts are reviewed by experts in their respective areas and scheduled for presentation in Poster Sessions. Additionally, outstanding abstracts are selected and scheduled for podium presentation in Block Symposia.

Poster Session presentations represent perhaps the most dynamic aspect of the AAI annual meetings. Take part in face-to-face discussions with abstract authors and learn about their most recent unpublished research. Poster Sessions will be held daily (unopposed by any other session) in the Exhibit Hall. More than 2,000 authors will be present at **IMMUNOLOGY2023™** to discuss their most recent work, network with colleagues, and find the latest developments in their field.

Daily Unopposed Poster Session Hours

FRIDAY, MAY 12 – SUNDAY, MAY 14

2:30 PM – 3:45 PM

EXHIBIT HALL

Leading scientific companies and organizations will showcase their products and services. Attendees will be able to visit booths, engage with exhibitors, and attend workshops. Plan which exhibits you wish to visit and learn more by viewing the interactive Exhibit Hall at <https://bit.ly/3Ya5jxU>.

Exhibit Hall Hours

FRIDAY, MAY 12

9:30 AM – 4:30 PM

SATURDAY, MAY 13

9:30 AM – 4:30 PM

SUNDAY, MAY 14

9:30 AM – 4:00 PM

EXHIBIT HALL PASSPORT PROGRAM

Returning this year is the “AAI Passport to Prizes Raffle” for attendees visiting the Exhibit Hall. Three lucky winners will receive a \$250 gift card! Entries must be received by Sunday, May 14, at 2:30 PM. The drawing will be held during the Poster Sessions on Sunday, May 14, from 2:30 PM – 3:45 PM. You can find your Passport in your meeting bag, or you may pick one up at the AAI Booth 5025.

EXHIBITOR WORKSHOPS

Be sure to take advantage of the knowledge-building opportunities presented in Exhibitor Workshops. Located on the Exhibit Floor, these workshops explore companies' latest technologies, products, and services through presentations, demonstrations, and discussions.

Workshops are planned and conducted by exhibitors; the listing of these workshops does not constitute endorsement of any products or services by AAI.

SPECIAL ACTIVITIES AT THE AAI BOOTH

Visit the AAI Booth 5025 for the following activities throughout **IMMUNOLOGY2023™**.

FRIDAY, MAY 12 • 2:30 PM – 3:45 PM

- Meet the *ImmunoHorizons* Editor-in-Chief Mark H. Kaplan.
- Meet with the Membership Committee.
- Meet the AAI Public Policy Fellows and discover why YOU should be our next Fellow.

SATURDAY, MAY 13 • 2:30 PM – 3:45 PM

- Meet *The Journal of Immunology* Editor-in-Chief Eugene M. Oltz.
- Ideas for sessions on bench to bedside? Discuss with Clinical Immunology Committee members.

SUNDAY, MAY 14 • 2:30 PM – 3:45 PM

- Meet the AAI Public Policy Fellows and discover why YOU should be our next Fellow.
- Meet Minority Affairs Committee (MAC) members and learn about MAC activities!
- Meet with Program Committee members and suggest sessions for **IMMUNOLOGY2024™**.

IMMUNOLOGY2023™

THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

VISIT AAI AT BOOTH 5025

Visit AAI at Booth 5025 in the Exhibit Hall to

- learn about exciting new AAI programs that support you in your profession
- meet with AAI staff and other members to explore career advancement and service opportunities
- enjoy a cup of coffee between 1:45 PM-2:15 PM
- participate in special activities (see the schedule below)
- pick up your AAI swag!

Check Out These Booth Activities!

FRIDAY, MAY 12 • 2:30 PM - 3:45 PM

- Meet ***ImmunoHorizons*** Editor-in-Chief Mark K. Kaplan.
- Meet with the Membership Committee.
- Meet the **AAI Public Policy Fellows** and discover why YOU should be our next Fellow.

SATURDAY, MAY 13 • 2:30 PM - 3:45 PM

- Meet ***The JI*** Editor-in-Chief Eugene M. Oltz.
- Ideas for sessions on bench to bedside? Discuss with **Clinical Immunology Committee** members.

SUNDAY, MAY 14 • 2:30 PM - 3:45 PM

- Meet the **AAI Public Policy Fellows** and discover why YOU should be our next Fellow.
- Meet **Minority Affairs Committee (MAC)** members and learn about MAC activities.
- Suggest sessions for IMMUNOLOGY2024™ to **Program Committee** members.



IMMUNOLOGY2023™

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Welcome New AAI CEO Dr. Loretta Doan



Dr. Loretta L. Doan, Ph.D., began her tenure as AAI's new chief executive officer (CEO) in early January, having been unanimously selected by the AAI Council after a nationwide search. Throughout her career in associations, Dr. Doan has exhibited a passion for advancing science to improve health. She has a proven

track record of elevating awareness of organizations and the fields they serve, enhancing associations' influence with policymakers and stakeholders, and transforming programs and business models. Doan's record also demonstrates her commitment to building and nurturing strong teams of professionals who support associations' members and further their missions.

"We are so fortunate that Loretta agreed to become the new CEO of AAI," said AAI President Mark M. Davis, Ph.D. "It is a pivotal time for our organization to grow to meet these challenging times, and Loretta is just perfect for us—extremely smart, creative, and particularly good at listening to the entire team so that we make the best choices possible. This is true leadership and just what we need to meet the needs of our members and of a public that is eager to learn more about the immune system and how it impacts their health."

For her part, Doan aims to build on AAI's rich history and traditions while also focusing on the future of the field, expanding awareness and increasing understanding of immunology across audiences and stakeholder groups. "Serving as AAI's CEO is a responsibility I take seriously and a privilege I do not take for granted. This association represents an essential area of biomedical science and is home to some of the most creative and inspired scientists in the world. Immunologists have insights that can and must shape the public discourse on the most important and impactful scientific and public health issues of our time."

In the first few months as CEO, Doan has had the opportunity to meet and talk with many AAI leaders, volunteers, and staff. In response to the AAI Council's desire to establish a strategic plan to guide association decision-making, Doan has already begun to lay the groundwork for a robust, comprehensive, and participatory strategic planning process. She is learning all that she can about the challenges and opportunities

facing AAI at this time and is building relationships that are critical for collaborative success.

Doan is looking forward to attending IMMUNOLOGY2023™, where she will have the opportunity to meet many AAI members for the first time and to reacquaint herself with others. She is also looking forward to attending scientific talks on the many advances that have occurred since she left the bench 17 years ago. "I knew I missed immunology when I transitioned from the bench into my early science policy position years ago. I did not realize just how much I missed it until now, when I have the opportunity to return to it again, albeit in a new and different capacity."

Before joining AAI, Doan was the chief science and policy officer at the American Association for Clinical Chemistry (AACC), where she led the scientific and public affairs components of the association's early and impactful pandemic response. While at AACC, she also increased diversity and inclusion by modernizing governance, transformed the business model of the association's journals, and broadened the reach of its global education programs. Previously, Doan served as the director of science policy at the Endocrine Society, where she built the society's science policy program from the ground up, expanding its approach and widening its footprint in the policy realm. Working with key experts in the field, she envisioned, initiated, and oversaw the society's signature program on endocrine-disrupting chemicals (EDCs), changing public discourse and improving policies governing the regulation of EDCs globally.

Doan holds a doctoral degree in biochemistry and molecular biology from the University of Louisville, and bachelor's degrees in chemistry and communications from Indiana University Southeast. She completed a postdoctoral fellowship at the National Cancer Institute, where her research focused on T cell development. Her work has been published in multiple scholarly and scientific journals, including *The Journal of Immunology*.

She succeeds M. Michele Hogan, Ph.D., DFAAI, who stepped down in August 2022 after more than 26 years in the role. "Dr. Hogan left the association with solid financials, exemplary programs, and a superb staff," Doan said. "I am grateful for that and for the opportunities we are afforded as a result."



NEW FROM AAI

The Journal of Immunology and ImmunoHorizons

Special Collections

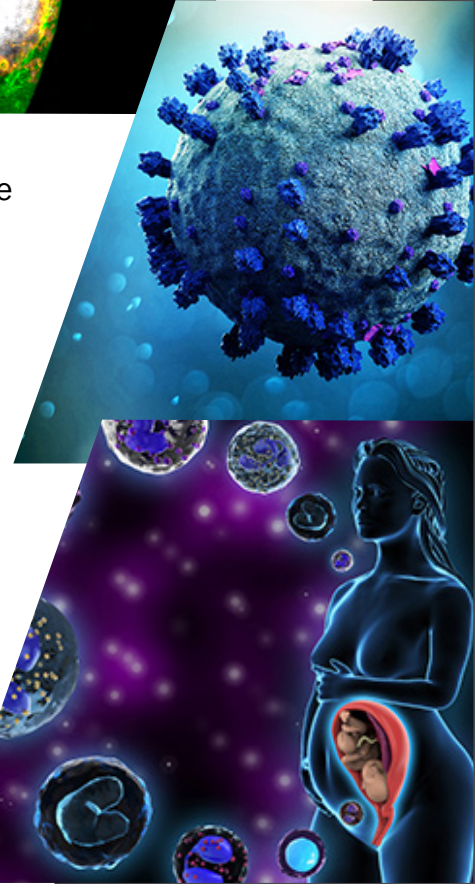
The Journal of Immunology and *ImmunoHorizons* special collections provide authoritative, up-to-date overviews of critical areas in immunology. These reviews and special features focus on rapidly developing topics and provide an indication of future directions.

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 - Immunity to Influenza: Closing in on a Moving Target
 - Immunology Education
 - Maternal-Fetal Immunology
 - Neuroimmunology: To Sense and Protect
 - Stromal Immunology: Frameworks for Development and Response

New content is being added in 2023, including Systems Immunology, a topical review collection in the April 1 issue!

Visit <https://journals.aai.org/collections> today!



AAI Fall Council Meeting Features Conversation with Outgoing NIAID Director Anthony Fauci

Members of the 2022–2023 AAI Council convened over two days, December 6 and 7, 2022, for the group’s annual fall meeting. The meeting focused on evaluation of and action on AAI programs, activities, and budgets—including those for *The Journal of Immunology* (*The JI*) and *ImmunoHorizons*.

Discussion during the meeting focused on AAI membership trends; association finances and investments; the AAI journals; AAI public affairs activities; the AAI annual meeting and summer courses; AAI awards; and AAI communications activities, including a new effort to share important immunological information with the public. The meeting also featured a conversation with outgoing National Institute of Allergy and Infectious Diseases (NIAID) Director Anthony S. Fauci, M.D., DFAAI (AAI ’73), who culminated his decades-long service to NIH in December.

Council officers participating in the meeting were President Mark M. Davis, Ph.D. (AAI ’88), Vice President Akiko Iwasaki, Ph.D. (AAI ’00), Past President Gary Koretzky, M.D., Ph.D. (AAI ’92), and Secretary-Treasurer Joan Goverman, Ph.D. (AAI ’95; DFAAI ’21), along with Council members Stephen Jameson, Ph.D. (AAI ’96), Ulrich H. von Andrian, M.D. (AAI ’97), Avery August, Ph.D. (AAI ’99), and Susan M. Kaech, Ph.D. (AAI ’04). Participating *ex officio* members of Council were Publications Committee Chair Daniel J. Campbell, Ph.D. (AAI ’08), Program Committee Chair Cathryn Nagler, Ph.D., DFAAI (AAI ’90); and *The JI* Editor-in-Chief Eugene Oltz, Ph.D., DFAAI (AAI ’95)—along with Committee on Public Affairs Chair Peter Jensen, M.D., DFAAI (AAI ’87), and *ImmunoHorizons* Editor-in-Chief Mark H. Kaplan, Ph.D. (AAI ’98).

Loretta L. Doan, Ph.D., the incoming AAI chief executive officer (CEO), attended the meeting at the invitation of

Council. Dr. Doan was announced as the new AAI CEO on December 15 and assumed her duties on January 3.

