



CALL FOR ABSTRACTS

**VIRTUAL
IMMUNOLOGY2021™**

More science, more time, your way

AAI ANNUAL MEETING | MAY 10–15, 2021

A FULLY ONLINE EXPERIENCE

WWW.IMMUNOLOGY2021.ORG

PRESIDENTS' PROGRAMS

Due to the cancellation of IMMUNOLOGY2020™, both Dr. Ting and Dr. Boss will have a president's program at Virtual IMMUNOLOGY2021™.

2021 AAI President's Address

The All-Encompassing Importance of Innate Immunity

Jenny P. Ting, Univ. of North Carolina, Chapel Hill
AAI President (2020–2021)

Introduction

Jeffrey A. Frelinger, Univ. of Arizona and Univ. of North Carolina, Chapel Hill



Jenny P. Ting

2021 AAI President's Symposium

The Impact of Immunology on Health and Diseases: As Far as the Eye Can See

Chair

Jenny P. Ting, Univ. of North Carolina, Chapel Hill
AAI President (2020–2021)

Speakers

Etty (Tika) N. Benveniste, Univ. of Alabama, Birmingham
Neutrophil involvement in autoimmune neuroinflammation

Mary N. Carrington, NCI, NIH
The impact of immunogenetic variation on functional characteristics of the immune response

Blossom A. Damania, Univ. of North Carolina, Chapel Hill
Modulation of host immunity by human herpesviruses

Laurie H. Glimcher, Dana Farber Cancer Inst.
Stressed out: a novel approach to cancer immunotherapy



Etty (Tika) N. Benveniste



Mary N. Carrington



Blossom A. Damania



Laurie H. Glimcher

PRESIDENTS' PROGRAMS

2020 AAI President's Address

The Regulation of Immunity
Presentation of AAI Lifetime Achievement Award to
Marc K. Jenkins

Jeremy M. Boss, Emory Univ. Sch. of Med.
AAI President (2019–2020)

Introduction

Peter E. Jensen, Univ. of Utah



Jeremy M. Boss

2020 AAI President's Symposium

Genes and Genomes in Healthy and
Autoimmune Lymphocytes
Presentation of AAI Excellence in Mentoring Award to
Jeffrey A. Bluestone

Chair

Jeremy M. Boss, Emory Univ. Sch. of Med.
AAI President (2019–2020)

Speakers

Michael S. Krangel, Duke Univ. Med. Ctr.
RAG expression and TCR repertoire formation in double
positive thymocytes

Frances E. Lund, Univ. of Alabama, Birmingham
Inflammatory cytokine-mediated control of effector
memory B cell development and function

Eugene M. Oltz, The Ohio State Univ. Col. of Med.
Wiring schemes for innate and adaptive
lymphoid cells

Max D. Cooper, Emory Univ. Sch. of Med.
The evolution of T and B cells



Michael S. Krangel



Frances E. Lund



Eugene M. Oltz



Max D. Cooper

DISTINGUISHED LECTURES

The 2021 Distinguished Lectures Program is dedicated to the memory of Dr. Wendy Havran. Dr. Havran was selected as a Distinguished Lecturer for **IMMUNOLOGY2020™** but she unfortunately died after a brief illness in January 2020. A tribute to her exemplary service to AAI, and to her life and work, may be read at www.aai.org/tribute.



Michael P. Cancro

Univ. of Pennsylvania Perelman
Sch. of Med.

*A tale of two subsets: rethinking B cell
selection, homeostasis, and memory*



Dario A. A. Vignali

Univ. of Pittsburgh Sch. of Med.
*Immune inhibitory mechanisms
in cancer*



Donna L. Farber

Columbia Univ. Med. Ctr.
Human immunity in space and time

CAREER AWARDS

Each year AAI recognizes the extraordinary professional achievements and career promise of its members. The following are the recipients of the 2020 AAI Career Awards being presented at **Virtual IMMUNOLOGY2021™**.



