

8th Annual Meeting of the
International Cytokine &
Interferon Society

1 - 4 November

Virtual Meeting

Structure-Function &
Systems Biology
of Cytokines

**FINAL
PROGRAM**

www.seattle.cytokinesociety.org



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Cytokines 2021

welcome message

Dear Colleagues and partners,

We would like to wish you a warm welcome to the very first Cytokines 2020 virtual Meeting, which promise to be a lively and fully interactive meeting with a flavor of Seattle!

This is a unique opportunity for you to connect with more than 1000 colleagues from around the world, enjoy more than 123 presentations with live Q&A and 230 lightning talks.

The ICIS Annual Meetings have a distinguished history of presenting cutting edge research from internationally recognized scientists. In recognition of the role of cytokines in COVID-19 and the extraordinary research being done by the cytokine & interferon community, the Local Organizing Committee of the International Cytokine & Interferon Society (ICIS) has re-shaped the program to include the latest findings on SARS-CoV-2/host interactions and COVID-19.

The pandemic underscores the importance of this meeting and our research to understand the systems biology of cytokines and interferons in human health and disease. Nearly all of the major breakthroughs in COVID-19 treatments and vaccine development have connections to ICIS members in academia, government and industry.

Reflecting the diverse scientific interests in the field of cytokine biology, sessions impacting all aspects of cytokine and interferon basic science, clinical development, and medicine will update you on these activities to reveal promising research that will lead to or has already launched cytokine-based therapeutics and immune-modifying biologics to treat COVID-19, cancer, autoimmunity, infectious disease and vaccine applications.

We believe this will be a fantastic meeting with many networking and learning opportunities no matter which time zone you are in!

We wish you a successful meeting!



Michael Gale Jr., Chair
University of Washington



Ram Savan, Co-Chair
University of Washington



committee members

Local Organizing Committee

Michael Gale Jr., Ph.D.,
University of Washington, Seattle, USA, meeting chair

Ram Savan, Ph.D.,
University of Washington, Seattle, USA, meeting co-chair

Sarah Gaffen, Ph.D.,
University of Pittsburgh, Pittsburgh, USA

Naeha Subramanian, Ph.D.,
Institute for Systems Biology, Seattle, USA

Steve Ziegler, Ph.D.,
Benaroya Research Institute, Seattle, USA

Yueh-Ming Loo, Ph.D.,
AstraZeneca, Inc., Gaithersburg, USA

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University of Washington, Seattle, USA

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Cardiff University, Cardiff, UK

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University of Massachusetts Medical School, Worcester, USA

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Friedrich-Alexander-University, Erlangen, Germany

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Hokkaido University, Sapporo, Japan

You-Me Kim, Ph.D.,
Pohang University of Science and Technology, Pohang, South Korea

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President-Elect (2019-2021)

Dusan Bogunovic
Treasurer (2019-2021)

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Past President (2019-2021)

David Artis (2018 – 2020)

Sarah Gaffen (2019 – 2021)

Anne O'Garra (2019 – 2021)

Hiroki Yoshida (2018-2020)

Michael Gale Jr.
Cytokines 2020 Chair

Joan Oefner
Managing Director (ex-officio)

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Simon Jones

Finance Committee:
Dusan Bogunovic

Membership/Communications:
Stacy M. Horner & Howard Young (Co-Chairs)

Meetings Committee:
Brendan Jenkins

Nomenclature Committee:
Ludmila Prokunina-Olsson

Nominating Committee:
Thomas Decker

Publications Committee:
Scott Durum, Chair & Cristina Bergamaschi, Co-Chair

Standards Committee:
Gareth Jones



invited speakers

- Kristina Adams-Waldorf**, University of Washington, USA
Judith Allen, University of Manchester, UK
Maninjay Atianand, University of Pittsburgh, USA
Glen Barber, University of Miami, USA
Ralph Baric, UNC Gillings School of Global Public Health, USA
Betsy Barnes, Feinstein Institutes for Medical Research, USA
Dan Barouch, Regeneron, USA
Alina Baum, Beth Israel Deaconess Medical Center, USA
Sonja Best, NIH, Rocky Mountains Labs, USA
Estelle Bettelli, Benaroya Research Institute, USA
Catherine Blish, Stanford University Medical Center, USA
Igor Brodsky, University of Pennsylvania, USA
Helen Y Chu, University of Washington, USA
Jörn Coers, Duke University, USA
Antonio del Sol, University of Luxembourg, LU
Michael Diamond, Washington University, USA
Marlène Dreux, INSERM, FR
Eleanor Fish, University of Toronto, CA
Kate Fitzgerald, University of Massachusetts Medical School, USA
Sarah L. Gaffen, University of Pittsburgh, USA
Chris Garcia, Stanford University, USA
Michael Y. Gerner, University of Washington, USA
Sara Hamilton, University of Minnesota, USA
Jorge Henao-Mejia, University of Pennsylvania, USA
Kristin Hogquist, University of Minnesota, USA
Stacy Horner, Duke University, USA
Curt Horvath, Northwestern University, USA
Christopher Hunter, University of Pennsylvania, USA
Jennifer Hyde, University of Washington, USA
Ruaidhri Jackson, Harvard Medical School, USA
Simon Jones, Cardiff University, UK
Jonathan Kagan, Boston Children's Hospital, USA
Eiryo Kawakami, Chiba University, JP
Nichole Klatt, University of Minnesota, USA
Robyn Klein, Washington University, USA
Venkatesh Gary Krishnan, Eli Lilly & Co., USA
Vijay K. Kuchroo, Harvard Medical School, USA
Warren J. Leonard, NIH, USA
David Levy, NYU Langone, USA
P'ng Loke, NIAID, NIH, USA
Carrie L. Lucas, Yale University, USA
Jennifer Lund, Fred Hutchinson Cancer Research Center, USA
Jack Major, Francis Crick Institute, UK
Matteo Massara, University of Lausanne, CH
Mandy McGeachy, University of Pittsburgh, USA
Andrew McKenzie, MRC, University of Cambridge, UK
Daniel McVicar, National Cancer Institute, USA
Vineet D. Menachery, University of Texas, USA
Anna Molofsky, UC San Francisco, USA
Kathleen Neuzil, University of Maryland, USA
Timothy Nice, Oregon and Health Sciences University, USA
Mariko Okada, Osaka University, JP
Selinda Orr, Queen's University Belfast, UK
Chandrashekhar Pasare, Cincinnati Children's, USA
Louis Picker, Oregon Health & Science University, USA
Fiona Powrie, University of Oxford, UK
Anne Puel, The Rockefeller University, USA
Lalita Ramakrishnan, University of Cambridge, UK
Gwendalyn Randolph, Washington University, USA
Barbara Rehermann, NIH, USA
Boris Reizis, NYU Langone, USA
Aaron Ring, Yale University, USA
Ellen Rothenberg, Caltech, USA
John Schoggins, UT Southwestern, USA
Rafick-Pierre Sékaly, Case Western Reserve University, USA
Gregory F. Sonnenberg, PhD, Cornell University, USA
George Stark, Cleveland Clinic, USA
Daniel Stetson, University of Washington, USA
Naeha Subramanian, Institute for Systems Biology, USA
Mehul Suthar, Emory Vaccine Center, USA
Elia Tait-Wonjo, University of Washington, USA
Reiko Tanaka, Imperial College London, UK
Benjamin TenOever, Icahn School of Medicine, USA
Jenny Ting, University of North Carolina, USA
Shannon Turley, Genentech, USA
Monika Wolkers, University of Amsterdam, NL
Joshua Woodward, University of Washington, USA
Autumn York, Yale University, USA
Ivan Zanoni, Boston Children's Hospital, USA
Zhenyu Zhong, UT Southwestern, USA
Steven Ziegler, Benaroya Research Institute, USA




The Seymour & Vivian Milstein Award for Excellence in Interferon & Cytokine Research



Warren J. Leonard, MD

NIH Distinguished Investigator, Chief, Laboratory of Molecular Immunology, and Director, Immunology Center, National Heart, Lung, and Blood Institute, NIH, Bethesda, U

ICIS-BioLegend William E. Paul Award for Excellence in Cytokine Research



Sarah I. Gaffen, Ph.D.

Gerald P. Rodnan Professor of Rheumatology, Director of Basic Rheumatology Research University of Pittsburgh School of Medicine Department of Medicine, Division of Rheumatology and Clinical Immunology, Pittsburgh, USA



Vijay K. Kuchroo, DVM, Ph.D.

Samuel L. Wasserstrom Professor Of Neurology At Harvard Medical School & Director, Evergrande Center For Immunologic Diseases Harvard Medical School And Brigham And Women's Hospital, Boston, USA



ICIS Honorary Lifetime Membership Award



Anne O'Garra, FRS, FMedSci

Senior Group Leader, Laboratory of Immunoregulation & Infection, The Francis Crick Institute, London, England

ICIS-Luminex John R. Kettman Early-Career Award



Gregory F. Sonnenberg, Ph.D.

Associate Professor of Microbiology & Immunology in Medicine, Department of Medicine, Gastroenterology Division, Department of Microbiology & Immunology, Jill Robert's Institute for Research in IBD, Weill Cornell Medicine, Cornell University, New York, NY USA



ICIS Distinguished Service Award



Joan Saluzzi-Oefner

ICIS Managing Director Regensburg, Germany – Oradell, USA - Virtual Office

Milstein Young Investigator Awards



Aaron M Ring, MD, Ph.D.

Assistant Professor of Immunobiology Yale University School of Medicine, New Haven, United States



Elia Tait Wojno, Ph.D.

Assistant Professor Department of Immunology, University of Washington, Seattle, USA



Zhenyu Zhong, Ph.D.

Assistant Professor Department of Immunology University of Texas Southwestern Medical Center, Dallas, USA



Carrie L Lucas, Ph.D.

Assistant Professor of Immunobiology Yale University, Department of Immunobiology, New Haven, United States

2020 Inaugural Amanda Proudfoot Tribute Graduate Student/Postdoc Award for Advances in Chemokine Biology



Matteo Massara, Ph.D.

Postdoctoral researcher, University of Lausanne Ludwig Institute for Cancer Research, AGORA Cancer Center, Lausanne, Switzerland

Sponsored by the Friends, Family & Colleagues of the Late Amanda Proudfoot (ICIS Honorary Lifetime Member)

The Sidney & Joan Pestka Graduate & Post Graduate Awards for Excellence in Interferon and Cytokine Research – sponsored by PBL Assay Science

Post-Graduate



Autumn York, Ph.D.

Hanna H. Gray Postdoctoral Fellow Howard Hughes Medical Institute, Laboratory of Richard Flavell Department of Immunobiology, Yale University, New Haven, United States

Graduate



Jack Major, Ph.D. Student (4th and final year)

Francis Crick Institute, Present Immunoregulation laboratory (student at Imperial College London), Primary PhD supervisor: Dr Andreas Wack

Sponsored by





milstein abstract award winners

- Felix Aggor,**
University of Pittsburgh, USA
- Hajera Amatullah,**
Massachusetts General Hospital, USA
- Laurisa Ankley,**
Michigan State University, USA
- Ab Banday,**
NIH, USA
- Dirk Baumjohann,**
University of Bonn, DE
- Defne Bayik,**
Cleveland Clinic, USA
- Rami Bechara,**
University Of Pittsburgh, USA
- Dave Boucher,**
University of York, UK
- Ian Boys,**
UT Southwestern Medical Center, USA
- Rebecca Casazza,**
UNC Chapel Hill, USA
- Ainara Castellanos-Rubio,**
University of the Basque Country, ES
- Hsin-Hsiang Chen,**
National Taiwan University, TW
- Hyeon Joo Cheon,**
Lerner Research Institute, USA
- Rosa Coldbeck-Shackley,**
The University of Adelaide, AU
- Ang Cui,**
Broad Institute of MIT and Harvard, USA
- Kaustav Das Gupta,**
Univeristy of Queensland, AU
- Ruby Dawson,**
Hudson Insitute of Medical Reseach, AU
- Elizabeth Fay,**
University of Minnesota, USA
- Achilleas Floudas,**
Trinity Biomedical Sciences Institute, IE
- Daniel Fox,**
The Australian National University, AU
- Kevin Gao,**
University Of Massachusetts Medical School, USA
- Andrew Gustin,**
University of Washington, USA
- Kun He,**
University of Pittsburgh, USA
- Markus Hofer,**
University of Sydney, AU
- Sevasti Karaliota,**
NCI/NIH, USA
- Takeshi Kawabe,**
Tohoku University Graduate School of Medicine, JP
- Samuel Kazer,**
Boston Children's Hospital, USA
- Sangmi Kim,**
King's College London, UK
- Hyun Jik Kim,**
Seoul National University, KR
- Thomas Krausgruber,**
CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, AT
- Kevin Lee,**
The University of Melbourne, AU
- Jessica Lenoir,**
Northwestern University, USA
- Katrina Mar,**
UT Southwestern, USA
- Claire McCoy,**
RCSI, IE
- Michael Mcfadden,**
Duke University, USA
- Roza Nurieva,**
MD Anderson Cancer Center, USA
- Yifat Ofir-Birin,**
Weizmann Institute for Science, IL
- David Olganier,**
Aarhus University, DK
- Jose Ordovas-Montanes,**
Boston Children's Hospital, USA
- Prashant Rai,**
NIH, USA
- Emily Rapp,**
University of Pittsburgh, USA
- Leon Schulte,**
Philipps-University, DE
- Daniella Schwartz,**
NIAID, NIH, USA
- Johannes Schwerk,**
University Of Washington, USA
- Nikaia Smith,**
Insitut Pasteur, FR
- Frank Soveg,**
University of Washington, USA
- Tobias Suske,**
University of Veterinary Medicine Vienna, AT
- Briana Turner,**
NIH, USA
- Takuya Uehata,**
Kyoto University, JP
- Barney Viengkhou,**
The University of Sydney, AU
- Dongwen Wu,**
University of Pittsburgh, USA
- Dakang Xu,**
Shanghai Jiao Tong University, CN
- Jacob Yount,**
The Ohio State University, USA
- Hsiao Yu-Ling,**
National Taiwan University, TW

program overview

Sunday 1 November 2020

09:00 - 10:35

Opening Ceremony

Welcome and opening remarks, President's address & Presentation of ICIS awards, Milstein award lecture, ICIS BioLegend William E. Paul lectures, ICIS-Luminex award winner lecture

10:35 - 11:15

Coffee break & visit of the exhibition

11:15 - 13:15

Plenary 1

Cytokines and COVID-19 (sponsored by Eli Lilly & Co.)

