



# 9th Annual Meeting of The International Cytokine & Interferon Society

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Programme

## Exhibitor Breaking News Sessions

Room: Virtual Exhibition

*Sunday, October 17, 2021 / 13:15 - 14:45*

- 13:15 - 13:30*      **BioLegend: What's new from BioLegend for ICIS/Cytokines 2021?**
- 13:30 - 13:45*      **ICIS - Learn about opportunities for Cytokines 2022 in Hawaii!**  
**IVICT - PeptiGrowth - Growth factor alternative peptides**
- 13:45 - 14:00*      **Cytokine Signalling Forum - An overview of the Cytokine Signalling Forum**  
**Olink - Next generation proteomics**  
**Quanterix - High definition multiplex measurement of cytokines & interferons with Simoa®**
- 14:00 - 14:15*      **10X Genomics - High resolution characterisation of the immune system**  
**GSK - Live discussion with immunology network postdoc**  
**PBL - Human interleukin products providing accurate endogenous quantitation**
- 14:15 - 14:30*      **Pfizer Post-doctoral program**  
**Xilio - Learn more about Xilio Therapeutics**
- 14:30 - 14:45*      **Boehringer Ingelheim Pharmaceuticals - opnMe.com: The open Innovation portal of Boehringer Ingelheim**  
**Korean Association of Immunologists (KAI) supports Young Investigators!**  
**Luminex - The new xMAP® INTELLIFLEX: Technology you trust. Versatility you want.**

## Opening Session

Room: Assembly Room

*Sunday, October 17, 2021 / 15:00 - 17:30*

Description: Sponsored by an unrestricted educational grant from Bristol Myers Squibb

Moderator: Kate Fitzgerald (United States), Sarah Gaffen (United States)

- 15:00 - 15:05*      **Welcome & Opening remarks**  
Speaker: Simon Jones (United Kingdom)
- 15:05 - 15:10*      **President's address and presentation of ICIS Awards**  
Speaker: Kate Fitzgerald (United States)
- 15:10 - 15:30*      **Award Ceremony - Presentations & Ceremony ICIS Senior & Mid-Career and Young Investigator Awards**

- ICIS-Mentorship Award / Howard A. Young (NIH, US)
- ICIS-Distinguished Services Award / Nancy C. Reich Marshall (Stony Brook University, US)
- ICIS-Honorary Lifetime Membership Award / Carl F. Ware (Sanford Burnham Prebys Medical Discovery Institute, US)

2 All sessions are in Cardiff, UK, Local Time (GMT+1)

- Regeneron New Investigator Awards for Excellence in Cytokine & Interferon Research (formerly the Milstein Young Investigator Awards)
  - o Rebecca C. Coll (Queen's University Belfast, UK)
  - o Keke Celeste Fairfax (University of Utah, US)
  - o Fiachra Humphries (UMASS Medical School, US)
  - o Shruti Naik (NYU School of Medicine, US)
  - o Jakob von Moltke (University of Washington, US)
- Christina Fleischmann Award to Young Women Investigators / Snehlata Kumari (The University of Queensland Diamantina Institute, AU)
- Sidney & Joan Pestka Graduate Award / Brigette Duckworth (Walter and Eliza Hall Institute of Medical Research, AU)
- Sidney & Joan Pestka Post-Graduate Award / Ai Ing Lim (National Institute of Allergy and Infectious Diseases, US)
- ICIS Amanda Proudfoot Tribute Award for Excellence in Chemokine Biology / Douglas Philip Dyer (Wellcome Centre for Cell-Matrix Research, University of Manchester, UK)

*15:30 - 15:55*      **Award Presentation Lecture 1: ICIS Pfizer Award for Excellence in Interferon and Cytokine Research (formerly the Seymour & Vivian Milstein Award from 1988 – 2020): “The all-encompassing importance of innate immune receptors”**

Speaker: Jenny Pan-Yun Ting (United States)

*15:55 - 16:20*      **Award Presentation Lecture 2: ICIS-BioLegend William E. Paul Award for Excellence in Cytokine Research: "An emerging field of cytokine pharmacology"**

Speaker: K. Christopher Garcia (United States)

*16:20 - 16:45*      **Award Presentation Lecture 3: ICIS-Luminex John R. Kettman Award for Excellence in Interferon & Cytokine Research Mid-Career: "It's all about the cytokines"**

Speaker: Marion Pepper (United States)

*16:45 - 17:10*      **Keynote Lecture: Human immunity one cell at a time**

Speaker: Sarah Teichmann (United Kingdom)

*17:10 - 17:30*      **Q&A**

## **Welcome Reception & Networking: Visit the Exhibit Hall & iPoster Hall**

Room: Virtual Exhibition and iPoster Hall

*Sunday, October 17, 2021 / 17:30 - 19:30*

Description: All attendees are encouraged to visit the iPosters and/or virtual booths

## **CSF - The effects of JAK inhibitors on pain: Fact or artifact?**

Room: Assembly Room

*Sunday, October 17, 2021 / 19:30 - 20:30*

Moderator: Daniel Clauw (United States), John O'Shea (United States), John O'Shea (United States)

*19:30 - 19:40*

### **Welcome and introduction**

Speaker: Daniel Clauw (United States)

*19:40 - 19:55*

### **The effects of JAKinibs on pain outcomes in clinical trials**

Speaker: Peter Taylor (United Kingdom)

*19:55 - 20:10*

### **Understanding the central mechanisms of cytokines and pain**

Speaker: Neil Basu (United Kingdom)

*20:10 - 20:25*

### **Peripheral mechanisms of pain**

Speaker: Camilla Svensson (Sweden)

*20:25 - 20:30*

### **Summary and close**

Speaker: John O'Shea (United States), John O'Shea (United States)

## **Luminex**

Room: Lower Hall

*Sunday, October 17, 2021 / 19:30 - 20:30*

*19:30 - 20:30*

### **Mucosal responses to HIV and prevention strategies**

Speaker: Carolina Herrera (United Kingdom)

## Cytokines Networking Zoom Event 1

Room: ICIS Booth

*Monday, October 18, 2021 / 07:30 - 08:30*

Description: UK, Asia, Australia time zone friendly

Calling all students, postdocs, other trainees and seasoned researchers! Please join us online for the Future of Cytokines Networking Event. This fun, informal gathering offers an opportunity for you to meet like-minded emerging practitioners and researchers, share ideas and grow your professional network. We will kick this off with a cytokine-themed online trivia quiz, followed by small-group breakout sessions with discussion themes related to science and networking. Participants will be randomly assigned.

Access the event via the Cytokines 2021 Virtual Meeting Platform. Enter the ICIS Booth and click on the "join zoom" stand. Please bring your knowledge, enthusiasm, dynamism and, most of all, a good sense of humor! Everyone is welcome, see you there!

## Cytokines in cellular metabolism and immune homeostasis

Room: Assembly Room

*Monday, October 18, 2021 / 08:30 - 10:15*

Description: Sponsored by an unrestricted educational grant from Lilly

Moderator: Heike Hermanns (Germany), Clare Bryant (United Kingdom)

*08:33 - 09:03*

### **Keynote Lecture: Regulation of inflammation**

Speaker: David Artis (United States)

*09:03 - 09:28*

### **Initiation and resolution of inflammatory responses**

Speaker: Kate Fitzgerald (United States)

*09:28 - 09:53*

### **Cysteine modification as a strategy to limit inflammation**

Speaker: Luke O'Neill (Ireland)

*09:53 - 10:15*

### **Q&A**

## Coffee break and visit of the exhibition

Room: Virtual Exhibition

*Monday, October 18, 2021 / 10:15 - 10:45*

## Designer cytokines and cytokine immunotherapy

Room: Assembly Room

*Monday, October 18, 2021 / 10:45 - 12:15*

Moderator: Mathew Clement (United Kingdom), Daniela Novick (Israel)

*10:50 - 11:05*

### **Designer cytokines and treatment of metabolic disease**

Speaker: Mark Febbraio (Australia)

*11:05 - 11:20*

### **Manipulating cytokine activities in different extracellular micro-environments**

Speaker: Ignacio Moraga Gonzalez (United Kingdom)

*11:20 - 11:35*

### **Synthetic cytokine signaling**

Speaker: Jürgen Scheller (Germany)

- 11:35 - 11:45      **Engineering a Cytokine/Antibody Fusion Protein for Targeted Expansion of Regulatory T Cells**  
Presenter: Derek VanDyke (United States)
- 11:45 - 11:55      **Cytokine antagonists from a helminth parasite**  
Presenter: Henry J. Mcsorley (United Kingdom)
- 11:55 - 12:15      **Q&A**

## Tissue homeostasis and barrier immunity

Room: Lower Hall

*Monday, October 18, 2021 / 10:45 - 12:15*

Moderator: Clare M. Lloyd (United Kingdom), Cristina Bergamaschi (United States), Cristina Bergamaschi (United States)