AAI Lifetime Achievement Award

*Presented prior to Dr. Boss's
President's Address*

Recognizes a member for a
career of extraordinary scientific
achievement and exceptional
leadership and service to AAI

Marc K. Jenkins
Univ. of Minnesota Ctr.
for Immunology



AAI Distinguished Service Award

*Presented at the
Business Meeting*

Recognizes a member for outstanding
service to the AAI community and the
field of immunology

Juan Carlos Zúñiga-Pflücker
Univ. of Toronto and Sunnybrook
Res. Inst., Canada



AAI Excellence in Mentoring Award

*Presented prior to Dr. Boss's
President's Symposium*

Recognizes a member for exemplary
career contributions to a future
generation of scientists

Jeffrey A. Bluestone
Univ. of California, San Francisco,
and Sonoma Biotherapeutics



AAI-BD Biosciences Investigator Award Presentation and Lecture

Recognizes an early-career investigator who has made outstanding contributions to the field of immunology

Erika L. Pearce

Max Planck Inst. of Immunobiology and Epigenetics, Germany; Bloomberg-Kimmel Inst. for Cancer Immunotherapy, Johns Hopkins Univ. (as of January 1, 2021)

Metabolic regulation of T cell function



AAI-BioLegend Herzenberg Award Presentation and Lecture

Recognizes an individual who has made exemplary research contributions to the field of B cell biology

Susan K. Pierce

NIAID, NIH

Regulators and influencers of B cell affinity



AAI-Thermo Fisher Meritorious Career Award Presentation and Lecture

Recognizes a mid-career scientist for outstanding research contributions to the field of immunology

Alexander Y. Rudensky

HHMI, Mem. Sloan Kettering Cancer Ctr., Rockefeller Univ., and Weill Cornell Med.

The virtue of restraint in adaptive immunity



AAI-Steinman Award for Human Immunology Research Presentation and Lecture

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

Michael J. Lenardo

NIAID, NIH

Identification of novel gene defects leads to precision therapies for congenital immune diseases

MAJOR SYMPOSIA

Major Symposium A

Modern World Influences of the Microbiome and their Consequences for Immune-Mediated Diseases

Chairs

Cathryn Nagler, Univ. of Chicago

Barbara Rehermann, NIDDK, NIH

Speakers

Barbara Rehermann, NIDDK, NIH

Natural vs. laboratory world: wild mouse microbiota improve host fitness and preclinical models

Noah Palm, Yale Univ.

Illuminating the 'dark matter' of the bioactive microbiota metabolome

June L. Round, Univ. of Utah

Microbe-immune interactions prevent obesity

Cathryn Nagler, Univ. of Chicago

Intestinal bacteria regulate allergic responses to food

Neil Surana, Duke Univ.

Microbiome engineering to treat inflammatory diseases

Major Symposium B

Host Immunity to Intracellular Pathogens

Chairs

Phillip A. Scott, Univ. of Pennsylvania Sch. of Vet. Med

Shabaana Khader, Washington Univ., St. Louis

Speakers

Phillip A. Scott, Univ. of Pennsylvania Sch. of Vet. Med.

Pathways promoting pathology: how CD8⁺ T cell cytotoxicity influences disease outcome in cutaneous leishmaniasis

Shabaana A. Khader, Washington Univ., St. Louis

Role of innate lymphoid cells in tuberculosis

John T. Harty, Univ. of Iowa

T cell immunity in tissues

Manuela Raffatellu, Univ. of California, San Diego

Mucosal immunity to Salmonella

Melissa B. Lodoen, Univ. of California, Irvine

Innate immunity and pathogenesis in the vasculature during Toxoplasma gondii infection

Maziar Divangahi, McGill Univ., Canada

Hematopoietic stem cells: the target for vaccine or pathogen

Major Symposium C

Immunological Angle of the Brain and its Diseases

Chairs

Jonathan Kipnis, Washington Univ., St. Louis

Zsuzsanna Fabry, Univ. of Wisconsin Sch. of Med.

Speakers

Zsuzsanna Fabry, Univ. of Wisconsin Sch. of Med.

Dendritic cells link neuroinflammation and lymphangiogenesis in the brain

Antoine Laveau, Lerner Res. Inst.

Regulation of brain maturation by the meningeal lymphatic vasculature

Isaac M. Chiu, Harvard Univ.

