



# FOCIS<sup>®</sup>

ANNUAL MEETING

**BOSTON-2023**

**JUNE 20-23**

---

SCIENTIFIC PROGRAM

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Dear Colleagues,

Welcome to FOCIS 2023, the premier translational clinical immunology event and the 23rd annual Federation of Clinical Immunology Societies meeting.

FOCIS 2023 is the only scientific meeting to approach clinical immunology from an interdisciplinary angle. Since its inception in 2001, the FOCIS Annual Meeting has become the leading forum for researchers and clinicians from a broad spectrum of specialties to come together and exchange the latest discoveries and advancements in the diagnosis and treatment of human immune-mediated diseases. The fact that FOCIS 2023 will draw close to 1,000 delegates shows how popular this meeting remains.

This week, you can expect a top-notch scientific program, featuring world-renowned speakers in plenary sessions, thematic symposia, and oral abstract sessions that will highlight current issues and scientific achievements in translational immunology.

Early evening poster sessions will feature more than 400 posters on featured topics – immunooncology and cell therapy, mechanisms of autoimmunity, allergy and autoantigens, transplantation, COVID and infectious diseases, and immunogenetics, providing an opportunity to network and share ideas.

Please join me in thanking the Scientific Program Committee, session chairs, speakers, supporters, and exhibitors for putting together this outstanding program and creating an ideal setting for collaboration, learning, and science.

We appreciate your participation in FOCIS 2023 and all that you do for translational immunology and FOCIS. Welcome to Boston!



Sincerely,

Megan Sykes, MD, FOCIS President  
Columbia University



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## FOCIS 2023 Scientific Program Committee



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## FOCIS 2023 General Information

### Evaluations

During the meeting, delegates will receive emails with reminders and a link to meeting evaluations. The evaluations are linked from the mobile app as well.

### WiFi

There is free, basic Wi-Fi access in the FOCIS meeting spaces. Please limit use to online browsing and email checking; downloading and uploading files is not permitted due to bandwidth constraints.

**Network: FOCIS2023**

**Password: immunology**

### Exhibit & Poster Hall Hours

Salon E & Foyer, 4th Floor

|                    |                   |
|--------------------|-------------------|
| Tuesday, June 20   | 6:00 PM – 7:45 PM |
| Wednesday, June 21 | 7:30 AM – 7:30 PM |
| Thursday, June 22  | 7:30 AM – 7:45 PM |

### Member Lounge (FOCIS Members Only)

Atrium Lounge, 4th Floor

FOCIS members enjoy a place to come and sit down, charge their phones and other electronics, enjoy handcrafted espresso drinks, and socialize with other members.

|                    |                   |
|--------------------|-------------------|
| Tuesday, June 20   | 7:00 AM – 4:00 PM |
| Wednesday, June 21 | 7:00 AM – 4:00 PM |
| Thursday, June 22  | 7:00 AM – 4:00 PM |
| Friday, June 23    | 7:00 AM – 2:30 PM |

### Poster Set-Up and Take-Down Hours

|                    |            |                    |
|--------------------|------------|--------------------|
| Tuesday, June 20   | Set up:    | 12:00 PM – 5:00 PM |
|                    | Take down: | 7:45 PM – 8:15 PM  |
| Wednesday, June 21 | Set up:    | 7:00 AM – 8:00 AM  |
|                    | Take down: | 7:30 PM – 8:00 PM  |
| Thursday, June 22  | Set up:    | 7:00 AM – 8:00 AM  |
|                    | Take down: | 7:45 PM – 8:00 PM  |

### Registration and Speaker Check-In Hours

Registration Desk, 4th Floor

|                    |                   |
|--------------------|-------------------|
| Monday, June 19    | 7:00 AM – 5:00 PM |
| Tuesday, June 20   | 7:00 AM – 5:00 PM |
| Wednesday, June 21 | 7:00 AM – 5:00 PM |
| Thursday, June 22  | 7:00 AM – 5:00 PM |
| Friday, June 23    | 7:00 AM – 3:45 PM |

### Speakers

At least 24 hours before their session, speakers must check-in at the speaker ready room in the Yarmouth Room on the fourth floor. On Tuesday, June 20, speakers in the Member Society Symposia are asked to bring their slides directly to the presentation room.

### Photography Policy

Please refrain from taking pictures within the sessions, exhibits, or poster hall. FOCIS has a professional photographer capturing the meeting, and the photos will be shared with attendees after it concludes.

### Release

Registration and attendance at, or participation in, FOCIS meetings and other activities signify consent by the delegate to FOCIS' use and distribution (both now and in the future) of their voice or image in pictures, electronic recordings, and other media.

By attending FOCIS 2023, you are acknowledging that an inherent risk of exposure to COVID-19 and other communicable diseases exist in any public place where people are present. You voluntarily assume all risks related to exposure and agree not to hold the Federation of Clinical Immunology Societies (FOCIS), or any of their affiliates, directors, officers, employees, agents, contractors, or volunteers liable for any illness or injury.

### Share Your Experience!

Share photos, comments on the sessions, changes you want to make because of what you learned, or engage with other attendees across all social media platforms! Use the hashtags #FOCIS and/or #FOCIS2023 so your post can be shared across our networks!

- Facebook: @focisimmunology
- Twitter: @focisimmunology
- FCE Twitter: @Focis\_FCE
- LinkedIn: Federation of Clinical Immunology Societies (FOCIS)

### Certificate of Attendance

The FOCIS 2023 Annual Meeting evaluation is available after the meeting. After completing the evaluation, you will receive a link to the attendance certificate request form. A certificate (PDF file) will be sent to you following submission. If needed, you can email [info@focisnet.org](mailto:info@focisnet.org) to follow up on your request for a certificate of attendance.

### Questions

For more information, contact [info@focisnet.org](mailto:info@focisnet.org) or come to the FOCIS 2023 registration desk.



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**Monday – Tuesday**

# SCIENTIFIC PROGRAM SCHEDULE

## Monday, June 19

7:00 AM – 5:00 PM

**Registration Desk Open**

Registration Desk, 4th Floor

7:30 AM – 5:00 PM

**Systems Immunology Course**

(separate registration required)

Salon F, 4th Floor

8:00 AM – 5:30 PM

**Basic Immunology in Medicine Course**

(separate registration required)

Salon G, 4th Floor

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This activity was supported by an educational grant from Grifols.

## Tuesday, June 20

7:00 AM – 5:00 PM

**Registration Desk Open**

Registration Desk, 4th Floor

7:30 AM – 5:45 PM

**Cancer Immunity & Immunotherapy Course**

(separate registration required)

Gloucester Room, 3rd Floor

Organized in collaboration with



7:30 AM – 12:00 PM

**Big Data in Immunology Workshop**

(separate registration required)

Provincetown Room, 4th Floor

Organized by



8:00 AM – 9:30 AM

**The Expanding Field of Inborn Errors of Immunity**

Salon C-D, 4th Floor

Co-chairs: Olivier Boyer, MD, PhD, Rouen University and Eva Martínez-Cáceres, MD, PhD, Autonomous University of Barcelona

Organized by



8:00 AM

**Main Immune Regulatory Pathways in Humans Through the Prism of Primary Immune Deficiencies with Autoimmunity and Inflammation**

Frederic Rieux-Laucat, INSERM UMR 1163-Institut Imagine-Université Paris Descartes

8:30 AM

**Disentangling CVID Genetic and Immunological Variability**

Susana Lopes da Silva, Instituto Medicina Molecular

9:00 AM

**A Novel Combined Immunodeficiency with Mutations in Ezrin**

Oscar de la Calle-Martín, Hospital de Sant Pau, Universitat Autònoma de Barcelona

8:00 AM – 11:30 AM

**Advances in Immunological Research: Impact on Healthcare**

Salon H-I, 4th Floor

Chair: Dr. Savita Kulkarni, Bhabha Atomic Research Centre

Organized by



8:00 AM

**Development Of Camel Derived Single Domain Antibody (Nanobody) Against Human Thyroglobulin, a Thyroid Cancer Marker, Opens a New Avenue Towards the Immunotherapy of Cancers**

Dr. Savita Kulkarni, Radiation Medicine Centre, Bhabha Atomic Research Centre

8:18 AM

**Epigenetic Landscape of IL10 and IL12 Reciprocity Through scATAC**

Dr. Shailza Singh, National Centre for Cell Science

- 8:36 AM **Influence of Chronic Hyperglycaemia on Macrophage Dysfunctions in Pulmonary Tuberculosis**  
Dr. Archana Singh, AIIMS
- 8:54 AM **Immune Mediated Demyelination and Cytokine Levels in the CSF of Patients with Multiple Sclerosis**  
Dr. Shripad A. Patil, National Institute of Mental Health and Neurosciences
- 9:12 AM **SARS-CoV-2 Spike Protein Based Nanoparticle Vaccine Formulation Elicits Neutralizing Antibodies and Th1 Polarized Immune Response in Mice**  
Dr. Pramod Gupta, Bhabha Atomic Research Centre
- 9:30 AM **Coffee Break**
- 10:00 AM **Deciphering and Targeting Innate Immune Inflammasome Pathway in Oral Cancer: Shifting Paradigm in Cancer Immunotherapeutics**  
Dr. Jyoti Kode, Tata Memorial Centre
- 10:16 AM **Modulation of Inflammatory Cytokines by Marine Sponge Products in Autoimmune Arthritis**  
Dr. Aparanji Poosarla, Andhra University
- 10:32 AM **Migration and Functional Reprogramming of Macrophages Cells During Sepsis**  
Dr. Pranita P. Sarangi, Indian Institute of Technology Roorkee
- 10:48 AM **Human Immunity to Chikungunya Virus Infection**  
Dr. Kaustuv Nayak, International Center for Genetic Engineering and Biotechnology
- 11:04 AM **CD16<sup>+</sup> Neutrophils: An Immuno-suppressive Pro-oncogenic Lineage in Smokeless Tobacco (SLT) Consumers**  
Dr. Ratika Srivastava, Babasaheb Bhimrao Ambedkar University
- 11:16 AM **CD26 Expression in Donor Harvest and Specific Immune Subsets Dictates Clinical Outcomes Post ASCT: Leads for Improved Transplantation Therapeutics**  
Ms. Shruti Kandekar, Tata Memorial Centre

8:00 AM – 11:30 AM

### Latin-American Immunology Symposium

Arlington Room, 3rd Floor

Co-Chairs: Susan Bueno, PhD, Millennium Institute on Immunology and Immunotherapy; José C. Crispín, MD, PhD, Tecnológico de Monterrey

