

# NIH Research Festival

*A Celebration of  
Intramural Science*

## Join Us for the Annual Showcase of NIH Intramural Research

Plenary Sessions  
Concurrent Symposia Sessions  
Poster Sessions  
Green Events and Green Labs Fair  
Special Exhibits on IRP Resources  
Virtual Reality at the NIH Library  
Vendor Tent Show, and More

[researchfestival.nih.gov](http://researchfestival.nih.gov)

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Image provided by: NIAID

**#ResearchFest**

**September 12–14, 2018**

Building 10 | NIH Bethesda Campus



**Intramural Research Program**  
*Our Research Changes Lives*

# 2018 NIH Research Festival: A Celebration of Intramural Science

## General Schedule of Events

All events will be held in and around NIH Building 10  
Light refreshments will be served during poster sessions

### DAY 1

10:00 a.m. – 12:00 p.m.

12:00 p.m. – 1:30 p.m.

12:00 p.m. – 2:00 p.m.

12:00 p.m. – 4:00 p.m.

1:30 p.m. – 3:30 p.m.

3:30 p.m. – 5:00 p.m.

3:30 p.m. – 5:00 p.m.

### DAY 2

9:30 a.m. – 10:00 a.m.

9:30 a.m. – 3:30 p.m.

10:00 a.m. – 12:00 p.m.

11:30 a.m. – 1:30 p.m.

12:00 p.m. – 1:30 p.m.

12:00 p.m. – 1:30 p.m.

12:00 p.m. – 4:00 p.m.

1:30 p.m. – 3:30 p.m.

2:45 p.m. – 3:15 p.m.

3:30 p.m. – 5:00 p.m.

3:30 p.m. – 5:00 p.m.

### DAY 3

9:30 a.m. – 2:30 p.m.

10:00 a.m. – 12:00 p.m.

11:30 a.m. – 1:30 p.m.

12:00 p.m. – 1:30 p.m.

12:00 p.m. – 1:30 p.m.

### Wednesday, September 12

**Plenary Session I**, Masur Auditorium

**Poster Session I**, FAES Terrace

**NIH Green Labs Fair and Exhibits**, South Lobby

**NIH Library VR and Tech Hub Demos**, NIH Library

**Concurrent Symposia Session I**, locations vary

**Poster Session II plus IC and Scientific Directors Poster Session**,  
FAES Terrace

**Special Exhibits on Resources for Intramural Research**, South Lobby

### Thursday, September 13

**FARE Awards Ceremony**, Masur Auditorium

**Technical Sales Association (TSA) Exhibit Tent Show**, Parking Lot 10H

**Plenary Session II**, Masur Auditorium

**R&W “Taste of Bethesda” Lunch**, Parking Lot 10H

**Poster Session III**, FAES Terrace

**Special Exhibits on Resources for Intramural Research**, South Lobby

**NIH Library VR and Tech Hub Demos**, NIH Library

**Concurrent Symposia Session II**, locations vary

**Animal Tribute Commemorative Ceremony**, Building 10 South Garden

**Poster Session IV**, FAES Terrace

**Special Exhibits on Resources for Intramural Research**, South Lobby

### Friday, September 14

**Technical Sales Association (TSA) Exhibit Tent Show**, Parking Lot 10H

**Plenary Session III**, Masur Auditorium

**R&W “Food Truck Brigade” Lunch**, Parking Lot 10H

**Poster Session V**, FAES Terrace

**Special Exhibits on Resources for Intramural Research**, South Lobby

# Day 1

Wednesday, September 12, 2018

10:00 a.m. – 12:00 p.m.

## Plenary Session I, Masur Auditorium

- **“The most important nine months of your life”**  
Diana Bianchi, M.D.  
Director, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development
- **“Mental health research: priorities and progress”**  
Joshua A. Gordon, M.D., Ph.D.  
Director, National Institute of Mental Health
- **“Advancing health through accelerating information access: the National Library of Medicine prepares for its third century”**  
Patricia Flatley Brennan, R.N., Ph.D.  
Director, National Library of Medicine
- **“Ending the HIV/AIDS pandemic: an achievable goal”**  
Anthony S. Fauci, M.D.  
Director, National Institute of Allergy and Infectious Diseases

12:00 p.m. – 1:30 p.m.

## Poster Session I

Developmental Biology; Genetics and Genomics; Research Support Services; Social and Behavioral Sciences  
FAES Terrace

12:00 p.m. – 2:00 p.m.

## NIH Green Labs Fair and Exhibits

South Lobby

12:00 p.m. – 4:00 p.m.

## NIH Library Virtual Reality and Technology Hub Demonstrations

NIH Library

1:30 p.m. – 3:30 p.m.

## Concurrent Symposia Session I

- **Cell-Based Gene Editing and CRISPR**, Masur Auditorium
- **Myeloid Malignancies**, Lipsett Amphitheater
- **Vascular Biology**, FAES Classrooms 1-4
- **Technology Transfer**, FAES Classrooms 6-7

3:30 p.m. – 5:00 p.m.

## Poster Session II plus IC and Scientific Directors Poster Session,

IC/Scientific Directors; Cancer Biology; Microbiology and Infectious Diseases  
FAES Terrace

3:30 p.m. – 5:00 p.m.

## Special Exhibits on Resources for Intramural Research

South Lobby

## Day 2

Thursday, September 13, 2018

9:30 a.m. – 10:00 a.m.

### FARE Awards Ceremony

Masur Auditorium

9:30 a.m. – 3:30 p.m.

### Technical Sales Association (TSA) Exhibit Tent Show

Parking Lot 10H

10:00 a.m. – 12:00 p.m.