Role of neuro-immune interactions in bacterial host defense

Ashley Moseman, Duke Univ. Sch. of Med.

Coordinating CNS host defense following olfactory neuroinvasion

Stanley Perlman, Univ. of Iowa

Coronavirus infections of the CNS and immunological responses

Beth Stevens, Boston Children's Hosp.

Mapping microglia states to function in health and disease

Major Symposium D

Innate Immunity: The Good, The Bad, The Ugly

Chairs

Clara Abraham, Yale Univ.

Katherine A. Fitzgerald, Univ. of Massachusetts Med. Sch.

Speakers

Clara Abraham, Yale Univ.

Modulation of innate immune responses by disease-associated genes

Katherine A. Fitzgerald, Univ. of Massachusetts Med. Sch.

Regulation of inflammation by nucleic acid-binding proteins

Daniel B. Stetson, Univ. of Washington

Innate immune detection of intracellular DNA

Raphaela T. Goldbach-Mansky, NIAID, NIH

Innate immune dysregulation in autoinflammatory diseases

Gregory F. Sonnenberg, Weill Cornell Med.

Immune regulation of intestinal health

Kodi S. Ravichandran, Univ. of Virginia

Soothing messages on the way out: apoptotic cell communication with the neighborhood

Major Symposium E

Molecular Mechanisms of Tumor Immunity

Chairs

Thomas F. Gajewski, Univ. of Chicago

Lisa H. Butterfield, Parker Inst. for Cancer Immunotherapy

Speakers

Thomas F. Gajewski, Univ. of Chicago

Mechanisms of cancer immunotherapy efficacy vs. resistance

Lisa H. Butterfield, Parker Inst. for Cancer Immunotherapy

Cancer vaccines and what does and doesn't matter

Weiping Zou, Univ. of Michigan

Metabolic impact on cancer immunity and therapy

Jennifer A. Wargo, Univ. of Texas MD Anderson Cancer Ctr.

The role of the microbiome in response and toxicity to therapy

Arlene H. Sharpe, Harvard Med. Sch.

Discovery of new immuno-oncology targets leveraging CRISPR

Major Symposium F

Engineering Immunity

Chairs

Dennis Burton, Scripps Res.

Benjamin A. Youngblood, St. Jude Children's Res. Hosp.

Speakers

Dennis Burton, Scripps Res.

Neutralizing antibodies, neutralization, and vaccines

Laura M. Walker, Adimab, LLC

Broad and potent neutralizing antibodies to combat viral threats

Darrell J. Irvine, MIT

The impact of vaccine kinetics on humoral immunity

Alexander Marson, Univ. of California, San Francisco
Reprogramming human T cells with CRISPR

Benjamin A. Youngblood, St. Jude Children's Res. Hosp.
Epigenetic reprogramming of CD8⁺ T cell differentiation potential

Anjana Rao, La Jolla Inst. for Immunology
Transcriptional and epigenetic regulation in anti-tumor responses

Major Symposium G

B Lineage Signals in Protective vs. Maladaptive Antibody Responses

Chairs

Mark R. Boothby, Vanderbilt Univ. Med. Ctr.

Roberta Pelanda, Univ. of Colorado, Denver

Speakers

Roberta Pelanda, Univ. of Colorado, Denver

Molecular control of central B cell tolerance: is it one for all?

Julie Zikherman, Univ. of California, San Francisco

Negative feedback regulation of normal and autoimmune B cell responses.

João P. Pereira, Yale Univ.

B cell circuits in homeostasis and disease

Pamela L. Schwartzberg, NIAID, NIH

Modulation of B cell responses by PI3K-delta

Mark R. Boothby, Vanderbilt Univ. Med. Ctr.

Imag(in)ing a fusion of nutrients, metabolism, and function as B cells effect antibody responses

Michel C. Nussenzweig, HHMI, Rockefeller Univ.

Human antibody responses to viral pathogens

Major Symposium H

Stromal Cells Underpinning Immune Cell Development and Function

Chairs

Susan R. Schwab, New York Univ. Grossman Sch. of Med.