Organized by



- 8:00 AM **Dendritic Cells at the Center of Herpes Simplex Virus Infection Outcome**  
Pablo González, PhD, Millennium Institute on Immunology and Immunotherapy
- 8:30 AM **Impairment of Immunological and Neurological Synapses as Virulence Mechanisms of Respiratory Viruses: Implications for Vaccine Design During the Pandemic**  
Alexis Kalergis, MD, PhD, Millennium Institute on Immunology and Immunotherapy
- 9:00 AM **Shaping Adaptive Immune Responses by Targeting NKT Cells**  
Leandro Carreño, PhD, Millennium Institute on Immunology and Immunotherapy
- 9:30 AM **Coffee Break**

- 10:00 AM **Transcriptome Regulation in Rheumatoid Arthritis: Identification of New Biomarkers and Treatment Targets**  
Julio Castañeda-Delgado, PhD, Instituto Mexicano del Seguro Social
- 10:30 AM **TGF- $\beta$ 3 Regulates Intestinal Immune Homeostasis**  
José C. Crispín, MD, PhD, Tecnológico de Monterrey
- 11:00 AM **Targeting an Endogenous Inflammasome Inhibitor in Inflammatory Diseases**  
Daniela Olivera, BSc, Instituto Pasteur de Montevideo

8:00 AM – 12:00 PM

### High Resolution Analysis of Target Organs and Cells to Reveal Local Inflammatory and Immune Mechanisms

Salons A-B, 4th Floor

Co-Chairs: Annette Jackson, PhD; Fadi Issa, MD, PhD; Anita Chong, PhD

Organized by



- 8:00 AM **Introduction**
- 8:10 AM **Spatial Imaging in Mouse Kidney Transplant Rejection**  
Martin Oberbarnscheidt, MD, PhD, University of Pittsburgh
- 8:45 AM **Spatial Transcriptomics in Human Kidney Transplants**  
Paolo Cravedi, MD, PhD, Icahn School of Medicine at Mount Sinai
- 9:20 AM **Multi-omic Assessment of Allograft Rejection in Kidney Transplantation**  
Steve Woodle, MD, PhD, Cincinnati Children's Hospital Medical Center
- 9:55 AM **Break**
- 10:10 AM **Dynamic Changes to Tissue-resident Immunity After MHC-matched and MHC-mismatched Solid Organ Transplantation**  
Michaela Lucas, PhD, University of Western Australia
- 10:45 AM **Single-cell Profiling of Healthy Human Kidney Reveals Features of Sex-based Transcriptional Programs and Tissue Specific Immunity**  
Ana Konvalinka, BSc, MD, PhD, University Health Network Toronto
- 11:20 AM **Spatial Transcriptomics in COVID Patients**  
Fadi Issa, MD, PhD, University of Oxford
- 11:55 AM **Closing**



10:00 AM – 11:30 AM

**Novel Crosstalk of Innate and Adaptive Immunity in Allergy and Asthma**

Salon C-D, 4th Floor

Chair: Mohammed Shamji, Imperial College London

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EAACI

10:00 AM **B Cells in Allergy and Immune Tolerance**

Mübeccel Akdis, University of Zurich

10:30 AM **Innate Lymphoid Cells and Beyond in Allergen Immunotherapy**

Mohammed Shamji, Imperial College London

11:00 AM **Dendritic Cells and T Reg Cells in Allergy and Allergen Immunotherapy**

Oscar Palomares, Complutense University of Madrid

10:00 AM – 12:00 PM

**Trans-omics Assessment in Clinical Immunology**

Salon J-K, 4th Floor

Co-Chairs: Yoshiya Tanaka, MD, PhD, University of Occupational and Environmental Health Kitakyushu and Isao Matsumoto, MD, PhD, University of Tsukuba

Organized by



10:00 AM **Opening**

10:05 AM **Functional Genome Analysis Reveals Immunological Structure of Systemic Lupus Erythematosus**

Keishi Fujio, MD, PhD, The University of Tokyo

10:30 AM **Multi-omic Molecular Profiling of Immune-mediated Inflammatory Diseases**

Katsuya Suzuki, MD, PhD, National Hospital Organization Tokyo Medical Center

10:55 AM **Trans-omics Deconvolution of Human Disease Immunology**

Yukinori Okada, MD, PhD, The University of Tokyo

11:20 AM **Local Immune Responses to SARS-CoV-2 mRNA Vaccination in B-cell Depleted Patients**

Hiromitsu Asashima, MD, PhD, University of Tsukuba

11:45 AM **Closing**

11:45 AM – 2:00 PM

**FOCIS Centers of Excellence (FCE) Fusion:**

**Careers. Collaboration. Connection.** (Invitation Only)

Berkeley-Fairfield Rooms, 3rd Floor

Sponsored by



12:00 PM – 1:30 PM

**Lunch Break** Delegates on their own for lunch

1:30 PM – 3:00 PM

**Cytokines in Barrier Immunity**

Salon C-D, 4th Floor

Co-Chairs: Shruti Naik, PhD and Brian Kim, MD, PhD

Organized by



1:30 PM **Opening**

Shruti Naik, PhD, Grossman School of Medicine and Brian Kim, MD, PhD, Mount Sinai School of Medicine

1:35 PM **Niroshana Anandasabapathy, MD, PhD, Weill Cornell Medical College**

1:55 PM **Gretchen Diehl, PhD, Sloan Kettering Institute**

2:15 PM **Ruth Franklin, PhD, Harvard University**

2:35 PM **Jun Huh, PhD, Harvard University**

1:30 PM – 3:00 PM

**Multi-omics Define a New Horizon for Inflammatory Eye Diseases**

Salon J-K, 4th Floor

Co-Chairs: Lynn Hassman, MD, PhD and Phoebe Lin, MD, PhD

Organized by



1:30 PM **Introduction**

1:35 PM **Optical Coherence Tomography Biomarkers of Intraocular Inflammation**

Edmund Tsui, MD, University of California - Los Angeles

1:50 PM **Leveraging Multi-omics Approaches to Improve Diagnosis of Intraocular Infections**

Paul Bispo, PhD, Harvard University

2:05 PM **Age-related Macular Degeneration Risk Alleles Shape the Intestinal Microbiome**

Phoebe Lin, MD, PhD, Cleveland Clinic

2:20 PM **Peripheral Selection of T Cell Antigen Receptors Mimics Thymic Positive Selection**

Kaitlyn Lagattuta, BS, Harvard University

2:35 PM **Integrative Multi-omic Analysis Sheds New Light on the Pathogenesis of Vogt-Koyanagi-Harada Disease**

Qingfeng Wang, MD, Chongqing Medical University

2:50 PM **Closing Discussion & Questions for the Panel**

1:30 PM – 4:30 PM

**Engineered T Cell Therapies to Treat Autoimmune Diseases and Restore Immune Tolerance**

Provincetown Room, 4th Floor

Co-Chairs: Deepak Rao, MD, PhD and Maximilian F. Konig, MD

Organized by



1:30 PM **Targeted Cellular Immunotherapy with CAAR T Cells for Patients with B Cell-mediated Autoimmune Disease**

Silvio Manfredo Vieira, PhD, University of Pennsylvania

2:00 PM **Chimeric Autoantigen-T Cell Receptor (CATCR)-T Cell Therapy to Target Autoreactive B Cells in Autoimmune Diseases**

Maximilian F. Konig, MD, The Johns Hopkins University

2:30 PM **Prevention and Treatment of Murine Models of Autoimmunity via Autoreactive T Cell-specific CAR-T Cells**

Chyi Hsieh, MD, PhD, Washington University in St. Louis

3:00 PM **Coffee Break**

3:30 PM **Inducing Antigen-specific Tolerance in Solid Organ Transplantation**

Anil K. Chandraker, MD, Brigham and Women's Hospital

4:00 PM **Allo- and Autoantigen-specific Tregs**

Megan Levings, PhD, The University of British Columbia

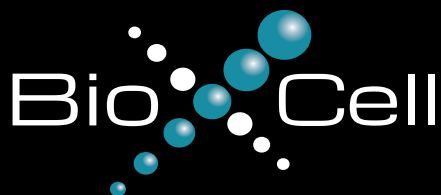


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1:30 PM – 5:00 PM

### Neuroimmune Interactions in Health and Disease

Arlington Room, 3rd Floor

Chair: Francisco J. Quintana, Harvard Medical School

Organized by



1:30 PM **Neuroimmune Interactions in Regulation of Immunity**

Vijay K. Kuchroo, Harvard Medical School

2:15 PM **Enteric Nervous System Regulation of Innate Immunity**

Meenakshi Rao, Harvard Medical School

3:00 PM **Coffee Break**

3:30 PM **Nociceptive Neuron Regulation of Barrier Immune Responses**

Isaac Chiu, Harvard Medical School

4:15 PM **Regulatory Cell-cell Interactions in CNS Inflammation**

Francisco J. Quintana, Harvard Medical School

1:30 PM – 5:30 PM

### Immunometabolism 10 Years Later: Implications for Health and Disease and Translational Immunometabolism

Salon H-I, 4th Floor

Co-Chairs: Francesca Di Cara, Dalhousie University and Ramon Klein Geltink, University of British Columbia

Organized by Canadian Society for Immunology



1:30 PM **Uncovering Novel Metabolic Insights in T Cells with <sup>13</sup>C-glucose Tracing in Human Ovarian Cancer**

Julian Lum, University of Victoria

2:00 PM **Insulin Receptor Signaling in Adaptive Immunity**

Sue Tsai, University of Alberta

2:30 PM **PI 3-kinase-dependant Reprogramming of Hexokinase Isoforms Regulates B Cell Metabolism and Function**

Aaron Marshall, University of Manitoba

3:00 PM **Coffee Break**

3:30 PM **Mitochondrial Complex III ROS Improves Anti-tumor CD8<sup>+</sup> T Cell Function**

Ramon Klein Geltink, University of British Columbia

4:00 PM **Peroxisome's Metabolism Orchestrates Myeloid Cells Development and Activation in Health and Disease**

Francesca Di Cara, Dalhousie University

4:30 PM **Nutrient and Energy-sensing Pathways as Drivers of Macrophage Immunometabolism**

Morgan Fullerton, University of Ottawa

5:00 PM **Group Discussion**

1:30 PM – 5:30 PM

### Innovative Bioengineering Technologies and Strategies that Provide Mechanistic Insight and Guide Therapeutics in Cancer, Autoimmune Diseases and Transplant

Salon A-B, 4th Floor

Co-Chairs: Elaine Reed, PhD and Barbara Detrick, PhD

Organized by



1:30 PM **Introduction**

Barbara Detrick, PhD, The Johns Hopkins University

1:35 PM **Engineering CAR T Cells for Cancer Therapy: Exploring the Unique Role of IFN- $\gamma$  Signaling**