- 10:50 - 11:05      **IL-6 signaling in Th17 development and maintenance**  
Speaker: Stacey Harbour (United States)
- 11:05 - 11:20      **Chemokines and the orchestration of the inflammatory response**  
Speaker: Gerard Graham (United Kingdom)
- 11:20 - 11:35      **ILC2 and Th2 cell kinetic regulation of functional helminth type 2 immunity**  
Speaker: Padraic Fallon (Ireland)
- 11:35 - 11:45      **IL-36 cytokines alert epithelial tissue to destructive infection by sensing pathogen-derived proteases**  
Presenter: Tom Macleod (United Kingdom)
- 11:45 - 11:55      **Young Investigator Award - Tuft cell effector molecules regulating anti-helminth immunity**  
Presenter: Jakob Von Moltke
- 11:55 - 12:15      **Q&A**

## Coffee break and visit of the exhibition

Room: Virtual Exhibition

*Monday, October 18, 2021 / 12:25 - 12:45*

## Korean Association of Immunologists - Cytokines and bystander T cell activation

Room: Lower Hall

*Monday, October 18, 2021 / 12:45 - 13:45*

Moderator: Judith Allen (United Kingdom), You-Me Kim (Korea, Republic Of)

- 12:45 - 13:00      **IL-15-induced bystander T cell activation and immunopathology**  
Speaker: Eui-Cheol Shin (Korea, Republic Of)

13:00 - 13:15

**IL-1 family and STAT activators for Bystander T cell activation contributing autoimmune diseases**

Speaker: Je-Min Choi (Korea, Republic Of)

13:15 - 13:30

**Extricating human tumor-unique immune alterations from non-malignant tissue inflammation**

Speaker: Martin Prlic (United States)

## **The Royal Society of Biology - NGS omics and visualisation**

Room: Assembly Room

*Monday, October 18, 2021 / 12:45 - 13:45*

Moderator: Robert Andrews (United Kingdom), Jason Williams-Jones (United Kingdom)

12:45 - 13:00

**Processing and visualisation RNAseq and ATACseq data**

Speaker: Robert Andrews (United Kingdom)

13:00 - 13:15

**Using machine learning for data visualisation**

Speaker: Barbara Szomolay (United Kingdom)

13:15 - 13:30

**Visualising scRNAseq data**

Speaker: Stephanie Hanna (United Kingdom)

## **Cytokines in anti-viral immunity**

Room: Assembly Room

*Monday, October 18, 2021 / 13:45 - 15:15*

Moderator: James McLaren (United Kingdom), Iris Behrmann (Luxembourg)

13:50 - 14:05

**The role of IL-2 signalling in attenuated virus specific antibody responses in early life**

Speaker: James Harker (United Kingdom)

14:05 - 14:20

**New insights into the regulation of virus-induced inflammatory cytokine production**

Speaker: Ian Humphreys (United Kingdom)

14:20 - 14:35

**IL-2, inflammation, and Influenza A virus infection**

Speaker: Tara M. Strutt (United States)

14:35 - 14:45

**Pfizer Junior Investigator Award - ISG15-dependent Activation of the RNA Sensor MDA5 and its Antagonism by SARS-CoV-2**

Presenter: Guanqun Liu (United States)

14:45 - 14:55

**Interferon-induced transmembrane protein 3 (IFITM3) limits lethality of SARS-CoV-2 in mice**

Presenter: Jacob Yount, Jacob Yount (United States)

14:55 - 15:15

**Q&A**

## Epigenetic control of cytokine-mediated outcomes

Room: Lower Hall

*Monday, October 18, 2021 / 13:45 - 15:15*

Moderator: Mark K. Ansel (United States), Robert Hywel Jenkins (United Kingdom)

*13:50 - 14:05*

### **Mir-221/222 suppress IL-23 driven Th17 inflammation**

Speaker: Yuka Kanno (United States)

*14:05 - 14:20*

### **Control of antimicrobial immunity and intestinal inflammation by epigenetic mechanisms**

Speaker: Holm Uhlig (United Kingdom)

*14:20 - 14:35*

### **Transcriptional control of neutrophil responses in inflammation**

Speaker: Irina Udalova (United Kingdom)

*14:35 - 14:45*

### **Young Investigator Award - Effector and Stem-Like Memory Cell Fates are Imprinted in Distinct Lymph Node Niches Directed by CXCR3 Ligands**

Presenter: Brigette C. Duckworth (Australia)

*14:45 - 14:55*

### **Young Investigator Award - Z-DNA-binding protein-1 regulates necroptosis-mediated skin inflammation**

Presenter: Snehlata Kumari

*14:55 - 15:15*

### **Q&A**

## iPoster Networking session

Room: iPoster area

*Monday, October 18, 2021 / 15:15 - 17:00*

Details from page 20

## Mechanisms of cytokine release syndromes

Room: Assembly Room

*Monday, October 18, 2021 / 16:45 - 18:15*

Moderator: Eleanor Fish (Canada), Mathew Clement (United Kingdom)

*16:50 - 17:05*

### **Antiviral and inflammatory cytokine crosstalk**

Speaker: Michael Gale (United States)

*17:05 - 17:20*

### **Role of PYHIN proteins in cytokine secretion**

Speaker: Andrew Bowie (Ireland)

*17:20 - 17:35*

### **The superantigens SpeC and TSST-1 specifically activate TRBV12-3/12-4+ memory T cells**

Presenter: James McLaren (United Kingdom)

*17:35 - 17:45*

### **Innate immunomodulation by virally-encoded cytokine response modifiers as a strategy to mitigate virus-induced cytokine release syndrome**



Presenter: E. Taylor Stone

17:45 - 17:55

**hMDA5 R822Q transgenic mice with systemic inflammation and lethal cytokine response**

Presenter: Francine Lianne Castañeda Emralino

17:55 - 18:15

**Q&A**

## Single cell analysis of inflammatory outcomes

Room: Lower Hall

*Monday, October 18, 2021 / 16:45 - 18:15*

Description: Sponsored by an unrestricted educational grant from 10X Genomics

Moderator: Jenny Pan-Yun Ting (United States), Sarah Gaffen (United States)

16:50 - 17:05

**Visualising single cell responses to infection and inflammation**

Speaker: Clare Bryant (United Kingdom)

17:05 - 17:20

**Single cell RNA-sequencing and spatial analysis of fat-associated lymphoid clusters of the omentum reveals novel facets of the stromal-immune axis within the peritoneal cavity**

Speaker: Lucy H. Jackson-Jones (United Kingdom)

17:20 - 17:35

**Deciphering virus-specific killer T cell trajectories upon infection**

Speaker: Stephen Turner (Australia)

17:35 - 17:45

**Genotype and Th2 cytokines control pleural cavity myeloid cell differentiation during helminth infection**

Presenter: Conor M. Finlay (Ireland)

17:45 - 17:55

**Multimomics analysis identifies an autoimmune profile and superantigen-like T cell expansion in multisystem inflammatory syndrome in children**

Presenter: Rebecca A. Porritt (United States)

17:55 - 18:15

**Q&A**

## Biogen Industry Symposium

Room: Assembly Room

*Monday, October 18, 2021 / 18:30 - 19:30*

Moderator: Eva Zemlickova (United Kingdom)

18:30 - 19:30

**Differential interferon- $\alpha$  subtype immune signatures suppress SARS-CoV-2 infection**

Speaker: Kathrin Sutter (Germany)

## UCB Industry Symposium

Room: Lower Hall

*Monday, October 18, 2021 / 18:30 - 19:30*

Moderator: Ash Maroof (United Kingdom)

*18:30 - 19:30*

### **Role of IL-17A and IL-17F in immune-mediated chronic inflammation**

Speaker: Suzanne Cole (United Kingdom)

## Cytokines Networking Zoom Event 2

Room: ICIS Booth

*Monday, October 18, 2021 / 19:30 - 20:30*

Description: UK, Asia, Australia time zone friendly

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## Japanese Society of Interferon & Cytokine Research Symposium: Type I interferon and disease pathogenesis

Room: Assembly Room

Tuesday, October 19, 2021 / 08:30 - 10:00

Moderator: Clare M. Lloyd (United Kingdom), Akinori Takaoka (Japan)

08:35 - 08:50

### **The histidine transporter SLC15A4 coordinates mTOR-dependent inflammatory responses and pathogenic antibody production**

Speaker: Noriko Toyama-Sorimachi (Japan)

08:50 - 09:05

### **IRF5 as a target of treatment for systemic lupus erythematosus**

Speaker: Tomohiko Tamura (Japan)

09:05 - 09:20

### **Type I IFN in the pathogenesis of ALS, due to release of mtDNA activating cGAS/STING**

Speaker: Seth L. Masters (Australia)

09:20 - 09:30

### **Young Investigator Award - A diamidobenzimidazole STING agonist protects against SARS-CoV-2 infection**

Presenter: Fiachra Humphries (United States)

09:30 - 09:40

### **Interferon-lambda Protection in a Murine Model of SARS-CoV-2 Infection**

Presenter: Nancy Reich (United States)

09:40 - 10:00

### **Q&A**

## Cytokines in pain and psychoneuroimmunology

Room: Lower Hall

Tuesday, October 19, 2021 / 08:30 - 10:00

Moderator: Hiroki Yoshida (Japan), Ernest Choy (United Kingdom)

08:35 - 08:50

### **Importance of Interleukin-6 and Il-6st/gp130 in neuropathic pain disorders**

Speaker: Michaela Kress (Austria)