Reports to Council on AAI operations, programs, activities, and initiatives undertaken since the Spring 2022 Council meeting were presented by staff including members of the AAI Interim Leadership Team (ILT). Comprising AAI directors Bethany Coulter, Lauren Gross, Mary Litzinger, Catherine Wattenberg, and Maria Zavarello, the ILT was established by Council to provide executive leadership of AAI during the transition to new leadership last fall. The ILT’s service in that capacity followed the departure of outgoing CEO M. Michele Hogan, Ph.D., DFAAI (AAI ’88) on August 31 and concluded upon Doan’s appointment as new CEO.

Together with other members of the AAI staff, ILT members provided detailed updates to Council on the awards, communications, diversity, education and career development, finance, history, meetings, membership, public affairs, and publications activities of AAI.

During the December 6 session, public affairs staff provided an update on relevant AAI activities, including those related to advocating for an increase in the NIH budget and addressing other issues and policies impacting federally funded scientific research. They also briefed Council on the NIH Data Management and Sharing (DMS) Policy taking effect in January 2023 and sought input on multiple resources developed by the Committee on Public Affairs’ (CPA) DMS Working Group to support immunologists in preparing compliant DMS plans to be included in their NIH grant applications.

Also on December 6, the editors-in-chief of the AAI journals, together with publications staff, provided updates on today’s increasingly complex and competitive scientific publishing landscape. Presentations focused



Dr. Fauci and officials from NIAID attended the Council meeting on December 6, during which Fauci gave his final update on NIAID activities, spoke about the special challenges of scientific misinformation, and answered questions.

on innovative publishing models, peer-review policies, and editorial strategies to help AAI meet the new and emerging challenges and opportunities confronting journal publishers. Discussion cited the successful launch of the new AAI journals platform in November 2022, ongoing recruitment through February 2023 of the next editor-in-chief of *The Journal of Immunology (The JI)*, and continued growth in *ImmunoHorizons (IH)* submissions and published articles.

The December 7 session included an update on the new AAI Public Communications Initiative launched in 2021. Ms. Coulter gave an overview of the initiative plan; the results of the consumer market research that concluded in September 2022; a recap of the campaigns conducted in 2022 and their results, including the International Day of Immunology social media campaign, and the National Immunization Awareness Month activities; and planned activities for 2023. (A full report of the 2022 initiative activities and results can be found in the *AAI Newsletter* December 2022 issue.)

Upon his arrival during the December 6 session, Dr. Fauci was greeted with an extended standing ovation from AAI leaders and staff. AAI President Davis welcomed Fauci and expressed appreciation on behalf of AAI for Fauci's extraordinary leadership in responding to the COVID-19 pandemic and his more than five decades of outstanding public service and scientific guidance to the public and policymakers, including as advisor to seven presidents on domestic and global health issues.

Marking his final appearance with the group as NIAID director, Fauci's December visit was in keeping with his years-long tradition of updating Council members each fall on NIAID initiatives and funding, as well as hearing about the valuable role of AAI in advocating for immunological research and increased federal funding for science. Fauci's remarks provided an update on the continuing response to the COVID-19 pandemic,

including new and evolving strategies for protecting the population against COVID-19 infection in the future.

Fauci and Council members also discussed the continuing and worrisome anti-science trend that is prevalent in many parts of society and ways in which scientists must sustain and expand efforts to address the continuing impact of misinformation and disinformation in deterring vaccine acceptance. Fauci acknowledged the new AAI Public Communications Initiative as a very important and welcome part of those efforts.

Fauci invited AAI to encourage member scientists to apply for the position of NIAID director, which includes overseeing a \$6.3 billion budget that supports research funding vital to investigators and to the breakthrough discoveries that drive new vaccines and therapies against disease.

Council members expressed their commitment to maintaining AAI's longstanding relationship with Fauci and to continuing to work with him as he pursues new ways to advance biomedical research and strengthen the research enterprise.

Fauci was joined by NIAID Principal Deputy Director Hugh Auchincloss, M.D., DFAAI (AAI '83); NIAID Division of Allergy, Immunology, and Transplantation Director Dan Rotrosen, M.D. (AAI 03); and NIAID Policy, Planning, and Evaluation Branch Chief Johanna Schneider, Ph.D. During his presentation, Fauci announced that Dr. Auchincloss, who is also a former member and chair of the AAI CPA and the 2015 recipient of the AAI Public Affairs Recognition Award, would be taking over as Acting NIAID Director upon Fauci's departure.

The next meeting of the AAI Council will be held in conjunction with IMMUNOLOGY2023™, the 106th AAI Annual Meeting taking place from May 11–15 in Washington, DC.



AAI staff were thrilled to meet Dr. Fauci, who recently retired after more than 50 years of dedicated federal service and extraordinary scientific leadership.

NIH Receives \$2.5 Billion Increase in FY 2023 Funding Bill

New appropriations law includes increased funding, detailed authorization language for ARPA-H

On December 29, 2022, several months into fiscal year (FY) 2023, President Biden signed into law an FY 2023 omnibus appropriations bill that incorporates all 12 annual appropriations bills. The new law includes \$47.5 billion for the National Institutes of Health (NIH); \$1.5 billion for the Advanced Research Projects Agency for Health (ARPA-H), a separate agency that is part of NIH; and a wide range of provisions related to strengthening public health and preparing for future pandemics (see related article “Public Health and Pandemic Preparedness Provisions Included in Year-End Spending Bill,” below). The funding package, which had been approved by the Senate on December 22 (by a vote of 68–29) and the House on December 23 (by a vote of 225–201), funds the federal government through September 30, 2023.

Under the new law, the NIH base budget (for its regular operations) for FY 2023 is \$47.5 billion, a \$2.5 billion (5.6-percent) increase over the comparable FY 2022 funding level. All NIH Institutes and Centers received an increase of at least 3.8 percent. The law also sets aside NIH funds for specific purposes, including:

- \$629.6 million (+\$23 million) for the Clinical and Translational Science Awards
- \$565 million (+\$25 million) for research to combat antibiotic resistant bacteria
- \$426 million (+\$15.5 million) for Institutional Development Awards
- \$270 million (+\$25 million) for the development of a universal influenza vaccine and
- \$10 million to establish an Office of Autoimmune Disease Research within the Office of Research on Women’s Health. This new office, which was recommended by a committee of the National Academies of Sciences, Engineering, and Medicine in May 2022, will help coordinate autoimmune disease research across the agency.

The law includes \$1.5 billion (a \$500 million or 50-percent increase over FY 2022) for ARPA-H, funding that is available through FY 2025. Separate from this new funding, the law authorizes \$500 million per year for ARPA-H from FY 2024 to FY 2028 and establishes the

terms, including the following, under which this relatively new agency must operate:

- The ARPA-H director is appointed by the president but the position does not require Senate confirmation, serves a four-year term (but can be reappointed to a second term), and reports directly to the Secretary of Health and Human Services (HHS).
- ARPA-H program managers are appointed to three-year terms and can be reappointed to a second term.
- ARPA-H cannot be housed on any of the NIH campuses and must have offices in at least three different geographic areas.
- Because it is expected to operate much differently from NIH, ARPA-H is exempt from many NIH policies, including those affecting peer review, hiring, and firing. The HHS Secretary must publish a notice in the Federal Register (by late March) outlining the NIH policies from which ARPA-H is exempt.
- An ARPA-H Interagency Advisory Committee must be established “to coordinate and provide advice and assistance.” The committee will include the heads (or their designees) of eight agencies, including NIH, the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and the National Science Foundation.
- ARPA-H must develop a strategic plan by the end of 2023 and submit a new plan to Congress every three years.

AAI is very pleased that Congress continues to prioritize funding for NIH, increasing its base budget by about \$17 billion (57 percent) over the past eight years, and is encouraged to see continued investment in ARPA-H.

Public Health and Pandemic Preparedness Provisions Included in Year-End Spending Bill

The new appropriations law enacted in December includes many provisions from the Prepare for and Respond to Existing Viruses, Emerging New Threats, and Pandemics Act (PREVENT Pandemics Act), a bill authored by Senator Patty Murray (D-WA) and then-Senator Richard Burr (R-NC). As chair and ranking member, respectively, of the Senate Health, Education, Labor, and Pensions Committee, Senators Murray and Burr worked together for nearly two years to draft and advance this bipartisan legislation.

The new law institutes some reforms at the CDC, which has been criticized for aspects of its pandemic response. The reforms include making the appointment of the CDC director subject to Senate confirmation and requiring CDC to develop a strategic plan by December 2023 and every four years thereafter. CDC is also required to establish an Advisory Committee to the CDC Director, to be comprised of 15 non-federal members, that will function much like the existing Advisory Committee to the NIH Director. Twelve of the members must be “leading representatives of health disciplines,” while up to three slots can be reserved for members of the general public, including those specializing in law, economics, and public relations.

Other provisions in the new law seek to improve strategy and coordination on public health threats, including the establishment of an Office of Pandemic Preparedness and Response Policy within the Executive Office of the President. The presidentially appointed director will “serve as the principal advisor to the President on all matters related to pandemic preparedness and response policy and make recommendations to the President regarding pandemic and other biological threats that may impact national security,” and “coordinate Federal activities to prepare for, and respond to, pandemic and other biological threats.” Within the first year of operation, the director must submit to the president a “Preparedness Outlook Report.”

Other notable provisions in the new law include those intended to:

- “Strengthen the supply chain and government stockpiles of medical products, such as masks, drugs, vaccines, and tests;
- Improve our capabilities to detect and monitor emerging infectious diseases and other threats, including through updates to public health data—to quickly provide comprehensive, actionable insight during public health emergencies;
- Enhance the development and review of tests, treatments, and vaccines, and mitigate critical shortages of medical products;
- Address disparities which make public health emergencies harder on at-risk populations and communities;
- Revitalize the public and community health workforce; and
- Accelerate biomedical research to develop medical countermeasures for pandemic threats and faster test development.”

See full press release at <https://www.help.senate.gov/chaire/newsroom/press/senate-passes-murray-burr-prevent-pandemics-act>.

As an authorization bill, the PREVENT Pandemics Act does not provide new funding to accomplish its

requirements and objectives. AAI strongly supports many of the provisions of the PREVENT Pandemics Act and will continue to advocate for the funding needed.

Biden Administration to End COVID-19 National and Public Health Emergencies on May 11

In late January, President Biden announced that the national emergency and public health emergency declarations for COVID-19 would end on May 11, 2023. These declarations, which have been in place since March 2020, have given the federal government significant flexibilities to help keep Americans safe and healthy. White House COVID-19 Response Coordinator Ashish Jha, M.D., M.P.H., explained on Twitter that the decision was being made “[b]ecause we’re in a better place. We’re getting through this winter without a big surge or run on hospitals. Because we have the tools to manage this virus.”

Under the emergency declarations, most Americans are able to obtain COVID-19 vaccines, treatments, and tests at no cost. After May 11, that will start to change. In reference to the “millions of doses of bivalent vaccines and Paxlovid” already purchased by the federal government, Dr. Jha stated that “they will continue to be available for free to all Americans who need them” but that “[o]ver time we will transition away from [the] U.S. government buying vaccines and treatments to the regular healthcare market.” Those covered by Medicare, Medicaid, the Children’s Health Insurance Program, and private health insurance plans could see increased costs, and those without health insurance may have to pay out of pocket for vaccines, tests, and treatments.

The FY 2023 omnibus appropriations bill extends some telehealth flexibilities through December 31, 2024. Medicare beneficiaries from any area (not just rural areas) can continue to receive telehealth services, and audio-only telehealth visits via smartphone will continue to be permissible.

The Kaiser Family Foundation has developed a comprehensive list of flexibilities set to expire in May. That list is available at <https://bit.ly/3HKIpYV>.

National Science Advisory Board for Biosecurity Releases Report on DURC and P3CO Policies

Following nearly a year of deliberations, the National Science Advisory Board for Biosecurity (NSABB) released its draft report on January 27, 2023. The NSABB was convened by HHS and NIH in February 2022 to review, evaluate, and recommend changes to the U.S. Government (USG) policies on Dual Use Research of Concern (DURC) and Potential Pandemic Pathogen Care and Oversight (P3CO). In its draft report, two NSABB Working Groups (WGs) issue 13 findings and corresponding recommendations, seven of which relate to the P3CO policies and six that relate to the DURC policies.