Marcela V. Maus, MD, PhD, Harvard University

2:15 PM **Clinical Translation of Cardiac Xenografts: Overcoming Immunologic and Physiologic Barriers Through Genetic Engineering**

Richard N. Pierson III, MD, Harvard University

3:00 PM **Coffee Break**

3:30 PM **Harnessing Bioengineering to Combat Autoimmunity with Next Generation Immunotherapies**

Christopher M. Jewell, PhD, University of Maryland

4:10 PM **Delivery of Nanotherapeutics for Organ Transplantation**

Reza Abdi, MD, Harvard Medical School

4:50 PM **General Discussion and Concluding Remarks**

Annette Jackson, Duke University

3:30 PM – 5:00 PM

### Mucosal Immune Defenses in Health and Disease

Salon C-D, 4th Floor

Chair: Ellen Foxman, MD, PhD, Yale University

Organized by



3:30 PM **Impact of the Vaginal Microbiome and Genital Inflammation in Women's Health Outcomes**

Douglas Kwon, MD, PhD, Harvard University

4:00 PM **Consequences of Intestinal Inflammasome Activation**

Isabella Rauch, PhD, Oregon Health Sciences University

4:30 PM **Dynamic Mucosal Immunity and Susceptibility to Respiratory Viruses**

Ellen Foxman, MD, PhD, Yale University



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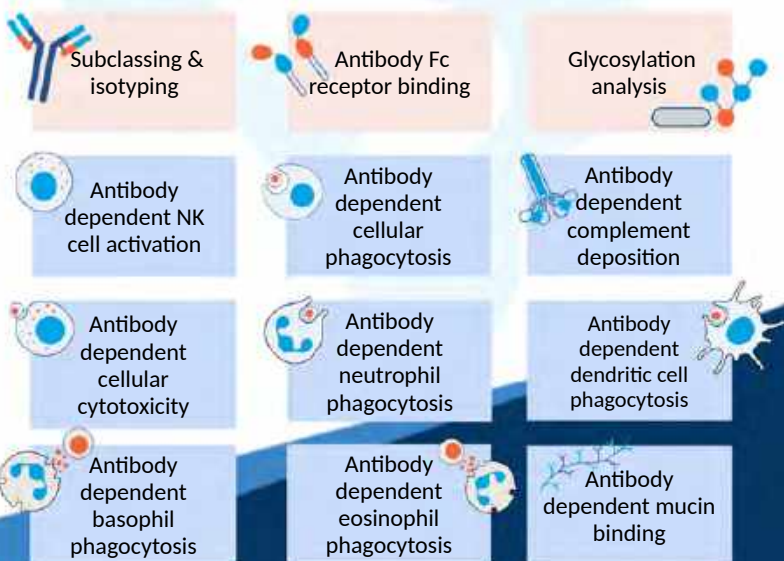
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3:30 PM – 5:30 PM

### Investigating Common Mechanisms of Autoimmunity

Salon J-K, 4th Floor

Co-Chairs: William Robinson, MD, PhD, Stanford University and Joshua Vieth, PhD, JDRF International

Organized by



3:30 PM

#### Welcome Remarks

Joshua Vieth, PhD, JDRF International

3:40 PM

#### Single-cell Genomics Dissection of Common Immune Networks Driving Autoimmunity

Alexandra-Chloe Villani, PhD, Harvard Medical School

4:05 PM

#### Linking Multiple Disease Compartments in T1D and Multiple Sclerosis

Amit Bar-Or, MD, University of Pennsylvania

4:30 PM

#### Analysis of Antigen Specific T Cells in Response to Immune Therapies in MS and T1D

Kevan Herold, MD, Yale University

4:55 PM

#### Dissecting the Genetics and Host Interactions of EBV-related Autoimmunity

William Robinson, MD, PhD, Stanford University

5:20 PM

#### Closing Remarks

### Pre-recorded - Available Online Sessions available online and in mobile app.

#### The Microbiome and Immunity of Mast Cells and T Cells in Immunotherapy

Organized by



#### Uncommon Inborn Errors of Immunity: An Egyptian Center Experience

Organized by



6:00 PM – 7:45 PM

#### Opening Reception: Exhibits & Poster Presentations

Salon E & Foyer, 4th Floor

Network with attendees while visiting exhibits and posters with authors present. Complimentary light hors d'oeuvres and wine served.

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## Wednesday, June 21

7:00 AM – 5:30 PM

#### Registration Desk Open

Registration Desk, 4th Floor

7:30 AM – 8:00 AM

#### Coffee with the Exhibitors

Salon E & Foyer, 4th Floor

7:30 AM – 7:30 PM

#### Exhibition & Poster Hall Open (authors optional)

Salon E & Foyer, 4th Floor

8:00 AM – 8:45 AM

#### Opening Keynote Address: Identification of RIOK2 as a Master Regulator of Human Blood Cell Development

Laurie H. Glimcher, MD, Dana-Farber Cancer Institute

Salon F-G, 4th Floor

Chair: Megan Sykes, MD, Columbia University

8:45 AM – 9:35 AM

#### ImmunoOncology

Salon F-G, 4th Floor

Chair: Vijay K. Kuchroo, DVM, PhD, Harvard University

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8:45 AM

#### Unleashing Inflammasome Activation to Control CD8<sup>+</sup> T Cell Exhaustion in Cancer Immunotherapy

Marcelo Hill, MD, PhD, Institut Pasteur de Montevideo

9:10 AM

#### Mechanisms Driving CAR T Cells

Marcela Maus, MD, PhD, Massachusetts General Hospital Cancer Center

9:35 AM – 10:00 AM

#### Coffee Break

Salon E & Foyer, 4th Floor

10:00 AM – 11:30 AM

#### Engineered CAR-cells in Oncology

Salon F-G, 4th Floor

Chair: Jane Grogan, PhD, Biotech Executive

10:00 AM

#### Engineering the Fate and Function of T Cell Therapies for Cancer

Nicholas Haining, BM, BCh, ArsenalBio

10:30 AM

#### Evolving CAR Cell Therapy Platforms

Isabelle Riviere, PhD, Memorial Sloan Kettering Cancer Center

11:00 AM

#### Programming Smarter Cell Therapies

Greg Allen, MD, PhD, University of California, San Francisco

11:30 AM – 1:00 PM

#### Lunch Break Delegates on their own for lunch

11:30 AM – 1:00 PM

#### Partner Program: Lupus Insight Prize Award Ceremony and Luncheon

Gloucester Room, 3rd Floor

Sponsored by



11:00 AM

#### Buffet Lunch (available to program participants only; seating limited)

11:30 AM

#### Introduction

Gary Koretzky, MD, PhD, Chair, Lupus Research Alliance Scientific Advisory Board; Cornell University

11:40 AM

#### Presentation of the 2023 Lupus Insight Prize to Carola Vinuesa, MD, PhD

11:45 AM

#### Keynote Presentation: Nucleic Acid Sensing Disorders and Human Lupus

Carola Vinuesa, MD, PhD, Francis Crick Institute

12:30 PM

#### Myeloid Cell-driven Inflammation in Human SLE

Virginia Pascual, MD, Weill Cornell Medical College

11:45 AM – 1:00 PM

#### Industry Tutorial: Advances in Blood-based Profiling of Immune Response Biomarkers

Provincetown Room, 4th Floor

Speakers: Christopher Bunker, PhD, Alamar Biosciences and Holden T. Maecker, PhD, Stanford University

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## Industry Tutorial

Stimulation With a Superagonistic Anti-CD28 Antibody Shows Treg Expansion and Provides an *In Vitro* Model for Immunotherapeutic Research

(Lunch Provided)

*Rebecca Nickle, PhD, Technical Applications Scientist, BioLegend*

Wednesday, June 21, 11:45 a.m.–12:45 p.m. (EDT)

## Scientific Posters

Poster #Th. 01

Flow-based Multiplex Immunoassays for Measuring Human Acute Phase Response Proteins and Fibrinolysis Biomarkers

*Amy Zhao, PhD, Scientist III, Immunoassays*

Thursday, June 22, 6:30 p.m.–7:45 p.m. (EDT)

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11:45 AM – 1:00 PM

**Industry Tutorial: Stimulation with a Superagonistic Anti-cd28 Antibody Shows Treg Expansion and Provides an *in vitro* Model for Immunotherapeutic Research with Biolegend**

Arlington Room, 3rd Floor

Speaker: Rebecca Nickle, PhD, Biolegend Inc.

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1:00 PM – 2:45 PM

**Neuroimmunology**

Salon F-G, 4th Floor

Chair: Last minute change, check mobile app

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1:00 PM **The Immunopathogenesis of Narcolepsy Type 1**

Roland Liblau, MD, PhD, Toulouse University

1:25 PM **Proteogenomic Immune Signatures Delineate the Landscape of Pediatric Acquired Demyelinating Syndromes (Poster #W126)**

Diego Espinoza, BA, University of Pennsylvania

1:40 PM **Control of CNS Inflammation by Engineered Probiotics**

Francisco Quintana, PhD, Brigham & Women's Hospital, Harvard University

2:05 PM **HTLV-1-Specific CD4<sup>+</sup> T Cell Contribution to Neuroinflammation in HTLV-1-Associated Myelopathy (Poster #W212)**

Allison K. Maher, MRes, MBiochem, Imperial College London

2:20 PM **Neuroimmunological Effects of Amyloid- $\beta$  Immunization in the Human Brain and Meninges**

Lynn van Olst, PhD, Northwestern University

1:00 PM – 2:45 PM

**Precision Diagnostics for Immune Disorders**

Salon A-D, 4th Floor

Chair: Last minute change, check mobile app

1:00 PM **Target Discovery Strategies for Developing Novel Cancer Immunotherapies**

Fabiana Perna, MD, PhD, Indiana University

1:25 PM **TCR-MAP: A Novel, High-throughput T Cell Antigen Discovery Platform to Identify Viral- and Self-antigen TCR Reactivities in Rheumatoid Arthritis (Poster #W128)**

Ayano Kohlgruber, PhD, Brigham & Women's Hospital & Harvard Medical School

1:40 PM **Discovering and Understanding Immune Archetypes in Cancer**

Matthew Krummel, PhD, University of California, San Francisco

2:05 PM **High-dimensional Spectral Cytometry Panels for Whole Blood Immune Phenotyping in the Milieu Interieur 10-year Longitudinal Study (Poster #W197)**

Slobodan Culina, PhD, Institut Pasteur

2:20 PM **Clinical Development of Biomarkers in Immune-oncology: Strategies and Challenges**

Yu Liang, PhD, Compugen

1:00 PM – 2:45 PM

**Tolerance Therapeutics**

Salon H-K, 4th Floor

Chair: Gerald Nepom, MD, PhD, Benaroya Research Institute

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1:00 PM **IL-2 and Tregs in the Therapy of Autoimmune and Inflammatory Diseases**

David Klatzmann, MD, PhD, Sorbonne Université

1:25 PM **Pathophysiological Mechanisms and Molecular Indicators of IPEX Disease and their Implications for the Development of New Therapies (Poster #W122)**

Simon Borna, PhD, Stanford University

1:40 PM **Donor Negative Vaccine for Transplantation Tolerance**

Xunrong Luo, MD, PhD, Duke University

2:05 PM **Blood TCR Signatures Classify Autoimmune Diseases and Predict Response to Low-Dose IL-2 (Poster #W108)**

Encarnita Mariotti-Ferrandiz, PhD, Sorbonne Université

2:20 PM **Re-programming Autoreactivity to Suppress Autoimmunity**

Pere Santamaria, MD, PhD, University of Calgary

2:45 PM – 3:15 PM

**Coffee Break**

Salon E & Foyer, 4th Floor



# **Congratulations!**

**Dominic Boardman, University of British Columbia**

**Winner of the annual C. Garrison Fathman Fellows Fund Trainee Travel Award!**



The C. Garrison Fathman Fellows Fund was established to enable trainees and fellows to attend FOCIS Annual Meetings, educational courses, and to participate in exchange programs that advance human health through immunology. Donations supports trainees and fellows throughout immunology.



