

P R O G R A M
The IL-1 Family of Cytokines:
From Basic Biology to Clinical Applications
Sandpearl Resort, Clearwater Beach, Florida
May 8-11, 2011

This meeting is dedicated to the memory of Jürg Tschopp

Sunday, May 8, 2011

12:00 – 8:00 PM
3:00 – 5:45 pm

Registration
SESSION 1: Structure and Signaling
Chair: **Steve Dower**
University of Melbourne, Australia

Group Registration Desk
Hunter A & B

Fernando Bazan
NeuroScience, Osceola, Wisconsin, USA
“IL-1 Family Ligand/Receptor Complex Structures”

Nick Gay
Cambridge University, United Kingdom
“Assembly and Regulation of TIR/Death Domain Complexes in IL-1 and TLR Signalling”

Liwu Li
Virginia Tech, Blacksburg, Virginia USA
“Molecular Circuitry Underlying Low Grade Inflammation”

Hao Zhou
Cleveland Clinic, Ohio, USA
“The Novel Functional Relationship of Interleukin-1 Receptor-Associated Kinase Family Members in Toll-Like Receptor Signaling” (Selected Abstract, Paper 35)

Alberto Mantovani
Istituto Clinico Humanitas, Milan, Italy
“TIR8/SIGIRR: an IL-1R/TLR Family Member with Regulatory Functions in Inflammation and T Cell Polarization”, Paper S-1

Xiaoxia Li
Cleveland Clinic, Ohio, USA
“IL-1-Mediated mTOR Activation in Th17 Cell Expansion”

6:30 – 8:00 pm

OPENING SESSION
Opening Remarks
Program Chairs: **John Sims**, Amgen, Seattle, Washington, USA
and **Cem Gabay**, University of Geneva, Switzerland

Hunter A & B

Keynote Address: “A Clinical Perspective of Interleukin- 1 β as the Gatekeeper of Inflammation”, Paper S-2

Charles Dinarello
University of Colorado, Denver, USA

8:00 – 9:00 pm

WELCOME RECEPTION

Pool Lawn

Monday, May 9, 2011

9:00 – 10:45am	SESSION 2: Processing and Secretion Chair: William Arend University of Colorado, Denver, Colorado USA Eicke Latz University of Massachusetts Medical School, Worcester, USA Inflammasome Activation in Atherosclerosis Anna Rubartelli National Cancer Research Institute, Genoa, Italy <i>"The Interplay between the Redox Status and Inflammasome Activation Redox-Related Events in IL-1β Processing and Secretion"</i> , Paper S-3 Maripat Corr University of California, San Diego, USA <i>"Alternate Enzyme Processing of IL-1β in Murine Models of Arthritis"</i> , Paper S-4 Antonia Fettelschoss Zürich University Hospital, Switzerland <i>"Different Requirements of Inflammasome Activation for IL-1α Surface Expression and Secretion"</i> (Selected Abstract, Paper 9)	Hunter A & B
10:45 – 11:15 am	Coffee Break & Visit Exhibits	Harbor Ballroom
11:15 am – 1:00 pm	SESSION 3: Processing and Secretion Chair: Chair: William Arend University of Colorado, Denver, Colorado USA Hal Hoffman University of California, San Diego, USA <i>"Autoinflammatory Syndromes: Is It Really All About IL-1?"</i> , Paper S-5 Seamus Martin Trinity College, Dublin, Ireland <i>"Regulation of IL-1α and IL-33 Activity by Cell Death Related Proteases"</i> , Paper S -18 Kenneth Rock University of Massachusetts, Worcester, USA <i>"IL-1 and the Sterile Inflammatory Response"</i> , Paper S-7 James Harris Trinity College Dublin, Ireland <i>"Autophagy Suppresses IL-1β Secretion by Sequestering Pro-IL-1β in Macrophages and Dendritic Cells"</i> (Selected Abstract, paper 15)	Hunter A & B
1:00 – 2:30 pm	Lunch Break (on own)	
2:00 – 3:30 pm	SESSION 4: T and Other Immune Cells Chair: William Paul National Institutes of Health, NIH, Bethesda, Maryland USA William Paul <i>"IL-1 Acts Directly on T Cells to Enhance Immune Responses"</i> , Paper S-8	Hunter A & B

Monday, May 9, 2011 (Continued)

Chen Dong

MD Anderson, Houston, Texas, USA

"IL-1-Regulated Th17 Cell Differentiation and Function"

Kingston Mills

Trinity College, Dublin, Ireland

"The Role of Inflammasome Processed Cytokines in Driving Th17 Cells and IL-17-Producing $\gamma\delta$ T Cells in Infection and Autoimmunity", Paper S-6