Major recommendations for the P3CO policies include expanding the “too-narrow” definitions of a potential

pandemic pathogen (PPP) and enhanced PPP (ePPP). The P3CO WG also recommends amending the P3CO framework to clarify that federal department-level review is needed for any research that is “reasonably anticipated to enhance the transmissibility and/or virulence of any pathogen” in such a way that a resulting pathogen may be “likely moderately or highly transmissible,” and/or “likely moderately or highly virulent,” and is “likely to pose a severe threat to public health, the capacity of public health systems to function, or national security.”

The WGs also emphasize the need for the P3CO framework to clearly define and harmonize the roles, responsibilities, and expectations of individual investigators and institutions in identifying, reviewing, and evaluating ePPP research. They also recommend that the USG establish a centralized office to assist investigators and institutions with this local level of oversight.

Recommendations for the DURC policies include expanding the scope of potential DURC research requiring review to include “research that directly involves any human, animal, or plant pathogen, toxin, or agent that is reasonably anticipated to result in one or more of the seven experimental effects” (see Table 1 below). Finally, the WG members propose a conceptual approach to streamline and organize the entire biosecurity oversight framework, clearly defining the responsibilities of each level of review (individual, institutional, federal) at each stage of the research lifecycle.

The NSABB report will be taken into consideration by HHS, NIH, and interagency partners as part of a larger USG review of P3CO and DURC oversight policies. According to a statement by Dr. Larry Tabak, who is currently performing the duties of the NIH Director, following this review process the USG will announce future actions. Read his statement at <https://bit.ly/3HqvXMR>.

Read the full report at <https://bit.ly/3Dpmd4b>.

Table 1: DURC Policy Scope – Categories of experiments

- | |
|--|
| <ol style="list-style-type: none"> 1. Enhance the harmful consequences of the agent or toxin; 2. Disrupt immunity or the effectiveness of an immunization against the agent or toxin without clinical or agricultural justification; 3. Confer to the agent or toxin resistance to clinically or agriculturally useful prophylactic or therapeutic interventions against that agent or toxin or facilitates their ability to evade detection methodologies; 4. Increase the stability, transmissibility, or the ability to disseminate the agent or toxin; 5. Alter the host range or tropism of the agent or toxin; 6. Enhance the susceptibility of a host population to the agent or toxin; or 7. Generate or reconstitute an eradicated or extinct agent or toxin listed in the policy. |
|--|

Table reprinted from the “January 2023 NSABB Report”

Dr. Hugh Auchincloss Named Acting Director of NIAID



Auchincloss

Photo Courtesy of the National Institute of Allergy and Infectious

Hugh Auchincloss, M.D., DFAAI (AAI '83), assumed the role of acting director of the National Institute of Allergy and Infectious Diseases (NIAID) in January, following the departure of longtime director Anthony Fauci, M.D., DFAAI (AAI '73). Dr. Auchincloss had served as the principal deputy director of NIAID since 2006.

Auchincloss received his medical degree from Harvard Medical School, where he later served as a transplant surgeon and professor of surgery. Subsequently, he led a transplantation immunology laboratory for more than 17 years at Massachusetts General Hospital and in 1998 founded the Juvenile Diabetes Research Foundation Center for Islet Transplantation, serving as its director until 2003.

Auchincloss was a member of the AAI Committee on Public Affairs from 2003–2005 and chaired the committee from 2004–2005. He was the 2015 recipient of the AAI Public Affairs Recognition Award for “providing invaluable insight to AAI leadership and members regarding federal biomedical research policies and priorities.”

AAI Releases Two Resources to Help Immunologists Comply with the New NIH DMS Policy

NIH recently announced the implementation of its Data Management and Sharing (DMS) Policy, which requires that all applications submitted on or after January 25, 2023, include a DMS plan. On the day that the policy took effect, AAI released two resources to help immunologists draft their DMS plans:

- “Guide to Developing Your NIH Data Management and Sharing (DMS) Plan” (see <https://bit.ly/3XW49Gu>)
- “AAI Resources and Recommendations for the NIH Data Management and Sharing Policy” (see <https://bit.ly/3Dh0vPM>)

Both documents are also available at www.aai.org/PublicAffairs.

These resources were developed by the AAI DMS Working Group, established by the AAI Committee on Public Affairs. The Working Group members are: Ferhat Ay, Ph.D. (AAI '19), La Jolla Institute for Immunology; James Faeder, Ph.D. (AAI '03), University of Pittsburgh School of Medicine; Wendy Garrett, M.D., Ph.D. (AAI '11), Harvard T.H. Chan School of Public Health; Alice Long, Ph.D. (AAI '00), Benaroya Research Institute; Shruti Naik, Ph.D. (AAI '20), New York University; and Amber Smith, Ph.D. (AAI '11), University of Tennessee Health Science Center.

Please contact AAI Science Policy Analyst Emily Kansler, Ph.D., at ekansler@aai.org with any questions.

The American Association of Immunologists (AAI)

AAI Resources and Recommendations
for the
**NIH DATA MANAGEMENT
AND SHARING (DMS) POLICY**
effective for all NIH grant applications submitted on or after January 25, 2023

The NIH DMS Policy requires that all investigators applying for NIH funding: 1) include a DMS plan, to be approved by NIH, describing how their data and metadata will be managed and shared, and 2) comply with the plan. AAI is providing this resource to help our scientific community think about best data management and sharing practices, write their DMS plans, and prepare for data sharing.

For detailed information, visit the NIH DMS website:
sharing.nih.gov

Helpful Links

- NIH Policy for Data Management and Sharing
- Writing a DMS plan (includes sample plans)
- Budgeting for a DMS plan
- NIH DMS Policy FAQs
- NIH Institute and Center (IC) Sharing Policies
- NIH National Library of Medicine Toolkit
- FASEB DataWorks! & Consult their Help Desk
- DMPTool to build your DMS plan

Have questions? Consult your program officer or email sharing@nih.gov

page 1 of 2

The American Association of Immunologists (AAI)

Guide to Developing Your NIH Data Management and Sharing (DMS) Plan

For detailed information, visit the NIH DMS website:
sharing.nih.gov

Have questions? Consult your program officer or email sharing@nih.gov

Important Points to Keep in Mind

- This Guide is meant to provide **examples only**
- Please **do not copy and paste** any text into your own plans
 - The “Sample Text” sections are designed to provide example language, not for investigators to use as a template
 - Your language should be tailored to your research proposal
- NIH suggests the DMS plan be **2 pages or less** in length
- Hyperlinks and URLs are not allowed in NIH application materials
- This Guide may be updated as new information becomes available

Developed by the AAI Data Management and Sharing Working Group

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An Initiative of the AAI Committee on Public Affairs

AAI Issues Statement Decrying Supreme Court Decision in *Dobbs*; Moves IMMUNOLOGY2024™ From Phoenix to Chicago

After carefully considering Arizona's abortion law, which drastically restricts access to abortion services and related health care, and which went into effect after the U.S. Supreme Court decision in Dobbs v. Jackson Women's Health Organization, AAI has moved IMMUNOLOGY2024™ from Phoenix to Chicago.

In conjunction with this announcement, AAI issued the following statement articulating its deep concern about the Dobbs decision's deleterious impact.

AAI Statement on the U.S. Supreme Court Decision in *Dobbs v. Jackson Women's Health Organization*

December 16, 2022

The American Association of Immunologists (AAI) is deeply concerned about the U.S. Supreme Court decision in *Dobbs v. Jackson Women's Health Organization*. This decision, which overturns *Roe v. Wade*, eliminates the federal right to abortion that pregnant individuals have exercised and relied on for nearly fifty years. As the nation's largest professional association of research scientists and physicians who study the immune system and immune-related diseases, and who work to develop needed treatments and cures, we deplore the dramatic and deleterious impact this decision is having on pregnant individuals seeking reproductive care and on patients seeking legal medicines to treat their diseases. In many states, laws are being passed that prohibit surgical or medication abortions, even if it would be in the best medical interest of the pregnant person. In these and other states, doctors and pharmacists face an unacceptable choice between prescribing/dispensing certain critically needed FDA-approved medications to patients, including those with autoimmune conditions or other inflammatory-related illnesses, that may cause miscarriages or birth defects, or withholding these medications and endangering the life or health of the patient. Similarly, pregnant people who have cancer and need to receive life-saving chemo- or immuno-therapies now must decide whether to leave their disease untreated or expose their fetus to potentially toxic drugs. These and other restrictive new laws will inevitably result in unsafe abortions that can lead to life-threatening complications. In addition to causing great physical and psychological harm to patients, these laws threaten irreparable damage to the private and trusted relationship between medical professionals and their patients, who rely on receiving unbiased, evidence-based healthcare recommendations. We recognize this will further amplify disparities in quality care by having greater impact on those in vulnerable communities or with limited resources.

AAI is also very concerned about the *Dobbs* decision's impact on the careers of young scientists. Whether and when to start or grow a family is a private decision, one that will have enormous, lifelong consequences on personal lives and careers. The *Dobbs* decision will undoubtedly negatively affect the biomedical research community and slow scientific discoveries as scientists and medical professionals reconsider their pursuit of careers in states with restrictions on reproductive rights. Ensuring privacy in and full access to reproductive and other health care services is essential to health and well-being, and to advancing equity and equal opportunity.

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MEMBERS IN THE NEWS

Guthmiller Receives Michelson Prizes: Next Generation Grant



Jenna Guthmiller, Ph.D. (AAI '22), is one of four scientists selected by The Michelson Medical Research Foundation and the Human Immunome Project to receive a Michelson Prizes: Next Generation Grant. These \$150,000 prizes are awarded annually to support early career investigators working to

advance human immunology, vaccine discovery, and immunotherapy research for major global diseases. The recipients were selected by a distinguished committee of internationally recognized scientists and represent the next generation of innovators in human immunology and vaccine research. Chosen based on their innovation and potential impact, their proposals aim to significantly accelerate scientific discoveries for global health challenges. Dr. Guthmiller's prize will support her research proposal "Mapping preexisting mucosal B cell specificities engaged by potential universal influenza vaccines."

Dr. Guthmiller is an assistant professor in immunology and microbiology at the University of Colorado Anschutz School of Medicine. Her research focuses on understanding how humoral immunity against rapidly evolving pathogens develops and can be targeted by next generation vaccines. Her interests in infectious diseases and humoral immunity stem from her childhood growing up on a dairy farm, where she learned the importance of vaccinations and passive

immunity. These childhood experiences drive the research within her own research laboratory, where she and colleagues study the B cell repertoire against influenza viruses within the respiratory tract to inform mucosal vaccine design that can prevent the next influenza pandemic. For more information about her lab and research, visit <https://guthmillerlab.weebly.com/>.

Read the full announcement at www.humanimmunomeproject.org/prize-winner/jenna-guthmiller-ph-d/.



Mellman Receives Lloyd J. Old Award

Ira Mellman, Ph.D. (AAI '11), has received the Lloyd J. Old Award for outstanding and innovative research that has had a major impact on the cancer field and has the potential to stimulate new directions in cancer immunology.

Dr. Mellman is vice president of cancer immunology at Genentech, Inc., and a professor at the University of California. Mellman's research has informed the development of cancer immunotherapies and had a profound impact on our understanding of cancer immunity. For more information about his lab and research, visit gene.com/scientists/our-scientists/ira-mellman.

Read the full announcement at www.cancerresearch.org/lloyd-j-old-award.

Seven AAI Members Elected as Fellows of the American Association for the Advancement of Science

The AAI members listed below were recently elected as *2022 Fellows of the American Association for the Advancement of Science* in recognition of their efforts to pave the way for scientific advances that benefit society. AAI congratulates them on this honor!

Biological Sciences: **Alfred Ayala (AAI '93), Richard H. Gomer (AAI '14), Howard A. Young ('90)**

Medical Sciences: **Avery August (AAI '99), Johann Eli Gudjonsson (AAI '15), Thirumala-Devi Kanneganti (AAI '10), Anthony T. Vella (AAI '00)**

Neuroscience: **Cornelia Christine Bergmann (AAI '04)**

Read the full announcement at www.aaas.org/news/elected-fellows-announcement-2022.