08:50 - 09:05

### **The IL-6/IL-6R pathway as a potential treatment target for depression**

Speaker: Neil Harrison (United Kingdom)

09:05 - 09:20

### **Neuro-immune interactions in pain - where do all the cytokines come from?**

Speaker: Franziska Denk (United Kingdom)

09:20 - 09:30

### **Type I interferon propels memory impairment associated with Alzheimer's disease**

Presenter: Wei Cao (United States)

09:30 - 09:40

### **IL-23 in arthritic and inflammatory pain development**

Presenter: Kevin Ming-Chin Lee (Australia)

09:40 - 10:00

### **Q&A**

## **iPoster Networking session**

Room: iPoster area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

Details from page 20

## **The Royal Society - Building academic-industry partnerships**

Room: Assembly Room

*Tuesday, October 19, 2021 / 11:45 - 12:45*

Moderator: Luke O'Neill (Ireland), John Elvin (United Kingdom)

11:45 - 12:00

### **Industry/Academic collaborations - Busting some myths**

Speaker: Caroline Barelle (United Kingdom)

12:00 - 12:15

### **Connecting the sectors: A recent University of Oxford initiative**

Speaker: Nessa Carey (United Kingdom)

12:15 - 12:30

### **A practical guide to University - Industry collaboration**

Speaker: William Kilgallon (Austria)

## **Humanigen - Targeting cytokines in COVID-19**

Room: Lower Hall

*Tuesday, October 19, 2021 / 11:45 - 12:45*

Description: Sponsored by an unrestricted educational grant from Humanigen

Moderator: Chris Hunter (United States), Cameron Durrant (United States)

11:45 - 12:00

### **Cytokines in respiratory viral infections**

Speaker: Peter Openshaw (United Kingdom)

12:00 - 12:15

### **Biochemical and molecular characteristics of antibodies in vaccine-induced immune thrombotic thrombocytopenia**

Speaker: Ishac Nazy (Canada)

12:15 - 12:30

### **Inhaled Interferon beta - a therapeutic for COVID-19?**

Speaker: Tom Wilkinson (United Kingdom)

## **Coffee break and visit of the exhibition**

Room: Virtual Exhibition

*Tuesday, October 19, 2021 / 12:45 - 13:00*

## **Understanding complexities of immune mediated diseases**

Room: Assembly Room

*Tuesday, October 19, 2021 / 13:00 - 14:45*

Description: Sponsored by an unrestricted educational grant from Pfizer

Moderator: Thomas Wynn (United States), Simon Jones (United Kingdom)

- 13:03 - 13:28 **Fibroblasts as cytokine factories**  
Speaker: Chris Buckley (United Kingdom)
- 13:28 - 13:48 **A little knowledge: What have patients with monogenic diseases taught us?**  
Speaker: Helen Lachmann (United Kingdom)
- 13:48 - 14:08 **Specific blockade of IL-6 trans-signaling in patients with inflammatory bowel disease**  
Speaker: Stefan Rose-John (Germany)
- 14:08 - 14:28 **The role of interferons in autoinflammatory diseases**  
Speaker: Raphaela T. Goldbach-Mansky (United States)
- 14:28 - 14:45 **Q&A**

## Coffee break and visit of the exhibition

Room: Poster Area

*Tuesday, October 19, 2021 / 14:45 - 15:15*

## Determinants of disease heterogeneity

Room: Assembly Room

*Tuesday, October 19, 2021 / 15:15 - 16:45*

Description: Sponsored by an unrestricted educational grant from Cytokine Journal / Elsevier

Moderator: Dhan Kalvakolanu (United States), Simon Jones (United Kingdom)

- 15:20 - 15:35 **Differential cytokine targeting and precision medicine**  
Speaker: Douglas Veale (Ireland)
- 15:35 - 15:50 **Investigating control of ectopic lymphoid-like structure development through gp130-signalling cytokines**  
Speaker: Gareth Jones (United Kingdom)
- 15:50 - 16:05 **Regulators of IL-17 signaling: Determinants of pathology and heterogeneity in chronic kidney diseases**  
Speaker: Partha Biswas (United States)
- 16:05 - 16:15 **microRNA regulation of disease heterogeneity in inflammatory arthritis**  
Presenter: Robert Hywel Jenkins (United Kingdom)
- 16:15 - 16:25 **Young Investigator Award - Maternal IL-6 Promotes Pre-birth Tissue-Specific Immune Education**  
Presenter: Ai Ing Lim (United States)
- 16:25 - 16:45 **Q&A**

## Cytokines in allergic reactions

Room: Lower Hall

*Tuesday, October 19, 2021 / 15:15 - 16:45*

Description: Sponsored by an unrestricted educational grant from Regeneron

Moderator: James Harker (United Kingdom), Judith Allen (United Kingdom)

*15:20 - 15:35*

### **Cytokines in Type 2 inflammation**

Speaker: Jamie Orengo (United States)

*15:35 - 15:50*

### **Dendritic cells and macrophages: central players in orchestration of fungal allergic airway inflammation**

Speaker: Andrew MacDonald (United Kingdom)

*15:50 - 16:05*

### **Cytokine regulation of immunity in the allergic lung**

Speaker: Clare M. Lloyd (United Kingdom)

*16:05 - 16:15*

### **Molecular regulation of the itch cytokine, IL-31, and its contribution to allergic inflammation**

Presenter: Priscila Muñoz Sandoval (United States)

*16:15 - 16:25*

### **Young Investigator Award - IL-4 Signaling Regulates the Fate of B Cell Differentiation Via Germinal Center Positioning**

Presenter: Keke Fairfax (United States)

*16:25 - 16:45*

### **Q&A**

## Cancer and immunology, happy neighbours?

Room: Assembly Room

*Tuesday, October 19, 2021 / 16:45 - 18:15*

Moderator: Cameron Durrant (United States), Nancy Reich (United States)

*16:50 - 17:05*

### **Unveiling the pro-tumourigenic role of pattern recognition receptors in gastrointestinal cancers**

Speaker: Brendan Jenkins (Australia)

*17:05 - 17:20*

### **STAT3: From fundamental discoveries to clinical translation**

Speaker: Hua Yu (United States)

*17:20 - 17:35*

### **AIDS and cancer: Direct and indirect effects of viral proteins affecting the kaposi sarcoma immune environment**

Speaker: Ethel Cesarman (United States)

*17:35 - 17:45*

### **Extracellular vesicles purified from a specific Lactobacillus strain induce dendritic cell-mediated IL-12 production and enhance anticancer immune responses.**

Presenter: Jihong Bae (Korea, Republic Of)

17:45 - 17:55 **A negative feedback loop driven by IFN  $\gamma$  signalling in cytotoxic T cells restricts anti-tumour responses by inhibiting de novo priming**

Presenter: Audrey Gerard (United Kingdom)

17:55 - 18:15 **Q&A**

## **Philip I. Marcus Symposium 12: Mechanisms of interferonopathies**

Room: Lower Hall

*Tuesday, October 19, 2021 / 16:45 - 18:15*

Description: Sponsored by Journal of Interferon & Cytokine Research / Mary Ann Liebert, Inc. Publishers

Moderator: Michael Gale (United States), Ian Humphreys (United Kingdom)

16:50 - 17:05 **2021 Philip Marcus Memorial Lecture Speaker: Human type I interferonopathies**

Speaker: Yanick Crow (United Kingdom)

17:05 - 17:20 **Anti-cytokine autoantibodies**

Speaker: Anne Puel (France)

17:20 - 17:35 **Inborn errors of type I IFN immunity in patients with life-threatening COVID-19**

Speaker: Qian Zhang (United States)

17:35 - 17:45 **Characterization of 2'-O-methyl oligonucleotides that potently inhibit cGAS and TLR9 DNA sensing**

Presenter: Michael Paul Gantier (Australia)

17:45 - 17:55 **Treatment of the cellular phenotype of ISG15 deficiency with itaconic acid and derivatives**

Presenter: Fakhar Waqas (Germany)

17:55 - 18:15 **Q&A**

## Stromal tissue as orchestrators of disease outcome

Room: Assembly Room

*Wednesday, October 20, 2021 / 08:30 - 10:00*

Moderator: Clare Bryant (United Kingdom), Sarah Gaffen (United States)

*08:35 - 08:50*

### **Molecular checkpoints controlling the transition from autoimmunity to inflammation**

Speaker: Gerhard Krönke (Germany)

*08:50 - 09:05*

### **Tissue immunity in the urinary tract**

Speaker: Menna Clatworthy (United Kingdom)

*09:05 - 09:20*

### **Phenotype determination in fibrosis is under the control of a TGFb1/c-Rel/PFKFB3 pathway**

Speaker: Derek Mann (United Kingdom)

*09:20 - 09:30*

### **Young Investigator Award: Extracellular matrix components directly facilitate chemokine (CXCL4/PF4) mediated leukocyte recruitment, independent of chemokine receptors**

Presenter: Douglas Philip Dyer (United Kingdom)

*09:30 - 09:40*

### **Young Investigator Award: Interleukin-17 governs hypoxic adaptation of injured epithelium**

Presenter: Shruti Naik (United States)