13:15 - 14:15

Webinar 1 - 10X Genomics: Redefining immunology with single cell multiomics

14:30 - 16:30

Lightning Talks Session 1

Adaptive immunity, Cytokine regulation I, Innate immunity I

Monday 2 November 2020

08:30 - 10:20

Plenary 2

Cytokines in bacterial diseases

10:20 - 10:45

Coffee break & visit of the exhibition

10:45 - 12:25

Symposium 1

Cytokines in microbiome dynamics

10:45 - 12:25

Symposium 2

Inflammation

10:45 - 12:35

Symposium 3

Interferon stimulated genes

12:35 - 13:00

Coffee break & visit of the exhibition

13:00 - 14:40

Symposium 4

Cytokines in cancer
(sponsored by PBL Assay Science)

13:00 - 14:40

Symposium 5

Innate immunity

13:00 - 14:40

Symposium 6

Cytokine gene regulation
and non-coding RNA

14:40 - 15:15

Coffee break & visit of the exhibition

15:15 - 17:15

Lightning Talks Session 2

Autoinflammation and autoimmunity, Cytokine regulation II, Innate immunity II

17:15 - 18:15

The Future of Cytokines Networking Event

program overview

Tuesday 3 November 2020

08:30 - 09:00

Plenary 3

IL-17 & type 2 immunity: Insights from helminth infection

09:00 - 09:30

Coffee break & visit of the exhibition

09:30 - 11:10

Symposium 7

Inflammation and barrier integrity
(sponsored by Eli Lilly & Co.)

09:30 - 11:10

Symposium 8

Regulators of interferons - P. I. Marcus
(sponsored by JICR)

09:30 - 11:20

Symposium 9

Host response to SARS-CoV-2
(sponsored by Regeneron Pharmaceuticals)

11:20 - 11:45

Coffee break & visit of the exhibition

11:45 - 13:45

Lightning Talks Session 3

Cancer, Innate immunity III, Mucosal immunity, SARS-CoV-2/COVID19

14:00 - 15:00

Webinar 2 - Luminex: TBC

15:15 - 16:15

Webinar 3 - MilliporeSigma: MILLIPLEX® multiplex immunoassays for use in COVID-19 and cytokine storm research

Wednesday 4 November 2020

08:30 - 10:20

Plenary 4

Systems biology in cytokine actions and vaccinology (sponsored by Elsevier)

10:20 - 10:45

Coffee break & visit of the exhibition

10:45 - 12:35

Symposium 10

Structure and function of cytokines
(sponsored by Boehringer Ingelheim)

10:45 - 12:25

Symposium 11

Cytokines in neuroimmunology

10:45 - 12:25

Symposium 12

Immune cell fate and function

12:25 - 13:00

Coffee break & visit of the exhibition

13:00 - 14:30

Symposium 13

Cytokines in autoimmunity
(sponsored by Pfizer)

13:00 - 14:40

Symposium 14

Japanese Society of Interferon and
Cytokine Research Symposium

13:00 - 14:50

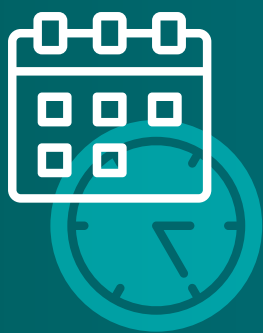
Symposium 15

Late-breaking talks in innate immunity,
infection and cancer

14:50 - 15:15

Closing Ceremony

Meeting wrap up & Invitation to Cytokines 2021 in Cardiff, UK



program day 1

sunday 1 november 2020

Sessions are in Seattle, WA, USA Local Time (Pacific Time) - Timezone converter: [click here](#)



09:00 - 10:35

Opening Ceremony

09:00

Welcome to virtual Seattle Cytokines 2020

Michael Gale Jr. & Ram Savan (University of Washington, USA)

09:05

President's address and presentation of ICIS awards

Kate Fitzgerald (University of Massachusetts Medical School, USA)

09:15

Milstein award lecture:

The γ c family of cytokines and fine-tuning their signals

Warren Leonard (National Heart, Lung and Blood Institute, NIH, USA)

09:35

ICIS BioLegend William E. Paul awardee 1:

A history of IL-17 signaling in seventeen minutes: The RNA where it happened

Sarah Gaffen (University of Pittsburgh, USA)

09:55

ICIS BioLegend William E. Paul awardee 2:

Cytokines in induction and regulation of tissue inflammation

Vijay Kuchroo (Harvard Medical School, USA)

10:15

ICIS-Luminex award winner lecture:

Innate lymphoid cell regulation of immunity, inflammation and cancer

Gregory Sonnenberg (Weill Cornell Medicine, USA)



10:35 - 11:15

Coffee break & visit of the exhibition



11:15 - 13:15

Plenary 1: Cytokines and COVID19 (sponsored by Eli Lilly & Co.)

Moderators: Curt Horvath (Northwestern University, USA) & Helen Lazear (University of North Carolina, USA)

11:15

Immune protection and pathology of SARS-CoV-2 Infection: Insight from mouse models

Michael Diamond (Washington University, USA)

11:45

Clinical research updates from the Seattle pandemic response

Helen Y. Chu (University of Washington, USA)

12:05

Lethal mouse models of SARS-CoV2 acute lung injury

Ralph Baric (UNC Gillings School of Global Public Health, USA)

12:25

COVID-19: Type I IFNs as 1st responders

Eleanor Fish (University of Toronto, CA)

12:45

Mechanism of action of Baricitinib counters the cytokine storm in COVID-19

Venkatesh Krishnan (Eli Lilly & Co., USA)

13:05

O01- Distinct systemic and mucosal immune responses to SARS-COV2

Nikaia Smith (Insitut Pasteur, FR)



13:15 - 14:15

Webinar 1: 10X Genomics

13:15

Redefining immunology with single cell multiomics

Rea Dabelic (10x Genomics, USA)

14:30 - 16:30

Lightning Talks Session 1 (details on pages 21 - 23)



program day 2

monday 2 november 2020

Sessions are in Seattle, WA, USA Local Time (Pacific Time) - Timezone converter: [click here](#)



08:30 - 10:20

Plenary 2: Cytokines in bacterial diseases

Moderators: Nichole Klatt (University of Minnesota, USA) & Andreas Wack (The Francis Crick Institute, UK)

08:30

How TNF becomes a bad actor in TB

Lalita Ramakrishnan (University of Cambridge, UK)

09:00

Mechanisms limiting pyroptotic cell death

Kate Fitzgerald (University of Massachusetts Medical School, USA)

09:20

Staphylococcus aureus small-colony variants exhibit genotype specific hyperinflammation

Joshua Woodward (University of Washington, USA)

09:40

Caspase-8-dependent control of inflammatory gene expression and host defense

Igor Brodsky (University of Pennsylvania, USA)

10:00

O02 - Human enteric viruses shape disease phenotype through divergent immunomodulation

Kate Jeffrey (Harvard Medical School, USA)

10:10

O03 - STAT2 facilitates intestinal inflammation by interfering with antimicrobial IL-22 signaling

Ana Gamero (Temple University School of Medicine, USA)



10:20 - 10:45

Coffee break & visit of the exhibition



10:45 - 12:25

Symposium 1: Cytokines in microbiome dynamics

Moderators: Amariliz Rivera (Rutgers University, USA) & Steven Ziegler (Benaroya Research Institute, USA)

10:45

Reducing susceptibility to infection in aged mice with senolytics

Sara Hamilton (University of Minnesota, USA)

11:05

C-type Lectin-like receptors and anti-fungal immunity

Selinda Orr (Queen's University Belfast, UK)

11:25

Mechanisms of microbiome influence in human health

Nichole Klatt (University of Minnesota, USA)

11:45

Mice with wild-type microbiota model cytokine- and inflammatory responses of humans

Barbara Rehermann (National Institute of Diabetes and Digestive and Kidney Diseases, USA)

12:05

O04 - Commensal bacteria likely contribute to ocular manifestations and excessive IL-1 beta response in autoinflammatory diseases due to NLRP3 gene mutations

Mary Mattapallil (National Eye Institute, NIH, USA)



10:45 - 12:25

Symposium 2: Inflammation

Moderators: Thirumala-Devi Kanneganti (St Jude Children's Research Hospital, USA) & Naeha Subramanian (Institute for Systems Biology, USA)

10:45 **Stromal myeloid cell interactions in the pathogenesis of IBD**
Fiona Powrie (University of Oxford, UK)

11:05 **NLRs and cytokine regulation**
Jenny Ting (University of North Carolina, USA)

11:25 **Host innate immune mechanisms control temporal expression of flagellin by Salmonella**
Naeha Subramanian (Institute for Systems Biology, USA)

11:45 **Human inborn errors of the IL-17-mediated immunity**
Anne Puel (The Rockefeller University, USA)

12:05 **Milstein Young Investigator Awardee:
O05 - Cytosolic DNTP catabolism prevents NLRP3 inflammasome overactivation**
Zhenyu Zhong (UT Southwestern Medical Center, USA)



10:45 - 12:35

Symposium 3: Interferon stimulated genes

Moderators: Jennifer Hyde (University of Washington, USA) & Jacob Yount (The Ohio State University, USA)

10:45 **Interferon-inducible antiviral effectors targeting coronavirus and flavivirus**
John Schoggins (UT Southwestern Medical Center, USA)

11:05 **Alphavirus RNA structures evade the host innate immune response**
Jennifer Hyde (University of Washington, USA)

11:25 **Human GBP1: An intracellular nanomachine executing cell-autonomous immunity**
Jörn Coers (Duke University, USA)

11:45 **O06 - Immunity-related GTPASE IRGM1 guards against spontaneous interferon-driven autoimmunity through mitochondrial maintenance**
Prashant Rai (National Institute of Environmental Health Sciences, NIH, USA)

12:05 **O07 - A West Nile virus resistance SNP generates a membrane-targeted isoform of OAS1 with enhanced antiviral activity**
Frank Soveg (University of Washington, USA)

12:25 **Baricitinib treatment resolves lower airway inflammation and neutrophil recruitment in SARS-CoV-2-infected rhesus macaques**
Steve Bosinger (Emory University, USA)



12:35 - 13:00

Coffee break & visit of the exhibition



13:00 - 14:40

Symposium 4: Cytokines in cancer (sponsored by PBL Assay Science)

Moderators: Ludmila Prokunina-Olsson (NCI/NIH, USA) & Brendan Jenkins (Hudson Inst. of Medical Research, AU)

13:00 **TSLP and Colitis-associated cancer**
Steven Ziegler (Benaroya Research Institute, Seattle, USA)

13:20 **Stromal niche for classical dendritic cells in secondary lymphoid organs**
Shannon Turley (Genentech, USA)

13:40 **STING signaling in inflammation and cancer**
Glen Barber (University of Miami, USA)

14:00 **Metabolic niches in cancer and inflammation**
Daniel McVicar (National Cancer Institute, USA)

14:20 **O08 - The activating STAT5BN642H driver mutation disrupts T-cell development progressing to T-cell neoplasia**
Tobias Suske (University of Veterinary Medicine Vienna, AT)

14:30 **O09 - Mechanisms of immune modulation in the tumor microenvironment**
Kwan T Chow (City University of Hong Kong, HK)



13:00 - 14:40

Symposium 5: Innate immunity

Moderators: Tiffany Reese (UT Southwestern Medical Center, USA) & Howard Young (NCI at Frederick, USA)

- 13:00 **Intracellular nucleic acid detection in autoimmunity**
Daniel Stetson (University of Washington, USA)
- 13:20 **Flavivirus manipulation of mitochondrial dynamics reveals new connections between PINK1 and inflammation**
Sonja Best (Rocky Mountain Labs, NIH, USA)
- 13:40 **PRR independent activation of the innate immune system: Role for T cell instruction in inflammation and auto-immunity**
Chandrashekhar Pasare (Cincinnati Children’s Hospital Medical Center, USA)
- 14:00 **Interferogenic synapse: Targeted control of viral replication**
Marlène Dreux (INSERM, FR)
- 14:20 **Pestka Graduate Awardee:**
O10 - Type I and III interferons disrupt lung epithelial repair during recovery from viral infection
Jack Major (Francis Crick Institute, UK)
- 14:30 **O11 - Reactive oxygen species oxidize sting and suppress interferon production**
Tiffany Reese (UT Southwestern Medical Center, USA)



13:00 - 14:40

Symposium 6: Cytokine gene regulation and non-coding RNA

Moderators: Sarah Gaffen (University of Pittsburgh, USA) & Ram Savan (University of Washington, USA)

- 13:00 **A role for the RNA modification N6-methyladenosine at the virus-host interface**
Stacy Horner (Duke University, USA)
- 13:20 **RNA regulation of inflammation**
Jorge Henao-Mejia (University of Pennsylvania, USA)
- 13:40 **Intricate regulation of T cell effector function by RNA binding proteins**
Monika Wolkers (University of Amsterdam, NL)
- 14:00 **Gene regulation by long noncoding RNAs in inflammation**
Maninjay Atianand (University of Pittsburgh, USA)
- 14:20 **O12 - RNA M6A methylation guides IL-17-driven autoimmunity through the RNA-binding protein IMP2**
Rami Bechara (University of Pittsburgh, USA)
- 14:30 **O13 - Host CXCL10 is repressed by the malaria parasite and serves as a decision-making facilitator for parasitic growth and sexual development**
Yifat Ofir-Birin (Weizmann institute for science, IL)



14:40 - 15:15

Coffee break & visit of the exhibition

15:15 - 17:15

Lightning Talks Session 2 (details on pages 26 - 28)



17:15 - 18:15

The Future of Cytokines Networking Event for trainees and young investigators
(Access through the Virtual Networking Lounge)



program day 3

tuesday 3 november 2020

Sessions are in Seattle, WA, USA Local Time (Pacific Time) - Timezone converter: [click here](#)



08:30 - 09:00

Plenary 3: IL-17 & type 2 immunity: Insights from helminth infection

Moderator: Kate Fitzgerald (University of Massachusetts Medical School, USA)

08:30

IL-17 & type 2 immunity: Insights from helminth infection

Judith Allen (University of Manchester, UK)



09:00 - 09:30

Coffee break & visit of the exhibition



09:30 - 11:10

Symposium 7: Inflammation and barrier integrity (sponsored by Eli Lilly & Co.)

Moderators: Adriana Forero (The Ohio State University, USA) & Jay Kolls (Tulane School of Medicine, USA)

09:30

Heterogeneity of type 2 immune responses during helminth infections

P'ng Loke (NYU Langone, USA)

09:50

Milstein Young Investigator awardee:

O14 - The prostaglandin D2 receptor CRTH2 suppresses epithelial responses during intestinal helminth infection

Elia Tait-Wojno (University of Washington, USA)

10:10

Type III interferons: Friends or foes at mucosal barriers?