Regev Named One of Fiercest Women in Life Sciences by Fierce Pharma



Aviv Regev, Ph.D. (AAI '19), was named one of the Fiercest Women in Life Sciences by Fierce Pharma.

Dr. Regev is the executive vice president at Roche and head of Genentech research and early development. Her work pioneers the use of single-cell genomics and other techniques to dissect the molecular

networks that regulate genes, define cells and tissues, and influence health and disease. For more information about her lab and research, visit www.broadinstitute.org/regev-lab.

Read the full announcement at www.fiercepharma.com/special-reports/2022s-fiercest-women-life-sciences.

Schatz Receives Paul Ehrlich and Ludwig Darmstaedter Prize



David Schatz, Ph.D. (AAI '97), won the 2023 Paul Ehrlich and Ludwig Darmstaedter Prize.

Dr. Schatz is a Waldemar Von Zedtwitz Professor of Immunobiology and professor of molecular biophysics and biochemistry and chair of immunobiology at the Yale School of

Medicine. He is best known for the discovery of RAG1 and RAG2, subsequent biochemical insights into RAG function and evolutionary origins, and the discovery of two distinct levels of regulation of somatic hypermutation. For more information on his research career, visit medicine.yale.edu/profile/david-schatz/.

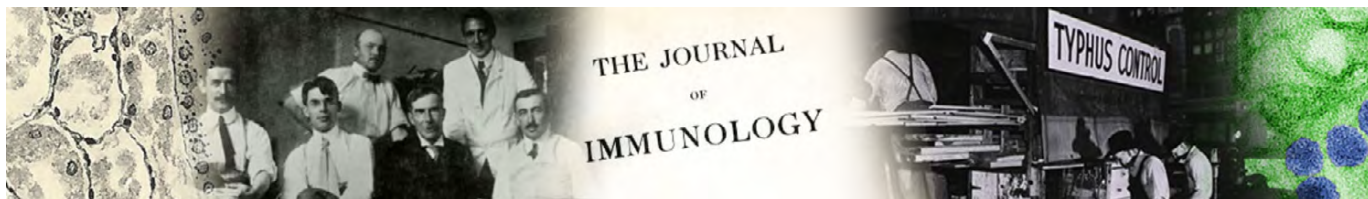
Read the full announcement at www.uni-frankfurt.de/124912621/2023_Alt_Schatz.

Seven AAI Members Elected as Fellows of the American Academy of Microbiology

The AAI members listed below were recently elected as 2023 Fellows of the American Academy of Microbiology. Fellows are elected annually through a highly selective, peer-review process, based on their records of scientific achievement and original contributions that have advanced microbiology. AAI congratulates them on this honor!

- Avery August, Ph.D. (AAI '99)
- José Antonio Bengoechea, Ph.D. (AAI '99)
- Alexander Ploss, Ph.D. (AAI '12)
- Alessandro Sette, Ph.D. (AAI '89)
- Sunny Shin, Ph.D. (AAI '12)
- Jatin Vyas, M.D., Ph.D. (AAI '07)
- George Yap, Ph.D. (AAI '01)

Read the full announcement at <https://asm.org/Press-Releases/2023/February/65-Fellows-Elected-into-the-American-Academy-of-Mi>.



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.



Emil R. Unanue, M.D., DFAAI (AAI '66)

September 13, 1934 – December 16, 2022

AAI extends condolences to the family, friends, and colleagues of Emil R. Unanue, M.D., DFAAI (AAI '66), a renowned immunologist and dedicated AAI member of over five decades who died on December 16. Dr. Unanue was the Paul & Ellen Lacy Professor in the Department of Pathology and Immunology at the Washington University School of Medicine in St. Louis (WUSTL).

Unanue was elected to the inaugural class of Distinguished Fellows of AAI in 2019, one of the highest honors bestowed by AAI. The honor recognizes active, long-term members for distinguished careers and outstanding scientific contributions as well as their service to AAI and the immunology community. He also was the 2014 recipient of the AAI Lifetime Achievement Award.

Unanue's active AAI involvement included service as chair of the Publications, Nominating, and Travel Awards Committees, as well as a member of the Education Committee. He was a Distinguished Lecturer at the 2002 AAI annual meeting and participated as a major symposium chair and speaker at other past AAI meetings.

The following remembrance was lovingly written by his close colleagues and friends, Barry P. Sleckman, M.D., Ph.D. (AAI '00), director of the O'Neal Comprehensive Cancer Center, University of Alabama, Birmingham School of Medicine, and past AAI president Paul M. Allen, Ph.D., DFAAI (AAI '85), emeritus professor at WUSTL.

With great sadness, we report that on December 16, with his loving family at his side, Dr. Emil Raphael Unanue peacefully lost his two-year battle with glioblastoma. Emil was an extraordinary scientist and an extraordinary leader as chair for the Department of Pathology and Immunology at the Washington University School of Medicine in St. Louis (WUSTL) from 1985 to 2006, where he continued to work as a faculty member and in his laboratory until a few months before his death. Emil's scientific and mentoring skills left an indelible mark. "Just do great things" was his credo, which guided all who were fortunate to interact with him scientifically.

Emil was born in Havana, Cuba, in 1934. He obtained his M.D. in 1960 from the University of Havana School of Medicine and then emigrated to the United States to join the Pathology Training Program at the Presbyterian University Hospital in Pittsburgh, PA. He also joined the laboratory of Frank Dixon, M.D. (AAI '50), a renowned immunopathologist. Emil later moved with Dixon to the Scripps Research Institute, where he developed novel animal models to understand the basis of immune complex glomerulonephritis.

In 1966, Emil joined the laboratory of Brigitte Askonas, Ph.D., D.Sc. (AAI '77), at the National Institute for Medical Research at Mill Hill in London. There, Emil made the seminal observation that recognition of antigens by T

lymphocytes required lysosomal function provided by macrophages. This observation defined the trajectory of Emil's science for the next 50 years as he focused on understanding the mechanistic basis of antigen presentation and how these processes contribute to immune-mediated diseases such as type I diabetes.

Emil returned to Scripps in 1968 and was recruited by Baruj Benacerraf, M.D. (AAI '57), to the Pathology Department of Harvard Medical School in 1970, where he continued to elucidate important mechanisms of macrophage activation that protect mice and humans against microbial infections. At Harvard, his work culminated in the demonstration that macrophages induce T cell activation through a process that requires intracellular processing of foreign proteins. In turn, this process generates peptides that complex with proteins encoded by the major histocompatibility complex (MHC) and are transported to the cell surface, where they activate T cells. His elegant demonstration proved that processed peptides directly bind to an MHC molecule and are "presented" on the macrophage cell surface. This provided foundational information about what the T cell receptor recognized—which was even more remarkable given that his discoveries occurred only shortly after the T cell receptor was identified. For this work, Emil was awarded the 1995 Albert Lasker Basic Medical Research Award "for



seminal discoveries in antigen processing and MHC-peptide binding which deciphered the biochemical basis of T-cell recognition.”

In 1985, Emil moved to WUSTL as chair of the Department of Pathology. Over the next 21 years, in addition to continuing his own top-notch research program, Emil built an internationally recognized immunology program that included four Howard Hughes Medical Institute Investigators and five members of the National Academy of Sciences (NAS). This was accomplished through his unwavering commitment to and expectation of “vertical” science. In recognition of these accomplishments, WUSTL changed the name of the Department of Pathology to the Department of Pathology and Immunology in 2001.

Emil truly was a mentor’s mentor who, despite the demands placed on him by institutional leadership and his own research program, was fully committed to inspiring and training the next generation of immunologists through his masterful teaching, which he also enjoyed thoroughly. Emil was often found at the bench teaching graduate and postdoctoral trainees in his laboratory. He leaves in his wake countless distinguished immunologists in academia, industry, and beyond, who are imprinted with his passion for understanding immunology as well as his rigor for scientific investigation.

At WUSTL, Emil continued to make foundational discoveries in antigen processing and presentation that provided insight into questions of key translational importance, such as immunologic specificity, thymic education, transplant rejection, and autoimmunity. In recognition of his many scientific accomplishments, he received many awards and honors in addition to the Lasker Award. He was elected to the NAS (1987), the

American Academy of Arts and Sciences (1989), and the National Academy of Medicine (1995). He received Canada’s Gairdner Foundation International Award in 2000 and Germany’s Robert Koch Gold Medal in 2005. He served AAI as an associate (1972–1977) and section (1977–1983) editor for *The JI* and member (1980–1985) and chair (1984–1985) of *The JI* Editorial Board. He was also a member of the Education Committee (1974–1975) and chair of the Travel Awards (now defunct) (1977–1980), Publications (1985–1986), and Nominating (1990–1991) Committees. In 2014, he received the AAI Lifetime Achievement Award, and in 2019 he was elected as a Distinguished Fellow of AAI.

Emil was much more than a visionary scientist and leader. He was dedicated to his family and especially his six grandchildren, whom he absolutely adored and whose photos adorned the four walls of his office. He was a true patron of the arts, with a deep love of opera that he shared with many friends and colleagues during frequent trips to the Metropolitan and Santa Fe Operas. He was committed to the democratic process, and at election time, one was never left wondering about Emil’s choice candidates.

Emil was many things to many people—scientist, chairman, mentor, teacher, and colleague. But perhaps most important to those of us who were lucky enough to have worked with him in the Department of Pathology and Immunology, he was a friend with an unwavering commitment to us both professionally and personally. While we will all try to carry forth his mantle of “just do great things,” we already feel the void created by the passing of such a titan, whose love of scientific discovery was unmatched.



James W. Thomas II, M.D. (AAI '83)

July 22, 1948 – November 16, 2022

AAI extends condolences to the family, friends, and colleagues of Vanderbilt University Medical Center (VUMC) Professor of Medicine James Ward Thomas II, M.D. (AAI '83), who died on November 16, 2022.

During his nearly 40 years of AAI membership, Dr. Thomas was awarded an AAI 2022 Intersect Fellowship for Computational Scientists and Immunologists and served as an associate editor for The Journal of Immunology.

The following tribute to Thomas was authored by Doug Campbell and is reprinted here with the kind permission of the author and VUMC Reporter.

Vanderbilt Mourns Loss of Former Rheumatology Director Thomas

James Ward “Tom” Thomas II, MD, former director of Vanderbilt’s Division of Rheumatology and Immunology, died Nov. 16 of cancer. He was 74.

“During the time he led the division, Tom was instrumental in growing the research and clinical capacity of Rheumatology and Immunology. He was a visionary leader, scholar and gentleman who embodied the best of VUMC,” said Leslie Crofford, M.D., Wilson Family Professor of Medicine and chief of the Division of Rheumatology and Immunology.

Dr. Thomas was known as a kind, empathetic clinician and a dedicated scientist esteemed for his original contributions to understanding the immunologic basis of autoimmunity in Type I diabetes. Dr. Thomas’ research was supported by the NIH throughout his career, and his laboratory made seminal discoveries on the role of anti-insulin B lymphocytes in type I diabetes.

“Tom was the go-to person for all matters about Type 1 diabetes and B cell biology. He was also a humble and kind person with a calm demeanor. Always in a good mood, his optimistic view was often invaluable during scientific discussions. This is not to say that Tom did not have high scientific standards and expectations. He was a meticulous scientist and expected the same from his peers and trainees,” said Luc van Kaer, Ph.D., Elizabeth and John Shapiro Professor of Pathology, Microbiology and Immunology.

Jin Chen, Ph.D., professor of Medicine and Cell and Developmental Biology, recalled Dr. Thomas’ advice to “be bold and creative, make a scientific niche, and always keep trying.”

“Within 24 hours of his passing, the FDA approved teplizumab, an anti-CD3 monoclonal antibody, as the first drug with an indication to delay the onset of Type 1 diabetes,” said William Russell, M.D., co-principal investigator with Dr. Thomas of the TrialNet Clinical Center at Vanderbilt. “Tom was instrumental in the Vanderbilt efforts to test the efficacy of this drug. Vanderbilt embraced this complex study and became the highest

enrolling site in the entire network. Tom was involved from the first participant. He was a remarkable colleague, intellectually rigorous, and highly knowledgeable about the pathophysiology of Type 1 diabetes.

