



The Resolution of Inflammation in Health and Disease

March 24–28, 2018 | Royal Dublin Society | Dublin | Ireland

Scientific Organizers:

Catherine Godson, University College Dublin, Ireland

Ira Tabas, Columbia University, USA

Mauro Perretti, Queen Mary University of London, UK

Inflammation and its resolution are critical to effective host defense and tissue homeostasis. There is a steady increase in the recognition that the effective resolution of inflammation is dynamically regulated through cellular responses to endogenously generated mediators. Ineffective resolution of inflammatory responses likely contributes to the pathogenesis of numerous prevalent conditions including atherosclerosis, arthritis and diabetes. Unresolved chronic inflammation may lead to fibrosis and eventual organ failure. Whereas anti-inflammatory therapeutic approaches are conventional, a growing consensus based on experimental data suggests that an alternative approach may be to mimic agonism of resolution. The aim of this meeting is to enhance our understanding of the molecular mechanisms which underpin the effective resolution of inflammation and how these may fail in aging and disease. Specifically, it seeks to: 1) Encourage dialog between those working in areas where the potential of mimicry of resolution of inflammation might play an under-appreciated role; 2) Consolidate data from diverse mediators that promote resolution; and 3) Contribute to the education and training of graduate students, fellows and faculty. These discussions will provide a multi-disciplinary community with insight into physiologic processes underpinning resolution, and potential mimicry of such processes for therapeutic gain in pathological conditions.

Session Topics:

- Fundamentals of Inflammation Biology – Cells, Mediators and Mechanisms in the Resolution of Inflammation I & II
- Workshop 1: Resolvomics: Potential and Pitfalls
- Diseases of Dysregulated Resolution and Repair
- Workshop 2: Experimental Models of Resolution
- Diabesity and the Resolution of Inflammation
- Regulation of Defense, Resolution and Repair
- Infection
- Resolution and Repair or Fibrosis?
- Workshop 3: Nano Technologies and Targeting Receptors to Resolve Inflammation
- Therapeutic Innovation in Resolution

Scholarship Application & Discounted Abstract Deadline: November 29, 2017

Abstract Deadline: December 21, 2017

Discounted Registration Deadline: January 18, 2018



Note: Scholarships are for graduate students and postdoctoral fellows and are awarded based on the abstract submitted. Submitting an abstract is an excellent opportunity to gain exposure for your work. Abstracts submitted by the abstract deadline will also be considered for short talks on the program. Travel Awards are for researchers in Asia.
Upper image of inflammation in cells courtesy of National Institutes of Health image gallery

Meeting Hashtag: #KSinflam
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on Molecular and Cellular Biology

The Resolution of Inflammation in Health and Disease (C6)

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SATURDAY, MARCH 24

Arrival and Registration

SUNDAY, MARCH 25

Welcome and Keynote Address

Charles N. Serhan, Brigham and Women's Hospital, USA
Pro-Resolving Lipid Mediators & Mechanisms in the Resolution of Inflammation

Fundamentals of Inflammation Biology – Cells, Mediators and Mechanisms in the Resolution of Inflammation I

Derek W. Gilroy, University College London, UK
Bridging the Gap between Adaptive and Innate Immune Responses to Resolve Inflammation

Daniele Piomelli, University of California, Irvine, USA
NAAA-Regulated Lipid Amide Signaling and the Control of (Neuro)Inflammation

Sarah R. Walmsley, University of Edinburgh, Queen's Medical Research Institute, UK
Differential regulation of leukocyte function by the HIF/hydroxylase pathway

Short Talk(s) Chosen from Abstracts

Poster Session 1

Workshop 1: Resolvomics: Potential and Pitfalls

Short Talks Chosen from Abstracts

Fundamentals of Inflammation Biology – Cells, Mediators and Mechanisms in the Resolution of Inflammation II

Alberto Mantovani, Humanitas University, Italy
Macrophage Plasticity and Polarization

Marc Peters-Golden, University of Michigan, USA
Vesicular SOCS as a Vector of Macrophage to Epithelial Cell Crosstalk at the Respiratory Surface