Ivan Zanoni (Boston Children's Hospital, USA)

10:30

Interferon responses of the intestinal epithelium

Timothy Nice (Oregon & Health Sciences University, USA)

10:50

O15 - Cytokines and skin barrier integrity

Brian Nickoloff (Eli Lilly & Co., USA)

11:00

O16 - Thymic stromal lymphopoietin (TSLP) primarily drives type 2 inflammation through IL-4R α -dependent signaling

Subhashini Srivatsan (Regeneron Pharmaceuticals, Inc, USA)



09:30 - 11:10

Symposium 8: Regulators of interferons - Philip I. Marcus Symposium (sponsored by JICR)

Moderators: Michael Gale Jr. (University of Washington, USA) & Emily Hemann (The Ohio State University, USA)

09:30

New appreciation of the roles of type I IFN and STAT2 in tumorigenesis and resistance to therapy

George Stark (Cleveland Clinic, USA)

09:50

Tonic IFN signaling impedes IL17-dependent inflammation by modulating microbiome homeostasis

David Levy (NYU Langone, USA)

10:10

Widespread inhibition of K63 Ubiquitin-mediated signaling by the RNA sensor and immune modulator, LGP2

Curt Horvath (Northwestern University, USA)

10:30

Initiation and regulation of innate immunity

Jonathan Kagan (Boston Children's Hospital, USA)

10:50

O17 - The unique type-I interferon-epsilon (IFNE) constitutively protects the female reproductive tract from Zika virus infection

Rosa C. Coldbeck-Shackley (University of Adelaide, AU)

11:00

O18 - Maternal interferon lambda signaling limits transplacental transmission and mediates fetal pathology in a gestational stage-dependent manner during congenital Zika virus infection in mice

Rebecca Casazza (UNC Chapel Hill, USA)



09:30 - 11:20

Symposium 9: Host response to SARS-CoV-2 (sponsored by Regeneron Pharmaceuticals)

Moderators: Eleanor Fish (University of Toronto, CA) & Nathalie Grandvaux (University of Montreal, CA)

09:30

The molecular basis for robust cytokine signaling in response to SARS-CoV-2

Benjamin TenOever (Mount Sinai, Icahn School of Medicine, USA)

09:50

The innate immune response to SARS-CoV-2

Mehul Suthar (Emory Vaccine Center, USA)

10:10

Understanding SARS-CoV-2 pathogenesis: Seq-ing answers to COVID-19

Catherine Blish (Stanford University Medical Center, USA)

10:30

Development of REGN-COV2 antibody cocktail

Alina Baum (Regeneron, USA)

10:50

Age-dependent Coronavirus disease

Vineet D. Menachery (UT Southwestern Medical Center, USA)

11:00

O19 - LY6E impairs coronavirus fusion and confers immune control of viral disease

Katrina B. Mar (UT Southwestern Medical Center, USA)



11:20 - 11:45

Coffee break & visit of the exhibition

11:45 - 13:45

Lightning Talks Session 3 (details on pages 32 - 35)



14:00 - 15:00

Webinar 2: Luminex

14:00

TBC

TBC



15:15 - 16:15

Webinar 3: MilliporeSigma

15:15

MILLIPLEX® multiplex immunoassays for use in COVID-19 and cytokine storm research

Brooke Gilliam (MilliporeSigma, USA)



program day 4

wednesday 4 november 2020

Sessions are in Seattle, WA, USA Local Time (Pacific Time) - Timezone converter: [click here](#)



08:30 - 10:20

Plenary 4: Systems biology in cytokine actions and vaccinology (sponsored by Elsevier)
Moderators: Nancy Reich (Stony Brook University, USA) & Mehul Suthar (Emory Vaccine Center, USA)

08:30

An identity pivot: Molecular mechanisms for the choice of a T-cell fate
Ellen Rothenberg (Caltech, USA)

09:00

COVID-19 vaccine development
Dan Barouch (Beth Israel Deaconess Medical Center, USA)

09:20

A role for IL-15 in the efficacy of the RhCMV vectored SIV vaccine
Louis Picker (Oregon Health & Science University, USA)

09:40

The TGF beta IL-15 interplay
Rafick-Pierre Sékaly (Case Western Reserve University, USA)

10:00

Spatial coordination of innate-adaptive cell crosstalk during Type-I inflammation
Michael Y. Gerner (University of Washington, USA)

10:20

The role of PD-1 in the regulation of Treg homeostasis during inflammation
Christopher Hunter (University of Pennsylvania, USA)



10:20 - 10:45

Coffee break & visit of the exhibition



10:45 - 12:35

Symposium 10: Structure and function of cytokines (sponsored by Boehringer Ingelheim)
Moderators: Dhan Kalvakolanu (University of Maryland, USA) & Cristina Bergamaschi (NIH/NCI, USA)

10:45

Cytokine structure and engineering
Chris Garcia (Stanford University, USA)

11:05

Milstein Young Investigator awardee:
An engineered Interleukin-18 variant expands intratumoral stem-like CD8 T cells and prevents TOX-mediated T cell exhaustion
Aaron Ring (Yale University, USA)

11:25

Constitutive type I/III interferon production in the thymus radically shapes the T cell repertoire
Kristin Hogquist (University of Minnesota, USA)

11:45

O20 - The road to epithelial barrier health: Targeting the IL-36R pathway
Jay Fine (Boehringer Ingelheim Pharmaceuticals, Inc., USA)

12:05

Amanda Proudfoot Tribute Awardee:
ACKR2 in hematopoietic precursors as a checkpoint of neutrophil release and anti-metastatic activity
Matteo Massara (University of Lausanne, CH)

12:15

O21 - CD28 and B7 receptor homodimer interfaces control formation of the B7/CD28 costimulatory axis and lethal pro-inflammatory signaling
Raymond Kaempfer (The Hebrew University, IL)

12:25

Pestka Post-graduate Awardee:
Decoding the immunological lipidome
Autumn York (Yale University, USA)



10:45 - 12:25

Symposium 11: Cytokines in neuroimmunology

Moderators: Kristina Adams-Waldorf (University of Washington, USA) & Ruaidhri Jackson (Harvard Medical School, USA)

10:45

Cytokine-induced memory impairment after recovery from West Nile Virus

Robyn Klein (Washington University, USA)

11:05

Regulation of enteric immunity: A cytokine's cellular stratification of function

Ruaidhri Jackson (Harvard Medical School, USA)

11:25

IL-33 regulates microglial remodeling of the extracellular matrix during memory formation

Anna Molofsky (UC San Francisco, USA)

11:45

Maternal-fetal cytokine profile in congenital Zika virus and Group B Streptococcal infections

Kristina Adams-Waldorf (University of Washington, USA)

12:05

O22 - Interferon signalling in endothelial cells mediates pathogenesis in cerebral type I interferonopathies

Barney Viengkhou (University of Sydney, AU)

12:15

O23 - Zika virus infection is associated with alterations in myelination during prenatal development

Jennifer Go (University of Washington, USA)



10:45 - 12:25

Symposium 12: Immune cell fate and function

Moderators: Christopher Hunter (University of Pennsylvania, USA) & Amanda Poholek (University of Pittsburgh, USA)

10:45

ROR α is a critical checkpoint in ILC2 and T cell commitment

Andrew McKenzie (MRC, University of Cambridge, UK)

11:05

Role of TNF in obstructing immune cell transport through lymphatics in ileitis

Gwendalyn Randolph (Washington University, USA)

11:25

Unique fates and functions of T cells in the female reproductive tract

Jennifer Lund (Fred Hutchinson Cancer Research Center, USA)

11:45

O24 - Structural cells are key regulators of organ-specific immune responses

Thomas Krausgruber (CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, AT)

11:55

O25 - Arginase 2 is essential for IL-10 metabolic reprogramming of inflammatory macrophages at the mitochondria

Claire McCoy (RCSI, University of Medicine and Health Sciences, IE)

12:05

O26 - The IL-10-STAT3 axis is a critically important lung-specific pathway driving BLIMP-1 mediated TH2 cell differentiation to promote allergic asthma

Kun He (University of Pittsburgh, USA)

12:15

O27 - Excess IL-18 and perforin deficiency distinctly and synergistically promote pathologic CD8 T-cell activation and experimental hemophagocytic lymphohistiocytosis

Emily Rapp (University of Pittsburgh, USA)



12:25 - 13:00

Coffee break & visit of the exhibition



13:00 - 14:30

Symposium 13: Cytokines in autoimmunity (sponsored by Pfizer)

Moderators: Ronald Rabin (CBER \ FDA, USA) & Lauren Zenewicz (University of Oklahoma, USA)

13:00

Plasmacytoid dendritic cells in systemic autoimmunity

Boris Reizis (NYU Langone, USA)

13:20

Genetics driving therapeutics to treat autoimmunity – in vivo targeting of IRF5

Betsy Barnes (Feinstein Institutes for Medical Research, USA)

13:40

Lost in translation: Unexpected roles of nuclear PIP2 in human Th17 cells

Mandy McGeachy (University of Pittsburgh, USA)

14:00

Role of STAT1 in neuroinflammation

Estelle Bettelli (Benaroya Research Institute, USA)

14:20

Christina Fleischmann Awardee:

O28 - Early-onset autoinflammatory disease caused by ETS factor mutation in humans and mice

Carrie Lucas (Yale University, USA)



13:00 - 14:40

Symposium 14: Japanese Society of Interferon and Cytokine Research

Moderators: John Schoggins (UT Southwestern Medical Center, USA) & Akinori Takaoka (Hokkaido University, JP)

13:00

Can we predict the severity of atopic dermatitis using cytokine measurement?

Reiko Tanaka (Imperial College London, UK)

13:20

Reconstruction and analysis of cell-cell communication networks for predicting modulators of inflammation

Antonio del Sol (University of Luxembourg, Luxembourg)

13:40

Prediction and validation of NF-kB mediated gene expression mechanisms in B cells using bulk and single cell sequencing data

Mariko Okada (Osaka University, JP)

14:00

Computational approach to decipher regulatory mechanism and diversity of inflammatory disease

Eiryō Kawakami (Chiba University, JP)

14:20

O29 - Systematic dissection of cytokine responses in lymph nodes at single-cell resolution

Ang Cui (Broad Institute of MIT and Harvard, USA)

14:30

O30 - Transcriptomic responses to CYCMV/SIV vaccination in Mauritian cynomolgus macaques

Daniel Newhouse (University of Washington, USA)



13:00 - 14:50

Symposium 15: Late-breaking talks in innate immunity, infection and cancer

Moderators: Kwan T. Chow (City University of Hong Kong, HK) & Oliver Harrison (Benaroya, USA)

13:00

O31 - SARS-COV-2 ORF6 hijacks NUP98 to block stat nuclear import and antagonize interferon signaling

Lisa Miorin (Icahn School of Medicine at Mount Sinai, USA)

13:20

O31b - Diverse viral proteases activate the NLRP1 inflammasome

Matthew Daugherty (University of California, USA)

13:40

O33 - Estrogen-drives expression of a unique type I interferon, IFN-epsilon, and promotes neisseria gonorrhoeae infection

Evelyn Kurt-Jones (University of Massachusetts Medical School, USA)

13:50

O34 - TDP-43 triggers mitochondrial DNA release to activate CGAS/STING in ALS

Chien-Hsiung Yu (Walter and Eliza Hall Institute of Medical Research, AU)

14:00

O35 - A co-opted binding mechanism normally reserved for de-isgylation is essential for the control of type I IFN signalling

Andri Vasou (University of St Andrews, UK)

14:10

O36 - Tumor-specific CD8 T cell-mediated antitumor activity introduced by intratumorally injected anti-CD40 antibody together with IL-15 is critical in TRAMP-C2 tumors in mice

Wei Chen (NCI, Bethesda, USA)

14:20

O37 - Neuroimmune cellular and cytokine profile in HIV-1 acutely infected patients

Kathryn McGuckin Wuertz (University of Washington, USA)

14:30

O38 - Integrated single-cell analysis of multicellular immune dynamics during hyperacute HIV infection

Samuel W. Kazer (MIT, USA)

14:40

O32 - Dietary palmitic acid induces LPS tolerance and increased sepsis-associated immunoparalysis and mortality

Brooke A Napier (Portland State University, USA)



14:50 - 15:15

Closing Ceremony

Moderator: Ram Savan (University of Washington, USA)

14:50

Meeting wrap up

Ram Savan (University of Washington, USA)

15:00

Invitation to Cytokines 2021 in Cardiff, UK

Simon Jones (Cardiff University, UK)

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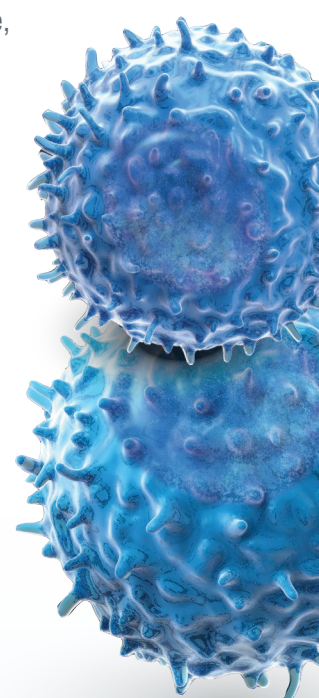
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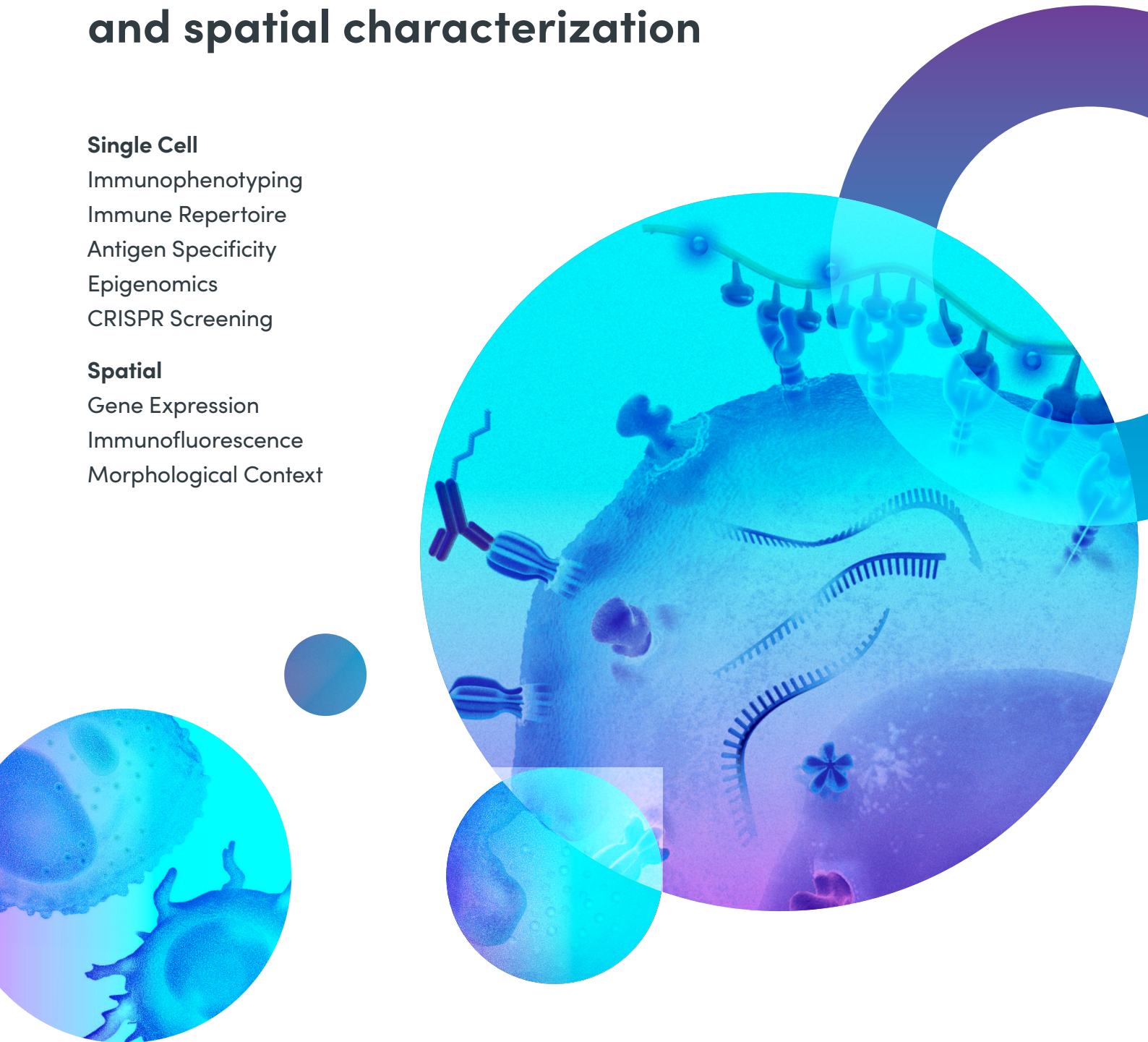
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lightning talks session 1