“The world took a step closer to life without Type 1 diabetes because of Tom,” Russell said.

His colleagues said Dr. Thomas was a mentor to students, post-doctoral fellows and colleagues, emphasizing scientific rigor, adventurous hypotheses and collaboration rather than competition.

“He recognized the value in giving his trainees the freedom required to foster their independence, helping them grow their science intuition and love of science in the process,” said Rachel Bonami, Ph.D., assistant professor of Medicine, Division of Rheumatology and Immunology. “Tom was always eager to discuss our latest experiments and had incredible insight. I learned to listen carefully whenever he predicted a particular experimental outcome because he was nearly always right.”

One of his myriad outstanding qualities was his commitment to maintaining an “open-door” for colleagues as well as trainees. Even when the door was closed, he was open to the random drop-in, be it for sharing science and brainstorming, or for dealing with life, said Mark Boothby, M.D., Ph.D., professor of Pathology, Microbiology and Immunology.

“Even when interrupted, he was a model of generous politeness, and of sharing deep scholarship in rheumatology, immunology and diabetes.”

Dr. Thomas attended medical school at the University of Tennessee, Memphis, and his lifelong interest in immunology began there as a National Institutes of Medicine research trainee.

He completed his internal medicine internship at UT Memphis and his residency at the University of Alabama, Birmingham. To further his training in immunology, he applied to the National Institutes of Health (NIH) and was

appointed a clinical associate physician in the Laboratory of Clinical Investigation, Bethesda, Maryland.

Following the NIH, Dr. Thomas was awarded a post-doctoral fellowship from the Juvenile Diabetes Foundation to continue immunology training in the Department of Pathology at Jewish Hospital of St. Louis, Washington University Medical Center.

His first faculty position was in rheumatology at Baylor College of Medicine, where he later became associate director of the Diabetes and Endocrinology Research Center.

Dr. Thomas and his wife, Geraldine (Gerry) Miller, M.D., joined the Vanderbilt faculty in 1990. In 1996 Dr. Thomas was named director of the Division of Rheumatology and Immunology, a position he would hold for 16 years.

He also played an active role in the Department of Pathology, Microbiology and Immunology, where he

served for many years on the Graduate Education Committee that directs the PhD training program.

He served on numerous NIH panels related to rheumatologic autoimmune diseases, Type I diabetes, and as the chair of the NIH Tolerance, Transplantation, and Tumor Immunology Study Section. He also served on many Vanderbilt graduate student committees, helping to train the next generation of scientists.

In 2014, he was elected a fellow in the American Association for the Advancement of Sciences.

Dr. Thomas is survived by his wife, Gerry Miller, and cousins in Alabama and Texas. Those wishing to make donations in his memory may consider his favorite charitable organizations—the Hooved Animal Humane Society, ASPCA, Mid-Cumberland Meals on Wheels and Special Olympics. No funeral services are planned.

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Want to hear the latest from The American Association of Immunologists? You can find AAI and its journals, *The Journal of Immunology* and *ImmunoHorizons*, through your favorite social media channels:



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AAI Announces Fall 2022 Travel for Techniques Awardees

AAI is pleased to announce the most recent **AAI Travel for Techniques Award** recipients, selected from among applicants during the program's Fall 2022 application cycle.

The AAI Travel for Techniques Program assists member principal investigators (regular or associate) in their efforts to expand their skill sets to benefit their research. Selected applicants may choose to use the award to travel themselves, assign the award to a trainee in his or her lab, or may assign the award to another lab member. AAI reimburses award recipients as much as \$1,500 in travel expenses incurred on a trip to another laboratory to learn a technique. Travel for Techniques Award applications are reviewed in three cycles annually—winter, spring, and fall.

Details on applying for the AAI Travel for Techniques Award are available at www.aai.org/TravelforTechniques.

AAI extends congratulations to:



Sterling B. Ortega, Ph.D. (AAI '19)

Assistant Professor
University of Texas Health Science Center

Designated Traveler:

Katherine Hernandez (AAI '22), graduate student

Destination: The laboratory of Dr. Jeffrey Huang, Georgetown University

Technique: Lysolecithin-induced demyelination model, which is an animal model of central nervous system demyelination, a hallmark of multiple sclerosis (MS)

Application: To explore the use of cell therapy to promote an active brain repair program in MS patients



Kalyani Pyaram, Ph.D. (AAI '17)

Assistant Professor
Kansas State University

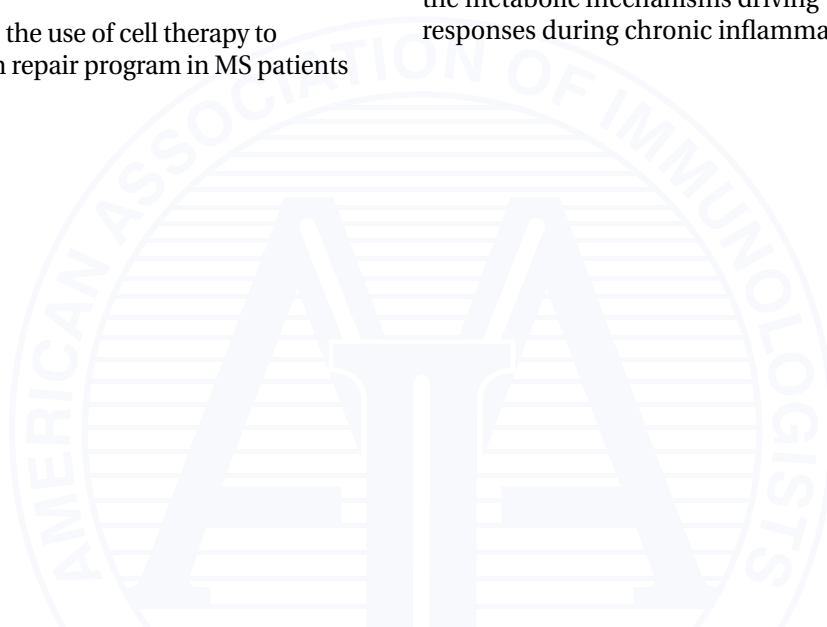
Designated Traveler:

Aprajita Tripathi (AAI '22), graduate student

Destination: The laboratory of Dr. Shailendra Giri (AAI '10), Henry Ford Hospital

Technique: Seahorse assay of activated T cells and analysis of metabolomics data

Application: To identify the factors and investigate the metabolic mechanisms driving T cell effector responses during chronic inflammatory diseases



AAI Announces Recipients of 2023 Career Reentry Fellowships

AAI congratulates two members selected to receive AAI Career Reentry Fellowships for 2023.

The program provides support for qualified immunologists to reenter the workforce after a lapse of research or research training due to unforeseen circumstances. The fellowship program provides one year of salary support to postdoctoral trainees who have taken a leave of absence of one year or more.

The postdoctoral fellows selected for the 2023 Career Reentry Fellowships are:



Aglaja Kopf, Ph.D., M.B.A.
(AAI '22)

Mentor: Georg Stary, M.D., associate professor, Medical University of Vienna, Austria

Project: Investigating the role of structural cells in granulomatous inflammation using a multidisciplinary approach



Kathleen S. Prejean, Ph.D.
(AAI '22)

Mentor: Jeannine M. Durdik, Ph.D. (AAI '87), professor, University of Arkansas

Project: Examining the effects of fever temperature modulations on macrophage responses

Applications for the 2024 AAI Fellowship Program for Career Reentry will be accepted beginning June 1, 2023. For complete program information, including application and eligibility requirements, and to view past recipients, visit www.aai.org/ReentryFellowship.

PillarTalk

Tune in to our new video interview series led by the Editor-in-Chief of *The Journal of Immunology*, highlighting the *Pillars of Immunology* authors and commentary writers.

Now available on *vimeo*

<https://vimeo.com/theaai>

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.

New York Immunology Conference

The Upstate New York Immunology Conference (NYIC) was held on October 17–20 at the Otesaga Resort Hotel in Cooperstown, NY. The meeting, which drew about 100 attendees, was organized by James R. Drake, Ph.D. (AAI '01), professor, Albany Medical College; Katherine C. MacNamara, Ph.D. (AAI '11), associate professor, Albany Medical College; and Michael D. Robek, Ph.D., professor, Albany Medical College.



At NYIC, keynote speaker Herbert

The conference keynote addresses were delivered by De'Broski Herbert, Ph.D. (AAI '00), professor, University of Pennsylvania, entitled "*Perforin 2 Controls Unconventional Cytokine Release from Mucosal APC,*" and Katrin Mayer-Barber, Ph.D. (AAI '16), Earl Stadtman Investigator, National Institutes of

Health, on "*An Unexpected Guest—Eosinophils in the Innate Immune Response to Tuberculosis.*" The goal of the meeting is to foster collaboration and interaction among participants and their institutions, as well as provide opportunities for postdoctoral fellows and graduate students to present their research.

AAI supported 10 AAI Young Investigator Awards at NYIC, which were given to trainees for outstanding podium presentations. Congratulations go to the following recipients:

- Amber Bahr (AAI '22), graduate student, Albany Medical College
- Shreya Das, Ph.D., research associate, Albany Medical College
- V. Amanda Fastiggi, graduate student, University of Vermont
- Adil Khan, Ph.D., postdoctoral fellow, Roswell Park Comprehensive Cancer Center
- Poornima Sankar (AAI '22), graduate student, Albany Medical College
- Mohd Saqib, Ph.D. (AAI '21), postdoctoral fellow, Albany Medical College
- Janelle M. Veazey, Ph.D. (AAI '20), postdoctoral fellow, Cornell University
- Tara G. Vrooman (AAI '21), graduate student, University of Rochester
- Tiago Zilch (AAI '21), graduate student, Cornell University
- Victoria Zoccoli-Rodriguez (AAI '22), graduate student, SUNY Upstate Medical University



At NYIC, (pictured from left): MacNamara, Beth Wohlferf, and keynote speaker Mayer-Barber



At NYIC, AAI Young Investigator Awardees (pictured from left) Zoccoli-Rodriguez, Fastiggi, Vrooman, Bahr, Sankar, Zilch, Das, Saqib, Veazey, and Khan

Great Lakes Transplant Immunology Forum

The 21st Great Lakes Transplant Immunology Forum (GLTIF) was held on November 14–15 at the Duke University Transplant Center in Durham, NC. The meeting provides a forum for in-depth exploration of early data regarding scientific breakthroughs in transplant immunology that have important technical and therapeutic potential to advance the field of immunology. The meeting brings together young scientists with seasoned investigators in an open discussion of preliminary data that encourages the exchange of ideas to pursue promising avenues of research.

The meeting, which drew about 100 attendees, was organized by Jean Kwun, D.V.M., Ph.D. (AAI '09), assistant professor, Duke University; and Xunrong Luo, M.D., Ph.D. (AAI '12), professor, Duke University. The Charles G. Orosz Memorial Lecture keynote address was given by

AAI member Allan Kirk, M.D., Ph.D. (AAI '04), professor and chair, Duke University, whose talk was entitled “*Mechanisms vs. Pragmatism.*”

AAI supported five AAI Young Investigator Awards at GLTIF, which were given to trainees for outstanding poster presentations. Congratulations go to the following recipients:

- Jennifer Allocco (AAI '22), graduate student, University of Chicago
- Irma Husain, Ph.D., postdoctoral fellow, Duke University
- Collin Z. Jordan, research technician, Duke University
- Jordan Warunek (AAI '22), graduate student, University of Pittsburgh
- Stephen Zhiyuan Xie (AAI '22), graduate student, University of Chicago

Autumn Immunology Conference

The 50th Annual Autumn Immunology Conference (AIC) took place on November 18–21 at the Chicago Marriott in downtown Chicago, IL. The more than 600 attendees included trainees, and established investigators from academia and industry. The AIC has a strong focus on trainee education with high participation from graduate students and postdoctoral fellows. The Carl Waltenbaugh Keynote Address featured past AAI president Marc Jenkins, Ph.D. (AAI '88), regents professor, University of Minnesota, entitled “*Differentiation of Antigen-Specific Helper T Cells During Infection.*”

The meeting was organized by Richard DiPaolo, Ph.D. (AAI '09), professor, Saint Louis University; Gerald Buldak, Ph.D. (AAI '08), senior lecturer, Loyola University Chicago; Sarah D’Orazio, Ph.D., associate professor, University of Kentucky; Kerry Empey, Pharm.D., Ph.D., associate

professor, University of Pittsburgh; Mallery GreenLee-Wacker, Ph.D., assistant professor, Central Michigan University; Connie Krawczyk, Ph.D. (AAI '20), associate professor, Van Andel Institute; Ryan Langlois, Ph.D. (AAI '15), associate professor, University of Minnesota; Ian Lewkowich, Ph.D., assistant professor, Cincinnati Children’s Hospital; Kevin Legge, Ph.D. (AAI '05), professor, University of Iowa; David Lubaroff, Ph.D. (AAI '73), professor emeritus, University of Iowa; Lyse Norian, Ph.D. (AAI '92), associate professor, University of Alabama; Joseph Qualls, Ph.D. (AAI '13), associate professor, Thomas More University; Michelle Anne Swanson-Mungerson, Ph.D. (AAI '11), professor, Midwestern University; Tyler Ulland, Ph.D. (AAI '19), assistant professor, University of Wisconsin; Scott Weber, Ph.D. (AAI '06), associate professor, Brigham Young University; and Michael Zimmer, Ph.D., associate professor, Purdue University Northwest.