*09:40 - 10:00*

### **Q&A**

## Combinatorial drug targeting in immune disease

Room: Lower Hall

*Wednesday, October 20, 2021 / 08:30 - 10:00*

Description: Sponsored by an unrestricted educational grant from Gilead

Moderator: Ernest Choy (United Kingdom), Francesca Barone (United Kingdom), Francesca Barone (United Kingdom)

*08:35 - 08:50*

### **Ombinatorial drug targeting in immune disease**

Speaker: Iain McInnes (United Kingdom)

*08:50 - 09:05*

### **Antibody-cytokine fusions: From the bench to Phase III clinical trials**

Speaker: Dario Neri (Switzerland)

*09:05 - 09:20*

### **Intratumoral administration and retention of immune agonists to maximize therapeutic index**

Speaker: Dane Wittrup (United States)

*09:20 - 09:30*

### **Engineering Bispecific Antibodies to Synergistically Inhibit Tumor Metastasis**

Presenter: Huilin Yang (United States)



09:30 - 09:40

### **Young Investigator Award - Harnessing the power of NLRP3 – pharmacological strategies for inhibition and activation of the inflammasome**

Presenter: Rebecca C. Coll (United Kingdom)

09:40 - 10:00

**Q&A**

## **Coffee break and visit of the exhibition**

Room: Virtual Exhibition

*Wednesday, October 20, 2021 / 10:00 - 10:15*

## **Systems approaches in precision medicine**

Room: Assembly Room

*Wednesday, October 20, 2021 / 10:15 - 12:00*

Moderator: Luke O'Neill (Ireland), Audrey Gerard (United Kingdom)

10:18 - 10:43

### **Translating immunology into new therapies for Inflammatory Bowel Disease**

Speaker: Fiona Powrie (United Kingdom)

10:43 - 11:03

### **Tissue-specific adaptations for human immunity**

Speaker: Donna Farber (United States)

11:03 - 11:23

### **Cytokines in induction and regulation of tissue inflammation**

Speaker: Vijay Kuchroo (United States)

11:23 - 11:43

### **Identifying functional autoantibodies that target the human exoproteome**

Speaker: Aaron Ring (United States)

11:43 - 12:00

**Q&A**

## **Coffee break and visit of the exhibition**

Room: Virtual Exhibition

*Wednesday, October 20, 2021 / 12:00 - 12:15*

## **10X Genomics**

Room: Lower Hall

*Wednesday, October 20, 2021 / 12:15 - 13:15*

12:15 - 13:15

### **High resolution characterization of the immune system with single cell immune profiling**

Speaker: Rae Dabelic (Netherlands)

## **The Learned Society of Wales - Considering alter career paths in research**

Room: Assembly Room

*Wednesday, October 20, 2021 / 12:15 - 13:15*

Moderator: Simon Jones (United Kingdom), Daniela Costa (United Kingdom), Stuart Hughes (United Kingdom)

12:15 - 12:25	<b>Careers in scientific publishing</b> <u>Speaker:</u> Yvonne Bordon (United Kingdom)
12:25 - 12:35	<b>Patent attorney - Career path</b> <u>Speaker:</u> Helen Henderson (United Kingdom)
12:35 - 12:45	<b>Discovering and developing novel therapeutics - reflections on building a career in industry</b> <u>Speaker:</u> Edith Hessel (France)
12:45 - 12:55	<b>Finding your niche (outside the lab)</b> <u>Speaker:</u> Anna Kinsey (United Kingdom)
12:55 - 13:15	<b>Q&amp;A</b>

## Disease stratification and biological therapies

Room: Assembly Room

*Wednesday, October 20, 2021 / 13:15 - 14:45*

Moderator: Douglas Veale (Ireland), Iain McInnes (United Kingdom)

13:20 - 13:35	<b>A new pathway in inflammation and pain</b> <u>Speaker:</u> John Hamilton (Australia)
13:35 - 13:50	<b>Reprogramming interleukin-2 as a targeted immunotherapeutic.</b> <u>Speaker:</u> Jamie Spangler (United States)
13:50 - 14:05	<b>Defining clinical and treatment response endotypes in RA: Towards precision medicine</b> <u>Speaker:</u> Costantino Pitzalis (United Kingdom)
14:05 - 14:20	<b>Cellular and immunological profiling of salivary gland tertiary lymphoid structures</b> <u>Speaker:</u> Francesca Barone (United Kingdom), Francesca Barone (United Kingdom)
14:20 - 14:45	<b>Q&amp;A</b>

## Determinants of cell fate

Room: Lower Hall

*Wednesday, October 20, 2021 / 13:15 - 14:45*

Moderator: Mark Travis (United Kingdom), Sarah Gaffen (United States)

13:20 - 13:35	<b>Adaptive immunity and immune memory to SARS-CoV2 and COVID-19</b> <u>Speaker:</u> Shane Crotty (United States)
13:35 - 13:50	<b>IL-1 family members and resistance to infection</b> <u>Speaker:</u> Chris Hunter (United States)
13:50 - 14:05	<b>IL-22 blockade as a therapeutic modality for anemias</b>

Speaker: Laurie Glimcher (United States)

14:05 - 14:20

### **Jakinibs and beyond**

Speaker: John O'Shea (United States), John O'Shea (United States)

14:20 - 14:45

### **Q&A**

## **Closing Session**

Room: Assembly Room

*Wednesday, October 20, 2021 / 14:45 - 15:15*

14:45 - 14:50

### **Concluding remarks**

Speaker: Simon Jones (United Kingdom)

14:50 - 15:00

### **Invitation to Cytokines 2022**

Speaker: James Turkson (United States)

## **Global Immunotalks - Immune responses to SARS-CoV-2**

*Wednesday, October 20, 2021 / 17:00 - 18:00*

Description: The Cytokines 2021 program is proud to include the affiliate with GLOBAL IMMUNOTALKS - Live on Wednesday, October 20th, 9AM PST, 12PM EST, 5PM BST, speaker, 2019 ICIS Milstein Award winner Akiko Iwasaki.

Join us on Zoom: <https://ucsd.zoom.us/j/91053505061>

The talk will be recorded and uploaded to the "Global Immunotalks" YouTube channel:

<https://www.youtube.com/c/GLOBALIMMUNOTALKS>

Speaker: Akiko Iwasaki (United States)

## List of iPosters

### iPoster 01. Tissue homeostasis and mucosal immunity

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

**P001 - IL-1R1-Mediated GM-CSF Production by Lung Structural Cells is Required for Murine Survival and Fungal Killing During Pulmonary *Aspergillus fumigatus* Infection**

Presenter: Kathleen Mills (United States)

**P002 - Best iPoster - ISG-Tregs in Viral Infection**

Presenter: Louisa Sjaastad (United States)

**P003 - Dysregulation of IL-17 and Calprotectin in the female reproductive tract affects pregnancy outcome following assisted reproductive therapy**

Presenter: Federica Giangrazi (Ireland)

**P004 - Type I interferons shape the tissue macrophage niche with age.**

Presenter: Shruti Sharma (United States)

**P005 - Retinoic acid receptor alpha regulates the phagocytic ability of gut macrophages through Tim4 in the small intestine**

Presenter: Chaitanya Dende (United States)

**P006 - Type I, II, and III Interferon Responses of Human Intestinal Organoids in Health and Disease**

Presenter: David Constant (United States)

**P008 - From antiviral to antiproliferative: the pathogenic potential of type I and III interferons during lung repair**

Presenter: Jack Major

**P009 - Chemokines Act as Phosphatidylserine-bound Find-me Signals in Apoptotic Cell Clearance**

Presenter: Sergio Pontejo (United States)

**P010 - Alveolar macrophages strictly rely on GM-CSF from alveolar epithelial type 2 cells before and after birth.**

Presenter: Julia Gschwend (Switzerland)

**P011 - Type 2 innate immunity regulates hair follicle homeostasis to control Demodex pathosymbionts**

Presenter: Roberto Ricardo-Gonzalez (United States)

**P012 - Chronic parasite infection reshapes systemic viral infection by altering tissue resident macrophages**

Presenter: Christina Zarek (United States)

**P013 - Association of cytokine levels, monocyte subsets and short-term survival of septic shock patients.**

Presenter: Jan Frič (Czech Republic)

**P015 - SERTOLI CELLS – FUTURE IN CELL THERAPY? MODULATION OF CYTOKINE ENVIRONMENT TOWARDS ANTI-INFLAMMATORY IN VITRO AND IN VIVO**

Presenter: Bianka Porubská (United States)

**P017 - Best iPoster - Elevated Cytokine Signalling In Monocyte-Derived Alveolar Macrophages After Influenza Challenge**

Presenter: Justina Kulikauskaite

**P018 - Best iPoster - Group 3 innate lymphoid cells produce HB-EGF to protect the intestine from TNF**

Presenter: Lei Zhou (United States)

**P019 - Identification of microbial factors that govern induction of microbiome-dependent IL-17 at the ocular surface.**

Presenter: Anthony St. Leger (United States)

**P020 - IL-17-producing CD4 tissue-resident memory T cells mediate protective immunity against Bordetella pertussis infection in the nasal mucosae**