sunday 1 november 2020

Adaptive immunity

LT001 SINGLE-CHAIN SOLUBLE RECEPTOR FUSION PROTEINS AS VERSATILE CYTOKINE INHIBITORS /

I. S. Afonina* - A. Holgado - H. Braun - K. Verstraete - S. N. Savvides - R. Beyaert

LT003 NOVEL REGULATORS OF IFNG-DEPENDENT MHCII EXPRESSION /

L. Ankle* - M. Kiritsy - J. Trombley - G. Huizinga - P. Orning - R. Elling - K. Fitzgerald - A. Olive

LT004 CHARACTERIZATION OF IL7R ALPHA IN XENOPUS TROPICALIS: IMPLICATIONS FOR EVOLUTION OF CYTOKINE SIGNALING SYSTEMS /

P. M. Appasamy* - L. A. Lambert - J. C. Sammons - K. G. Daskalova - M. Kostan

LT005 CONTINUED BCL6 EXPRESSION PREVENTS THE TRANSDIFFERENTIATION OF ESTABLISHED TFH CELLS INTO TH1 CELLS DURING ACUTE VIRAL INFECTION /

D. Alterauge - J. W. Bagnoli - F. Dahlström - B. M. Bradford - N. A. Mabbott - T. Buch - W. Enard - D. Baumjohann*

LT006 IL-27 ENHANCES CYTOKINE SECRETION BY TIGIT+ HIVGAG-SPECIFIC T CELLS /

J. Cheng* - T. G. Myers - V. Shankavaram - J. Kumar - P. Kumar - M. Catalfamo

LT007 SENESCENCE-ASSOCIATED γ -GALACTOSIDASE ACTIVITY AND OTHER MARKERS OF SENESCENCE ARE PRESENT IN HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS DURING HEALTHY AGING /

H. K. Dewald* - R. I. Martínez-Zamudio - T. Vasilopoulos - L. Gittens-Williams - P. Fitzgerald-Bocarsly - U. Herbig

LT008 DENDRITIC CELLS PRIMED BY MYCOBACTERIUM LEPRAE ARE WEAK STIMULATORS OF T CELLS ACTIVATION /

G. V. Germano* - B. B. G. Carra - V. C. Dos Santos - D. Bertoluci - A. S. A. A. Barbosa - B. C. Sartori - P. Rosa - A. P. Campanelli - P. K. Das - V. N. Brito de Souza

LT009 PDL1 PROTECTS LCMV-INFECTED TYPE I INTERFERON RECEPTOR DEFICIENT MICE FROM LETHAL IMMUNE MEDIATED DISEASE /

M. J. Hofer* - T. Suprunenko - E. J. Cutts

LT011 MIR-15/16 DEFICIENCY IN T CELLS LEADS TO ACCUMULATION OF CD25-LOW TREGS IN VIVO /

K. Johansson* - J. D. Gagnon - S. Zhou - K. M. Ansel

LT013 IL-12 DERIVED FROM TYPE 1 DENDRITIC CELLS TONICALLY PROMOTES THE DIFFERENTIATION OF INNATE T-BET(HIGH) MEMORY-PHENOTYPE CD4(+) T LYMPHOCYTES IN STEADY STATE /

T. Kawabe* - J. Yi - A. Kawajiri - K. Hilligan - D. Fang - N. Ishii - H. Yamane - J. Zhu - D. Jankovic - K. S. Kim - G. Trinchieri - A. Sher

LT014 RAPID DETERMINATION OF CYTOKINE RELEASE FROM T CELLS WITH NO-TRANSFER, NO-WASH LUMITTM IMMUNOASSAYS /

D. Lazar* - K. Hsiao - J. Golden - C. Sondgeroth - K. Kupcho - D. Thompson - M. O'Brien - J. Cali

LT015 A NOVEL THERAPEUTIC TARGET FOR ARTHRITIS PAIN /

K. M.-C. Lee* - A. Jarnicki - A. Achuthan - A. Fleetwood - G. Anderson - J. Hamilton - A. Cook

LT017 LIPID METABOLISM FUELS IL-17-PRODUCING GAMMADelta T CELLS AND DRIVES THEIR EXPANSION IN OBESITY AND THE TUMOR MICROENVIRONMENT /

C. McIntyre* - M. Raverdeau - A. Kohlgruber - L. Agudelo - L. Dyck - A. Douglas - S. Cunningham - H. Prendeville - H. Kane - C. Carmody - M. Kellis - M. Brenner - L. Lynch

LT019 STEP-DOSE ESCALATION OF IL-7 TREATMENT LEADS TO SYSTEMIC EXPANSION AND SURVIVAL OF CD4 AND CD8 T LYMPHOCYTES IN RHESUS MACAQUES /

H. Pandit* - A. Valentin - C. Bergamaschi - J. Bear - M. Rosati - B. Felber - G. Pavlakis

LT020 SERTOLI CELLS SUPPRESS ACTIVATION AND INFLAMMATORY STATE OF T-CELLS IN VITRO /

B. Porubská* - M. Krulová - D. Vašek - M. Hájková

LT021 T CELL RESPONSES TO PROTEOGLYCAN AGGREGAN PEPTIDES IN KNEE OA PATIENTS /

T. Sae-jung - N. Leearamwat - N. Chaiseema - P. Sengprasert - S. Ngarmukos - P. Yuktananda - A. Tanavalee - N. Hirankarn - R. Reantragoon*

LT023 SELECTIVE JANUS KINASE INHIBITION PRESERVES INTERFERON- α -MEDIATED BARRIER PROTECTION /

D. Schnepf* - S. Crotta - T. Thamamongood - M. Stanifer - L. Polcik - A. Ohnemus - J. Vier - M. Llorian - H. H. Gad - R. Hartmann - B. Strobl - S. Kirschnek - S. Boulant - M. Schwemmle - A. Wack - P. Staeheli

LT027 CRYSTAL STRUCTURE OF IL-27 IN COMPLEX WITH SRF388, A FIRST-IN-CLASS IL-27 BLOCKING ANTIBODY UNDER EVALUATION IN A PHASE I CLINICAL TRIAL IN PATIENTS WITH ADVANCED SOLID TUMORS /

J. Strand* - D. T. Logan - M. Welin - J. Hua - R. Gilligan - M. Rausch - G. Tan - P. M. Holland - J. A. Hill

LT028 THE IL-2-STAT5 AXIS PROGRAMS HELPER T CELL METABOLISM UPSTREAM OF AKT, MTOR AND MYC /

A. Villarino* - A. Laurence - Y. Kanno - J. O'Shea

LT029 WHO IS THE WORST JAK/STAT PROTEIN OF THEM ALL? MODEL SYSTEMS TO EVALUATE THE CONSEQUENCES OF JAK/STAT DRIVER MUTATIONS /

C. Wagner* - K. Sommer - D. Pölöske - H. Neubauer - R. Moriggl

LT030 E3 UBIQUITIN LIGASE VON HIPPEL-LINDAU (VHL) PROTEIN PROMOTES TH17 DIFFERENTIATION /

A. Chitrakar - S. A. Budda - J. G. Henderson - R. C. Axtell - L. A. Zenewicz*

LT031 MAPPING AND DISSECTING THE POST-TRANSCRIPTIONAL LANDSCAPE OF CD69 /

D. Zhu* - A. Litterman - R. Kageyama - M. Ansel

LT031b CD4+ T CELL RECOGNITION OF HAEMAGGLUTININ EPITOPES ACROSS DIFFERENT INFLUENZA STRAINS /

H. Sloane* - E. Grant - D. Jayasinghe - C. Szeto - A. Nguyen - S. Gras

LT032 EPIGENETIC AND TRANSCRIPTIONAL REGULATION OF CCL17 PRODUCTION BY DEXAMETHASONE / A. Achuthan* - T. Lupanuc

LT033 ARGINASE-2 REGULATES IL-10 MEDIATED METABOLIC REPROGRAMMING IN INFLAMMATORY MACROPHAGES. / R. Afzal* - J. K. Dowling - N. Assmann - C. E. McCoy on behalf of Immunobiology Laboratory, Department of Biomedicine, University Hospital Basel; Biozentrum, Core Proteomics Facility, University of Basel; microRNA and inflammation research group, RCSI; Curtis Clock lab, RCSI

LT034 HIGH EXPRESSION OF TNF TYPE 1 RECEPTORS INCREASED PRO-APOPTOTIC DOSE-DEPENDENT EFFECTS OF CYTOKINE IN PRESENCE OF TNF TYPE 2 RECEPTORS SIMULTANEOUS EXPRESSION, BUT NOT ALONE / A. A. Alshevskaya* - J. Lopatnikova - J. Zhukova - M. Kuznetsova - O. Koneva - S. Sennikov

LT035 SYSTEMIC IL-6, IFN-GAMMA AND TNF AS CANDIDATE BIOMARKERS FOR INFLAMMAGING AND THERAPEUTIC RESPONSE IN HTLV-1 ASSOCIATED NEUROINFLAMMATION / T. Assone* - F. de Toledo Gonçalves - V. Angelo Folgosi - G. da Silva Prates - M. Braz - A. C. Penalva de Oliveira - D. Daelemans - J. Casseb - J. Van Weyenbergh

LT036 UNIQUE EVOLUTION OF TYPE 3 INTERFERON GENES IN PLACENTAL MAMMALS REVEALS NOVEL REGULATORY MECHANISMS / C. G. G. Bamford* - J. McLauchlan - R. J. Gifford

LT037 EVALUATION OF THE SERUM CYTOKINES PROFILE AND NITRIC OXIDE IN MURINE EXPERIMENTAL LEPROSY / A. S. A. A. Barbosa* - B. G. C. Sartori - T. S. Lima - V. N. B. Souza - M. R. S. Nogueira - F. R. Vilani-Moreno

LT038 SERUM LEVELS OF ADIPOKINES AND PRO-INFLAMMATORY CYTOKINES IN MALNOURISHED AND NOURISHED BALB/C MICE INFECTED BY LACAZIA LOBOI / A. S. A. A. Barbosa* - B. G. C. Sartori - T. J. Dionísio - V. N. B. Souza - M. R. S. Nogueira - F. R. Vilani-Moreno - P. C. M. Pereira

LT039 NEIGHBORHOOD DEPRIVATION ASSOCIATES WITH DECREASED MONOCYTE TLR2 EXPRESSION VIA TNF-ALPHA POTENTIALLY CONTRIBUTING TO SARS-COV-2 DISPARITIES IN AFRICAN AMERICANS / Y. Baumer* - C. A. Gutierrez-Huerta - B. S. Turner - M. P. Playford - S. E. Claudel - R. Islam - V. M. Mitchell - B. S. Collins - K. Tamura - N. N. Mehta - T. M. Powell-Wiley

LT041 PLASMACYTOID DENDRITIC CELLS ENHANCE TLR-MEDIATED B-LYMPHOCYTE ACTIVATION AND DIFFERENTIATION IN AN STAT-1 AND TYPE I IFN-DEPENDENT MANNER / H.-H. Chen* - C.-K. Lee

LT042 REVEALING THE HIDDEN HELP FROM IL-21: FOLLICULAR HELPER T CELLS RE-SENSITISE GC B CELLS TO IL-21 FOR PLASMA CELL DIFFERENTIATION / Z. Chen* - Y. Yao - H. Wang - J. Yunis - R. Wang - X. Gao - P. Zhou - D. Yu

LT043 THE ROLE OF DNMT1 AND G9A METHYLTRANSFERASE IN VIRUS-ACTIVATED PDC IFN-ALPHA PRODUCTION IN HEALTHY DONORS AND COVID-19 PATIENTS / A. Codrington* - H. Dewald - Z. Yin - S. Singh - P. Fitzgerald-Bocarsly

LT044 IL-27 REGULATES THE MAGNITUDE OF ECTOPIC LYMPHOID STRUCTURES IN EXPERIMENTAL SIALADENITIS VIA CONTROL OF TH17 CELLS / R. Coleby* - D. Lucchesi - E. Pontarini - D. Hill - A. D. Soria - I. Humphreys - C. Pitzalis - G. Jones - M. Bombardieri

LT045 TISSUE SOURCE OF ISOLATION INFLUENCES MESENCHYMAL STROMAL CELLS CHEMOKINE SECRETION AND THEIR IMMUNOMODULATORY PROPERTIES / N. Cuesta Gomez* - G. Graham - J. Campbell