At AIC, AAI Young Investigator Awardees (pictured in front row from left): Kwan, Cao, Kim, Bennett, Lensing, Ericka Ochoa (AAI Manager of Educational and Career Development Programs), Marissa Locke Rottinghaus (AAI Associate Scientist), Read, Henle, Wickman, Xin, and Hartwell; (pictured in back row from left): Vuchkovska, Marino, Elliff, Sturtz, Topchyan, Witt, Parriott, Li, Morgan, and White



At AIC, AAI Undergraduate Awardees (pictured from left) Bennett, Henderson, Alahakoon, and Hudson with Ochoa (center)



At AIC (pictured from left), Locke Rottinghaus with AAI Undergraduate Awardee Johnson and Ochoa

AAI participated as an exhibitor and sponsored the Undergraduate Careers in Immunology Workshop, an event designed for undergraduate students to learn about scientific career opportunities in immunology from scientists working in diverse settings. The panel featured Jennifer Bermick, M.D., associate professor, University of Iowa; David Hildeman, Ph.D. (AAI '02), professor, Cincinnati Children's Hospital, University of Cincinnati; Sam Hwang, Ph.D. (AAI '13), vice president, VIR Biotechnology; John Hackett, Ph.D., divisional vice president, Applied Research and Technology, Abbott Laboratories; and Andrea Henle, Ph.D., associate professor, Carthage College. The panelists answered undergraduate student questions about their motivations for a research career, how to select a graduate program, how to strengthen a graduate school application, pursuing research with an M.D. vs. an M.D.-Ph.D., the differences between industry and academia, and more.

The AIC continued its commitment to career development through the "Meet the Speakers" Roundtable, also supported by AAI. This event provided an opportunity to current graduate students and postdoctoral fellows to interact with senior scientists. Topics included effective grant writing strategies, traits for a successful postdoc application, applying/interviewing for faculty positions, surviving the first years of the tenure track, networking strategies, and careers outside U.S. academia.

Additionally, AAI supported 23 Young Investigator Awards for abstract presenters and five awards for undergraduates. Congratulations go to the recipients listed below.

AAI Young Investigator Awardees

- Ramin Beheshti, Pennsylvania State University
- Ally Bennett, University of Illinois Chicago
- Thao Cao, University of Chicago
- Jonah Elliff, University of Iowa

- Brittany Hartwell, University of Minnesota
- Andrea Henle, Ph.D., Carthage College
- So Joung Kim, University of Tennessee Health Science Center
- Montserrat Kwan (AAI '22), University of Chicago
- Maddison Lensing (AAI '21), University of Iowa
- Perry Li, Cincinnati Children's Hospital Medical Center
- Kaitlyn Marino, University of Wisconsin-Madison
- Roxroy Morgan (AAI '22), University of Chicago
- Geoffrey Parriott (AAI '22), University of Chicago
- Michael Patterson, University of Minnesota
- Kaitlin Read (AAI '18), Ohio State University
- Alexandria Sturtz, Washington University in St. Louis
- Paysar Topchyan, Medical College of Wisconsin
- Aleksandra Vuchkovska, University of Chicago
- Tristan White (AAI '19), University of Pittsburgh
- Elizabeth Wickman, St. Jude Children's Research Hospital
- Nathan Witman (AAI '22), Medical College of Wisconsin
- Lila Witt (AAI '19), Mayo Clinic
- Ying Xin, University of Michigan

AAI Undergraduate Awardees

- Tara Alahakoon, Amherst College
- Joshua Bennett, Brigham Young University
- Alethia Henderson, University of Nebraska at Kearney
- Matthew Hudson, West Virginia University
- Kaylene Johnson, Lake Superior College

Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) 2022

For the seventh year in succession, AAI provided support for early career trainees in immunology, including recognition of outstanding student presenters of immunology abstracts, at the Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) 2022. AAI support for ABRCMS 2022, held in Anaheim, CA, from November 9–12, was coordinated by AAI Minority Affairs Committee (MAC) Chair Tonya Webb, Ph.D. (AAI '10), and was provided through the AAI Outreach Program.

Presented by the American Society for Microbiology (ASM) annually since 2001 and chaired by Avery August (AAI '99) since 2015, the ABRCMS meeting fosters minority students' pursuit of advanced training in the biomedical sciences and related fields. The 2022 meeting drew over 3,600 scientific attendees, including nearly 3,000 undergraduate, postbaccalaureate, and community college students and nearly 700 graduate students and postdoctoral trainees. Attendees participate in poster and podium presentations in 12 scientific disciplines, including immunology, cell biology, microbiology, developmental biology, and cancer biology.

This year, AAI returned as co-sponsor of the ABRCMS immunology presentation awards, with primary sponsorship of the awards provided by ASM. The awards, supported by AAI since 2016, are given to selected undergraduate, postbaccalaureate, and community college student presenters in immunology. Nineteen students at ABRCMS 2022 were selected for immunology presentation awards co-sponsored by AAI.

Undergraduate Sophomore Presenter

- Oluwasunmisola Ojewumi, University of California, San Francisco (UCSF)

AAI Young Scholars Travel Awards

Additionally, three of the ABRCMS immunology presentation awardees have also received special recognition as recipients of AAI Young Scholars Awards for 2023. Established in 2016, the AAI Young Scholars Award was initiated by the AAI MAC to provide selected student immunology presenters at ABRCMS with support to attend the AAI annual meeting.

In addition to receiving meeting travel awards to attend IMMUNOLOGY2023™, this year's Young Scholars Awardees will receive dedicated mentoring from MAC members in connection with awardees' attendance at the MAC Careers Roundtables, MAC Social Hour networking reception, MAC-sponsored AAI Vanguard Award Lecture, and through mentors' feedback on awardee abstract presentations.

AAI congratulates the following recipients of the **2023 AAI Young Scholars Awards**.

Undergraduate Junior Presenters

- Amina Adebiyi, University of Pittsburgh
- Vanessa Araujo, Brown University
- Isabela Fuentes, Massachusetts Institute of Technology
- Reagan Hagewood, Prairie View A&M University
- Angelica Infante, Texas Tech University
- Bethany Knight, West Virginia University
- Matthew Li, University of Georgia
- Jake Shapira, University of Pittsburgh
- Jacob Williams, University of California, Berkeley
- Leo Williams, California Institute of Technology

Undergraduate Senior Presenters

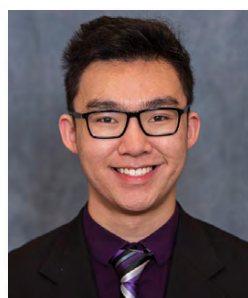
- Micala Hammond, University of Tampa
- Taonga Horace, University of Massachusetts, Dartmouth-
- Aliyah Tate, North Carolina Agricultural and Technical State University
- Sabrina Torbit, Rochester Institute of Technology

Postbaccalaureate Presenters

- Joy Okoro, UCSF
- Yuliana Romo-Perez, University of Washington
- Jaelyn Vigeo, National Institute of Arthritis, and Musculoskeletal and Skin Diseases (NIAMS), NIH

Community College Student Presenter

- Kirsten Branch, MD Anderson Cancer Center



Matthew Li
University of Georgia

Mr. Matthew Li is an undergraduate junior pursuing dual degrees—B.S., biochemistry and molecular biology; and M.S., comparative biomedical sciences—and minoring in Spanish. He anticipates graduating in May 2024. His research background includes summer lab experiences at the University of Georgia Agricultural and Environmental Services Lab and Department of Horticulture; Winship Cancer Institute, Emory University; Harvard Stem Cell Institute Internship Program, Harvard Medical School; and University of Georgia Departments of Biochemistry and of Molecular Biology, Genetics, and Microbiology.

OUTREACH

“Dr. Chrystal Paulos and Guillermo Omar Rangel Rivera first introduced me to the world of immunology and have been integral in my pursuit of scientific learning and research,” he said. “I am endlessly appreciative of the support they have given me as I grow as a scientist.”



Jaelyn Vigee
NIAMS, NIH

Ms. Jaelyn Vigee is a Postbaccalaureate Intramural Research Training Award recipient in the Lymphocyte Signaling Unit of the Molecular Immunology and Inflammation Branch at NIAMS, NIH. Her research focuses on investigating the role of glycosphingolipids in natural killer and T cell development and function. Her prior research includes a summer lab experience focusing on pancreatic cancer research at the Roswell Park Comprehensive Cancer Center and participation, through the HHMI Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science program, in a research-based laboratory course focused on microbiology, molecular biology, and electron microscopy at Howard University.

“Dr. Tasha Morrison and Dr. John O’Shea have served as an integral part of my scientific development,” she said. “My mentors challenge me to think innovatively and critically while providing support, encouraging independence, and instilling a drive for discovery.”



Jacob Williams
University of California, Berkeley

Mr. Jacob Williams is an undergraduate junior majoring in molecular and cell biology; immunology and pathogenesis; and business administration. He anticipates graduating in May 2024. His research background includes experiences as a Summer Undergraduate Research Fellow, Sleep Medicine and Cognitive Neurophysiology

Laboratory, Mayo Clinic; CZ Biohub Summer 2021 Infectious Diseases Initiative Intern, Chan-Zuckerberg Biohub & UCSF–Joseph DeRisi Laboratory; Clinical Researcher, Division of Surgery, Thoracic Oncology, Harvard Medical School and Massachusetts General Hospital; and NIH-MARC Fellow/Undergraduate Researcher, Michel DuPage Laboratory, University of California, Berkeley.

“I am incredibly grateful for the invaluable support I’ve received from my mentors, Dr. Michel DuPage and Ph.D. candidate Jesse Garcia Castillo, who have guided me through my training in immunology and cancer immunotherapy research over the past three years,” he said. “Additionally, I wouldn’t be the scientist I am today without the mentorship I’ve received from previous principal investigators, including Dr. Joseph DeRisi from the Chan-Zuckerberg Biohub, Dr. Erik St. Louis from Mayo Clinic, and Dr. Chi-Fu Jeffrey Yang from Harvard Medical School.”

At ABRCMS 2022, the following AAI members served as returning chair and vice chair (respectively) of immunology presentations:

- **Cherié Butts, Ph.D.** (AAI '10), medical director, Therapeutics Development Unit, Biogen (*past AAI MAC member and chair; current member, AAI Committee on Public Affairs*)
- **Harlan Jones, Ph.D.** (AAI '16), associate professor, University of North Texas Health Science Center (*current AAI MAC member*)

AAI looks forward to supporting attendees at the ABRCMS 2023 meeting, to be held November 15–18, 2023, in Phoenix, AZ.