### Plenary Session II, Masur Auditorium

#### Primary Immunodeficiency

- “Allogeneic hematopoietic cell transplantation for immune deficiency: reducing toxicity to improve outcomes in high-risk patients  
Jennifer A. Kanakry, M.D. (NCI-CCR)
- “Combined immune deficiency with immune dysregulation: pathophysiology and novel approaches to treatment – RAG deficiency as a model”  
Luigi D. Notarangelo, M.D. (NIAID)

#### Lysosomal Disorders

- “The Undiagnosed Diseases Program: a new lysosomal storage disease”  
William Gahl, M.D., Ph.D. (NHGRI)
- “A new lysosomal storage disease: gain-of-function mutation in the chloride transporter CLCN7”  
Joseph A. Mindell, M.D., Ph.D. (NINDS)

11:30 a.m. – 1:30 p.m.

### R&W “Taste of Bethesda” Lunch

Parking Lot 10H

12:00 p.m. – 1:30 p.m.

### Poster Session III

Chemical Biology; Epidemiology; Immunology; Structural Biology;  
Systems Biology; Virology  
FAES Terrace

12:00 p.m. – 1:30 p.m.

### Special Exhibits on Resources for Intramural Research

South Lobby

12:00 p.m. – 4:00 p.m.

### NIH Library Virtual Reality and Technology Hub Demonstrations

NIH Library

1:30 p.m. – 3:30 p.m.

### Concurrent Symposia Session II

- Computational Biology, Data Science, Machine Learning, and Hackathon results  
Masur Auditorium
- High-Throughput Sequencing – From Single Cell Sequencing to Changing Patient Care, Lipsett Amphitheater
- Chemistry and Biology, FAES Classrooms 1-4

2:45 p.m. – 3:15 p.m.

### Animal Tribute Commemorative Ceremony

Building 10 South Garden

3:30 p.m. – 5:00 p.m.

### Poster Session IV

Biomedical Imaging and Biophysics; Cell Biology; Chromosome Biology;  
Health Disparities; Molecular Pharmacology; Stem Cell Biology  
FAES Terrace

3:30 p.m. – 5:00 p.m.

### Special Exhibits on Resources for Intramural Research

South Lobby

## Day 3

Friday, September 14, 2018

9:30 a.m. – 2:30 p.m.

### Technical Sales Association (TSA) Exhibit Tent Show

Parking Lot 10H

10:00 a.m. – 12:00 p.m.

### Plenary Session III, Masur Auditorium

#### Atopic Dermatitis

- “A rosier future for allergic dermatitis”  
Ian A. Myles, M.D., M.P.H. (NIAID)
- “Role of atopic dermatitis in the development and manifestation of food allergy”  
Pamela A. Guerrerio, M.D., Ph.D. (NIAID)

#### Influenza

- “On the centennial of the 1918 influenza: lessons from the past and planning for the future”  
Jeffery K. Taubenberger, M.D., Ph.D. (NIAID)
- “Studying influenza virus and vaccine organization by cryo-electron microscopy: the next ice age”  
Audray Harris, Ph.D. (NIAID)

11:30 a.m. – 1:30 p.m.

### R&W “Food Truck Brigade” Lunch

Parking Lot 10H

12:00 p.m. – 1:30 p.m.

### Poster Session V

Computational Biology; Molecular Biology and Biochemistry; Neuroscience  
FAES Terrace

12:00 p.m. – 1:30 p.m.

### Special Exhibits on Resources for Intramural Research

South Lobby

# Technical Sales Association (TSA) Research Festival Exhibit Tent Show

Thursday, September 13, 2018 – 9:30 a.m. to 3:30 p.m.

Friday, September 14, 2018 – 9:30 a.m. to 2:30 p.m.

The Technical Sales Association (TSA) sponsors the popular Research Festival Exhibit Tent show. A large group of exhibitors will display state-of-the-art equipment supplies and services from leading regional and national biomedical research suppliers. For more information, please visit: <http://www.gtpmgt.com>. To view a list of confirmed exhibit booths please visit: <http://www.gtpmgt.com/attendees.php?id=4>.



Thank you for attending the 2018 NIH Research Festival and for your support of the NIH Intramural Research Program. We hope you will enjoy sharing and learning about the exciting research taking place on campus.

For more information, please visit: <http://researchfestival.nih.gov>

You can also email us at [researchfest@mail.nih.gov](mailto:researchfest@mail.nih.gov).

Follow us on Twitter: [@NIHResearchFest](https://twitter.com/NIHResearchFest)

## #ResearchFest

### NIH Research Festival Co-Chairs:

Steven M. Holland, M.D., Scientific Director, NIAID

Tom Misteli, Ph.D., Scientific Director, NCI-CCR



**Intramural Research Program**

*Our Research Changes Lives*

[irp.nih.gov](http://irp.nih.gov)

#### Cover image:

A universal flu vaccine prototype for durable and effective protection is visualized as the combination of the designed sequence (colored ribbon) and the experimentally determined particle surface (glass surface). The nanoparticle vaccine is a hybrid of a scaffold (blue) and eight influenza hemagglutinin proteins arrayed about the surface (yellow). The hemagglutinin sequence was specifically engineered to display antibody binding sites common to all human influenza subtypes. The particle designed by Jeffrey Boyington was shown to be effective immunogen in animal studies (Vaccine Research Center, NIAID). The 3D structure of the particle was determined by cryo-electron microscopy by John Gallagher and Audray Harris (Laboratory of Infectious Diseases, NIAID).