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Learn more about the NULISA™ assays and the ARGO™ HT System at Booth #8 and during Alamar's Industry Seminar:

*Advances in blood-based profiling of  
immune response biomarkers*

**Wednesday, June 21, 11:45 AM**

### Speakers:

**Holden Maecker, PhD** Professor of Microbiology and Immunology, Stanford University

**Christopher Bunker, PhD** VP, Biopharma Business Development, Alamar Biosciences



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3:15 PM – 5:15 PM

### ImmunoOncology and Cell Therapy

Salon A-D, 4th Floor

Chair: Kavita Dhodapkar, MD, Emory University

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3:15 PM **CART-cell Therapy Directed Towards Novel CD84 Antigen for the Treatment of Acute Myeloid Leukemia (Poster #W155)**

Manel Juan, MD, PhD, Hospital Clinic de Barcelona

3:30 PM **Removal of Endogenous TCR Chains for TCR-Based Immunotherapies (Poster #W195)**

Giorgia Zanetti, Columbia University

3:45 PM **Unique Cellular and Autoantibody Signatures in Patients with irAEs Revealed by Longitudinal Immune Tracking (Poster #W130)**

Sokratis Apostolidis, MD, University of Pennsylvania

4:00 PM **CRISPR/Cas9-based Editing of KLRC1 Enhances the Efficacy of Primary CD33-targeting CAR-NK Cells Against Acute Myeloid Leukemia (Poster #W156)**

Evelyn Ullrich, MD, Goethe University Frankfurt

4:15 PM **Foxp3<sup>+</sup> Regulatory T Cells Co-localize with CD8<sup>+</sup> T Cells in Tumors Responding to PD-1 Blockade (Poster #W184)**

Mikhael Attias, McGill University

4:30 PM **Local and Systemic Immune Response Against Tumor Specific and Tumor-associated Antigens in Patients with Localized Uveal Melanoma (UM) (Poster #W190)**

Ana Lalanne, PhD, Institute Curie

4:45 PM **Immuno-STAT Platform: TCR-selective Engagers for Selective Targeting of IL-2 to Tumor-specific T Cells (Poster #W187)**

Steven Quayle, PhD, Cue Biopharma

5:00 PM **Selective Depletion of Follicular Helper T Cells Using Chimeric Antigen Receptor Natural Killer Cells (Poster #W170)**

Nora Lakes, Cincinnati Children's Hospital Medical Center

5:15 PM **Antibodies to PODXL as an Approach to Targeting Tumor Stem Cells (Poster #W181)**

Kelly M. McNagny, PhD, University of British Columbia

3:15 PM – 5:15 PM

### Mechanisms of Autoimmunity

Salon F-G, 4th Floor

Chair: Laurence Turka, MD, Harvard University

3:15 PM **The Roles of CD4<sup>+</sup> and CD8<sup>+</sup> Regulatory T Cells in Controlling Autoimmune Response in the Human Tonsil Organoid System (Poster #W129)**

Xin Chen, Stanford University

3:30 PM **Single Cell Sequencing Suggests Enteric Origins of Putative Pathogenic T Cells in HLA-B27-associated Inflammation (Poster #W127)**

Michael Paley, MD, PhD, Washington University

3:45 PM **Opposing Effects of the Aryl Hydrocarbon Receptor and Type I Interferon Control Generation of CXCL13<sup>+</sup> T Cells in Systemic Lupus Erythematosus (Poster #W119)**

Vanessa Wacleche, Brigham and Women's Hospital

4:00 PM **Improving Characterization of T Cell Lineage and Activation States in scRNA-Seq with T Cell AnnoTator (TCAT) (Poster #W137)**

Dylan Kotliar, MD, PhD, Brigham and Women's Hospital

4:15 PM **Clonally Expanded T Cells Reveal a Pathophysiologic Distinction Between Disease Subtypes in Human Uveitis (Poster #W202)**

Lynn Hassman, MD, PhD, Washington University in St. Louis

4:30 PM **ALTB-268, a Tetravalent Anti-PSGL-1 Antibody Derived From ALT-168, Shows Enhanced Potency in Treating T Cell Mediated Inflammatory Diseases (Poster #W201)**

Yu-Chin Lin, MS, Altrubio, Inc.

4:45 PM **Pathogenic Autoreactive Th Cells are Identified in Autoimmune Neuroinflammation by Expression of Neuropilin-1 (NRP1) (Poster #W121)**

Ben JE Raveney, PhD, National Institute of Neuroscience, NCNP

5:00 PM **Investigation of T Cells Induced Neuroinflammation in Alzheimer's Disease (Poster #W126)**

Yiran Cheng, MSc, Columbia University

3:15 PM – 5:15 PM

### Late-breaking Abstracts

Salon H-K, 4th Floor

Chair: Shachi Bhatt, PhD, Journal of Experimental Medicine

3:15 PM **Activating the cGAS/STING Pathway Suppresses Regulatory T Cell Function and Induces Antiviral Interferon Secretion in a Temperature-sensitive Manner (Poster #W131)**

Rachael Smith, BS, Vanderbilt University

3:30 PM **An Acquired Error of Immunity with High Frequency Somatic Mutations in STAT5B and KRAS (Poster #W172)**

Etienne Masle-Farquhar, PhD, Garvan Institute of Medical Research

3:45 PM **Dermatomyositis Skin Inflammation is Associated With Type-I IFN Response and the Presence of PD1-high, CXCR5<sup>+</sup>, CXCL13<sup>+</sup> CD4<sup>+</sup> T Cells, Which Expands in Response to UVB Irradiation (Poster #W109)**

Khashayar Afshari, UMass Chan Medical School

4:00 PM **Mapping Human Thymic Regulatory T Cell Development Using Spatial Multiomics (Poster #W142)**

Kevin Salim, University of British Columbia

4:15 PM **Natural Killer Cells as Immunological Signatures of Long-term Stable Remission in Rheumatoid Arthritis (Poster #W118)**

Carl Coyle, PhD, King's College London

4:30 PM **Serum- and Feeder-free Generation of CD4 Single Positive T Cells and Regulatory T Cells from Human Induced Pluripotent Stem Cells (Poster #W171)**

Helen Fong, PhD, Sangamo Therapeutics

4:45 PM **The Cation Channel TMEM176B as a Protective Factor in Autoimmune Encephalomyelitis (Poster #W233)**

Daniela Olivera, BS, Institut Pasteur Montevideo

5:00 PM **Stem Cell and Organ Transplantation (Poster # W230)**

Marilia Cascalho, MD, PhD, University of Michigan

3:15 PM – 5:15 PM

**Flow Cytometry Course: Day 1**

Provincetown Room, 4th Floor

Chair: Holden Maecker, PhD, Stanford University

3:15 PM **Automation for Flow Cytometry and CyTOF Preparation and Acquisition**

3:45 PM **Panel Discussion**

Chyan Ying Ke, PhD, Curiox Biosystems

Sangeeta Kowli, PhD, Stanford University

5:30 PM – 6:15 PM

**Keynote Address: Translating Immunology into New Therapies for Inflammatory Bowel Disease**

Fiona Powrie, FRS, FMedSci, DBE, University of Oxford

Salon F-G, 4th Floor

Chair: Ignacio Anegón, MD, Nantes University

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6:15 PM – 7:30 PM

**Exhibits & Poster Presentations Reception**

Salon E & Foyer, 4th Floor

Network with attendees while visiting exhibits and posters with authors present. Complimentary light hors d'oeuvres and wine served.

7:30 PM – 8:30 PM

**FOCIS Member Reception (FOCIS members only)**

Atrium Lounge, 4th Floor

Join us for complimentary hors d'oeuvres, drinks and fun! Let FOCIS show you how much we value you! Not a member? Join now at the registration desk.

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## Thursday, June 22

7:00 AM – 5:00 PM

**Registration Desk Open**

Registration Desk, 4th Floor

7:30 AM – 8:00 AM

**Coffee with the Exhibitors**

Salon E & Foyer, 4th Floor

7:30 AM – 7:30 PM

**Exhibition & Poster Hall Open (authors optional)**

Salon E & Foyer, 4th Floor

8:00 AM – 9:30 AM

**Fibrosis and Wound Healing**

Salon F-G, 4th Floor

Chair: Jordan Pober, MD, PhD, Yale University

8:00 AM **Lung Fibroblast Heterogeneity in Health and Disease**

Dean Sheppard, MD, University of California, San Francisco

8:30 AM **Keloids, Fibrosis and Wound Healing, Insights from Human Genomics**

Lori Morton, PhD, Regeneron

9:00 AM **Advances, Challenges, and New Therapeutic Strategies for Fibrotic Disease**

Thomas Wynn, PhD, Pfizer

9:30 AM – 10:00 AM

**Coffee Break**

Salon E & Foyer, 4th Floor

10:00 AM – 11:30 AM

**Sequelae of Infectious Diseases**

Salon F-G, 4th Floor

Chair: Daniel Rotrosen, MD, National Institute of Allergy and Infectious Disease

10:00 AM **Metabolic Causes and Consequences of Post-viral Syndromes**

Maayan Levy, PhD, University of Pennsylvania

10:30 AM **Microbial Triggers of Autoimmunity: Mucosal Breaks of Oral Bacteria in RA and EBV in MS**

William H. Robinson, MD, PhD, Stanford University

11:00 AM **Viral Persistence, Immune Dysregulation and Inflammation Following COVID-19 - A New Paradigm?**

Timothy Henrich, MD, University of California, San Francisco

11:30 AM – 1:00 PM

**Lunch Break** Delegates on their own for lunch

11:30 AM – 1:00 PM

**Partner Program: History of Women in FOCIS: Navigating Your Way Into a Leadership Role**

Gloucester Room, 3rd Floor

Co-Chairs: Elaine Reed, PhD, University of California – Los Angeles;

Terri Laufer, MD, University of Pennsylvania; Megan Levings, PhD, The

University of British Columbia

Speaker: Maria-Grazia Roncarolo, MD, Stanford University

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11:30 AM **Opening Remarks**

11:35 AM **Keynote Presentation**

12:00 PM **Small Group Discussion**

12:40 PM **Large Group Discussion**

1:00 PM **Adjourn**

## Congratulations!

**Daniela Olivera, B.S.**

**PhD Student,**

**Institut Pasteur Montevideo**

**Winner of the annual Clinical Immunology Trainee Award!**

Together with FOCIS, Clinical Immunology has established the Clinical Immunology Trainee Award for a colleague in training (student or fellow) to be selected among those who submit abstracts to the FOCIS Annual Meeting.