Drafting Doctors: New Generations of Immunologists in Bethesda

Draft lottery for the Vietnam War, 1972
Library of Congress

by Charles Richter, Ph.D., AAI assistant historian, and John Emrich, Ph.D., AAI historian and archivist

Since its founding, many members of the American Association of Immunologists (AAI) have had close ties to the National Institutes of Health (NIH) and its precursor agencies. Located just outside of Washington, DC, NIH has funded and trained countless immunologists. Two generations of AAI members joined its staff and leadership during periods of NIH expansion, thanks in part to a Cold War era policy that attracted young physicians to the Maryland suburb of Bethesda.

A Wartime Need

During the First and Second World Wars, the rapidly expanding U.S. Armed Forces needed physicians to treat sick and injured soldiers on the frontlines and at bases back home, as well as to conduct war-related research. AAI members responded during both wars by volunteering for military service or carrying out important disease research on the homefront.¹

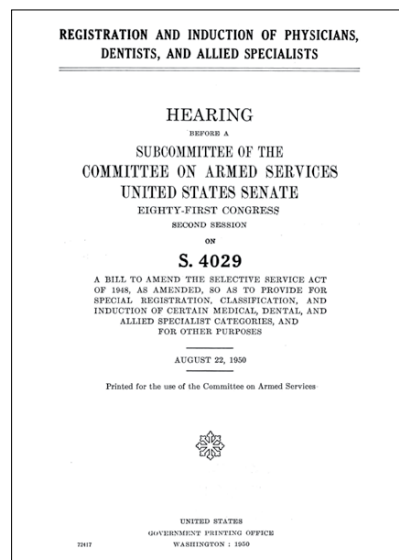
Within a decade of the end of the Second World War, Cold War tensions between the United States and the Soviet Union were felt around the world. In 1948, to maintain readiness during this new

era, the U.S. government reorganized the Selective Service System, the agency responsible for furnishing able men for common defense and national emergency, including a military draft. The legislation also contained provisions for drafting physicians in peacetime. Less than five years later, President Harry S. Truman signed into law an act establishing the male-only Doctor Draft, which changed the trajectory of many physicians and future AAI members.

From 1953 to 1973, countless young doctors satisfied their two-year military obligations as staff physicians or researchers at military installations or the frontlines of the Korean and Vietnam Wars. Additionally, more than 4,000 newly minted doctors fulfilled their service by spending at least two years as associates at the NIH, gaining invaluable clinical and research experience. Of these, more than 160 would go on to become members and leaders of AAI.

The Doctor Draft and Associate Training Program

John L. Fahey (AAI '64) first heard about the new Associate Training



Doctor Draft legislation, 1950
U.S. Government Printing Office

Program (ATP) at the NIH Clinical Center in the spring of 1950, when he was a student at Harvard Medical School. He viewed the program, which was set to begin in 1953, as an excellent career opportunity.² Little did he know that by the time he was accepted, it would also be an alternative to military conscription.

When North Korean forces suddenly invaded South Korea on June 25, 1950, Congress and President Truman quickly responded by reactivating the general military draft and launching a new Doctor Draft. Over the next six years, more than 30,000 physicians, dentists, and veterinarians would be drafted to serve both overseas and in stateside bases.³



Surgery in the 8209th MASH unit in Korea, 20 miles from frontlines, 1952
National Archives

Under the new law, all doctors up to the age of 50 would be required to serve in a branch of the armed forces or in the Public Health Service (PHS), which includes the NIH (see sidebar on page 67). Fahey later described how the NIH program benefited new doctors: “A commission in the PHS was regarded as equivalent to military service. By joining the PHS at the NIH, I was able to help the new national effort to develop a Medical Research Center and continue my career development in biomedical research without an interruption for military service.”⁴ Fahey and the rest of that first group of clinical associates arrived at the NIH on the opening day of the Clinical Center, July 2, 1953, just weeks before the end of the Korean War.

The Berry Plan

After the Korean War, Frank Berry, the new Assistant Secretary of Defense for Health and Medical, came into office with a plan that he hoped would both provide sufficient military personnel for the Cold War military and satisfy the concerns of hospitals, medical schools, and physicians’ associations. Under the “Berry Plan,” new doctors had more flexibility as to when they began their service: they could choose to join a branch of the armed forces or PHS immediately following their internship, after one year of residency, or after a full

residency in the specialty of their choice. Although their preference of service branch had to be stated in their fourth year of medical school, graduates were not guaranteed to receive their first choice.⁵ Those who entered the PHS were commissioned at the rank of senior assistant surgeon, equivalent to lieutenant in the Navy.⁶

The Doctor Draft continued into peacetime following the Korean Armistice Agreement, according to Berry’s plan. For some doctors, it provided their first experience with immunology, which for many of them became a lifetime pursuit. A number of these immunologists became pioneers in the field and future AAI leaders.

Military Service

Even for those who did not become NIH associates, it was still possible to end up in Washington, DC. K. Frank Austen (AAI ’62, resident 1977–78) was the only one out of his cohort of 12 interns at Massachusetts General Hospital who did not apply to the ATP in

1956, but joined the Army instead. He recalled: “When I completed my basic training in Fort Sam Houston in Texas, and the nice sergeant who was doing our assignments looked and saw that I had three papers in the *New England Journal of Medicine*, the sergeant decided I might have potential as a scientist, and rather than assign me to overseas (I was assuming it would be South Korea), sent me to the Walter Reed Army Institute of Research, where, in turn, they assigned me to the one immunologist [Elmer L. Becker (AAI ’52)] that the Army had at a time when the NIH did not have an immunology program.”⁷



Frank B. Berry, Asst. Secretary of Defense for Health
National Library of Medicine



Walter Reed General Hospital
National Library of Medicine



For an in-depth look at how the Doctor Draft affected the career arc of an AAI member, see our story on Frank Fitch (AAI 1961, president 1992–93) and his years as an Air Force physician in the 1950s in the January/February 2018 issue of the *AAI Newsletter*.

PHS and NIH

Entrants into the NIH associate program were in one of three categories: clinical associate (CA), research associate (RA), or staff associate (SA). When the Clinical Center opened in 1953, all associates were CAs. RAs were added in 1957, and the first SAs joined in 1960.

CAs had primarily clinical responsibilities caring for NIH patients, while RAs, having no obligations in the clinic, were each assigned to an institute and laboratory that fit his research interests. SAs gained experience in both basic research and research administration. Associates in all categories would generally spend two years at NIH, except for those placed in the National Institute of Allergy and Infectious Diseases (NIAID), which had three-year clinical associateships consisting of one year in the clinic and two in the laboratory. In those early years, though, CAs in all institutes had the chance to perform a great deal of basic research, as the Clinical Center had not yet built up the robust referral system it has today.⁸

The vast majority of future AAI members in the ATP worked in three institutes: the National Cancer Institute (NCI), NIAID, and what was then known as the National Institute of Arthritis and Metabolic Diseases (now the National Institute of Arthritis and Musculoskeletal and Skin Diseases or NIAMS).



The Clinical Center at NIH, 1960
National Institutes of Health

Being accepted into the new associate program at NIH seemed like winning a scientific jackpot. Thomas A. Waldmann (AAI '71) arrived at NCI as a CA in 1956, having had almost no laboratory research

experience. He enjoyed learning “from the corridors” during his walks to lunch with various colleagues. Many associates were in a similar situation. As Henry Metzger (AAI '65, AAI president 1991–92) remembered, when he was an RA in 1959 “...they also had some courses, lectures...because many of us didn't have all that much basic science training when we came.”

In the early 1960s, according to William E. Paul (AAI '67, president 1986–87), who was a CA at NCI from 1962 to 1964, “...it wasn't Vietnam, it wasn't Korea, but people would still prefer not to be in the service if they could avoid it....If you were fortunate enough to get a position at NIH...that was an entrée to science, not just for me, but for a whole generation.”

Matthew D. Scharff (AAI '64) received encouragement from New York University Medical School to apply to the ATP as an alternative to the draft. The NIH option within the PHS was particularly attractive to Scharff, who was an RA from 1961 to 1963: “Instead of going off and being a physician in

Origins of Military Service at the NIH

The origins of the U.S. Public Health Service (PHS) date to 1798, when President John Adams signed the first federal health law, the Act for the Relief of Sick and Disabled Seamen, which created a series of locally controlled marine hospitals on major U.S. waterways. In 1870, the hospitals were reorganized to be federally controlled and renamed the Marine Hospital Service (MHS). In 1887, the MHS built a one-room Hygienic Laboratory to study cholera at the Marine Hospital at Stapleton on Staten Island. Congress established the Commissioned Corps in 1889 to formalize the military model that had been used by the MHS as it evolved into a force to fight outbreaks of disease. Officers in the Commissioned Corps held ranks and paygrades as in the Army and Navy. In 1912, the name of the MHS was changed to the Public Health Service to reflect the broader responsibilities of the service, and in 1917, President Woodrow Wilson issued an executive order constituting the PHS as part of the U.S. military. In 1930, the Hygienic Laboratory was renamed the National Institute of Health (NIH).

1940: New NIH campus in Bethesda dedicated

1943: Full military benefits authorized for commissioned officers in the PHS

1944: Public Health Service Act allows for nurses, scientists, and other medical personnel in Commissioned Corps

1948: Selective Service Act of 1948 establishes modern system of conscription in wartime

1950: Korean War begins on June 25 when North Korean forces invade South Korea

1950: First draft call for doctors and dentists to support fighting in Korea

1952: Doctor Draft Law mandates service in the military or PHS for all physicians up to age 50

1953: The NIH Associate Training Program begins; the first Clinical Associates start their terms

1957: NIH Associate Training Program adds Research Associates

1964: The Gulf of Tonkin incident prompts U.S. deployment of regular combat troops.

1969: Beginning of general draft lottery

1973: Paris Peace Accords are signed, ending U.S. military activity in Vietnam

1975: Fall of Saigon; complete U.S. withdrawal of troops from Vietnam

the Aleutian Islands or some place in some clinic, you could go to the NIH and essentially be a postdoctoral fellow.” Even though the United States was not currently engaged in a war, the NIH offered a much more interesting way to serve than, as Metzger put it, “doing physicals at some army base.”

The NIH itself told prospective applicants that it offered “unusual opportunities” unlike those found elsewhere.⁹ Getting into the program, however, was not easy; in 1962, the ATP received 1,200 applications to the program, and accepted 123 new associates.¹⁰ This was a large increase over the 85 acceptances from 500 applications the previous year.

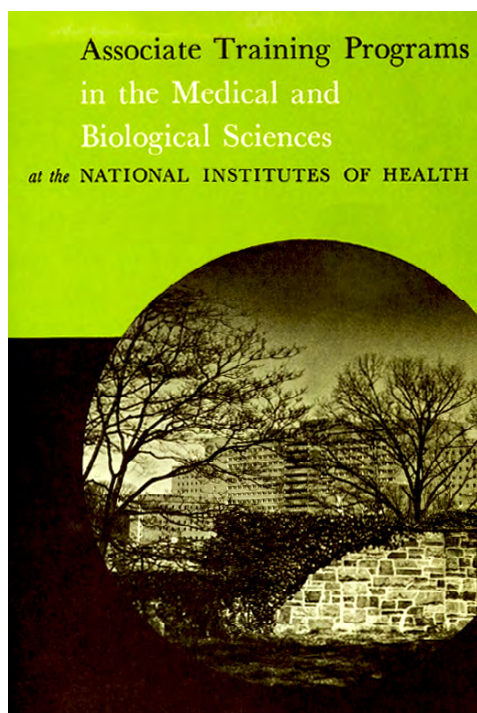
The Vietnam War Era

The number of associates at the NIH steadily increased through the 1960s and through the duration of the Vietnam War (1965–75). Even before the general draft lottery was instituted in 1969, new physicians were subject to the Doctor Draft and deployment to Vietnam. As American involvement in the war ramped up after the Gulf of Tonkin Resolution in 1964, an ATP position at the NIH looked increasingly desirable, both to avoid the hazards of war and as a stepping stone to scientific opportunity. Robert R. Rich (AAI '73, EIC 2003–08) was not unique among his generation when it came to serving as a military doctor. “I could have gone to Vietnam,” he recalled, “but I decided the NIH was probably more to my liking for that period of service.”¹¹



Thousands of doctors were needed to support the 8.7 million soldiers who served in the Vietnam War
National Archives

Prospective associates had to apply during their final year of medical school, and most of those who accepted chose to complete their medical residency before beginning their NIH training. With the number of applicants skyrocketing, the deadline for the program had to be moved up from September to May in 1965, and then to April in 1968. A student hoping to start as an associate at the NIH in July 1968, for example, would have to have his application



Associate Training Program Catalog, 1965
National Institutes of Health

completed by early May of 1966.¹² The schools that supplied the most future AAI members to the ATP included Harvard Medical School (24), Columbia University College of Physicians and Surgeons (13), New York University School of Medicine (12), and Johns Hopkins University School of Medicine (10).