LT046 AMBRA1 REGULATES CYTOKINE SIGNALLING BY TARGETING THE SUPPRESSORS OF CYTOKINE SIGNALLING FAMILY FOR PROTEASOMAL DEGRADATION / F. Dehkhoda* - H. Wong - T. Kolesnik - L. Dagley - J. Babon - S. Nicholson

LT047 IL-6 TYPE CYTOKINE SIGNALLING FROM AN INFORMATION THEORETIC POINT OF VIEW – MECHANISMS TO REDUCE UNCERTAINTY OF SIGNALLING / U. Billing - J. Fiebelkow - B. Guendel - T. Jetka - M. Komorowski - S. Waldherr - C. Garbers - F. Schaper - A. Dittrich*

LT048 CHRONIC PAIN INDUCED UPREGULATION OF NLRP 2 INFLAMMASOME IN THE RAT SPINAL DORSAL HORN / L. Ducza* - A. Gajtko - K. Hollo

LT049 REVERSE-SIGNALING OF SOLUBLE TNF RECEPTOR I BINDING TRANSMEMBRANE TNFA INDUCES A WAKE-LIKE STATE IN VITRO / C. J. Dykstra-Aiello* - J. M. Krueger - K. M. S. Koh - J. Nguyen

LT050 MICROBIAL- AND HOST-DERIVED STIMULI ACTIVATE REACTIVE OXYGEN SPECIES AND GENERATE ROBUST CYTOKINE RESPONSES IN HUMAN INTESTINAL ORGANOID / M. A. Engevik* - W. Ruan - A. Chang-Graham - J. Hyser - J. Versalovic

LT051 PBMC AND LYMPH NODE TRANSCRIPTIONAL RESPONSES TO ZIKA VIRUS INFECTION IN PIGTAIL MACAQUES / J. T. Go* - D. Newhouse - K. Voss - M. A. O'Connor - T. B. Lewis - C. J. Miller - E. Smith - N. R. Klatt - D. Fuller - M. Gale

LT052 CHRONIC PSYCHOSOCIAL STRESS AGGRAVATES SOCIAL FEAR CONDITIONING: THE ROLE OF THE IMMUNE SYSTEM / K. Gryksa* - A. K. Schmidtner - S. O. Reber - I. D. Neumann

LT053 ZIKA VIRUS DYSREGULATES TROPHOBLAST INVASION VIA INHIBITION OF LIF-MEDIATED STAT3 SIGNALING / N. Hajari* - E. Verstelle - M. Gale Jr

LT054 ADARZA'S ZIVA MULTIPLEX PROTEIN DETECTION PLATFORM OFFERS A NEW ULTRA-SENSITIVE ASSAY FORMAT FOR FEMTOGRAM LEVELS OF SENSITIVITY / J. Haley* - E. Mueller - T. Wente-Roth - T. Hodge - J. Mitchell - J. Schmuke

LT055 IDENTIFICATION OF IL-18BP-PRODUCING CELLS USING NEWLY DEVELOPED TDTOMATO REPORTER MICE / M. Harel* - E. Rodriguez - G. Palmer - C. Gabay

LT056 MACROPHAGE MIGRATION INHIBITORY FACTOR (MIF) IS RELEASED BY NECROTIC MONOCYTES/MACROPHAGES / J. Harris* on behalf of Monash Rheumatology Research Group

LT057 GENDER DIFFERENCES IN INFLAMMATION-RELATED BLOOD PRESSURE SETTING / H.-J. Lin - C.-C. Liao - Y.-C. Huang - J. C.-Y. Lai - K. Hsu*

LT057b CYTOKINE RESPONSES AND TISSUE PATHOLOGY IN NLRP12-DEFICIENT MICE IN A MODEL OF DIET-INDUCED OBESITY (DIO) / K. Berman* - E. Lien - A. Stanton

LT057c CHARACTERIZATION AND PREDICTION OF ISRE BINDING PATTERNS ACROSS CELL TYPES UNDER TYPE I INTERFERON STIMULATION / S. Leviyang*

LT059 SP140 EPIGENETIC READER REPRESSES TOPOISOMERASE ACTIVITY TO MAINTAIN MACROPHAGE IDENTITY / H. Amatullah* - S. Digumarthi - G. Bonilla - R. Sadreyev - K. L. Jeffrey

LT061 NOVEL MECHANISMS OF NUCLEIC ACID SENSING: IMPLICATIONS FOR ANTIVIRAL RESPONSES / K. Baid* - K. Mossman

LT062 SLAM MEDIATES MYCOBACTERIUM TUBERCULOSIS RECOGNITION AND ENDOLYSOSOMAL MATURATION IN HUMAN MONOCYTE-DERIVED MACROPHAGES / A. M. Barbero* - R. E. Hernández Del Pino - A. Trotta - M. Genoula - M. A. Estermann - J. Celano - F. Fuentes - V. E. Garcia - L. Balboa - P. Barrionuevo - V. Pasquinelli

LT063 CHARACTERIZATION OF INNATE AND ADAPTIVE IMMUNE IMPACTS OF CHEMICALLY DISSIMILAR STING ADJUVANTS / D. Boehm* - N. Mizuno - K. Pryke - V. R. DeFilippis

LT064 GUANYLATE-BINDING PROTEINS AND CASPASE-4 COOPERATE FOR NON-CANONICAL INFLAMMASOME ACTIVATION / D. Boucher* - J. Santos - L. Kapinos-Schneider - M. Dilucca - B. Demarco - K. W. Chen - R. Heilig - K. Shkarina - R. Lim - P. Broz

LT065 THE ANTIVIRAL EFFECTOR RTP4 IS ENGAGED IN A HOST-VIRUS ARMS RACE IN BATS AND OTHER MAMMALS / I. Boys* - E. Xu - P. De La Cruz-Rivera - J. Eitson - K. Mar - J. Schoggins

LT066 METFORMIN EFFECT ON HUMAN MACROPHAGE INFLAMMATORY RESPONSE AND PHAGOCYTOSIS OF MYCOBACTERIUM TUBERCULOSIS / J. L. Cervantes* - A. Sanca - J. Barragan

LT067 DISSECTION OF NLRP3 INFLAMMASOME ACTIVATION BY INFLUENZA A VIRUS SC35M (H7N7) USING A NOVEL VIRUS-ENCODED REPORTER TOOL / M. H. Christensen* - M. Uchima - T. Zillinger - F. I. Schmidt

LT068 NEURONAL HYPEREXCITABILITY IS A DLK-DEPENDENT TRIGGER OF HSV-1 REACTIVATION THAT CAN BE INDUCED BY IL-1B / S. R. Cuddy* - A. Schinlever - S. Dochnal - J. Suzich - P. Kundu - T. Downs - M. Farah - B. Desai - C. Boutell - A. Cliffe

LT069 CLASS IIA HISTONE DEACETYLASES DRIVE THE TOLL-LIKE RECEPTOR-INDUCIBLE GLYCOLYTIC SWITCH AND MACROPHAGE INFLAMMATORY RESPONSES VIA PYRUVATE KINASE M2 / K. Das Gupta* - M. R. Shakespear - J. E. B. Curson - A. Iyer - D. Ramnath - R. C. Reid - T. Kobayashi - J. H. Gunter - D. P. Fairlie - M. J. Sweet

LT071 IQGAP1 CLEAVAGE AND MICROTUBULE LOSS DURING PYROPTIC CELL DEATH. / M. A. Davis* - M. R. Fairgrieve - B. Turnbull - M. Gale, Jr.

LT072 WHEN VIRUSES AND THE INNATE IMMUNE SYSTEM MEET: COMPARISON OF DIFFERENT PESTIVIRAL E-RNS IN EVASION OF INNATE IMMUNITY / E. De Martin* - C. Lussi - M. Schweizer

LT073 TBK1 AND IKK-EPSILON ACT REDUNDANTLY TO MEDIATE STING-INDUCED NF-KAPPA-B RESPONSES IN MYELOID CELLS / K. R. Balka - C. Louis - T. L. Saunders - A. M. Smith - D. J. Calleja - D. B. D'Silva - F. Moghaddas - M. Tailler - K. E. Lawlor - Y. Zhan - C. J. Burns - I. P. Wicks - J. J. Miner - B. T. Kile - S. L. Masters - D. De Nardo*

LT074 INNATE IMMUNE BARRIERS TO INTRA- AND INTER-SPECIES TRANSMISSION OF VIRUSES / E. Fay* - K. Balla - S. Roach - D. Putri - A. Tucker - M. Pierson - S. Kotenko - D. Masopust - N. Elde - R. Langlois

LT075 ANALYSIS OF THE UNIQUE BIOLOGICAL FUNCTIONS ELICITED BY TYPE III INTERFERONS IN THE EPITHELIUM / A. Forero* - S. Ozarkar - H. Li - C. H. Lee - E. A. Hemann - M. S. Nadjombati - M. R. Hendricks - L. So - R. Green - C. N. Roy - S. N. Sarkar - J. von Moltke - S. K. Anderson - M. Gale Jr - R. Savan

LT076 NON-HAEMOLYTIC ENTEROTOXIN INDUCES PORE-FORMATION AND ACTIVATION OF THE INFLAMMASOME AND PYROPTOSIS / D. R. Fox* - A. Mathur - S. M. Man

LT078 RATIONAL DESIGN OF ANTISENSE OLIGONUCLEOTIDES MODULATING THE ACTIVITY OF TLR7/8 AGONISTS / M. P. Gantier* - A. Alharbi

LT079 MONOCYTE-DERIVED DENDRITIC CELLS FROM LEPROSY PATIENTS PRODUCED LOW LEVELS IL-12P70 AFTER STIMULUS WITH VIABLE MYCOBACTERIUM LEPRAE / G. V. Germano* - B. B. G. Carra - V. C. Dos Santos - D. Bertoluci - A. S. A. A. Barbosa - B. C. Sartori - P. Rosa - A. P. Campanelli - P. K. Das - V. N. Brito de Souza

LT080 A COMPARATIVE STUDY OF NOVEL MICRORNAs IDENTIFIED IN INTERLEUKIN-27-INDUCED HIV-RESISTANT T CELLS / S. Goswami* - X. Hu - Q. Chen - J. Qiu - J. Yang - D. Poudyal - B. T. Sherman - W. Chang - T. Imamichi

LT081b IL-25 EXACERBATES CHRONIC AIRWAY INFLAMMATION BY PROMOTING PATHOGENIC TH2 CELLS / N. Amatya* - G. Qian - P. J. Bryce - Y.-H. Wang

LT081c CCL2-MEDIATED REVERSAL OF IMPAIRED SKIN WOUND HEALING IN DIABETIC MICE BY NORMALIZATION OF NEOVASCULARIZATION / Y. Ishida* - Y. Kuninaka - M. Nosaka - M. Akiyama - N. Mukaida - M. Kawaguchi - T. Kondo

LT081e PHENOTYPIC CHARACTERISTICS OF TYPE 2 INNATE LYMPHOID CELLS IN PERIPHERAL BLOOD OF PATIENTS WITH T2-DRIVEN BRONCHIAL ASTHMA COMPARED WITH HEALTHY DONORS / A. O. Makeeva - E. A. Pashkina* - E. A. Blinova - D. V. Demina - V. A. Kozlov

LT081f NEUTROPHILS PROMOTE ANTIBODY ISOTYPE SWITCHING IN RESPONSE TO THE PNEUMOCOCCAL CONJUGATE VACCINE IN AN INTERFERON GAMMA-INDEPENDENT MANNER / E. Y. I. Tchalla* - M. Bhalla - E. A. Wohlfert - E. N. Bou Ghanem

LT081g FUNCTIONAL GENETIC APPROACHES UNCOVER A CRITICAL REQUIREMENT FOR MITOCHONDRIAL RESPIRATION FOR ANTIGEN-PRESENTING CELLS TO RESPOND TO IFN-GAMMA / M. Kiritsy - C. Sassetti - A. Olive*

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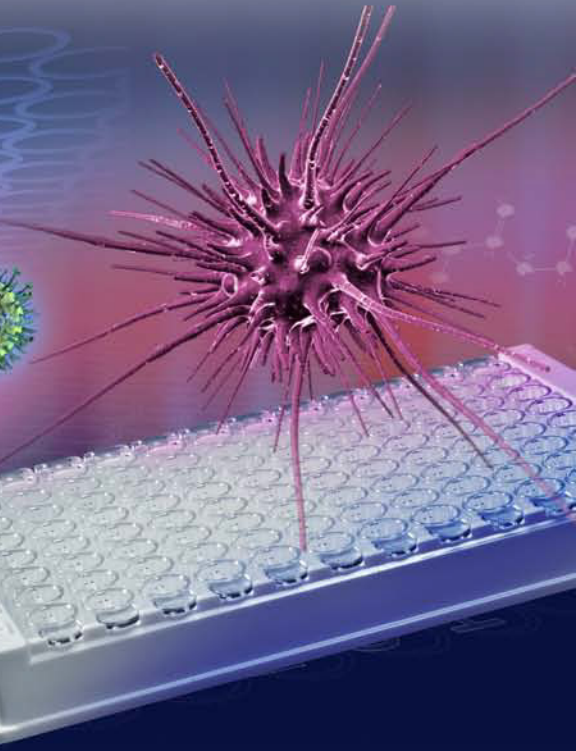
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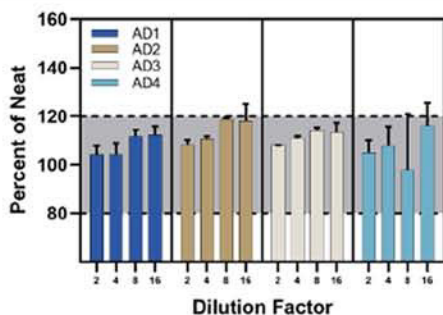
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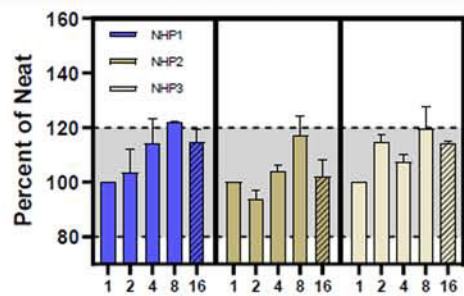
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Autoinflammation and autoimmunity

LT082 INCREASED METFORMIN DOSAGE SUPPRESSES PRO-INFLAMMATORY CYTOKINE LEVELS IN SYSTEMIC CIRCULATION AND MIGHT CONTRIBUTE TO ITS BENEFICIAL EFFECTS / B. Amoani* - S. A. Sakyi - R. Mantey - E. F. Laing - R. E. Dadzie - O. S. Kantanka - S. Koffie - E. Obese