1:00 PM – 2:45 PM

### Disorders of Innate Immunity

Salon A-D, 4th Floor

Chair: Silvia Gregori, PhD, San Raffaele Telethon Institute for Gene Therapy

- 1:00 PM **Role of Functional Programming of Alveolar Macrophages in the Susceptibility to Pneumonia and Cancer After Acute Inflammation**  
Antoine Roquilly, MD, PhD, Nantes University
- 1:25 PM **Establishing Leptomeninges Immune Dynamics and Regulatory Control of T Cell Infiltration in the Degenerating Human Brain (Poster #Th216)**  
Ryan Hobson, Columbia University
- 1:40 PM **Inborn Errors of Pattern-triggered Immunity**  
Fabian Hauck, MD, PhD, Ludwig-Maximilians-University of Munich
- 2:05 PM **Virus Infection Causes Intestinal Dysbiosis to Promote Type 1 Diabetes Development (Poster #Th152)**  
Zachary Morse, University of British Columbia
- 2:20 PM **The Two Faces of Autoinflammatory Skin Disorders**  
Lori Broderick, MD, PhD, University of California, San Diego

1:00 PM – 2:45 PM

### Engineered Cell Therapy – Non-oncology

Salon F-G, 4th Floor

Chair: Hans-Dieter Volk, MD, PhD, Charité - Universitätsmedizin Berlin

- 1:00 PM **Enhancing Engineered Treg Therapies**  
Fred Ramsdell, PhD, Sonoma Biotherapeutics
- 1:25 PM **CRISPR-mediated Deletion of PD1 to Enhance the Efficacy of Human CAR Tregs (Poster #Th177)**  
Dominic Boardman, PhD, The University of British Columbia
- 1:40 PM **Engineering TCR-tregs for Autoimmune Disease**  
Niranjana Nagarajan, PhD, Abata Therapeutics
- 2:05 PM **GNTI-122 is a Stable Engineered Regulatory T Cell Therapy for Type 1 Diabetes that is Specific, Expandable, and Efficacious *in vivo* Models (Poster #Th178)**  
Ashley Landuyt, PhD, GentiBio, Inc
- 2:20 PM **Rescuing Primary Immunodeficiencies by Advanced Genetic Engineering of Hematopoietic Stem Cells and T Cells**  
Luigi Naldini, PhD, San Raffaele University

1:00 PM – 2:45 PM

### Microbiome/Mucosal Immunity

Salon H-K, 4th Floor

Chair: Yvonne Rosenstein, PhD, Instituto de Biotecnología, UNAM

- 1:00 PM **Unveiling the Complexity of IgE and Food Allergy: Beyond Clinical Reactions**  
Alexandra Santos, MD, MSc, MRCPCH, FHEA, PhD, King's College London
- 1:25 PM **Molecular Underpinnings and Significance of Regulatory T Cell Plasticity in Cancer (Poster #Th155)**  
Khashayarsha Khazaie, PhD, Mayo Clinic
- 1:40 PM **Small Intestinal Tuft Cells: Sentinels and Effectors of Type 2 Immunity**  
Jakob Von Moltke, PhD, University of Washington
- 2:05 PM **Mapping the Impact of Vaccination and Viral Strain on SARS-CoV-2 Infection and Host Response in the Human Nasal Mucosa (Poster #Th170)**  
Jaclyn Long, BS, Harvard University & Boston Children's Hospital
- 2:20 PM **Extracellular Vesicles Isolated from *Prevotella histicola* Induce a Population of Inflammation Resolving CD4 T Cells**  
Andrea Itano, PhD, Evelo Biosciences

2:45 pm – 3:15 pm

### Coffee Break

Salon E & Foyer, 4th Floor

3:15 PM – 5:15 PM

### Allergy and Autoantigens

Salon F-G, 4th Floor

Chair: Last minute change, check mobile app

- 3:15 PM **Post-translationally modified Trichohyalin Epitopes: Potential Triggers of Autoimmunity to Hair Follicles in Alopecia Areata (Poster #Th119)**  
Shahnawaz Jadeja, MSc, PhD, University College Dublin
- 3:30 PM **A Biosensor of Immunologic Synapse Formation for Multiplexed T Cell Antigen Discovery (Poster #Th176)**  
Josiah Gerdtz, MD, PhD, University of California, San Francisco
- 3:45 PM **Transforming Growth Factor- $\beta$ 3 Maintains Intestinal Tolerance (Poster #Th230)**  
Marco A. Tapia-Maltos, MD, PhD, UT Southwestern
- 4:00 PM **Interleukin-4 Activates Olfactory Sensory Neurons and Induces Loss of Smell in Mice Through Distinct Molecular Signatures (Poster #Th217)**  
Yannis Hara, PhD, Sanofi US
- 4:15 PM **Deep Immunophenotyping Reveals Cellular Phenotypes in Peripheral Blood Associated with Specific Patterns of Kidney Injury in Lupus Nephritis (Poster #Th113)**  
Alice Horisberger, MD, Brigham and Women's Hospital
- 4:30 PM **Correlation of Urine Immune Cells with Renal Histological Features in Lupus Nephritis: Lessons from the Accelerating Medicines Partnership (AMP) in SLE Consortium (Poster #Th112)**  
Rayan Najjar, MD, MPH, University of Washington
- 4:45 PM **Sialic Acids on House Dust Mite (HDM) Allergen, Der p 2, Shift Immune Responses Towards a Regulatory Profile (Poster #Th109)**  
Brigitte-Carole Keumatio Dountsop, MSc, Amsterdam University Medical Center
- 5:00 PM **Understanding the Plausible Implications of Dysregulated Interferon Signaling on Esophageal Epithelial Cell Function (Poster #Th110)**  
Megha Lal, PhD, Children's Hospital of Philadelphia
- 5:15 PM **Rhinovirus Infected Epithelial Cells Drive Genetic Susceptibility to Childhood-Onset Asthma (Poster # W104)**  
Daniela Fernandez, BSc, Boston Children's Hospital



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3:15 PM – 5:15 PM

**COVID and Infectious Diseases**

Salon A-D, 4th Floor

Chair: Last minute change, check mobile app

3:15 PM **Similarities and Differences Between Myocarditis Following COVID-19 mRNA Vaccine and Multiple Inflammatory Syndrome with Cardiac Involvement in Children (Poster #Th172)**

Donato Amodio, MD, PhD, Bambino Gesù Children's Hospital

3:30 PM **Effect of 3rd and 4th Doses of mRNA Vaccines on the Magnitude and Stability of Antibody and T Cell Responses to SARS-CoV-2 in Immunocompromised Patients with Immune-mediated Inflammatory Diseases (Poster #Th168)**

Michelle Cheung, University of Toronto

3:45 PM **Longitudinal Antigen-specific Immune Profiling During SARS-CoV-2 Breakthrough Infection Highlights Early Activation of Memory CD8 T Cells Followed by Later Activation of Memory B Cells (Poster #Th169)**

Mark M. Painter, PhD, University of Pennsylvania

4:00 PM **Heme Oxygenase 1 (HO-1) Expression in Dendritic Cells Promotes Antiviral Immunity Against Herpes Simplex Virus Skin Infection (Poster #Th207)**

Pablo González, PhD, Universidad Católica de Chile

4:15 PM **Characterization of Novel Nematode Pan Allergen (NPA) (Poster # Th101)**

Samuel Christopher Katru, MS, University of Illinois at Chicago

4:30 PM **Broadening T Cell Help by Antigen Cross-linking as a Universal Vaccine Platform Against Rapidly Evolving Pathogenic Viruses (Poster #Th206)**

Vamsee Mallajosyula, Stanford University

4:45 PM **Effects of Latent EBV on Responses to Anti-CD3 mAb (Teplizumab) in Type 1 Diabetes (Poster #Th115)**

Ana Maria Lledó Delgado, MD, Yale University

5:00 PM **Serological Assessment of Patients Undergoing Peanut Oral Immunotherapy: The Role of IgG4 (Poster # Th108)**

Diana Toscano Rivero, McGill University

3:15 PM – 5:15 PM

**Immunogenetics**

Salon H-K, 4th Floor

Chair: Maria Grazia Roncarolo, MD, Stanford University

3:15 PM **Genetic Variants Associated with Immune Cell Population Abundances in Single-cell Data (Poster #Th116)**

Laurie Rumker, Harvard University

3:30 PM **Chromatin Conformation During CD4<sup>+</sup> T Cell Activation Implicates Autoimmune Disease Candidate Genes (Poster #Th190)**

Prabhat Sharma, PhD, Children's Hospital of Philadelphia

3:45 PM **The FAM72 Gene Family Promotes Cancer Development by Disabling the Base Excision Repair System (Poster #Th199)**

Alberto Martin, PhD, University of Toronto

4:00 PM **Leveraging Single Cell Transcriptomics to Identify Pathogenic Cell Lineages (Poster #Th117)**

Giorgio Gaglia, PhD, Sanofi

4:15 PM **Overactive STAT3 Drives Dysregulated Accumulation of Self-reactive and Autoimmune-associated CD21<sup>low</sup> CD23<sup>low</sup> B Cells (Poster #Th192)**

Etienne Masle-Farquhar, PhD, Garvan Institute of Medical Research

4:30 PM **Genome-wide CRISPR-interference Screens Connect Non-coding Autoimmune Risk Variants to T Cell Functions (Poster #Th191)**

John Ray, PhD, Benaroya Research Institute

4:45 PM **Role of Fam83h in Immune System Homeostasis (Poster #Th127)**

Betul Ogan, MSc, Czech Academy of Sciences

5:00 PM **Integrative Functional Genomics Points to Natural Killer Cells as Key Drivers in Pathogenesis of Ankylosing Spondylitis (Poster # W173)**

Marcos Chiñas Hernandez, BSc, Boston Children's Hospital

3:15 PM – 5:15 PM

**Flow Cytometry Course: Day 2**

Provincetown Room, 4th Floor

Chair: Holden Maecker, PhD, Stanford University

3:15 PM **New Immunoassay and Single-cell Multi-omic Technologies**

3:45 PM **Panel Discussion**

Xuhuai Ji, MD, PhD, Stanford University  
Seunghee Kim-Schulze, PhD, Icahn School of Medicine at Mount Sinai

5:30 PM – 5:40 PM

**State of FOCIS Address**

Megan Sykes, MD, Columbia University, FOCIS President  
Salon F-G, 4th Floor

5:40 PM – 6:25 PM

**Keynote Address: CAR T Cells for Oncology and Beyond**

Carl June, MD, University of Pennsylvania

Salon F-G, 4th Floor

Chair: Jane Grogan, PhD, Biotech Executive

6:30 PM – 7:45 PM

**Exhibits & Poster Presentations Reception**

Salon E & Foyer, 4th Floor

Network with attendees while visiting exhibits and posters with authors present. Complimentary light hors d'oeuvres and wine served.