Juan Carlos Zúñiga-Pflücker, Univ. of Toronto and Sunnybrook Res. Inst., Canada

Speakers

Juan Carlos Zúñiga-Pflücker, Univ. of Toronto and Sunnybrook Res. Inst., Canada

Thymus stromal cells are plastic

Mark S. Anderson, Univ. of California, San Francisco

Maintenance of immune tolerance by thymic stromal cells

Burkhard Ludewig, Kantonsspital St. Gallen, Switzerland

Fibroblastic reticular cells: subsets and functions

Susan R. Schwab, New York Univ. Grossman Sch. of Med.

Exit strategies: S1P and immune cell migration

Theresa T.-S. Lu, Hosp. for Special Surgery Res. Inst.

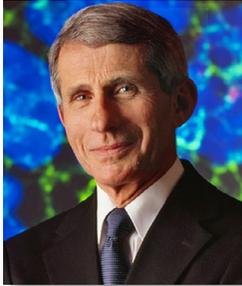
Langerhans cells and stromal regulation in lupus

Melody A. Swartz, Univ. of Chicago

Antigen presentation by lymphatic endothelial cells and T cell memory

All session information is subject to change.

SPECIAL SESSIONS



Anthony S. Fauci



Linda J. Saif



De'Broski R. Herbert

COVID-19 and the Science of Pandemics— Lessons Learned

Co-Chairs

David Masopust, Univ. of Minnesota, AAI Program Committee Chair

M. Michele Hogan, Executive Director, AAI

Speakers

Anthony S. Fauci, Director, NIAID, NIH

Linda J. Saif, Distinguished University Professor, The Ohio State Univ.

AAI Vanguard Lecture

Presented by an AAI member selected by the Minority Affairs Committee for their scientific achievement and exemplary career success.

Chair

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

Speaker

De'Broski R. Herbert, Univ. of Pennsylvania Sch. of Vet. Med.

IL-33 regulates the balance between inflammation and immunosuppression

GUEST SESSIONS

(Past Participants)

American Society for Reproductive Immunology (ASRI)

The American Society of Transplantation (AST)

The American Society of Tropical Medicine and Hygiene (ASTMH)

Australasian Society for Immunology (ASI)

Canadian Society for Immunology (CSI)

Center for Scientific Review (CSR, NIH)

Chinese Society for Immunology (CSI)

Chinese Society of Immunology, Taiwan (CSIT)

European Federation of Immunological Societies (EFIS)

German Society for Immunology (DGfI)

International Complement Society (ICS)

The International Cytokine and Interferon Society (ICIS)

International Society of Developmental and Comparative Immunology (ISDCI)

Japanese Society for Immunology (JSI)

Korean Association of Immunologists (KAI) and

The Association of Korean Immunologist in America (AKIA)

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

National Institute of Environmental Health Sciences (NIEHS, NIH)

National Institute on Aging (NIA, NIH)

The Obesity Society (TOS)

Society for Immunotherapy of Cancer (SITC)

Society for Leukocyte Biology (SLB)

Society for Mucosal Immunology (SMI)

Society for Natural Immunity (SNI)

COMMITTEE-SPONSORED SESSIONS AND EVENTS

AAI Committees host symposia, workshops, lectures, and events that address the most recent advances in their specialty areas of immunology research, as well as issues in public policy and career development.

Clinical Immunology Committee

Transforming the Study of Human Disease through Systems Immunology

Chair: Jennifer Anolik, Univ. of Rochester Med. Ctr.

Committee on Public Affairs

The U.S. COVID-19 Response: Successes, Failures, and Ongoing Challenges

Chair: Ross M. Kedl, Univ. of Colorado Anschutz Sch. of Med.

Committee on the Status of Women and Education Committee

Careers in Science Roundtables

Chair: Laura A. Solt, Scripps Res.

Education Committee

- *Careers in Biotech Panel Discussion*

Chair: H. Kiyomi Komori, Arena Pharmaceuticals

- *Immunology Teaching Interest Group*

Chairs: Edith Porter, California State Univ., Los Angeles, and **Michelle A. Swanson-Mungerson**, Chicago Col. of Osteopathic Med., Northwestern Univ.

Minority Affairs Committee

Chair: Tonya J. Webb, Univ. of Maryland Sch. of Med.