LT083 BLOCKADE OF CYTOKINE PRODUCTION AND ATTENUATION OF EXPERIMENTAL ARTHRITIS PROGRESSION BY NOVEL SMALL MOLECULE INHIBITORS OF SEC61-DEPENDENT PROTEIN SECRETION / J. L. Anderl* - R. A. Fan - J. Jiang - H. W. B. Johnson - A. Kanicki - C. J. Kirk - E. R. Lewis - E. Lowe - D. L. McMinn - B. Millare - T. Muchamuel - M. Rao - J. Taunton - C. Tun - J. Wang - J. A. Whang - J. Zhang - P. Zuno

LT086 CHARACTERIZATION OF AUTOIMMUNE OVARIAN FAILURE UPON REMOVAL OF THE IFN-GAMMA 3' UTR AU-RICH ELEMENT – A NOVEL MOUSE MODEL. / E. Bafor* - M. Hess - J. Fenimore - R. Erwin-Cohen - M. Sanford - J. Valencia - H. Young

LT087 EBI3 AND IL-1BETA PLAY A MAJOR ROLE IN THROMBOSIS DURING BEHÇET DISEASE BY REGULATING ACTIVATED PROTEIN C RESISTANCE / H. Belguendouz* - N. E. H. Ghazali - Z. Abdesselam - D. Messaoudene - Z. Hadjimi - M. Terahi - I. M. Kediha - K. Lahmar - M. Tazir - H. Amroun Ait Belkacem - C. Touil-Boukoffa

LT088 TYPE I INTERFERON INHIBITS GLUCOCORTICOID-INDUCED LEUCINE ZIPPER (GILZ) EXPRESSION AND UPREGULATION BY GLUCOCORTICOIDS / W. Dankers* - M. Northcott - T. Bennett - B. Russ - J. Flynn - S. Jones - E. Morand

LT089 IL-10 PROMOTES REMYELINATION IN AN EX-VIVO MODEL OF MYELIN DAMAGE / C. Duffy* - C. McCoy

LT090 THE ASSOCIATION BETWEEN TMAO AND NEIGHBORHOOD DEPRIVATION IS MEDIATED BY PRO-INFLAMMATORY CYTOKINES AMONG AFRICAN-AMERICANS AT RISK FOR CARDIOVASCULAR DISEASE. / N. Farmer* - C. Gutierrez-Huerta - Y. Baumer - G. R. Wallen - T. Powell-Wiley

LT091 METABOLIC AND STRUCTURAL MUSCULAR CHANGES DRIVEN BY CHRONIC DISEASE-LIKE IFN-G EXPOSURE / J. Fenimore* - D. Springer - J. Valencia - E. Edmonston - R. Erwin-Cohen - H. Young

LT092 PATHOGENIC, GLYCOLYTIC PD-1+ B CELLS ACCUMULATE IN THE HYPOXIC RA JOINT. / A. Floudas* - N. Neto - M. Vivianna - K. Murray - B. Moran - M. Monaghan - L. Candice - R. H. Mullan - V. Krishna - S. Nagpal - D. J. Veale - U. Fearon

LT093 STING GAIN-OF-FUNCTION IN RADIORESISTANT CELLS SUPPORTS A LYMPHOCYTE DEPENDENT AUTO-INFLAMMATORY LUNG DISEASE / K. M. Gao* - M. Motwani - A. Marshak-Rothstein - K. A. Fitzgerald

LT094 ASTROCYTE, BUT NOT MICROGLIA UNRESPONSIVENESS TO TYPE I INTERFERON IS PROTECTIVE IN A MOUSE MODEL OF CEREBRAL TYPE I INTERFERONOPATHIES / E. Hayashida* - B. Viengkhou - M. J. Hofer

LT095 IL-38 ABLATION REDUCES INFLAMMATION AND DISEASE SEVERITY IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS / A. Huard* - H. N. Do - B. Brüne - N. Debruin - A. Weigert

LT096 B LYMPHOCYTE-DERIVED CCL7 AUGMENTS NEUTROPHIL AND MONOCYTE RECRUITMENT, EXACERBATING ACUTE KIDNEY INJURY / A. Inaba* - Z. K. Tuong - A. M. Riding - R. J. Mathews - J. L. Martin - K. Saeb-Parsy - M. R. Clatworthy

LT097 PROLONGED RESIDENCE OF ALBUMIN-FUSED ANTI-INFLAMMATORY CYTOKINES IN THE SECONDARY LYMPHOID ORGANS AMELIORATES EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS AND RHEUMATOID ARTHRITIS / J. Ishihara* - A. Ishihara - E. Yuba - E. Budina - A. Mansurov - A. T. Alpar - J. Hubbell

LT098 LUPUS-LIKE DISEASE IN B6.NBA2 MICE SHOWS A BIPHASIC PROGRESSION / E. J. Keller* - T. Jorgensen - N. Patel - N. Campbell - L. Davison

LT099 IMPAIRED IL2/STAT5 SIGNALLING IN NAÏVE CD4 T CELLS PROMOTES TFH DIFFERENTIATION IN GRANULOMATOSIS WITH POLYANGIITIS PATIENTS / S. Kim* - L. Boehme - L. Nel - A. Casian - E. Nova-Lamperti - J. Spencer - P. Lavender - D. D'Cruz - S. John

LT100 TYPE III INTERFERON LIMITS RECOVERY AND PROMOTES AXONAL INJURY DURING AUTOIMMUNE NEUROINFLAMMATION / S. Manivasagam* - J. L. Williams - L. L. Vollmer - A. Archambault - G. F. Wu - R. S. Klein

LT101 DETERMINING HNRNP-A2/B1'S ROLE IN CONTRIBUTING TO INFLAMMATION IN RHEUMATOID ARTHRITIS / M. Mohammed Salih*

LT102 NANOMODULATION OF MICRORNAs IN MACROPHAGES / F. Nally* - V. Lyons - C. De Santi - S. A. Cryan - N. Payne - C. McCoy

LT103 INTEGRIN ALPHA 3 PROMOTES THE EXTRAVASATION OF PROINFLAMMATORY TH17 CELLS IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS. / E. Park* - W. E. Barclay - M. Shinohara - M. Ciofani - M. A. Mireles-Ramírez - J. D. J. Guerrero-García - D. Ortuño-Sahagún

LT105 PLEIOTROPHIN SERUM CONCENTRATIONS CORRELATE WITH CLINICAL VARIABLES IN INTERFERON-BETA (IFN-B) TREATED RELAPSING-REMITTING MULTIPLE SCLEROSIS (RRMS) PATIENTS / M. P. Reyes-Mata* - A. E. Rojas-Mayorquín - L. Carrera-Quintanar - C. González-Castillo - M. A. Mireles-Ramírez - J. D. J. Guerrero-García - D. Ortuño-Sahagún

LT107 CCL18 INDUCES HEALTHY FIBROBLAST-LIKE SYNOVIOCYTES TO DEVELOP GENE EXPRESSION PROFILING SIMILAR TO FIBROBLAST-LIKE SYNOVIOCYTES OF RHEUMATOID ARTHRITIS / Y. Tan* - Y. Mo - N. Z. Lai

LT108 SALIVARY IL-32 IS ASSOCIATED WITH ORAL HYGIENE LACK DURING BEHCET DISEASE / Z. Hadjimi - H. Belguendouz - N. E. H. Ghozali - K. Lahmar - M. Terahi - D. Hakem - C. Touil-Boukoffa*

LT109 STAT4 REGULATES PATHOGENIC IL-21 AND IFN- γ PRODUCTION IN T FOLLICULAR HELPER (TFH) CELLS IN MURINE AND HUMAN LUPUS / X. Dong - O. Antao - G. Sanchez - F. Koumpouras - J. Craft - J. Weinstein*

LT109b THE T1D-ASSOCIATED LNCRNA LNC10 MODULATES THE TYPE I IFN SIGNALING AND ANTIVIRAL RESPONSE IN PANCREATIC BETA CELLS / I. Gonzalez-Moro* - I. Santin

Cytokine regulation II

LT110 TRANSFORMING GROWTH FACTOR BETA 1 (TGF-B1) EXPRESSION UPREGULATED FOLLOWING PROLOTHERAPY TREATMENT FOR CARTILAGE REGENERATION / E. D. Johnston* - J. Tyburski

LT112 SYSTEMATIC ANALYSIS OF KINOME INHIBITION FOR INTERFERON AND CYTOKINE GENE EXPRESSION / K. S. A. Khabar* on behalf of Molecular BioMedicine Program

LT113 SEVERE FEVER WITH THROMBOCYTOPENIA SYNDROME VIRUS NON-STRUCTURAL PROTEIN (SFTSV-NSS) ACTIVATES NFKB-DEPENDENT CYTOKINE STORM IN VITRO / J. A. Khalil* - T. Yamada - H. Kato - T. Fujita

LT115 THE CYTOKINE RESPONSE TO TOTAL KNEE ARTHROPLASTY IS ASSOCIATED WITH RISK OF PERSISTENT POSTOPERATIVE PAIN / M. Kirksey* - G. Birch - H. Zhong - A. Sideris - V. Rotundo - A. Gonzalez Della Valle - M. Parks - M. Otero - P. Sculco

LT116 STAT3 REDUCES THE EXPRESSION OF THE MTOR INHIBITOR REDD1 IN A NON-CANONICAL FASHION / N. Köhler* - A. Dittrich - F. Schaper

LT117 TUMOR PROGRESSION LOCUS 2 (TPL2) PREVENTS IMMUNOPATHOLOGY DURING INFLUENZA INFECTIONS / K. Latha* - K. Sakamoto - W. Watford

LT118 IMMUNE REGULATOR LGP2 INHIBITS K63 POLYUBIQUITINATION / J. Lenoir* - C. M. Horvath

LT120 MODELING CELL-SPECIFIC DYNAMICS AND REGULATION OF THE COMMON GAMMA CHAIN CYTOKINES / A. M. Farhat - A. C. Weiner - C. Posner - Z. S. Kim - B. Orcutt-Jahns - S. M. Carlson - A. S. Meyer*

LT121 ABSENCE OF CCL5/CCR5 AXIS EXAGGERATES THROMBUS FORMATION THROUGH REDUCED UPA, TPA AND VEGF EXPRESSION IN MURINE DVT MODEL / M. Nosaka* - Y. Ishida - Y. Kuninaka - A. Ishigami - H. Yamamoto - A. Kimura - N. Mukaida - T. Kondo

LT122 TRANSCRIPTIONAL REGULATION OF IL-21 EXPRESSION IN T FOLLICULAR HELPER CELLS / R. Nurieva* - L. Qin - A. Sahoo - M. Divenko - A. Alekseev

LT123 GLUTEN INDUCES RNA METHYLATION CHANGES THAT REGULATE INTESTINAL INFLAMMATION VIA ALLELE-SPECIFIC XPO1 TRANSLATION / A. Olazagoitia-Garmendia* - L. Zhang - P. Mera - M. Sebastian-delaCruz - I. Garcia-Santisteban - A. Huerta - I. Irastorza - G. Bhagat - P. H. Green - L. Herrero - D. Serra - J. A. Rodriguez - C. He - J. R. Bilbao - A. Castellanos-Rubio

LT124 INFLUENZA A/PR8 VIRUS INFECTION ATTENUATES OSM-INDUCED IL-33 CYTOKINE LEVELS AND TH2/M2 SKEWED LUNG INFLAMMATION IN MICE IN VIVO / C. D. Richards* - A. Dubey - F. Botelho - A. Yip - K. MacDonald - K. Ask - M. Miller

LT125 IL-6 PROMOTES TH17 CELL RESPONSES IN PATIENTS WITH T1R LEPROSY REACTIONS. / C. Saini* - R. K. Srivastava - V. Ramesh - A. Sharma

LT126 INTERLEUKIN-7 IS A POTENT INDUCER OF HIV-SUPPRESSIVE CHEMOKINES / H. Schmeisser* - S. Owusu - O. I. Hansen - Q. Liu - H. Miao - R. Cimbro - T. Myers - A. Fauci - P. Lusso

LT127 DISTINCT ANTIVIRAL AND IMMUNE RESOLUTION FUNCTIONS OF ZINC-FINGER ANTIVIRAL PROTEIN ISOFORMS ZAP-S AND ZAP-L / J. Schwerk* - F. Soveg - A. Ryan - K. Thomas - L. Hatfield - S. Ozarkar - A. Forero - A. Kell - J. Roby - L. So - J. Hyde - M. Gale jr. - M. Daugherty - R. Savan

LT128 GUT DYSBIOSIS EXISTS IN PULMONARY NONTUBERCULOUS MYCOBACTERIA INFECTION / C.-C. Shu*

LT129 SERINE 727 PHOSPHORYLATION OF STAT1 WORSENS A SEVERE NEUROLOGICAL DISEASE INDUCED BY COMBINED CHRONIC PRODUCTION OF IFN- α AND IL-6 / P. Songkhunawej* - M. J. Hofer

LT130 EFFECTS OF PROBIOTIC SUPPLEMENTATION ON CYTOKINES BALANCE AFTER A MARATHON RACE. / E. Tavares-Silva* - G. S. Leite - H. A. Batatinha - A. S. Resende - A. H. Lancha Jr. - J. C. Neto - R. V. Thomatieli-Santos on behalf of LAFISBE - Laboratório de Fisiologia e Bioquímica do Exercício

LT132 FEMALE T-LYMPHOCYTES INHIBIT CSF1-MICROGLIA INDUCED PAIN HYPERSENSITIVITY / I. D. Vainchtein* - J. A. Kuhn - J. Braz - M. Bernstein - J. Ortiz-Carpena - A. B. Molofsky - A. V. Molofsky - A. I. Basbaum

LT133 CHANGES IN CYTOKINE PRODUCTION BY IMMUNE CELLS AND ADIPOSE TISSUE DURING COLD ADAPTATION / D. Vašek* - M. Hájková - P. Vebr - B. Porubská - A. Kratochvílová - J. Žurmanová - M. Krulová on behalf of .