Presenter: Lucy Curham (Ireland)

**P021 - Staphylococcus aureus-induced immunosuppression during nasal colonisation enables bacterial persistence**

Presenter: Alanna Kelly (Ireland)

**P023 - Type I and III interferon signalling restricts Shigella infection of epithelial cells**

Presenter: Noemie Alphonse

**P024 - Inhibition of Salmonella enterica invasion and intracellular replication by interferon-stimulated genes.**

Presenter: Ruth Dickenson

**P025 - Enhanced IL-36R signaling promotes barrier impairment and inflammation in skin and intestine**

Presenter: Zaruhi Hovhannisyan (United States)

**P026 - Microbiota Regulation of Intestinal Eosinophils**

Presenter: Grace Cao (United States)

**P027 - Reg3 induction subverts intestinal healing in Antibiotic treatments and Crohn's disease by Debaryomyces hansenii**

Presenter: Rahul Gupta (India)

**P028 - Divergent role of interleukin-20 family of cytokines in regulation of intestinal epithelial inflammation**

Presenter: M Arifur Rahman (Australia)

**P029 - Basophils support Th2 cell responses during gastrointestinal helminth infection**

Presenter: Lauren Webb (United States)

**P032 - Estrogen-induced Type I interferon, IFN-epsilon, is exploited by Neisseria gonorrhoeae to evade innate immune killing**

Presenter: Evelyn Kurt-Jones (United States)

**P033 - Exosome mediated cytokine secretion and signaling in respiratory disease**

Presenter: Jennifer Alexander-Brett (United States)

**P034 - IL-36 cytokines enhance endothelial cell barrier integrity and prevent microvascular permeability**

Presenter: Erin Fahey (Ireland)

**P035 - Differential expression of the cytokine receptors IL-1R1 and IL-6R in human vocal fold fibroblasts from Reinke's edema patients, and differential regulation of IL-1R1 upon cytokine treatment**

Presenter: Magdalena Grill (Austria)

**P036 - Best iPoster - Interleukin-11-producing fibroblasts promotes the development of colorectal cancer.**

Presenter: Takashi Nishina (Japan)

**LB-01 - A unique population of neutrophils generated by air pollutant-induced lung damage exacerbates airway inflammation**

Presenter: Hye Young Kim (Korea, Republic Of)

**LB-02 - A new approach based on glycyrrhizic acid for allergen delivery in allergen-specific therapy**

Presenter: Ekaterina Aleksandrovna A. Pashkina (Russian Federation)

**LB-03 - Exacerbation of Mycobacterium avium Pulmonary Infection by Comorbid Allergic Asthma Is Associated with Diminished Mycobacterium-Specific Th17 Responses**

Presenter: Sang Chul Park (Korea, Republic Of)

**LB-04 - Role of E3 ubiquitin ligase GRAIL in intestinal homeostasis**

Presenter: Roza Nurieva (United States)

**iPoster 02. Cytokines in anti-viral immunity**

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

**P037 - Regulation of Viral Nucleic Acid Sensing by LUBAC**

Presenter: Brian Ferguson

**P038 - T-bet acts during chronic cytomegalovirus infection to promote immune-suppressive T cells that exhibit novel immune-regulatory functionality**

Presenter: Mathew Clement (United Kingdom)

**P039 - Murine astrovirus tropism for goblet cells and enterocytes facilitates an IFN- $\lambda$  response in vivo and in enteroid cultures**

Presenter: Harshad Ingle (United States)

**P040 - Single Cell RNA Sequencing of Zika Virus-Infected Neural Tissues Reveals an Astrocyte-Driven Innate Immune Response Governed by Interferon Beta.**

Presenter: Caleb Stokes (United States)

**P041 - Two cGAS-like receptors induce Sting-dependent antiviral immunity in *Drosophila melanogaster***

Presenter: Hans Henrik Gad (Denmark)

**P042 - Cellular nucleic acid-binding protein is essential for type I interferon-mediated immunity to RNA virus infection**

Presenter: Yongzhi Chen (United States)

**P043 - dsRNA recognition induces IL-1 and IL-18 secretion and cell death and GSDME cleavage in respiratory epithelial cells**

Presenter: Coralie Guy (Ireland)

**P044 - Signaling from the RNA Sensor RIG-I is Regulated by Ufmylation**

Presenter: Daltry Snider (United States)

**P045 - Tumor Progression Locus 2 (Tpl2) restricts excessive monocyte and neutrophil influx during late stage Influenza infection**

Presenter: Krishna Latha (United States)

**P046 - The RNA Helicase DHX16 Recognizes Specific Viral RNA to Trigger RIG-I-dependent Innate Antiviral Immunity**

Presenter: Adam Hage (United States)



**P047 - The role of ncBAF complex members in IFN-stimulated antiviral activity.**

Presenter: Nina Mair (Switzerland)

**P048 - Cytokine-driven Activation of Innate-like T Cell Populations by Adenovirus Vaccine Vectors**

Presenter: Nicholas Provine

**P049 - A subset of CD4<sup>+</sup> effector memory T cells suppress T cell-mediated immunity to pulmonary viral infection via integrin  $\alpha v \beta 8$ -dependent activation of latent TGF  $\beta$**

Presenter: Mark Travis (United Kingdom)

**P050 - Nuclear soluble cGAS senses DNA virus infection**

Presenter: Shitao Li (United States)

**P051 - Evaluation of Ly6e in Distinct Cellular Compartments for Resistance to Coronavirus Infection**

Presenter: Katrina Mar (United States)

**P052 - Conserved induction of distinct antiviral signalling kinetics by primate interferon lambda 4 proteins**

Presenter: Connor Bamford

**P053 - Kinetic Characterization of the RIG-I Signal Transduction Pathway**

Presenter: Sandy Burkart (Germany)

**P054 - Loss of Adar1 Increases T Cell Migration and Prolongs Survival in Ovarian Cancer**

Presenter: Stephanie Gomez (United States)

**P055 - Role of Type I IFNs in the Development of an Immunoregulative Myeloid Cell Population Following Respiratory Viral Infection**

Presenter: Kimberly Oliva (United States)

**P056 - Systemic IL-15, IFN-gamma and IP-10/CXCL10 Signature Associated with Effective Immune Response in BNT162b2 mRNA Vaccine Recipients**

Presenter: Cristina Bergamaschi (United States), Cristina Bergamaschi (United States)

**P057 - The Impact of Type I Interferon Signaling on the Plasmablast Response to Viral Pathogens**

Presenter: Tara Steffen (United States)

**P058 - The Role of CD8+ Cell-Associated Cytokines in Natural Immunity of Baboons against Immunodeficiency Virus Infection**

Presenter: Amanda Mannino (United States)

**P059 - Investigation of the mechanisms behind anti-viral effect of Nrf2 activation with 4-octyl-itaconate (4OI)**

Presenter: Angela Herengt (Denmark)

**P060 - Defining the maternal decidual response to acute and persistent Zika virus infection during first-trimester pregnancy**

Presenter: Julie Eggenberger (United States)

**P061 - A TLR7 antagonist controls interferon-dependent and -independent immunopathology in severe influenza**

Presenter: Katja Finsterbusch

**P062 - RNA structure modulates sensing of Alphavirus RNA by the intracellular innate immune system**

Presenter: Sarah Hickson (United States)

**P063 - CRISPR Screening Reveals a Limited Set of Genes With Antiviral Activity Against Venezuelan Equine Encephalitis Virus**

Presenter: Matthew B. McDougal (United States)

**P064 - Genetic variation in the RSV fusion protein controls strain-dependent increases in pro-inflammatory cytokine production driving the development of a pathogenic Th17 response and severe disease**

Presenter: Kody Waldstein (United States)

**P065 - Influenza virus replication in cardiomyocytes directly drives cardiac dysfunction and fibrosis**

Presenter: Jacob Yount (United States), Jacob Yount

**P068 - Characterization of chemically dissimilar agonists of the STING protein as vaccine adjuvants**

Presenter: Dylan Boehm (United States)

**P069 - Type I IFN and plasmacytoid DC at the crossroad of antiviral and humoral response directed against tick-borne encephalitis virus**

Presenter: Daniela Ricci (Italy)

**P070 - Cooperative Effects of RIG-I-Like Receptor Signaling and IRF1 on DNA Damage-Induced Cell Death**

Presenter: David Y. Zander (Germany)

**P071 - Human STING Knockin Mice: A Model for Characterization of Clinically Relevant STING Ligands**

Presenter: Victor Defilippis (United States)

**P072 - Establishing NSP15 as an immune regulator across Coronavirus genera**

Presenter: Neel Salukhe (United States)

**P073 - Transcriptional reprogramming by viral infection defines unique Interferon-dependent roles for infected and bystander inflammatory monocytes in orchestrating the innate immune response**

Presenter: Carolina Rezende Melo Da Silva (United States)

**P074 - The Elongator complex regulates TLR4 and type I interferon gene induction responses**

Presenter: Jamie Murphy (Ireland)

**P075 - Identifying enhancers of innate immune signaling as potential antivirals active against emerging viruses**

Presenter: Ghizlane Maarifi (France)