Carla V. Rothlin, Yale University, USA
TAM Receptor Signaling in Resolution of Inflammation

Short Talk Chosen from Abstracts

MONDAY, MARCH 26

Keynote Address

Christopher K. Glass, University of California, San Diego, USA
Nature and Nurture of Tissue Resident Macrophages

Diseases of Dysregulated Resolution and Repair

Lina Hsiu Kim Lim, National University of Singapore, Singapore
Annexins in Metastatic Breast Cancer: Regulation of Inflammation and Tumorigenesis

Bruce Cronstein, New York University, Langone Medical Center, USA
What Goes Around Comes Around: Adenosine, a Retaliatory Metabolite Dampens Inflammation and Promotes Wound Healing

Gabrielle Fredman, Albany Medical Center, USA
Dysregulation of Resolution Pathways in Chronic Inflammatory Disease
Short Talk(s) Chosen from Abstracts

Workshop 2: Experimental Models of Resolution

Short Talks Chosen from Abstracts

Diabetes and the Resolution of Inflammation

Gökhan S. Hotamisligil, Harvard University, USA
Metaflammation, Organelle Function and Metabolic Homeostasis

Yun Sok Lee, University of California, San Diego, USA
Tissue Hypoxia in Metaflammation and Type 2 Diabetes

Catherine Godson, University College Dublin, Ireland
Lipoxins and Lipoxin Analogues: Resolving Inflammation, Suppressing Fibrosis in Diabetic Complications

Short Talk Chosen from Abstracts

Poster Session 2

TUESDAY, MARCH 27

Keynote Address

Lalita Ramakrishnan, University of Cambridge, UK
Host Genotype Dictates Inflammation, Resolution and Repair

Regulation of Defense, Resolution and Repair

Ira Tabas, Columbia University, USA
The Interplay Between Efferocytosis and Inflammation Resolution

Muredach P. Reilly, Columbia University, USA
Genomic Discoveries in Metaflammation

Maksim Plikus, University of California, Irvine, USA
Reactivating Embryonic-Like Regeneration Programs in Adult Skin Wounds

Short Talk(s) Chosen from Abstracts

Workshop 3: Nano Technologies and Targeting Receptors to Resolve Inflammation

Short Talks Chosen from Abstracts

Infection

Bruce D. Levy, Brigham and Women's Hospital, USA
Specialized Pro-Resolving Mediators: Endogenous Regulators of Infection

Asma Nusrat, University of Michigan, USA
Intestinal Mucosal Barrier Repair is Orchestrated by Pro-Repair Mediators Released by Epithelial and Immune Cells at Sites of Injury

Mauro Martins Teixeira, Universidade Federal de Minas Gerais, Brazil
The Impact of Resolution Pathways in Acute and Chronic Infections

Short Talk Chosen from Abstracts

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Poster Session 3

WEDNESDAY, MARCH 28

Resolution and Repair or Fibrosis?

Nathalie Vergnolle, INSERM UMR-1043, France

Proteinase Activated Receptors in Inflammatory Networks

Robert F. Schwabe, Columbia University, USA

The Fibrotic Response to Inflammation and Cell Death in Liver Disease

Jörg H.W. Distler, University of Erlangen-Nuremberg, Germany

Targeting Persistent Fibroblast Activation in Fibrotic Diseases

Shelia M. Violette, Admix Inc., USA

The α v β 6 Integrin as a Therapeutic Target in Acute and Chronic Tissue Injury

Xuetao Cao, Chinese Academy of Medical Sciences, China

Talk Title to be Announced

Therapeutic Innovation in Resolution

Mauro Perretti, Queen Mary University of London, UK

From Resolution of Inflammation to Resolution Pharmacology: Therapeutic Innovation in Inflammation

Arthur Christopoulos, Monash University, Australia

Harnessing GPCR Allosterism and Bias For New Targeting

Makoto Arita, Keio University, Japan

Genetics and Lipidomics of Omega-3 Polyunsaturated Fatty Acid Biology

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

THURSDAY, MARCH 29

Departure