LT134 CHEMOKINE FRACTALKINE (CX3CL1) MEDIATES NEURAL PRECURSOR CELL FUNCTION FOR ENHANCED OLIGODENDROCYTE PRODUCTION / A. Voronova* - A. E. Watson - Y. J. Li - M. M. Alves de Almeida - N. Dittmann - K. Goodkey - T. Footz

LT135 INTERLEUKIN-10 DEFICIENCY EXACERBATES BRAIN IL-6 AND LPS-INDUCED TAU PATHOLOGY / L. Weston* - S. Jiang - D. Chisholm - K. Bhaskar

LT136 SALT GENERATES ANTI-INFLAMMATORY TH17 CELLS BUT AMPLIFIES THEIR PATHOGENICITY IN PRO-INFLAMMATORY CYTOKINE MICROENVIRONMENTS / J. Matthias - C. Zielinski* on behalf of Julia Matthias

LT137 THE GASDERMIN-D PORE ACTS AS A CONDUIT FOR IL-1B SECRETION / R. Heilig* - M. S. Dick - L. Sborgi - S. Hiller - P. Broz

LT138 TOLL-LIKE RECEPTOR 4-MEDIATED INFLAMMATION TRIGGERED BY EXTRACELLULAR IFI16 IS ENHANCED BY LIPOPOLYSACCHARIDE BINDING / A. Iannucci* - V. Caneparo - S. Raviola - G. Griffante - S. Landolfo - M. Gariglio - M. De Andrea

LT139 BRAIN HISTOLOGY AND PATHOBIOLOGY OF WEST NILE VIRUS INFECTION IN THE COLLABORATIVE CROSS MOUSE MODEL / R. C. Ireton* - A. Sekine - S. Thomas - P. Treuting - R. Green - K. Voss - M. Mooney - L. Whitmore - S. McWeeney - M. Gale, Jr.

LT140 OBESITY-RELATED AND LDL-MEDIATED LOSS OF NK CELL DEGRANULATION AND CYTOTOXICITY IS IN PART MEDIATED BY NFKB INHIBITION / R. M. Islam* - C. Gutierrez-Huerta1 - B. Turner - V. M. Mitchell - B. S. Collins - Y. Baumer - T. M. Powell-Wiley

LT141 CD86-BASED ANALYSIS ENABLES IDENTIFICATION OF HEMATOPOIETIC PROGENITORS UNDER BIOLOGICAL STRESSES WHICH UPREGULATE INTERFERON / M. Kanayama* - T. Ohteki

LT142 A DISTINCTIVE THERAPEUTIC CANDIDATE TO RESTRICT INFLUENZA VIRUS-CAUSED LUNG INFECTION: INTERFERON-LAMBDA-LOADED SURFACTANT NANOPARTICLE / H. J. Kim* - C. H. Gil - A. Jo - J. Won - S. Kim

LT144 DELETION OF TRANSFERRIN RECEPTOR 2 (TFR2) ENHANCES INFLAMMATION AND MACROPHAGE ACTIVATION / M. G. Ledesma Colunga* - U. Baschant - L. C. Hofbauer - M. Rauner

LT145 REGULATION OF INTERFERON STIMULATED GENES AT HOMEOSTASIS / S. Leviyang* - N. Strawn - I. Griva

LT146 TUBERCULOSIS IMPACTS IMMUNE-METABOLIC PATHWAYS RESULTING IN PERTURBED IL-1 CYTOKINE RESPONSES / A. Llibre* - N. Smith - V. Rouilly - M. Musvosvi - E. Nemes - C. Posseme - S. Mabwe - B. Charbit - S. Kimbung - V. Saint-Andre - V. Bondet - P. Bost - H. Mulenga - N. Bilek - M. L. Albert - T. J. Scriba - D. Duffy

LT147 COMPARISON OF GEOGRAPHICALLY DISTINCT ZIKA VIRUS STRAINS REVEALS DIFFERENTIAL ACTIVATION OF HUMAN HOST INNATE IMMUNITY DIRECTING INNATE IMMUNE POLARIZATION / A. Y. Lu* - D. J. Newhouse - M. Gale, Jr.

LT148 POST-TRANSCRIPTIONAL REGULATION OF ANTIVIRAL GENE EXPRESSION BY N6-METHYLADENOSINE / M. J. Mcfadden* - N. S. Abell - A. B. McIntyre - N. S. Gokhale - B. Xhemalce - C. E. Mason - S. M. Horner

LT149 SYSTEMATIC ANALYSIS OF CELL-INTRINSIC INNATE IMMUNE ANTAGONISM BY RNA VIRUSES / E. Mesev* - R. LeDesma - C. Claudio - E. Guare - B. Heller - A. Ploss

LT150 IDENTIFICATION OF NOVEL LIPOPHILIC LIGANDS OF SIGLEC RECEPTORS THAT MODULATE INNATE IMMUNITY / Y. Miyake* - H. Yoshida

LT151 REPORTER NANOPARTICLE FOR REAL-TIME INFLAMMASOME MONITORING DURING A DISEASE-PROGRESSION / D. Nandi* - A. Nguyen - A. Kulkarni

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LT154 VANCOMYCIN INTERMEDIATE STRAINS OF STAPHYLOCOCCUS AUREUS HAVE DAMPENED INDUCTION OF TYPE I INTERFERON PRODUCTION / A. Peignier* - D. Parker

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LT159 A SYNTHETIC REXINOID REDUCES LPS-ACTIVATED NLRP3 ACTIVATION IN BONE MARROW DERIVED M1 MACROPHAGES. / N. Raychaudhuri* - S. Basak

LT160 MURINE AND HUMAN MACROPHAGES MEDIATE RECOGNITION OF THE INTRAERYTHROCYTIC APICOMPLEXAN PARASITE BABESIA DIVERGENS. / S. Rius-Rocabert* - E. Montero - L. M. Gonzalez - E. Nistal-Villan

LT160c CONGENITAL DEFICIENCY IDENTIFIES CRITICAL ROLE OF ISG15 IN SKIN HOMEOSTASIS / F. Pessler - M. N. Malik - F. Waqas*

LT160d NHR-49/PPAR-ALPHA AND HLH-30/TFEB PROMOTE C. ELEGANS HOST DEFENSE VIA A FLAVIN-CONTAINING MONOOXYGENASE / K. A. Wani* - D. Goswamy - S. Taubert - R. Ratnappan - A. Ghazi - J. E. Irazoqui

LT160e CELL-INTRINSIC COMPLEMENT PATHWAY ENHANCES TLR4-DEPENDENT PRO-INFLAMMATORY CYTOKINE PRODUCTION AND TLR4 ENDOCYTOSIS VIA INHIBITION OF CAMP / B. A. Napier* - J. Hickman - J. Corcoran

LT160f VIRUS-MEDIATED LOSS OF MCL-1 PROMOTES GSDME-DEPENDENT INFLAMMATORY CELL DEATH IN BARRIER EPITHELIAL CELLS / M. H. Orzalli* - A. Prochera - A. Smith - J. A. Garlick - J. C. Kagan

LT204b DYNAMIC ACCESSIBILITY UNDERLIES TH9 LINEAGE PLASTICITY AND CONFERS INNATE-LIKE FUNCTION IN VIVO TO PROMOTE ALLERGIC DISEASE / D. M. Schwartz* - A. Son - F. Meylan - K. Manthiram - J. D. Milner - P. F. Guerrerio

LT204c T HELPER 9 CELLS ARE ASSOCIATED WITH AN INCREASED RISK OF PSORIATIC CARDIOVASCULAR DISEASE AND DIRECTLY PROMOTE HUMAN ARTERIAL ENDOTHELIAL CELL DYSFUNCTION / D. Schwartz* - Y. Baumer - A. M. Burma - A. K. Dey - M. Kitakule - C. A. Gutierrez Huerta - H. Teague - M. Playford - T. M. Powell-Wiley - J. D. Milner - P. F. Guerrerio - N. N. Mehta

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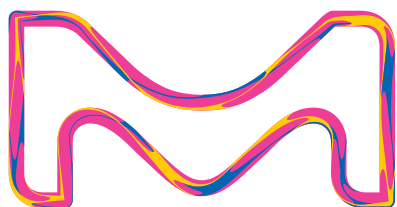
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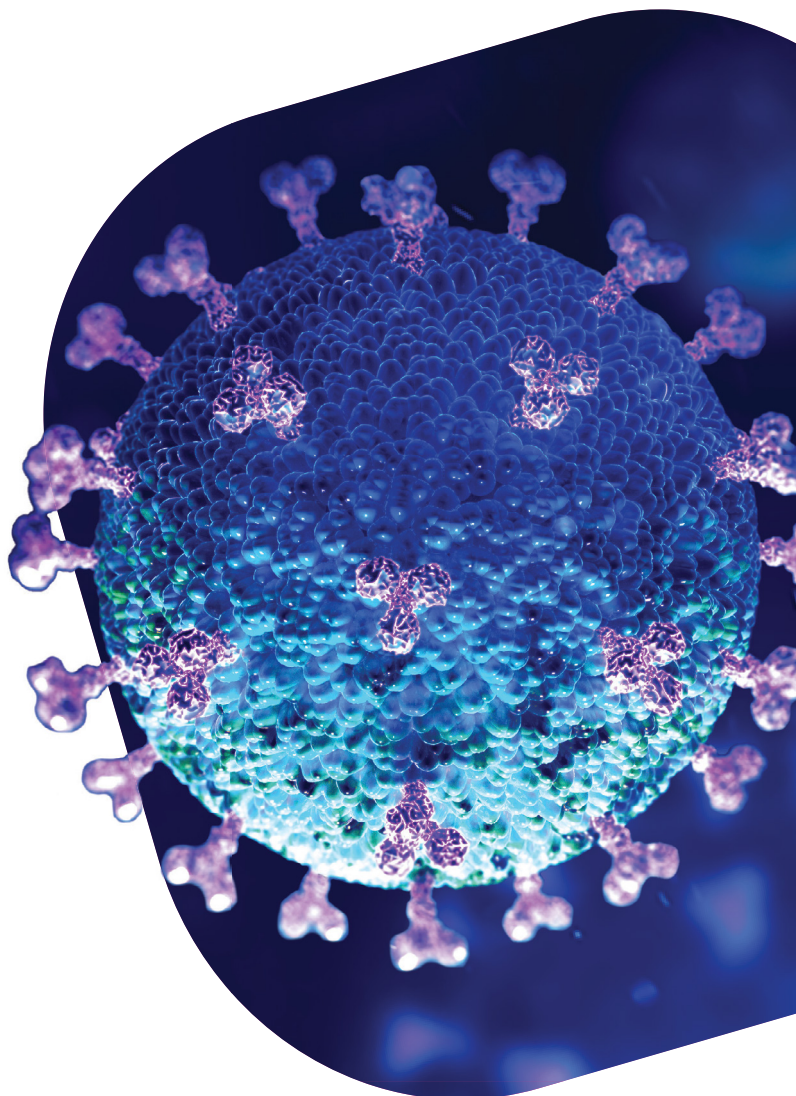
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Cancer

LT162 PLASMA CYTOKINES PREDICT LYMPHEDEMA DEVELOPMENT IN BREAST CANCER PATIENTS 12 MONTHS BEFORE CLINICAL PRESENTATION / M. B. Aldrich* - S. F. Shaitelman - J. C. Rasmussen - E. M. Sevick-Muraca - L. Isaacs - S. M. DeSnyder

LT163 IL-1B DRIVES GLIOBLASTOMA PROGRESSION IN A SEX-SPECIFIC MANNER / D. Bayik* - Y. Zhou - C. Park - C. Hong - D. Vail - A. Lo - D. Watson - A. Lauko - G. Roversi - D. Silver - T. Alban - M. Sorensen - B. Otvos - M. Grabowski - M. Vogelbaum - C. Horbinski - B. Kristensen - A. Khalil - T. H. Hwang - M. Ahluwalia - F. Cheng - J. Lathia

LT164 HETERODIMERIC IL-15 THERAPY PROMOTES INTRATUMORAL LYMPHOCYTE AND DENDRITIC CELL ACCUMULATION BY A CYTOKINE NETWORK INVOLVING XCL1, IFN-GAMMA, CXCL9 AND CXCL10, RESULTING IN CONTROL OF PRIMARY AND METASTATIC TUMOR / C. Bergamaschi* - H. Pandit - B. Nagy - D. Stellas - S. Karaliota - S. M. Jensen - K. Dimas - B. A. Fox - B. K. Felber - G. N. Pavlakis

LT166 PD-L1 ENHANCES RESISTANCE TO DNA DAMAGE BY REGULATING DOUBLE-EDGED RESPONSES TO TYPE I INTERFERON IN CANCER CELLS / H. Cheon* - E. G. Hovey-Bates - G. R. Stark

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LT168 A NEW MECHANISM FOR PROINFLAMMATORY CYTOKINE-PROMOTED EXTRACELLULAR MATRIX REMODELING IN BREAST CANCER / S. Dinca* - D. Greiner - K. Weidenfeld - L. Bond - D. Barkan - C. Jorcyk

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LT176 CHARACTERIZATION OF IL-15 DEFICIENT THYMOCYTES IN THE MODEL OF SPONTANEOUS LEUKEMIA / M. Nandi* - S. Ramanathan

LT177 NEWCASTLE DISEASE VIRUS (NDV) ONCOLYTIC ACTIVITY IN HUMAN GLIOMA TUMORS IS DEPENDENT ON TYPE I IFN GENE CLUSTER CODELETION. / E. Nistal-Villan* - I. Palacin-Aliana - N. García-Romero - R. Madurga - S. Esteban-Rubio - S. Rius-Rocabert - J. Carrión-Navarro - J. Presa - S. Cuadrado-Castaño - P. Sanchez-Gomez - A. Garcia-Sastre - Á. Ayuso-Sacido

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LT180 DONOR IFNL4 GENOTYPE PREDICTS NON-RELAPSE MORTALITY AFTER UNRELATED DONOR MYELOABLATIVE HEMATOPOIETIC CELL TRANSPLANTATION FOR ACUTE LEUKEMIA / L. Prokunina-Olsson* - S. Gadalla - Y. Wang - T. Wang - O. R. Onabajo - R. Banday - A. Obajemu - E. Karaesman - L. Sucheston-Campbell - T. Hahn - J. A. Sees - S. R. Spellman - S. J. Lee - H. A. Katki

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LT181 A NETWORK OF CYTOPLASMIC AND NUCLEAR LONG NON-CODING RNAs REGULATES HUMAN MACROPHAGE IMMUNITY / L. N. Schulte* on behalf of SFB-TR84 "Innate Immunity of the Lung"

LT182 GLUTEN CONSUMPTION MAINTAINS VIRAL INDUCED TYPE I INTERFERON PATHWAY THROUGH AN INCREASE OF M6A LEVELS / M. Sebastian-delaCruz* - A. Olazagoitia-Garmendia - L. M. Mendoza - M. Legarda - C. Tutau - J. R. Bilbao - A. Castellanos-Rubio

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LT195 USING THE COLLABORATIVE CROSS MOUSE MODEL TO DETERMINE INNATE IMMUNE CORRELATES OF RESISTANCE TO WEST NILE VIRUS / K. M. Voss* - S. Thomas - C. Wilkins - R. Green - A. Sekine - D. Hendrick - R. Ireton - M. Gale Jr.