**P076 - New Mechanism to Balance the Production of Type I Interferon and Proinflammatory Cytokines**

## **in Response to Viral Infections**

Presenter: Hector Huerga Encabo (United Kingdom)

### **P077 - Differential Effects of Conventional Dendritic Cell Subsets on enhancing T-independent B cell Response**

Presenter: Ya-Ru Yu (Taiwan, Province of China)

### **P078 - The Effect of Probiotic Bifidobacterium lactis BI-04 on Host Antiviral Responses in vitro**

Presenter: Sanna M. Mäkelä (Finland)

### **P079 - INHIBITION OF STING SIGNALLING WITH FLAVONOID COMPOUNDS**

Presenter: Tomalika Ullah (Australia)

### **P080 - Blocking Neuropilin-1: forestalling B.1.617 pathogenesis?**

Presenter: Rahul Gupta (India)

### **P081 - Immune Modulation of HCMV Infected moDC by Birch Pollen Extract Treatment**

Presenter: Zeinab Fneish (Germany)

### **P082 - Proximity labelling to uncover novel factors in antiviral type I interferon signalling**

Presenter: Samira Schiefer (Switzerland)

### **P083 - Inhibition of early stage HCMV infection by designing small molecule inhibitors targeting the HCMV UL35-UL82 complex**

Presenter: Ramya Ramani (Germany)

### **LB-05 - Stimulator of Interferon Genes (STING) Activation in Dendritic Cells Induces Potent Type III Interferon Production and Subset- and Species-Specific Dendritic Cell Death**

Presenter: Ee Shan Pang (Australia)

### **LB-06 - What proteins produced by DNA viruses inhibit TAP to limit antigen presentation in adaptive immunity?**

Presenter: Deeya Kotecha (United Kingdom)

**LB-07 - Characterization of Human CMV Infection in Kidney Epithelial Cells Reveals Senescence-Mediated Mechanisms of Disease**

Presenter: Stefano Raviola (Italy)

**LB-08 - High Level Human Interferon Alpha-2b Production in Transgenic Tomatoes**

Presenter: Olha Yaroshko (Ukraine)

**iPoster 03. Systems approaches in cytokines control**

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

**P086 - Unravelling the InterferonScape: insight into STAT and IRF Regulated IFN Stimulated Genes, Pathways and Networks**

Presenter: Shamith Samarajiwa

**P087 - Abnormal cytokine levels in obese mice induce dysfunctional virus-specific immune responses**

Presenter: Elizabeth Geerling (United States)

**P090 - Next Generation Sequencing Methods Open New Insights into Disease Heterogeneity in Synovitis**

Presenter: Stuart Hughes (United Kingdom)

**P091 - Best iPoster - Higher-order chromatin architecture in control of cytokine production**

Presenter: Han-Yu Shih (United States)

**P092 - A knowledge-driven approach towards a deeper understanding of HBV vaccination non-responsiveness**

Presenter: Annett Ziegler (Germany)

**P093 - Smoking affects innate and adaptive induced cytokine responses with persistent effects on adaptive immunity**

Presenter: Darragh Duffy (France)

**P094 - Machine Learning and Statistical Methods for Classification of Risk and Gender specific Pattern Identification of Plasma Cytokines for Coronary Artery Disease.**

Presenter: Seema Singh Saharan (United States)

**LB-09 - From the cradle to the grave – mechanistic insights into TTP mediated mRNA decay**

Presenter: Annika Bestehorn (Austria)

**LB-10 - Exploring the role of IRF1 in the interferon response**

Presenter: Katrin Fischer (Austria)

**LB-11 - JAK/STAT signaling in Chromatin Modification**

Presenter: Aarathy Ravi Sundar Jose Geetha (Austria)

**iPoster 04. Cytokine release syndromes & interferonopathies**

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

**P095 - CALHM6: A novel synaptic protein important for the innate instruction of natural killer cell activation during infection**

Presenter: Sara Danielli

**P097 - Determining Long Noncoding RNA GAPLINC's role in inflammation and Modulating Endotoxic Shock**

Presenter: Diana Escalona (United States)

**P098 - The superantigens SpeC and TSST-1 specifically activate TRBV12-3/12-4+ memory T cells**

Presenter: James McLaren (United Kingdom)

**P099 - Deciphering a role for IL-6-trans-signalling in a syngeneic mouse model of cytokine release syndrome induced by CD19-CAR T cells.**

Presenter: Lise Nouveau (Switzerland)

**P100 - Hypoxia, expression and correlation of HIF- $\alpha$  and cytokine MIF and their probable role in mechanism of Cytokine Release Syndrome in virus infection (Covid19).**

Presenter: Paraskevi Rapti (Greece)

**P101 - Endothelial cells mediate the pathogenesis of cerebral interferonopathies**

Presenter: Barney Viengkhou (Australia)

**P102 - Widespread protein phosphorylation is a novel mechanism for type I interferons to mediate cellular responses**

Presenter: Markus Hofer (Australia)

**P103 - Partial recessive USP18 deficiency underlies infection and inflammation**

Presenter: Marta Martin-Fernandez (United States)

**P104 - Cancer cells produce interferon- $\beta$  for survival through the cGAS-STING pathway**

Presenter: Hyeon Joo Cheon (United States)

**LB-12 - IL-17 limits immunopathology and T cell exhaustion during chronic viral infection via stromal cell Cox-2 and IFN- $\gamma$**

Presenter: Saikat Majumder (United States)

**iPoster 05. Determinants of cell fate**

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

**P106 - Follicular helper T cells are critically regulated by ferroptosis**

Presenter: Di Yu (Australia)

**P107 - Temporal dissection of the T cell-intrinsic factors that maintain T follicular helper cell identity and germinal centers**

Presenter: Dirk Baumjohann (Germany)

**P108 - Lipid nanoparticles are key immunostimulatory components of messenger RNA vaccines eliciting potent germinal center responses via induction of IL-6**

Presenter: Emily Bettini (United States)

**P109 - Metabolic control of inflammatory cell death**

Presenter: Charles Evavold (United States)

### **P110 - The fate of Th17 cells in periodontitis**

Presenter: Flora McClure

### **P112 - Genetic programming M2-polarization locked repair macrophages**

Presenter: Shyam Sushama Jose

### **P113 - Priming is a Fundamental Mechanism of Inflammasome Regulation in Myeloid Cells**

Presenter: Chloe Mckee

### **LB-13 - Regulation of CD4+ T cell cytokine production by cilia-related protein**

Presenter: Jiung Jeong (Korea, Republic Of)

### **LB-14 - Linc01268 (ROCK1) restrains expression of transcription factor GATA2 in LPS activated human macrophages**

Presenter: Nils Schmerer (Germany)

### **LB-15 - TNF- $\alpha$ orchestrates the specific loss of tolerogenic dendritic cells during an induced maturation process in vivo**

Presenter: Jessica Bourque (United States)

### **LB-16 - Role of Von Hippel-Lindau protein in sustaining dendritic cell cytokine responses.**

Presenter: Irene Adán-Barrientos (Spain)

## **iPoster 06. Targeted cytokine therapies**

Room: Poster Area

*Monday, October 18, 2021 / 15:15 - 16:45*

### **LB-17 - CUE-401: A novel IL-2/TGF-beta fusion protein for the induction of CD4+ FOXP3+ regulatory T cells**

Presenter: Natasha Girgis (United States)

### **P114 - AXL inhibition enhances Type 1 interferon (IFN) response and potentiates chemo-immunotherapy**

Presenter: Sushil Dhakal (Norway)



**P116 - Best iPoster - FANCC in control of LPS induced septic shock and bone marrow failure**

Presenter: Beesetti Swarna Latha (United States)

**P117 - Antiviral Potential of the Antimicrobial Drug Atovaquone against SARS-CoV-2 and Emerging Variants of Concern**

Presenter: Madalina Carter-Timofte (Denmark)

**P118 - Distinct Interferon Signature and Novel Biomarkers of Secondary Progressive Multiple Sclerosis**

Presenter: Anthony Reder (United States)

**P119 - IRF5 Inhibition Potentially Alleviates Osteoarthritis (OA) Severity**

Presenter: Su Song (United States)

**P121 - Prolonged IFN signatures by Plegridy compared to Avonex in Multiple Sclerosis (MS)**

Presenter: Xuan Feng (United States)

**P122 - Reporter nanoplatform for real-time monitoring of inflammasome activity.**

Presenter: Dipika Nandi (United States)

**P123 - Assessment of Drug-induced Mast Cell Mediated Injection Site Reactions with an Immunocompetent Human Skin Model**

Presenter: Shiven Kapur (United States)

**iPoster 07. Cytokines in cellular metabolism and immune homeostasis**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P124 - Metformin inhibition of ATP-dependent mtDNA synthesis abrogates NLRP3 inflammasome activation and pulmonary inflammation**

Presenter: Elsa Sanchez Lopez (United States)

**P125 - Interferon-gamma (IFN  $\gamma$ ) Activates Robust Cell-Intrinsic Defense Against Lysosome-Adapted Pathogens: Lessons from *Coxiella burnetii***

Presenter: Sandhya Ganesan (United States)

