DAMPs Across the Tree of Life Inducing Innate Immunity (EK38)

May 24-26, 2021 • Virtual at your computer

Scientific Organizers: Seung-Yong Seong, Zhijian Chen, Walter G. Land and Polly Matzinger

Supported by the Directors’ Fund

MONDAY, MAY 24

Welcoming Remarks and Keynote Address (6am Denver/Mountain Time Start)

*Seung-Yong Seong, Seoul National University, South Korea
Polly Matzinger, NIAID, National Institutes of Health, USA

The Evolution of the Danger Model in Immunology

DAMPs and Inflammation (6:40am Denver/Mountain Time Start)

*Seung-Yong Seong, Seoul National University, South Korea
*Douglas R. Green, St. Jude Children's Research Hospital, USA

Regulated Necroptosis in Inflammation

Liliana Schaefer, Goethe University, Germany

DAMPs Derived from the Extracellular Matrix Provide Control of Innate Immunity

Qiankun Wang, Washington University in St. Louis, USA
Short Talk: CARD8 is an Inflammasome Sensor for HIV-1 Protease Activity

DAMPs and Inflammasome (7:30am Denver/Mountain Time Start)

*Douglas R. Green, St. Jude Children's Research Hospital, USA
*Seung-Yong Seong, Seoul National University, South Korea

GPCR19, a Gate Keeper for Inflammasomal Activation by DAMPs

Hao Wu, University of Bonn, Germany

Inflammasome Activation Mechanisms

Hao Wu, Harvard Medical School, Boston Children's Hospital, USA
Structural Studies of TLR and Inflammasome Signaling

Alejandro Rodriguez Gama, Stowers Institute for Medical Research, USA
Short Talk: Signalosome Nucleation Enables Binary Innate Immune Proinflammatory Responses

DAMPs and TLRs (8:45am Denver/Mountain Time Start)

*Seung-Yong Seong, Seoul National University, South Korea
*Douglas R. Green, St. Jude Children's Research Hospital, USA

Julie Magarian Blander, Stowers Institute for Medical Research, USA

Sensing Microbial Viability

Jonathan C. Kagan, Boston Children's Hospital, USA
Cell Biology of TLRs

Career Roundtable (11am Denver/Mountain Time Start)

TUESDAY, MAY 25

DAMPs and Pandemic (6am Denver/Mountain Time Start)

*Polly Matzinger, NIAID, National Institutes of Health, USA

Katalin Karikó, BioNTech RNA Pharmaceuticals, Germany

Immune Activation by RNA

*Zhijian "James" Chen, University of Texas Southwestern Medical Center, USA

RNA Sensing through RIG-I (7:15am Denver/Mountain Time Start)

*Rolf L. Skare, University of Bonn, Germany

Andreas Linkermann, Technical University Dresden, Germany

Targeting Necrosis and Necroinflammation for Transplantation

Betty Diamond, Feinstein Institute for Medical Research, USA

HMGBl and C1q: Two Evolutionarily Conserved Molecules Regulating Innate and Adaptive Immunity

Frank Wagener, Radboud University Medical Center, Netherlands

Distal Protective Effects of Danger Signals

Andrew Niles, Promega Corporation, USA
Short Talk: Improved DAMP Assays for Accelerating Immuno-Oncology Drug Discovery

Sara R. Cherry, University of Pennsylvania, USA

STING Activation Blocks SARS-CoV-2 Infection

Kate Schroder, University of Queensland, Australia

Microbe Sensing by Inflammasome

DNA Sensing through cGAS and AIM2 (8:05am Denver/Mountain Time Start)

*Polly Matzinger, NIAID, National Institutes of Health, USA
*Zhijian "James" Chen, University of Texas Southwestern Medical Center, USA

Cytosolic DNA Sensing through cGAS

Andrea Abblasser, Ecole Polytechnique Fédérale de Lausanne, Switzerland

Regulation of the cGAS-STING Pathway

Laurent Boyer, Inserm, Université Côte d’Azur, France
Short Talk: From NLRP3 Sensing of RhoGTPase-Activating Toxins during Bacteremia to the Analysis of the NLRP3 Inflammasome Signature during COVID-19

Meet the Editors (11:30am Denver/Mountain Time Start)

WEDNESDAY, MAY 26

DAMPs and Human Diseases (6am Denver/Mountain Time Start)

*Christoph J. Binder, Medical University of Vienna, Austria

DAMPs in Atherosclerosis and Ageing - The Role of Oxidation-Specific Epitopes

*Michael T. Heneka, German Center for Neurodegenerative Diseases, Germany

Innate Immune Activation in Alzheimer’s Disease

Andreas Linkermann, Technical University Dresden, Germany

Targeting Necrosis and Necroinflammation for Transplantation

Betty Diamond, Feinstein Institute for Medical Research, USA

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Short Talk: Improved DAMP Assays for Accelerating Immuno-Oncology Drug Discovery

* Session Chair † Invited but not yet accepted    Program current as of May 9, 2021.

For the most up-to-date details, visit https://www.keystonesymposia.org.
Emilie Venereau, San Raffaele Scientific Institute, Italy
*Short Talk: Rebalancing Expression of HMGB1 Redox Isoforms to Counteract Muscular Dystrophy*

**DAMPs Across the Tree of Life (8am Denver/Mountain Time Start)**

*Michael T. Heneka*, German Center for Neurodegenerative Diseases, Germany

**Giulia De Lorenzo**, University of Rome, Sapienza, Italy
*Plant Cell Wall-Derived DAMPs in Immunity, Development and Tissue Repair*

*Christoph J. Binder*, Medical University of Vienna, Austria

**Dennis H. Kim**, Boston Children's Hospital, USA
*Neuronal Responses of C. elegans to Infection and Damage*

**Felix Randow**, Medical Research Council, UK
*How Cells Ubiquitylate Cytosol-Invading Bacteria*

**Ulrich Theopold**, Stockholm University, Sweden
*Anti-Fibrotic Activity of an Antimicrobial Peptide in a Drosophila Model*

**Dana Crawford**, Albany Medical College, USA
*Short Talk: Oxidized and Native Mitochondrial Polynucleotides as Inflammatory Mediators*

**Closing Remarks (9:50am Denver/Mountain Time Start)**

*Polly Matzinger*, NIAID, National Institutes of Health, USA

*Session Chair † Invited but not yet accepted Program current as of May 9, 2021.*

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