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## British Society for Immunology (BSI) Poster Prize

Together with FOCIS, BSI has established this prize recognizing the high quality of the recipient's abstract submitted for presentation at the 23rd Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS 2023).

Join us for the BSI Poster Prize recognition  
Wednesday, June 21 during the Sequalae of Infection Diseases Plenary Session at 10:00 AM.



7:00 AM – 3:45 PM

## Registration Desk Open

Registration Desk, 4th Floor

8:00 AM - 9:30 AM

## Adaptive/Autoimmunity

Salon F-G, 4th Floor

Chair: Ivan Mascanfroni, PhD, Seismic Therapeutic

Sponsored by



8:00 AM **CD8 T Cell Derived Granzyme K Drives a New Pathway of Complement Activation in Inflamed Tissues**

Michael Brenner, MD, Brigham and Women's Hospital

8:30 AM **Epigenetic Control of IL-9 in Inflammatory Disease: Lessons Learned from a Patient-driven Approach**

Daniella Schwartz, MD, University of Pittsburgh

9:00 AM **Dissecting Regulatory T Cells in Autoimmune Type 1 Diabetes**

Carolin Daniel, PhD, Helmholtz Zentrum München

9:30 AM – 10:00 AM

## Coffee Break

Salon E & Foyer, 4th Floor

10:00 AM – 11:30 AM

## Atopic Diseases: Allergy/Type 2/Helminth

Salon F-G, 4th Floor

Chair: Last minute change, check mobile app

Sponsored by



10:00 AM **Allergen Recognition by Nasal Microvillous Tuft Cells Directs Stem Cell Activation and Type 2 Inflammation**

Lora Bankova, MD, Harvard University

10:30 AM **Human Single Gene Defects that Cause Severe Atopic Disease: A Focus on STAT6 Gain-of-function**

Stuart Turvey, MBBS, DPhil, FRCP, University of British Columbia / BC Children's Hospital

11:00 AM **Trust Your Gut? Food Allergy and the Microbiome**

Supinda Bunyavanich, MD, MPH, MPhil, Icahn School of Medicine at Mount Sinai

11:45 AM – 12:30 PM

## Keynote Address: Spatial Organization of the Immune Response in Tumors

Nir Hacohen, PhD, The Broad Institute

Salon F-G, 4th Floor

Chair: Joshua Milner, MD, SB, Columbia University

12:30 PM – 2:00 PM

## Lunch Break Delegates on their own for lunch

12:45 PM – 2:00 PM

## Partner Program: Journal of Experimental Medicine – Meet the Editor

Arlington Room, 3rd Floor

Speaker: Shachi Bhatt, PhD, Journal of Experimental Medicine

Sponsored by



## Partner Program: Getting Your Application Off on the Right Foot: Receipt and Referral

Provincetown Room, 4th Floor

Speakers: Thomas R. Esch, PhD, DAIT/NIAID/NIH/DHHS and Deborah Hodge, PhD, NIAID/NIH

Sponsored by



2:00 PM – 3:45 PM

## Cutting Edge of Transplantation

Salon F-G, 4th Floor

Chair: Last minute change, check mobile app

2:00 PM **Heterogeneity and Plasticity of Alloreactive T Cell Clones in a Human Non-lymphoid Tissue**

Jianing Fu, PhD, Columbia University Medical Center

2:25 PM **Single Cell Transcriptomic Analysis of Renal Allograft Rejection Reveals Novel Insights into Intra-graft TCR Clonality and Rejection Mechanisms (Poster #Th232)**

Tiffany Shi, Cincinnati Children's Hospital Medical Center

2:40 PM **What is Next in Xenotransplantation**

Mohamed Mohiuddin, MD, University of Maryland

3:05 PM **Dynamic Establishment of Recipient Resident Memory T Cell Repertoire After Human Intestinal Transplantation (Poster #Th231)**

Megan Sykes, MD, Columbia University

3:20 PM **Paradoxical Effects of Prior Pregnancy on Subsequent Transplantation**

Anita Chong, PhD, The University of Chicago

2:00 PM – 3:45 PM

## Disorders of Humoral Immunity

Salon A-D, 4th Floor

Chair: Last minute change, check mobile app

Sponsored by



2:00 PM **Nucleic Acid Sensing Disorders and Human Autoimmunity**

Carola Vinuesa, MD, PhD, The Francis Crick Institute

2:25 PM **EBV in Multiple Sclerosis: Molecular Mimicry Between EBV EBNA1 and GlialCAM (Poster #Th114)**

Tobias Lanz, MD, Stanford University

2:40 PM **Complexity of the Immune Response to SARS-CoV-2: From Molecules to Cells and Return**

Andrea Cossarizza, PhD, University of Modena and Reggio Emilia

3:05 PM **Molecular and Cellular Dissection of the Nephrotic B Cell Response Reveals a Prominent Atypical B Cell Signature in Relapses of Idiopathic Nephrotic Syndrome (Poster #Th118)**

Tho-Alfakar Al-Aubodah, BSc, McGill University

3:20 PM **B Cell Abnormalities in Systemic Lupus Erythematosus**

Keishi Fujio, PhD, University of Tokyo

2:00 PM – 3:45 PM

## Immunity Across the Ages

Salon H-K, 4th Floor

Chair: Last minute change, check mobile app

2:00 PM **To Be Announced**

Heinrich Jasper, PhD, Genentech

2:25 PM **A Rheostat Governs Maturation and Regulation of In Utero Human Fetal T Cells (Poster #Th155)**

Jing Yao Leong, PhD, Singapore Health Services Pte Ltd (Singhealth)

2:40 PM **New Strategies to Rejuvenate Immunity**

Alessio Lanna, PhD, Sentcell LTD

3:05 PM **Dynamic Circulating T Cell Activation States in Extremely Premature Infants (Poster #Th215)**

Oluwabunmi Olaloye, MD, Yale University

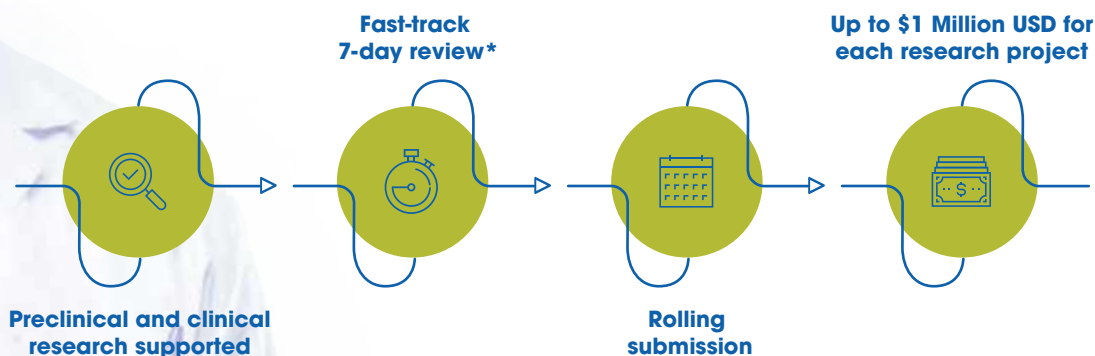
3:20 pm **Senescent Immune Cells vs. Immunosenescence**

Laura Niedernhofer, MD, PhD, University of Minnesota

# PATHWAYS

IN TYPE 2 INFLAMMATION

## A Pathway to a Better Understanding of Type 2 Inflammation



\*While we endeavor to complete our review within 7 days, there may be circumstances where that is not possible. Sanofi and Regeneron are not liable to applicant or applicant's institution for failure to meet this goal.

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Visit Booth #2  
in Salon E and  
scan the QR code  
to learn more



Regeneron is pleased to support the Federation of Clinical Immunology Societies as the 23<sup>rd</sup> Annual Meeting brings together leading clinicians and researchers delivering the latest breakthroughs across immunology.

Please join us at our sponsored thematic symposia –  
“Disorders of Humoral Immunity” –  
on Friday, June 23 from 2:00 p.m. to 3:45 p.m. ET.