**P126 - Citraconate inhibits ACOD1 (IRG1) catalysis, reduces interferon responses and oxidative stress, and modulates inflammation and cell metabolism**

Presenter: Fangfang Chen (Germany)

**P128 - Regulation of Type I Interferon Responses in Human Phagocytes by the Long Non-coding RNA LUCAT1**

Presenter: Tim Vierbuchen (United States)

**P129 - 14-3-3zeta- A Novel Regulator of IL-17A Signaling**

Presenter: Ritu Chakravarti (United States)

**P131 - Engineering Synthetic Interferon Receptors to Understand How Type I and III Interferon Signaling Differences are Encoded**

Presenter: Emily Mesev (United States)

**P132 - An IFNbeta-specific tolerogenic signal controls lung mucosal tolerance**

Presenter: Lei Jin (United States)

**P133 - TBK1 and IKKe Act Like an OFF Switch to Limit NLRP3 Inflammasome Pathway Activation**

Presenter: Fabian Fischer

**P134 - TCF-4 negatively regulates IL-17C in human keratinocytes and in a mouse model of psoriasis.**

Presenter: Nicole Ward (United States)

**P137 - Regulation of IL-36 receptor driven skin inflammation in psoriasis**

Presenter: Yasmina Hernandez-Santana (Ireland)

**P138 - TNF-a induces glycolytic shift in Fibroblast like Synoviocytes**

Presenter: Nadine Biesemann (Germany)

**P139 - Heparan sulfate modulates the signal strength of IL-21 to regulate germinal centre selection**

Presenter: Zhian Chen (Australia)

**P140 - Interleukin-32: Towards the structural and molecular characterization of a multifunctional cytokine.**

Presenter: Delaney Smith (Belgium)

**P141 - Unphosphorylated STAT1 impacts cellular compartmentalization of phospho-STAT1 upon cytokine stimulation**

Presenter: Priyanka Rajeev Menon (Germany)

**P142 - Crucial role of IL-6 in thrombus resolution in DVT model mouse via induction of proteolytic enzymes**

Presenter: Mizuho Nosaka (Japan)

**P143 - The role of cytokines in thermogenic adaptation**

Presenter: Daniel Vašek (Czech Republic)

**P144 - Interleukin-2 Signaling Is Controlled By Adam10- And Adam17-Mediated Cleavage Of The Interleukin-2 Receptor Alpha**

Presenter: Sophia Kirschke (Germany)

**P145 - Impaired IL-6 production upon LPS stimulation in Fatty Acid Oxidation Disorders**

Presenter: Krishna Twayana (Denmark)

**P147 - Salt generates anti-inflammatory Th17 cells but amplifies their pathogenicity in pro-inflammatory cytokine microenvironments**

Presenter: Julia Matthias (Germany)

**P148 - Deficiency of IL-38 leads to impairment of regulatory T cell homeostasis**

Presenter: Arnaud Huard (Switzerland)

**P149 - Proteolytic Generation of the Soluble Interleukin-6 Receptor by Rhomboid Proteases**

Presenter: Tim Schumertl (Germany)

**P151 - Poly(dA:dT) activates the NLRP1 inflammasome in unprimed human keratinocytes**

Presenter: Jeffrey Zhou (United States)

**P154 - Evolution of IL-17 family of cytokines and receptors: possible role in development of eutherian pregnancy**

Presenter: Federica Giangrazi (Ireland)

**P155 - Best iPoster - Systematic Investigation of Cytokine Signaling Activity at the Tissue and Single-Cell Level**

Presenter: Peng Jiang (United States)

**LB-19 - Competition for oxygen metabolism regulates  $\gamma$   $\delta$  T cell activity against high grade brain tumor**

Presenter: Jang Hyun Park (Korea, Republic Of)

**LB-20 - STAT3 reduces the Expression of the mTOR Inhibitor REDD1 in a non-canonical fashion**

Presenter: Nadine Köhler (Germany)

**iPoster 08. Designer cytokines and cytokine immunotherapy**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P156 - Cellular and Molecular Determinants of Cancer Immune Equilibrium Induced by IL-12 Virotherapy**

Presenter: Michael Walsh (United States)

**P157 - The parasite cytokine mimic Hp-TGM fully replicates the regulatory effects of TGF- $\beta$  on murine T cells**

Presenter: Madeleine White

**P158 - Multivalency enhances the specificity of Fc-cytokine fusions**

Presenter: Aaron Meyer (United States)

**P159 - Elevated IFN- $\gamma$  in Vitiligo Patient Skin Blisters: Potential Utility of Targeting IFN- $\gamma$  for Therapy**

Presenter: Chau Yee Ng (Taiwan, Province of China)

**P160 - Low-dose IL-2 ameliorates osteoporosis by promoting ILC2-mediated inhibition of osteoclastogenesis**

Presenter: Pengcheng Zhou (Australia)

**P161 - A Single Aromatic Residue in sgp130Fc Allows the Discrimination between Interleukin-6 (IL-6) and IL-11 trans-signaling**

Presenter: Christoph Garbers (Germany)

**P162 - Spatiotemporal Dynamics of Class I/II Cytokine Receptors Assembly and Signaling**

Presenter: Junel Sotolongo Bellon (Germany)

**P164 - Why bat itch: structural elucidation of bat Interleukin-31**

Presenter: Yehudi Bloch (Belgium)

**P165 - Prevention of CaCl<sub>2</sub>-induced aortic inflammation and subsequent aneurysm formation by CCL3**

Presenter: Yuko Ishida (Japan)

**P167 - Targeting CXCR3 chemokines as a novel therapeutic strategy to suppress pancreatic tumor progression through subset T cells**

Presenter: Xiaobao Yang (China)

**P168 - Selectivity and stability engineering of IL2 muteins for induction of selective Treg responses**

Presenter: Gamze Camdere (United States)

**P169 - Family of helminth-derived TGF- $\beta$  mimics provide key insights to Treg and innate immune cell activation.**

Presenter: Kyle Cunningham

**P170 - Best iPoster - Engineering Geographically Precise Activation of Cytokines To Achieve Improved Therapeutic Benefit in Oncology and Beyond**

**P171 - Best iPoster - Antibodies engineered to bias delivery of IL-2 to pro-inflammatory cells and promote anti-tumor activity**

Presenter: Elissa Leonard (United States)

**LB-21 - Reproducible, MoA-reflecting Reporter-based Bioassays to Enable Discovery and Development of Cytokine Therapeutics**

Presenter: Jeff Nelson (United States)

**iPoster 09. Understanding complexities of immune mediated diseases**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P172 - Loss of IL-17A/F-mediated control of gut microbiota confers resistance to CNS autoimmunity**

Presenter: Tommy Regen (Germany)

**P173 - IRF5 plays an important role in the generation of antibody secreting cells in a cell type- and stimuli-dependent manner.**

Presenter: Bharati Matta (United States)

**P174 - Virus-induced IFN signaling activation and ISG expression in pancreatic beta cells is regulated by a lncRNA associated with type 1 diabetes.**

Presenter: Izortze Santin (Spain)

**P175 - Inflammatory IL-17A-secreting  $\gamma\delta$  T cell are pathogenic in central nervous system autoimmunity by resisting the regulatory mechanisms that control Th17 cells**

Presenter: Charlotte Leane (Ireland)

**P176 - Type I Interferon signaling complex is required for Oncostatin-M driven inflammatory responses**

Presenter: Carl Richards (Canada)

**P177 - Gasdermin D blockers: managing Coagulation and Sepsis**

Presenter: Rahul Gupta (India)

**P178 - IL-4/IL-13 blockade is associated with psoriatic disease- evidence from the clinic and in vitro**

Presenter: Charlie Bridgewood

**P179 - Renal autoimmune glomerulonephritis (AGN) is driven by interconnected post-transcriptional circuits activated by IL-17-induced signal transduction**

Presenter: Sarah Gaffen (United States)

**P180 - Antigen presenting group 3 innate lymphoid cells orchestrate neuroinflammation**

Presenter: John Benji Grigg (United States)

**P181 - Anakinra: for treating DOCK8<sup>-/-</sup>, WAS and allergic patients**

Presenter: Rahul Gupta (India)

**P182 - Protection against severe lower respiratory infections in infants by Innate Immune Training: mechanism-of-action studies**

Presenter: Niamh Troy (Australia)

**P183 - IL-1 $\beta$  mediates Th17 steroid resistance in inflammatory CNS demyelinating disease**

Presenter: William Miller-Little (United States)

**P184 - Maternal Immune Activation and Schizophrenia-like Behavior: Role of Toll-Like Receptor and Inflammasome Pathways**

Presenter: Pinku Talukdar (India)

**P185 - Determining HnRNP-A2/B1's role in inflammation and Rheumatoid Arthritis pathology**

Presenter: Mays Mohammed Salih (United States)

**P186 - Anti-Interleukin-23 Autoantibodies: The Magician's Twin**

Presenter: Aristine Cheng (United States)

**P187 - Type I Interferon Potentiates Seeded Aggregation of Tau**

Presenter: Sophie Sanford

**P188 - Cytokine storm susceptibility factors IL-18 and cytotoxic impairment converge on pathologic CD8 T-cell hyperactivation**

Presenter: Emily Landy (United States)