- *Panel Discussion: Minority Scientists' Experiences: Challenging and Overcoming Barriers to Enhancing Diversity and Career Advancement*
- *Careers Roundtables*
- *AAI Vanguard Lecture*

Program Committee

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

Chairs: David Masopust, Univ. of Minnesota; and **Kimberly S. Schluns**, Univ. of Texas MD Anderson Cancer Ctr.

Publications Committee

How to Write a Scientific Paper, Respond to Reviews, and Disseminate Your Findings

Chair: Eugene M. Oltz, The Ohio State Univ. Col. of Med., Editor-in-Chief, *The Journal of Immunology*

Veterinary Immunology Committee

Zoonotic Pandemics—Immune Factors Contributing to Pathogenesis and Protection

Chair: Crystal L. Loving, Natl. Animal Dis. Ctr., ARS, USDA

For session details and presentations, visit www.IMMUNOLOGY2021.org/scientific-program.

CAREER DEVELOPMENT OPPORTUNITIES

In addition to committee-sponsored sessions, **Virtual IMMUNOLOGY2021™** will provide the following career development programs. AAI will also sponsor a Jobs Board during the meeting.

How to Convert Your CV into a Résumé

Speaker: Derek Haseltine, Career Development Ctr., Baylor Col. of Med.; Hertz Foundation (as of January 2021)

Interviewing for a Job

Speaker: Derek Haseltine, Career Development Ctr., Baylor Col. of Med.; Hertz Foundation (as of January 2021)

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

Chair: Tina McIntyre, CSR, NIH

How to Have a Successful Postdoctoral Experience

Speaker: Lori Conlan, Office of Postdoctoral Services, NIH

ABSTRACTS

AAI invites the submission of abstracts that report unpublished data from research developments in all areas of immunology. Abstracts are welcome from scientists in all sectors—academia, government, and industry. To submit an abstract, please go to www.IMMUNOLOGY2021.org/abstracts.

- All accepted abstracts will be presented in virtual poster sessions.
- Authors will be present to discuss research results during assigned poster times. These times will be unopposed by other sessions.
- First authors of abstracts must register for the meeting in order to present their work. *(Details to follow with acceptance notifications.)*
- Submitting an abstract is **not** the same as registering for the meeting. To register, please visit www.IMMUNOLOGY2021.org/registration by April 20, 2021.

Abstract Submission Now Open

Abstract Submission Closes January 26, 2021

Abstract Submission Fees

AAI Member \$80 Nonmember \$115

Abstract submission fees are non-refundable. Please note that registration fees are additional.

IMPORTANT

For submission guidelines and details on abstract topic categories, visit www.IMMUNOLOGY2021.org/abstracts.

PUBLICATION OF ABSTRACTS

All successfully presented abstracts will be published in a supplement to *The Journal of Immunology*.

BLOCK SYMPOSIA

- Outstanding abstracts will be programmed for oral presentation in Block Symposia. *(Assigned times will be provided with acceptance notifications.)*
- First authors will be required to upload their presentations. *(Further instructions will be provided with acceptance notifications.)*
- Authors presenting in Block Symposia **must also** present a poster in a designated poster session.

POSTERS

- Posters will be available for viewing throughout the meeting.
- All poster presenters will be required to upload a PDF of their poster. *(Further instructions will be provided with acceptance notifications.)*
- All poster presenters will be required to pre-record and upload a short presentation of their poster. This should act like a guided presentation for attendees as they view a poster. *(Further instructions will be provided with acceptance notifications.)*
- All poster presenters will be required to be available for a live Q&A session during an assigned time. *(Assigned times will be provided with acceptance notifications.)*

Please note: AAI cannot prevent screenshots of posters or the photography/recording of poster presentations in a virtual environment.

TRAINEE ABSTRACT AWARDS

Hundreds of AAI members are eligible to receive Trainee Abstract Awards each year! To be eligible for these awards, individuals must be members of AAI at the time of abstract submission. Details about **Virtual IMMUNOLOGY2021™** awards can be found at www.aai.org/Awards. **Join AAI or renew your membership and submit your abstract by January 26, 2021.**

To renew or become an AAI member, visit www.aai.org/membership/join.