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LT197 MICROGLIA UNIQUELY REGULATE THEIR PHENOTYPE AND FUNCTION IN IL-6 AND IFN-ALPHA-MEDIATED NEUROLOGICAL DISEASE / P. K. West* - A. N. McCorkindale - B. Guennewig - T. M. Ashhurst - B. Viengkhou - E. Hayashida - S. R. Jung - O. Butovsky - M. J. Hofer - I. L. Campbell

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LT217 GUT EPITHELIAL IL-27 CONFERS INTESTINAL IMMUNITY THROUGH THE INDUCTION OF INTRAEPITHELIAL LYMPHOCYTES / C.-H. Lin* - M.-C. Chen - L.-L. Lin - D. A. Christian - C. A. Hunter - L.-F. Lu

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LT224 INFLUENZA-INDUCED MONOCYTE-DERIVED ALVEOLAR MACROPHAGES CONFER PROLONGED ANTIBACTERIAL PROTECTION VIA INTERLEUKIN-6 / A. Wack* - H. Aegerter - J. Kulikauskaite - S. Crotta - H. Patel - G. Kelly - E. M. Hessel - S. Beinke

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LT228 Δ ACE2: A NOVEL PRIMATE-SPECIFIC INTERFERON-STIMULATED GENE AND ITS POTENTIAL ROLE IN COVID-19 / A. R. Banday* - O. Onabajo - W. Yan - A. Obajemu - M. Stanifer - D. M. Santer - O. Florez-Vargas - H. Piontkivska - D. L. J. Tyrrell - J. Mendoza - S. Boulant - L. Prokunina-Olsson

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LT233 THE KINASE DYRK1A CONTROLS TRAF3 TURNOVER AND IS POTENTIALLY MODULATED BY SARS-COV-2 / P. Ramezani-Rad* - J. J. Grist - R. Virgen-Slane - R. C. Rickert - C. F. Ware

LT234 COVID19 AND ENDOCRINOLOGY / P. Rapti* - T. Palouka

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A world-class institute, collaborating with researchers and physicians globally, to develop breakthroughs for a multitude of immune system diseases. Together we are Powering Possibility™.



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Journal of Experimental Medicine (JEM) is pleased to present a special collection of articles relevant to the Cytokines 2020 Structure-Function and Systems Biology of Cytokine Actions virtual meeting, as well as our Review Focus on Cytokines.



CYTOKINES COLLECTION 2020

READ IT HERE

If you are attending Cytokines 2020 and interested in submitting your research on the topic, contact JEM Senior Scientific Editor **Stephanie Houston** at shouston@rockefeller.edu or [@Steph_JExpMed](https://twitter.com/Steph_JExpMed) on Twitter to discuss your research.



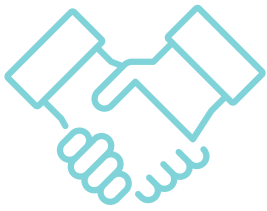
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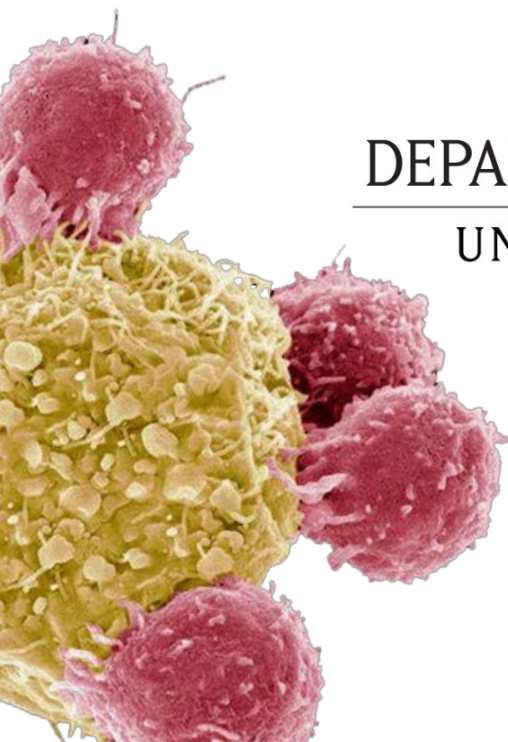
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Adarza

Adarza would like to introduce ZIVA, a new multiplex protein detection platform using their proprietary arrayed imaging reflectometry technology (AIR™). ZIVA is capable of multiplexing up to 100 biomarkers from a single, small sample (10 µl). The versatility of the technology enables the detection of a variety of biological targets including proteins, autoantibodies, viruses, and nucleic acids with high precision and sensitivity. With a uniquely designed consumable that incorporates the miniaturized biosensors/arrays, Adarza offers a suite of key biomarkers relevant to inflammation/immunology, metabolic disease, and oncology. ZIVA offers ease of use, minimal hands-on-time, and complete automation of assay with high throughput. Our first product offerings include an Acute Respiratory Viral Serology Array to help researchers study COVID-19 antibodies.

We will be launching in late 2020 Human Cytokine Discovery Array (45 plex) and a Mouse Cytokine Discovery Array (30 plex) and rapidly expanding our content through 2021.

Ayoxxa Biosystems

Website: www.ayoxxa.com

Welcome to AYOXXA Biosystems! Please do take some time to explore our products and services. We think you'll find interesting tools to profile cytokines and inflammation biomarkers.

We are the developer and marketer of the LUNARIS™ Technology, a life science tool that empowers translational proteomics, setting new standards for research towards better diagnostics and therapeutics. Designed to simultaneously quantify multiple biomarkers in as little as 3 µL of a variety of clinical samples, LUNARIS™ enables fully scalable quantitative validation of disease-relevant biomarkers with the particular emphasis in taking insights from exploratory research to meaningful applications. Our young company is a multidisciplinary team of scientists, technicians, engineers and business professionals working tirelessly to enabling the type of translational research that makes a difference. With meticulous attention to sensitivity, accuracy and detail, we have transformed an innovative detection technology into a mature, groundbreaking and user-friendly protein analysis platform.

The LUNARIS™ Platform is a fully integrated system, featuring multiplex assay kits to simultaneously quantify up to 12 clinically relevant biomarkers, a high-precision and fully automated readout device, and an intuitive and transparent data analysis software. Among our most mature product portfolios are our dedicated inflammation/cytokine kit cluster. Our carefully constructed cytokine, chemokine and growth factor panels have garnered attention as powerful tools to profile and resolve pathway events involved in inflammation, T-cell differentiation and effector function, autoimmune diseases, allergies, immune-oncology, and most recently, cytokine storm in severe COVID-19 cases.

If you have any questions, please start a chat. Our colleagues are standing by.

Benaroya Research Institute at Virginia Mason

Email: info@benaroyaresearch.org
Website: www.benaroyaresearch.org
Phone: +11 206 342 69 03

Benaroya Research Institute at Virginia Mason (BRI) works to advance the science that will predict, prevent, reverse and cure diseases of the immune system. BRI is committed to eliminating autoimmune diseases such as type 1 diabetes, rheumatoid arthritis, inflammatory bowel disease and multiple sclerosis, as well as immune system diseases such as allergies, asthma and COVID-19. An internationally recognized medical research institute, BRI accelerates discovery through laboratory breakthroughs in immunology that are then translated to clinical therapies. A leader of collaborative initiatives such as the Immune Tolerance Network and Type 1 Diabetes TrialNet, BRI frequently partners with global research institutes, pharmaceutical and biotech companies.

Visit BenaroyaResearch.org or follow BRI's Autoimmune Life Blog, Facebook, Instagram, LinkedIn or Twitter to learn more.

BioLegend

BioLegend enables life science discovery from research to cure by providing world-class quality reagents and tools at an outstanding value, with highly acclaimed service and support. BioLegend is a global leader in immunology, cancer, neuroscience, and proteogenomics.

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Website: www.boehringer-ingelheim.com

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Each day, our employees around the world work together for patients – it drives everything we do.

Dept. of Immunology - University of Washington

Email: immun@uw.edu
Website: www.immunology.washington.edu
Phone: +1 206 685 39 56

Our mission is to advance understanding of the function of the immune system in order to enhance our ability to fight infectious disease, cancer and autoimmune disease. Basic research of all aspects of immunology is critical to this mission, as well as translational research to link our findings to the development of new therapies.

Thinking of joining us?

Check out our Immunology Community here: <https://www.immunology.washington.edu/directory/>

Commitment to Diversity, Equity and Inclusion: We hold diversity, equity and inclusiveness as core values in our department and work to emphasize their importance throughout our research, recruitment, education and practice.

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Founded more than 40 years ago as the first biotechnology company, Genentech is dedicated to the rigorous pursuit of science and the development and delivery of life-changing medicines for people facing serious diseases.

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At Janssen, the Pharmaceutical Companies of Johnson & Johnson, we're creating a future where disease is a thing of the past. By seeking out medical breakthroughs, leveraging internal expertise and embracing external science, we aim to bring the best solutions to people in need.

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Journal of Experimental Medicine (JEM)

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Journal of Experimental Medicine (JEM) publishes papers providing novel conceptual insight into immunology, neuroscience, cancer biology, vascular biology, microbial pathogenesis, and stem cell biology. All editorial decisions are made by scientists in conjunction with professional editors.

JEM was established in 1896. Carl Nathan and Michel Nussenzweig serve as JEM Editorial Board Co-Chairs. Dr. Nathan is the R.A. Rees Pritchett Professor and Chairman of the Department of Microbiology and Immunology at Weill Cornell Medicine. Dr. Nussenzweig is the Zanvil A. Cohn and Ralph M. Steinman Professor at The Rockefeller University, Investigator at Howard Hughes Medical Institute, and Senior Physician. Teodoro Pulvirenti serves as Executive Editor.

Journal of Interferon & Cytokine Research - Mary Ann Liebert, Inc.

Email: slewis@liebertpub.com
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Journal of Interferon & Cytokine Research (JICR) provides authoritative peer-reviewed research, analysis, and commentary on the function of interferons (IFNs), immune cytokines, chemokines, and their gene and cell targets in mediating effector actions.

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Kineta

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At Luminex, our mission is to empower labs to obtain reliable, timely, and actionable answers, ultimately advancing health. We offer flexible solutions for hospitals, reference labs, and researchers, as well as innovative xMAP® and flow cytometry solutions that span a wide variety of applications, including molecular diagnostics, drug discovery, life science research, immunology, and personalized medicine.

For further information, please visit luminexcorp.com/.

MilliporeSigma

MilliporeSigma is the U.S. life science business of Merck KGaA, Darmstadt, Germany. Our broad offering of 300,000 products includes the Millipore® portfolio of preparation, separation, filtration and testing products and technologies – strongly rooted in quality, reliability, time-tested processes and regulatory expertise. Our experience and application knowledge is relied on worldwide.

PBL

Website: www.pblassaysci.com/about-us

PBL Assay Science provides cytokine assay solutions that include low-picogram IFN and Cytokine ELISA kits, unique cytokine multiplex ELISA kits, high quality protein and antibody reagents, and assay services to researchers around the world.

Whether working in Human, Mouse or Non-Human Primate models, scientists have come to rely on PBL's assay solutions for results they can trust. From accurate detection of human IFN-beta in autoimmune disease sera to sub-picogram cytokine assays, our products and services are designed to provide you with highly reproducible results.

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PeproTech creates the building blocks of your life science research by manufacturing high-quality products that advance scientific discovery and human health.

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Pfizer, Inc.

Website: www.pfizer.com

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines.

Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, we have worked to make a difference for all who rely on us.

We routinely post information that may be important to investors on our website at www.pfizer.com. In addition, to learn more, please visit us on www.pfizer.com and follow us on Twitter at @Pfizer and @Pfizer_News, LinkedIn, YouTube, and like us on Facebook at [Facebook.com/Pfizer](https://www.facebook.com/Pfizer).

Quanterix

Quanterix is a company that's digitizing biomarker analysis with the goal of advancing the science of precision health. The company's digital health solution, Simoa[®], has the potential to change the way in which healthcare is provided today by giving researchers the ability to closely examine the continuum from health to disease.

Quanterix' technology is designed to enable much earlier disease detection, better prognoses and enhanced treatment methods to improve the quality of life and longevity of the population for generations to come. The technology is currently being used for research applications in several therapeutic areas, including oncology, neurology, cardiology, inflammation and infectious disease. The company was established in 2007 and is located in Billerica, Massachusetts.

For additional information, please visit <https://www.quanterix.com>.

Regeneron Pharmaceuticals

Regeneron (NASDAQ: REGN) is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. Founded and led for 30 years by physician-scientists, our unique ability to repeatedly and consistently translate science into medicine has led to seven FDA-approved treatments and numerous product candidates in development, all of which were homegrown in our laboratories.

Our medicines and pipeline are designed to help patients with eye diseases, allergic and inflammatory diseases, cancer, cardiovascular and metabolic diseases, infectious diseases, pain and rare diseases.

Regeneron is accelerating and improving the traditional drug development process through our proprietary VelociSuite[®] technologies, such as VelocImmune[®] which produces optimized fully-human antibodies, and ambitious research initiatives such as the Regeneron Genetics Center, which is conducting one of the largest genetics sequencing efforts in the world.

For additional information about the company, please visit www.regeneron.com or follow @Regeneron on Twitter.

Science Immunology / AAAS

Email: sarnold@aaas.org
Website: www.immunology.sciencemag.org
Phone: +1 202 326 64 18

Science Immunology publishes original, peer-reviewed, science-based research articles that report critical advances in all areas of immunological research, including important new tools and techniques. Areas covered range from basic studies into the biology of innate and adaptive immunity to immune contributions to health and disease.

Science Signaling / AAAS

Email: sarnold@aaas.org
Website: www.stke.sciencemag.org
Phone: +1 202 326 64 18

Science Signaling offers researchers the most up-to-date resource for groundbreaking research and commentary in the dynamic field of cellular signaling. From basic science to design of therapeutics and from molecules to networks and systems design, this weekly e-resource keeps your researchers, faculty, and students ahead of the curve. The journal also provides instant access to the concepts and methods leading to breakthroughs in signal transduction.

Xilio Therapeutics

Email: gle@xiliotx.com
Website: www.xiliotx.com
Phone: +1 857 524 24 66

Xilio Therapeutics is developing its proprietary technology to create a new class of ultra-potent cytokine therapies for cancer that are activated selectively within the tumor. These tumor-selective cytokines are designed to overcome the significant toxicities that have historically limited the number of patients that can be treated and prevented patients from completing full courses of treatment. Our tumor selective IL-2, XTX201, induces immune activity in tumors without the dose limiting toxicities seen with non-selective IL-2s. These data suggest that tumor selectivity widens the potential therapeutic index for cytokine therapies, and additional programs are underway to unleash the power of these master immune regulators at the site of the tumor.

SAVE THE DATE

9th Annual Meeting of the
International Cytokine
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17 - 20 October 2021

Cardiff City Hall
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Celtic Cytokines
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cytokine & interferon cues

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