**P189 - Plectin activation: the cue to NINJI mediated plasma membrane rupture?**

Presenter: Rahul Gupta (India)

**P190 - Interleukin-20 Exacerbates Acute Hepatitis And Bacterial Infection By Downregulating I $\kappa$ b $\zeta$  Target Genes In Hepatocytes**

Presenter: Yong He (United States)

**P191 - Mechanisms of late Germinal Center Formation and Th1/Tfh hybrid (Ifng+Il21+) T Cell function in Plasmodium chabaudi Infection**

Presenter: Lucinda Puebla (United States)

**P192 - Regulation of cytokine release by myeloid cell autophagy in chronic and acute models of inflammation**

Presenter: James Harris (Australia)

**P193 - Inflammatory Cytokines and Neurocognitive Function in Bipolar Patients across Mood Episodes**

Presenter: Sandra Ralat (Puerto Rico)

**P194 - Interleukin-11 is a Novel Player in Osteoarthritis**

Presenter: Juliane Lokau (Germany)

**P195 - Vascularized 'Synovium-on-a-Chip' - a Novel and Adaptable Model for Dissecting Inflammatory Biology Underlying Rheumatoid Arthritis**

Presenter: Theresa Wampler Muskardin (United States)

**P196 - Blocking common gamma chain cytokine signaling ameliorates T cell-mediated disease**

Presenter: Audrey Le Floch-Ramondou (United States)

**P197 - Characterizing COVID-19, Castleman's Disease and Rheumatoid Arthritis Based on Patients' Serum Cytokine and Chemokine Patterns**



## **Before and After Tocilizumab Treatment Using Partial Least Squares Regression 2 Analysis**

Presenter: Kazuko Uno (Japan)

## **P198 - Detection of CLCF1 in immune cells by flow cytometry**

Presenter: Veronique Laplante (Canada)

## **P199 - Non-coding RNA variants in the development of inflammation**

Presenter: Ainara Castellanos-Rubio (Spain)

## **P200 - Blocking NETosis and restoring Treg function: a better life with lupus?**

Presenter: Rahul Gupta (India)

## **P201 - TREML4: a druggable target for Sepsis and Lupus**

Presenter: Rahul Gupta (India)

## **P203 - Best iPoster - Synergy Between TSLP and IL-13 Enhances Type 2 Inflammation**

Presenter: Sarah Martinez Roth (United States)

## **P203b - Rewiring cytokine responses to limit endogenously mediated inflammation**

Presenter: Anna Marzeda

## **LB-22 - The serine/threonine kinase PknF of Mycobacterium tuberculosis suppresses NLRP3 inflammasome mediated processing of IL-1 $\beta$ and pyroptosis in infected dendritic cells.**

Presenter: Shivangi Rastogi (United States)

## **LB-23 - Arid5a mediates IL-17 signaling and disease pathogenesis in autoimmune glomerulonephritis**

Presenter: Yang Li (United States)

## **iPoster 10. Determinants of disease heterogeneity**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P204 - Analysis Of Mutations Within The Interleukin-11 Receptor Associated With Craniosynostosis**

Presenter: Birte Kespohl (Germany)

**P205 - Off-target effects of BCG vaccination on cytokine responses to unrelated pathogens.**

Presenter: Nicole Messina (Australia)

**P206 - Interleukin-6 Trans-Signaling Is Associated In Neurological Involvement During Behçet's Disease**

Presenter: Houda Belguendouz (Algeria)

**P208 - Inhibition of Calmodulin-dependent immune signalling by Shigella sonnei**

Presenter: Joe Wanford (United Kingdom)

**P209 - Cytokine profiles in patients with liver diseases: effects of disease stage and the PNPLA3I148M variant allele on circulating cytokines in NAFLD and HCC patients**

Presenter: Mélanie Kirchmeyer (Luxembourg)

**P211 - Best iPoster - Hepatic Necroinflammation Identifies Murine Interleukin-22 as Sex-related Cytokine**

Presenter: Hendrik Stülb (Germany)

**LB-24 - Interleukin 6 modulates coagulation in murine rheumatoid arthritis**

Presenter: Daniela Costa (United Kingdom)

**iPoster 11. Cancer and immunology, happy neighbours?**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P212 - STAT2 inhibits STING-dependent signaling and hinders the DNA-damage response in lung cancer cells**

Presenter: Yuxin Wang (United States)

**P213 - The role of tumor-derived and microenvironment IL-1 alpha in breast cancer progression**

Presenter: Mathumathi Krishnamohan (Israel)

**P214 - Mutagenicity of an in vitro chemotherapy-induced cytokine storm**

Presenter: Harshini Asurappulige

**P215 - The IL-7 pathway and its partners in T-ALL**

Presenter: Scott Durum (United States)

**P216 - A Unique Signaling Feedback Circuit Defines Interferon Responses in Myeloproliferative Neoplasms**

Presenter: Diana Saleiro (United States)

**P217 - An investigation into the anti-parallel dimer of STAT3 and its role in cytokine signal transduction**

Presenter: Priyanka Rajeev Menon (Germany)

**P219 - Steady IFN  $\alpha$  therapy prevents the development of colorectal cancer liver metastases through the activation of liver sinusoidal endothelial cells**

Presenter: Lorena Ferreira (Italy)

**P220 - Dual Targeting of Multiple Myeloma and its Malignant Niche via Selective Antisense Oligonucleotide Inhibition of Interferon Regulatory Factor-4**

Presenter: Leslie Crews (United States)

**P221 - Overcoming resistance to IFN  $\alpha$  therapy in the liver: IFNAR1 stabilization in the hepatic metastases microenvironment**

Presenter: Andrea Monestiroli (Italy)

**P222 - The Innate Immune Response during Initiation of Mesothelioma-like Inflammation in the Pleural Space**

Presenter: Nadia Iqbal

**P223 - Understanding OSM in estrogen receptor-positive (ER+) versus ER- breast cancer**

Presenter: Cheryl Jorcyk (United States)

**P224 - Anti-CD123 Chimeric Antigen Receptor Natural Killer Cell Therapy to Treat Acute Myeloid Leukemia**

Presenter: Monika Kizerwetter (United States)

**P225 - EGFR signaling induces autocrine IL-6 trans-signaling via iRhom2-enhanced ADAM17 activity**

Presenter: Neele Schumacher (Germany)

**P226 - Interleukin-8 and Interferon-gamma predict early response to azacytidine in patients with high-risk myelodysplastic syndrome**

Presenter: Tomas Kupsa (Czech Republic)

**P229 - Serum Levels of Soluble Cytokine Receptors in Adult Acute Lymphoblastic Leukemia and Their Association with Prognostic Factors and Survival**

Presenter: Tomas Kupsa (Czech Republic)

**LB-25 - Improving ex vivo expansion of anti-tumour gamma delta T cells using distinct cytokine cocktails to tackle metastatic triple-negative breast cancer immunotherapy**

Presenter: Robert Wiesheu (United Kingdom)

**LB-26 - Blood Monocyte-Driven CD169+ Macrophages Contribute to the Antitumor Immunity Against Glioblastoma Multiforme**

Presenter: Hyun-Jin Kim (Korea, Republic Of)

**iPoster 12. Cytokine involvement in COVID-19**

Room: Poster Area

*Tuesday, October 19, 2021 / 10:00 – 11:45*

**P231 - Temporal Dynamics of Anti-Type 1 Interferon Autoantibodies in Acute COVID-19 Patients**

Presenter: Elana Shaw (United States)

**P233 - Differential Activation of the Inflammasome by Circulating Variants of SARS-CoV-2**

Presenter: Kimberly Rousseau (United States)

**P234 - Differential plasmacytoid dendritic cell phenotype and type I Interferon response: towards a more nuanced understanding of asymptomatic and severe COVID-19 infection**

Presenter: Eliana Coccia (Italy)

**P235 - SARS-CoV2 is efficiently recognized by pattern recognition receptors in IFN primed epithelial cells**

Presenter: Vladimir Magalhaes (Germany)

**P236 - Effects of Pegylated Interferon-lambda treatment on SARS-CoV-2-specific adaptive immune responses in mild COVID-19**

Presenter: Deanna Santer (Canada)

**P237 - NRF2 and resistance to SARS-CoV2 infection**

Presenter: Christian Holm (Denmark)

**P238 - Sensing of SARS-CoV-2 infected cells by plasmacytoid dendritic cells promotes a local antiviral response**

Presenter: Margarida Ribeiro (France)

**P239 - SARS-CoV2-related changes of circulating cytokines in Luxemburgish patients of the Predi-COVID cohort**

Presenter: Mélanie Kirchmeyer (Luxembourg)

**P240 - Differential interferon- $\alpha$  subtype immune signatures suppress SARS-CoV-2 infection**

Presenter: Stephanie Pfänder (Germany)

**P241 - Defects in interferon signaling cause increased and prolonged SARS-CoV-2 replication in adult and enhanced disease progression in aged mice**

Presenter: Daniel Schnepf (Germany)

**LB-29 - Genetic regulation of OAS1 nonsense-mediated decay underlies association with risk of severe COVID-19**

Presenter: Abdul Rouf Banday (United States)