The war drove Ethan M. Shevach (AAI '73, EIC 1987–92) to apply to the ATP and pursue a career in medical research. As he explained later, “The big career decision in 1967 when I graduated medical school was the Vietnam War. That was a big influence on one’s career. And as a physician, to be honest, it didn’t appeal to me to go to Vietnam. I was drafted by the army, as every male physician was drafted in those days, and was pretty likely going to spend a year as a general medical officer in Vietnam. The other alternative was to embark on a career in medical

research and come to the NIH.” Shevach had to plan his honeymoon so that he could quickly get to Bethesda if he got the call for an interview.¹³ His eventual placement at NIAID led to a life-long career at that Institute.¹⁴

Irving Weissman (AAI '71, AAI president 1984–85) was an activist against the war in Vietnam while attending Stanford Medical School in the early 1960s. He was interested in joining the ATP, but after organizing a petition stating that physicians could not ethically serve under the military code, Weissman reported two consequences: “One, I got my draft notice early, and two, when I called to go to the NIH, they said, “You’ve been blackballed.” So I couldn’t go to NIH.” Only a swift appointment at Stanford kept Weissman from being drafted.¹⁵

As the Clinical Center matured and benefited from the growing influx of bright young minds, the associates enjoyed a remarkably collegial environment. John I. Gallin (AAI '75) described how, as a clinical associate in the early 1970s, he was “adopted by all the senior staff” and “felt totally free to interact with all of them.” At least 39 AAI members were ATP associates in the early years from 1953 to 1965, and a few, like Waldmann and Metzger, had long careers at NIH, where they became mentors to many ATP associates and future AAI members. William Paul became mentor to Charles A. Janeway Jr. (AAI '74, AAI president 1997–98) in 1970.¹⁶ At any given time from 1967 to 1973, there were never fewer than 36 future AAI members in the ATP, and at times as many as 50.

ATP and the “Yellow Berets”

Before long, the Vietnam-era physicians who fulfilled their military obligation through service at NIH acquired the nickname of “yellow berets.” While the term was initially

Anthony Fauci as an NIH Clinical Associate
The NIH Record



used as an insult against those who avoided the war, it was appropriated as an ironic badge of honor by many of the associates. Janeway considered the “yellow beret” moniker a “joking name for the group that came of age at the end of the 1960s and did not want to serve in the Army in Vietnam in what [they] regarded as an unjust war.” Particularly as competition for spots at NIH grew fiercer, the proud few who were selected had been at the top of their classes in medical school.

Not everyone appreciated the “yellow beret” label; Anthony Fauci (AAI '73), who was a CA from 1968 to 1970, at the height of the war, argued that it gave the false impression that the associates were “afraid of going to war.” On the contrary, he explained, “I always felt that if indeed it came to that, that I would go. I was not philosophically in favor from the political standpoint of the real rationale of why we were there. As long as American soldiers were going there and getting killed and getting maimed, as a physician I felt if I had to go, I would gladly do my part to try to help them. I did not have a problem going to Vietnam even though I had a problem with the war itself.”¹⁷

Metzger, who ran a laboratory in the Arthritis and Rheumatism Branch, in what is now NIAMS,¹⁸ in the late 60s, said of his own RAs’ reasoning for selecting the NIH during the Vietnam War, “I guess it wasn’t something that we discussed because if they were here, in a sense they had accomplished what they wanted to.”¹⁹ When Metzger interviewed prospective associates, he did not inquire as to their reasons beyond scientific interest. The NIH

campus was a welcoming place for those who were not in favor of the war; beginning in 1969, the National Institute of Mental Health (NIMH) had organized the NIH-NIMH Vietnam Moratorium Committee, which sponsored an annual rally onsite to protest the ongoing war.²⁰

Through the war years, total enrollment in the program steadily rose from 177 associates in all fields in 1966 to a high of 224 in 1973, when both the general draft lottery and the Doctor Draft ended. After the war, the ATP continued as it had originally been intended, with no connection to conscription.

Shaping the Future

The ATP also had the unintended consequence of limiting opportunities for women scientists at the NIH. Fauci remembered a recruiting major in the Marines visiting his fourth-year class at Cornell Medical School to remind everyone to put in their preferences of service branch—everyone except the two women out of a class of 88.²¹ As only men were subject to the draft, only men were eligible to be selected as associates at the NIH. For some NIH investigators, hiring a woman outside of the ATP meant sending a man into war, so they would only hire men as associates.²² Associates at NIH were much more likely than their peers to become full professors, department chairs, and deans, as well as to receive major science awards and memberships in honorary societies.²³ Thus, the unofficial male-only policy denied women an equal chance for advancement at a time

when they made up a small, but growing, percentage of young physician-scientists.

The research performed by Vietnam-era AAI members during their time in the ATP produced long-lasting and widely used methods, basic science, and clinically relevant papers published in *The JI*. Several highly cited manuscripts provided descriptions of lymphokines and growth factors, laying groundwork for the ongoing study of cytokines and chemokines. The two most-cited articles both described assays for chemotactic factors, one for granulocytes and the other for agranulocytes. The function of immunosuppressive cells was discovered in the early 1970s, and *The JI* published a number of papers concerning suppressor cells, mostly T cells—and one on suppressive macrophages, which has laid the groundwork for today's research in regulatory T cells, myeloid-derived suppressor cells, and more recently regulatory B cells.

For the associates, the NIH became such an attractive place to conduct research that many took the opportunity to continue their careers there far beyond the two or three years of the associateship, creating a hub for immunology research and training. Former associates have been instrumental in many major developments: long after

they were associates, Waldmann and Paul made the NIH an important center for interleukin research; Gallin has used immunotherapy and gene therapy to treat chronic granulomatous disease and led the Clinical Center from 1994 to 2017; and Fauci became a pioneer in AIDS research, headed NIAID from 1984 to 2022, and also led the nation's response to the COVID-19 pandemic.²⁴

The legacy of the Doctor Draft endures to this day. Many of those who participated in the Berry Plan remained in Bethesda and directed the future of the NIH. A cohort of scientists who were given a unique opportunity became leaders and mentors, shaping federal science policy and training new generations of immunologists and future innovators in the field.

In 2013, the AAI Office of History and Archives launched the Oral History Project, which to date has produced video interviews of 49 past AAI presidents and distinguished AAI award recipients, a few of whom are featured in this article. To view one or all the oral histories, visit <http://aaai.org/ohp>.

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AAI Grants and Awards Deadlines

June 15

AAI Travel for Techniques Awards

Summer application cycle opens April 15

- **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 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

September 1

AAI Fellowship Program for Career Reentry

2023 application cycle opens June 1

- **Prize/Award:** In support of immunologists' reentry into the workforce after a qualifying lapse of research or research training, multiple awards providing one year of salary support to postdoctoral trainees who have taken a leave of absence of one year or more for family-related issues, medical absences, or military obligations
- **Eligibility:** Applicants with a tentative written offer of appointment as a postdoctoral fellow in immunology or a related field; trainees funded under this program may not be supported concomitantly by other fellowships that provide salary compensation
- **Details:** www.aai.org/ReentryFellowship
- **Contact:** fellowships@aai.org

September 1

AAI Intersect Fellowship Program for Computational Scientists and Immunologists

2023 application cycle opens June 1

- **Prize/Award:** Multiple postdoctoral fellowship awards providing one year of salary support affording immunology researchers the opportunity to train in computational science and/or computational scientists to train in immunology
- **Eligibility:** At least one of the collaborating PIs seeking support must be an AAI member in good standing; application may be for support of a postdoctoral fellow trained in basic bench research to undertake one year of training in computational science, or a postdoctoral fellow trained in computational science to spend one year in an immunology research lab to learn basic immunological principles and laboratory techniques; reciprocal six-month exchanges between labs will also be considered; trainees must be in years 1–5 of postdoctoral training in the physical/mathematical/computational sciences, immunology, or related fields (those who have completed five years of training and transitioned into a second postdoctoral position will be considered on a case-by-case basis); trainees funded under this program may not be supported concomitantly by other fellowships that provide salary compensation
- **Details:** www.aai.org/IntersectFellowship
- **Contact:** fellowships@aai.org

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.

Mark Your Calendar for These Important Dates!

Please note that the meetings listed on these pages were still scheduled at press time, but cancellations may occur. Please check an individual meeting's website to confirm that it is still scheduled.

2023

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/

March 16–18

CORA 2023: The 7th International Congress on Controversies in Rheumatology and Autoimmunity

Lingotto Congress Centre, Turin, Italy

<https://cora.kenes.com/welcome-letter/>

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.keystonesymposia.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>

April 30–May 3

International Transplant Science Meeting

Niagara-on-the-Lake, Ontario, Canada

www.its2023.org

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™, 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/>

May 31–June 2

Novel Concepts in Innate Immunity (hybrid meeting)

Eberhard-Karls-University Tübingen, Tübingen, Germany

www.innate-immunity-conference.de

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 8–9

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

Hôpital Necker, Paris, France

www.langerhans.org

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 28–September 1

International Society for Developmental and Comparative Immunology Congress

Wageningen, The Netherlands

<https://isdci.org/congress/>

August 31–September 5

International Complement Workshop 2023

Newcastle, United Kingdom

www.complement.org/ICW-2023

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

<https://icw2023newcastle.co.uk/>

September 5–8

Meeting on Regulating with RNA in Bacteria and Archaea

Hilton Bayfront, St. Petersburg, FL

<https://microbialnameeting.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

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

MEETINGS AND EVENTS

October 16–20

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

San Antonio Marriott Rivercenter,
San Antonio, TX

<https://2023.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 15–18

ABRCMS 2023: Annual Biomedical Research Conference for Minoritized Scientists

Phoenix, AZ

<https://abrcms.org/>

November 17–21

International Veterinary Immunology Symposium (IVIS) 2023

Kruger National Park, South Africa

<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 ASCBIEMBO 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 3–7

IMMUNOLOGY2024™, AAI Annual Meeting

Chicago, IL

www.immunology2024.org



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/>

September 2–6

19th European Meeting on Complement in Human Diseases

Lübeck, Germany

www.emchd2024.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://2023.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

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IMPORTANT DATES

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A photograph of the Chicago skyline at dusk, featuring the Willis Tower and other skyscrapers with their lights on. In the foreground, there is a park with green trees and a body of water reflecting the city lights. The sky is a mix of blue and orange.

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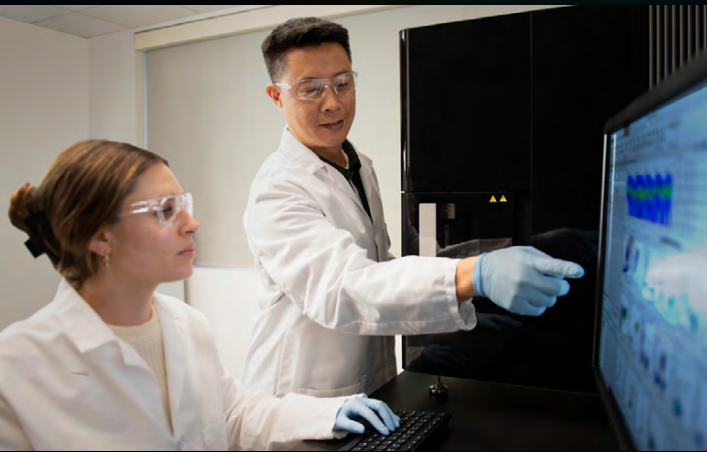
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