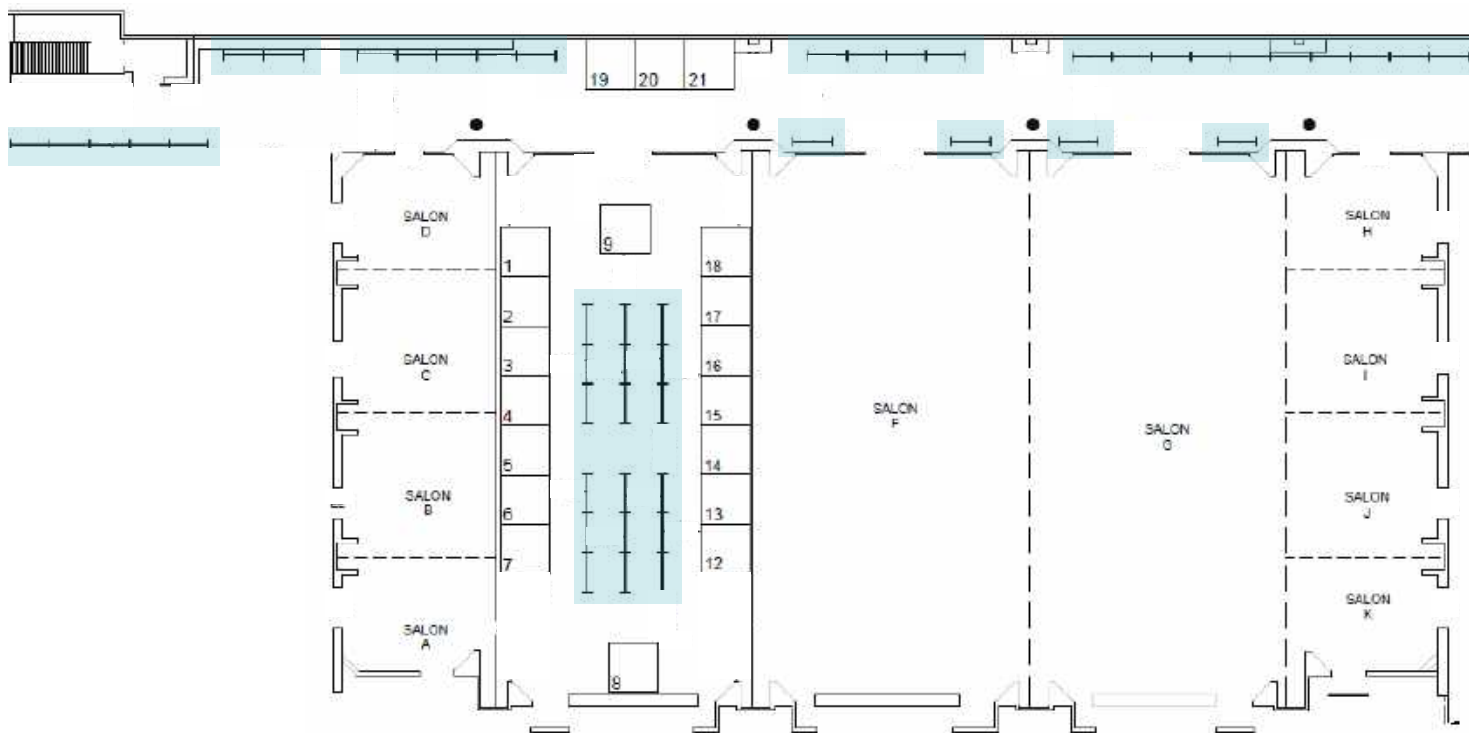
For 35 years, our mission has been to use the power of science to bring new medicines to patients... over and over again. Every day, we apply our homegrown technologies and relentless spirit to help people with serious diseases.



## FOCIS 2023 Exhibition & Poster Hall

FOCIS gratefully acknowledges the support that allows FOCIS to fulfill its mission to apply the science of immunology to improve human health through interdisciplinary research, education, communication, and collaboration.

Poster locations highlighted in blue.



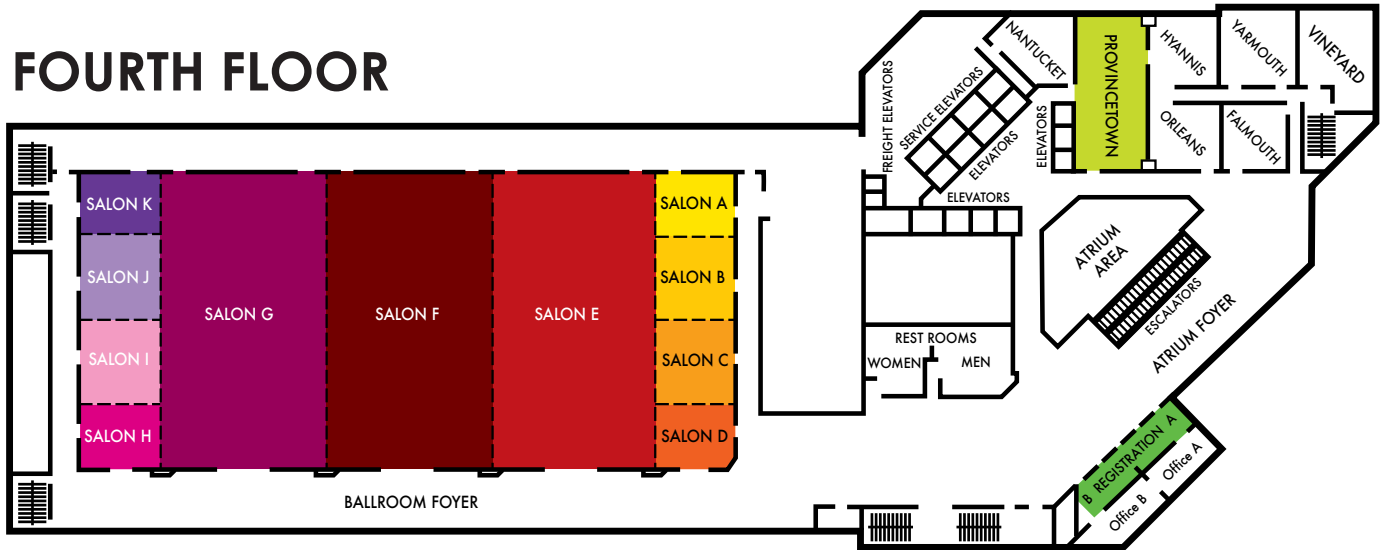
## Exhibitor Listing and Floor Plan

| Organization                                | Booth |
|---------------------------------------------|-------|
| Alamar Biosciences .....                    | 8     |
| Bio X Cell .....                            | 9     |
| BioLegend .....                             | 18    |
| Canopy Biosciences – A Bruker Company ..... | 19    |
| Cytokine Signalling Forum/Lupus Forum ..... | 3     |
| FOCIS .....                                 | 20    |
| Immudex .....                               | 1     |
| iRepertoire .....                           | 15    |
| Lupus Research Alliance (LRA) .....         | 7     |
| Pharming Healthcare .....                   | 4     |
| PHASE II/Scientific Education Support ..... | 14    |
| Qiagen .....                                | 6     |
| Sanofi .....                                | 2     |
| Science Immunology (AAAS) .....             | 16    |
| SeromYx Systems .....                       | 5     |
| Standard BioTools .....                     | 21    |
| Thermo Fisher Scientific .....              | 17    |



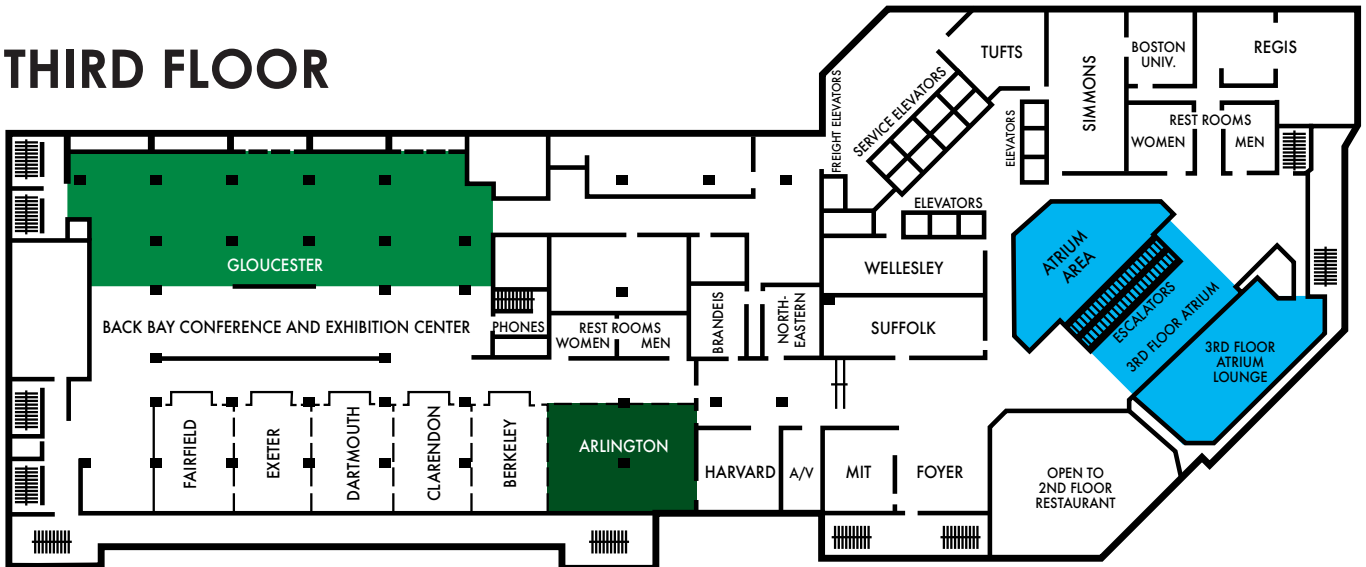
# FOCIS 2023 Hotel Floor Plan

## FOURTH FLOOR



- Registration Desk
- Provincetown
- Salon A
- Salon B
- Salon C
- Salon D
- Salon E
- Salon F
- Salon G
- Salon H
- Salon I
- Salon J
- Salon K

## THIRD FLOOR



- Gloucester
- Arlington
- 3rd Floor Atrium

## Speaker, Organizer and Contributor Disclosure Index

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### Key:

|                        |                   |                     |
|------------------------|-------------------|---------------------|
| 1 - Consultant/Advisor | 3 - Equity/Owner  | 5 - Lecture Fees    |
| 2 - Employee           | 4 - Grant Support | 6 - Patents/Royalty |

**Brenner, Michael:** 4FOX Ventures: (1), GSK: (1), Mestag Therapeutics: (3), Ono Pharmaceuticals: (1), Third Rock Ventures: (1)

**Broderick, Lori:** Novartis, Inc: (4)

**Fujio, Keishi:** AbbVie Pharmaceutical Research and Development: (4), AbbVie Pharmaceutical Research and Development: (5), Asahi-Kasei: (1), Asahi-Kasei: (4), Asahi-Kasei: (5), AstraZeneca: (4), AstraZeneca: (5), Bristol-Myers: (4), Bristol-Myers: (5), Chugai: (4), Chugai: (5), Daichi Sankyo: (5), Eisai: (4), Eisai: (5), Eli Lilly: (4), Eli Lilly: (5), Gilead: (5), Novartis: (1), Novartis: (5), Pfizer: (5), Tanabe-Mitsubishi: (4), Tanabe-Mitsubishi: (5), Tsumura: (4), Tsumura: (5)

**Gaglia, Giorgio:** Sanofi: (2)

**Glimcher, Laurie:** Abpro Therapeutics: (1), Analog Devices Board of Directors: (1), Analog Devices Board of Directors: (3), Bristol Myers Squibb Board of Directors: (1-Terminated, July 16, 2017), Bristol Myers Squibb Board of Directors: (3-Terminated, July 16, 2017), GlaxoSmithKline Board of Directors: (1-Terminated, October 13, 2022), GlaxoSmithKline Board of Directors: (3-Terminated, October 13, 2022), JPM Healthcare Advisory Fund: (1), Repare Therapeutics: (1), Waters Corp Board of Directors: (1-Terminated, August 17, 2020), Waters Corp Board of Directors: (3-Terminated, August 17, 2020)