VIRTUAL EXHIBIT HALL

Leading scientific companies and organizations will showcase their products and services. Attendees will be able to visit booths and learn more through product videos and resources, engage through Live Chat and/or scheduled appointments, and attend workshops.

Plan which exhibits you wish to visit and learn more by viewing the interactive Virtual Exhibit Hall at www.IMMUNOLOGY2021.org/exhibitors.

Virtual Exhibit Hall Hours

Please note that all times listed are U.S. Eastern Time.

Tuesday, May 11

10:30 AM–8:00 PM

(Unopposed) 7:00 PM–8:00 PM

Wednesday, May 12

9:00 AM–6:30 PM

(Unopposed) 9:00 AM–10:00 AM

Thursday, May 13

10:30 AM–8:00 PM

(Unopposed) 7:00 PM–8:00 PM

Friday, May 14

9:00 AM–6:30 PM

(Unopposed) 9:00 AM–10:00 AM

Saturday, May 15

10:30 AM–5:30 PM

(Unopposed) 1:00 PM–2:00 PM

VIRTUAL EXHIBITOR WORKSHOPS

Take advantage of the knowledge-building opportunities presented in Virtual Exhibitor Workshops. These workshops explore the newest technologies, products, and services through presentations, demonstrations, and discussions.

Workshops are planned and conducted by exhibitors. These sessions do not constitute endorsement of any product or service by AAI.

MEET THE EXHIBITORS ONLINE!

Visit www.IMMUNOLOGY2021.org/exhibitors to learn about all the exciting new products and services you will see at **Virtual IMMUNOLOGY2021™**.

JOBS BOARD

Post Online

AAI offers career services to job seekers and employers through the Jobs Board—free for registrants and exhibitors.

Jobs Board submission information will be available online in February 2021.

REGISTRATION

Registration Now Open

Early Registration Deadline: April 20, 2021

The registration fee covers access to all scientific events, posters, exhibits, social events, and archived scientific program. Visit www.IMMUNOLOGY2021.org/registration for complete details.

| REGISTRATION CATEGORIES AND FEES | | EARLY REGISTRATION December 1–April 20 | REGULAR REGISTRATION After April 20 |
|---|---------------------------------|---|--|
| MEMBERS* | Regular, Associate, and Postdoc | \$395 | \$495 |
| | Emeritus | \$250 | \$250 |
| | Young Professionals | \$150 | \$175 |
| | Graduate Student | \$80 | \$115 |
| | Undergrad Student | \$55 | \$75 |
| NONMEMBERS* <i>Take advantage of reduced rates by becoming a member or renewing before registering.</i> | Regular, Associate, and Postdoc | \$595 | \$695 |
| | Young Professionals | \$250** | \$450** |
| | Graduate Student | \$225** | \$450** |
| | Undergrad Student | \$225** | \$450** |
| | High School Teacher | | \$55** |
| | High School Student | | \$55** |
| There is a special registration rate for scientists from <i>developing countries</i> . Please contact meetings@aai.org to register. | | | |
| Cancellation Fee | | \$75 up until April 20, 2021 | No refunds after April 20, 2021 |

*Registrants **must** be a member at the time of registration to qualify for the lowest rates. Registrants who renew or become members **after** registering for the meeting will not be refunded the difference in rates. Visit www.aai.org/membership to join or direct inquiries to members@aai.org.

**Contact meetings@aai.org to register.

**JOIN US ONLINE MAY 10–15, 2021,
FOR MORE SCIENCE, MORE
TIME, YOUR WAY!**

Visit www.IMMUNOLOGY2021.org
to view the full program.

IMPORTANT DATES AND DEADLINES

Abstract Submission

| | |
|----------------------------|------------------|
| Abstract Submission | Now Open |
| Abstract Submission Closes | January 26, 2021 |

Trainee Abstract Awards

| | |
|----------------------|------------------|
| Application cycle | Now Open |
| Application deadline | January 26, 2021 |

Registration

| | |
|----------------------------------|----------------|
| Registration | Now Open |
| Early Registration Discount Ends | April 20, 2021 |