**Hacohen, Nir:** Bristol Myers Squibb: (4), Danger Bio: (1)

**Hara, Yannis:** Sanofi: (2)

**Hassman, Lynn:** Priovant Therapeutics: (1)

**Hill, Marcelo:** ARDAN Pharma: (3), ARDAN Pharma: (4), ARDAN Pharma: (6), Institut Roche: (4)

**Juan, Manel:** Gyla Therapeutics: (1)

**Landuyt, Ashley:** GentiBio, Inc: (2)

**Lanna, Alessio:** Electra Life Sciences LTD: (3), Sentcell LTD: (3), Sentcell LTD: (6)

**Liblau, Roland:** Biogen: (1-Terminated), GlaxoSmithKline: (4-Terminated), Kite Pharma, Servier, Novartis: (1), Kite Pharma, Servier, Novartis: (5), Merck: (1), Merck: (5), Orion: (1-Terminated), Roche: (4), Sanofi-Genzyme: (1-Terminated)

**Maus, Marcela:** 2Seventy Bio: (1), Adaptimmune, Agenus, Allogene, Arcellx, Astellas, AstraZeneca, Atara, Bayer, BMS, Cabaletta Bio (SAB), Collectis (SAB), CRISPR therapeutics, EMD Serono, Genocoea, In8bio (SAB), Intellia, GSK, Kite Pharma, Micromedex/BendBio, Neximmune, Novartis, On: (1), Century Therapeutics, Genocoea, Oncternal, TCR2, 2Seventy Bio: (3), Kite Pharma, Servier, Novartis: (4), Marcela V. Maus, MD., PhD, is an inventor on patents related to adoptive cell therapies, held by Massachusetts General Hospital and University of Pennsylvania (some licensed to Novartis). MVM holds equity in TCR2, Century Therapeutics, Genocoea, Onct: (6)

**Mohiuddin, Muhammad:** United Therapeutics, Inc: (4)

**Nagarajan, Niranjana:** Abata Therapeutics: (2), Abata Therapeutics: (3)

**Niedernhofer, Laura:** Merck Sharp and Dohme: (4), Pfizer Inc.: (4)

**Paley, Michael:** AbbVie: (1), Eli Lilly: (4), JK Market Research: (1-Terminated), Priovant Therapeutics: (1)

**Perna, Fabiana:** Lonza: (4), MSKCC: (6), NGMBiopharmaceuticals: (4)

**Powrie, Fiona:** Genentech: (1), GSK: (1), T-Cypher: (1)

**Quayle, Steven:** Cue Biopharma: (2), Cue Biopharma: (3)

**Roquilly, Antoine:** BioMerieux: (4-Terminated), MSD: (1), MSD: (4)

**Rumker, Laurie:** nference: (3)

**Santamaria, Pere:** Parvus Therapeutics: (2), Parvus Therapeutics: (3), Parvus Therapeutics: (4), Parvus Therapeutics: (6)

**Santos, Alexandra:** Allergy Therapeutics: (1), IgGenix: (1), Novartis: (1), Stallergenes: (1-Terminated), Thermo Scientific: (5)

**Scheibenbogen, Carmen:** Astra Zeneca: (5-Terminated), Bayer: (5), Bristol Myers Squibb: (5-Terminated), Celltrend: (1), Celltrend: (5), Miltenyi: (4), Novartis: (5-Terminated), Roche: (1-Terminated)

**Sheppard, Dean:** Amgen: (1), ARDA: (1), Calico: (1-Terminated), Genentech: (1), Pliant Therapeutics: (1), Pliant Therapeutics: (3)

**Ullrich, Evelyn:** BMS: (4), Gilead: (4), Phislogics: (1)

**Wynn, Thomas:** Pfizer Inc.: (2, 3)

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Event Icon

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## 3. App Tips

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SAVE THE  
DATE!



# ADVANCED COURSE IN BASIC & CLINICAL IMMUNOLOGY

FEBRUARY 4-7, 2024 | ESTANCIA LA JOLLA | SAN DIEGO, CALIFORNIA



Society for Immunotherapy of Cancer

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The Society for Immunotherapy of Cancer (SITC) is the world's leading member-driven organization specifically dedicated to improving cancer patient outcomes by advancing the science and application of cancer immunotherapy.

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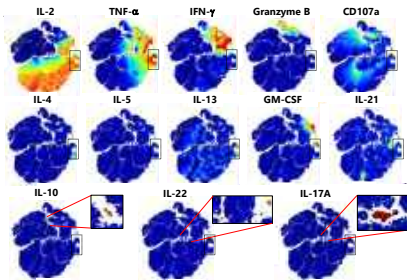


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# JDRF

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Genentech's mission is the mission of all science—going beyond test tubes, patents, and profits, and committing every moment of every day to a broader charge of social responsibility.

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# Save the Date!

June 18-21



ANNUAL MEETING

*San Francisco*  
CALIFORNIA

# FOCIS 2023 Program Overview

## Monday, June 19

7:30 AM – 5:00 PM

8:00 AM – 5:30 PM

Systems Immunology Course (*separate registration required*) ..... Salon F  
Basic Immunology in Medicine Course (*separate registration required*) ..... Salon G

## Tuesday, June 20

7:30 AM – 5:45 PM

7:30 AM – 12:00 PM

8:00 AM – 9:30 AM

8:00 AM – 11:30 AM

8:00 AM – 11:30 AM

8:00 AM – 12:00 PM

Cancer Immunity & Immunotherapy Course (*separate registration required*) ..... Gloucester  
Big Data in Immunology Workshop (*separate registration required*) ..... Provincetown  
The Expanding Field of Inborn Errors of Immunity ..... Salon C-D  
Advances in Immunological Research: Impact on Healthcare ..... Salon H-I  
Latin-American Immunology Symposium ..... Arlington  
High Resolution Analysis of Target Organs and Cells to Reveal Local  
Inflammatory and Immune Mechanisms ..... Salon A-B  
Novel Crosstalk of Innate and Adaptive Immunity in Allergy and Asthma ..... Salon C-D  
Trans-omics Assessment in Clinical Immunology ..... Salon J-K  
Cytokines in Barrier Immunity ..... Salon C-D  
Multi-omics Define a New Horizon in for Inflammatory Eye Diseases ..... Salon J-K  
Engineered T Cell Therapies to Treat Autoimmune Diseases and Restore Immune Tolerance ..... Provincetown  
Neuroimmune Interactions in Health and Disease ..... Arlington  
Immunometabolism 10 Years Later: Implications for Health and Disease and Translational Immunometabolism ..... Salon H-I  
Innovative Bioengineering Technologies and Strategies that Provide Mechanistic Insight and Guide  
Therapeutics in Cancer, Autoimmune Diseases and Transplant ..... Salon A-B  
Mucosal Immune Defenses in Health and Disease ..... Salon C-D  
Investigating Common Mechanisms of Autoimmunity ..... Salon J-K  
Exhibit & Poster Opening Reception ..... Salon E

## Wednesday, June 21

8:00 AM – 8:45 AM

8:45 AM – 9:35 AM

10:00 AM – 11:30 AM

11:30 AM – 1:00 PM

11:45 AM – 1:00 PM

11:45 AM – 1:00 PM

1:00 PM – 2:45 PM

1:00 PM – 2:45 PM

1:00 PM – 2:45 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

5:30 PM – 6:15 PM

6:15 PM – 7:30 PM

7:30 PM – 8:30 PM

Keynote Address, Identification of RIOK2 as a Master Regulator of Human Blood Cell Development ..... Salon F-G  
ImmunoOncology ..... Salon F-G  
Engineered CAR-cells in Oncology ..... Salon F-G  
Partner Program: Lupus Insight Awards Luncheon ..... Gloucester  
Industry Tutorial by BioLegend ..... Arlington  
Industry Tutorial by Alamar Biosciences ..... Provincetown  
Neuroimmunology ..... Salon F-G  
Precision Diagnostics for Immune Disorders ..... Salon A-D  
Tolerance Therapeutics ..... Salon H-K  
ImmunoOncology and Cell Therapy ..... Salon A-D  
Late Breaking Abstracts ..... Salon H-K  
Mechanisms of Autoimmunity ..... Salon F-G  
Flow Cytometry Course, Day 1 ..... Provincetown  
Keynote Address, Translating Immunology into New Therapies for Inflammatory Bowel Disease ..... Salon F-G  
Exhibit & Poster Reception ..... Salon E  
FOCIS Member Reception (*FOCIS members only*) ..... 3rd Floor Atrium

## Thursday, June 22

7:00 AM – 5:00 PM

8:00 AM – 9:30 AM

10:00 AM – 11:30 AM

11:30 AM – 1:00 PM

1:00 PM – 2:45 PM

1:00 PM – 2:45 PM

1:00 PM – 2:45 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

3:15 PM – 5:15 PM

5:30 PM – 5:40 PM

5:40 PM – 6:25 PM

6:30 PM – 7:45 PM

Registration Desk Open ..... Registration Desk  
Fibrosis and Wound Healing ..... Salon F-G  
Sequelae of Infectious Diseases ..... Salon F-G  
Partner Program: FOCIS Women in Clinical Immunology (WICI) Committee – WIT/TTS Session ..... Gloucester  
Disorders of Innate Immunity ..... Salon A-D  
Engineered Cell Therapy – Non-oncology ..... Salon F-G  
Microbiome/Mucosal Immunity ..... Salon H-K  
Allergy and Autoantigens ..... Salon F-G  
COVID and Infectious Diseases ..... Salon A-D  
Immunogenetics ..... Salon H-K  
Flow Cytometry Course, Day 2 ..... Provincetown  
State of FOCIS Update ..... Salon F-G  
Keynote Address, CAR T Cells for Oncology and Beyond ..... Salon F-G  
Exhibit & Poster Reception ..... Salon E

## Friday, June 23

8:00 AM – 9:30 AM

10:00 AM – 11:30 AM

11:45 AM – 12:30 PM

12:30 PM – 2:00 PM

12:30 PM – 2:00 PM

2:00 PM – 3:45 PM

2:00 PM – 3:45 PM

2:00 PM – 3:45 PM

Adaptive/Autoimmunity ..... Salon F-G  
Atopic Diseases: Allergy/Type 2/Helminth ..... Salon F-G  
Keynote Address, Spatial Organization of the Immune Response in Tumors ..... Salon F-G  
Partner Program: *Journal of Experimental Medicine* ..... Arlington  
Partner Program: National Institutes of Health (NIH) ..... Provincetown  
Cutting Edge of Transplantation ..... Salon F-G  
Disorders of Humoral Immunity ..... Salon A-D  
Immunity Across the Ages ..... Salon H-K