3:30 – 4:00 pm

Coffee Break & Visit Exhibits

Harbor Ballroom

4:00 – 5:30 pm

SESSION 5: INNATE RESPONSES AND T CELLS

Hunter A & B

Chair: **Martin Nicklin**

Sheffield University, United Kingdom

Cem Gabay

University of Geneva, Switzerland

"The IL-36R Ligands are Master Regulators of T Cell Helper Responses" Paper S-9

Celine Lamacchia

University of Geneva, Switzerland

"Interleukin-1 Receptor Antagonist Produced by Hepatocytes Exerts a Protective Role during Concanavalin A-Induced Hepatitis" (Selected Abstract, Paper 19)

Andrew Johnston

University of Michigan, Ann Arbor, USA

"IL-1F6 is Overexpressed by the Keratinocytes of Inflamed Skin and Orchestrates Myeloid Cell Infiltration via Chemokine Induction" (Selected Abstract, Paper 18)

Katrin Mayer-Barber

NIH, Bethesda, Maryland, USA

"The Host Protective Cytokines IL-1 α and IL-1 β are Co-Expressed by Multifunctional Myeloid Cells During Mycobacterium Tuberculosis Infection and are Negatively Regulated by Interferons" (Selected Abstract, Paper 23)

Susannah Brydges

University of California at San Diego, La Jolla, USA

"The Role of Interleukin-18 in Mouse Models of the Cryopyrin-Associated Periodic Syndromes" (Selected Abstract, Paper 5)

6:00 – 7:30 pm

POSTER SESSION I, Papers 1-19

Tuesday, May 10, 2011

8:30 – 10:00 am

SESSION 6: Other IL-1 Family Cytokines

Hunter A & B

Chair: **Philip Auron**

Duquesne University, Pittsburgh, Pennsylvania, USA

Jean-Philippe Girard

CNRS - University of Toulouse, France

"The Chromatin-Associated-Cytokine IL-33 is a Novel Alarmin", Paper S-10

John Sims

Amgen, Seattle, Washington, USA

"IL-1 Family Members in Skin Diseases", Paper S-11

Tuesday, May 10, 2011 (Continued)

Charles Dinarello

University of Colorado, Denver, USA

"An Intracellular Role of Interleukin IL-37: A Fundamental Inhibitor of Innate Immunity", Paper S -12

10:00 – 10:30 am Coffee Break & Visit Exhibits **Harbor Ballroom**

10:30am – 12:30 pm **SESSION 7: IL-1 and Human Diseases** **Hunter A & B**

Chair: **Yoichiro Iwakura**

University of Tokyo, Japan

Wim van den Berg

Radboud University, Nijmegen, The Netherlands

"Role of IL-1 and Related Cytokines in RA and OA"

Virginia Pascual

Baylor Institute for Immunology Research, Dallas, Texas, USA

Systemic Onset JIA

Marc Donath

University Hospital of Basel, Switzerland

"Type 2 Diabetes as an Inflammatory Disease"

Naomi Schlesinger

UMDNJ/Robert Wood Johnson Medical School, New Brunswick, USA

"Gouty Arthritis", Paper S-13

12:30 – 2:00 pm Lunch Break (on own)

2:00 – 3:30 pm **SESSION 8: IL-1 and Cardiovascular Diseases** **Hunter A & B**

Chair: **Charles Dinarello**

University of Colorado, Denver, USA

David Crossman

Sheffield University, Sheffield, United Kingdom

IL-1 in Atherosclerosis

Antonio Abbate

Virginia Commonwealth University, Richmond, USA

"IL-1 in Acute Myocardial Infarction and Heart Failure"

Stuart Allan

University of Manchester, United Kingdom

"Interleukin-1 and Stroke: From Bench to Bedside", Paper S-14

3:30 – 4:00 pm Coffee Break & Visit Exhibits **Harbor Ballroom**

4:00 – 5:15 pm **SESSION 9: IL-1 and Human Diseases** **Hunter A & B**

Chair: **Charles Dinarello**

University of Colorado, Denver, USA

Dirk Smith

Amgen, Seattle, Washington, USA

"A Role for IL-33 in the Pathology of Asthma", Paper S-15

Tuesday, May 10, 2011 (Continued)

Raz Yirmiya

Hebrew University, Jerusalem, Israel

"The Role of IL-1 in Cognitive and Emotional Functioning "

Seth Masters

Trinity College, Dublin, Ireland

"Activation of the NLRP3 Inflammasome by Islet Amyloid Polypeptide Provides a Mechanism for Enhanced IL-1 β in Type 2 Diabetes" (Selected Abstract, Paper 22)

5:15 – 7:00 pm

POSTER SESSION II, Papers 20-36

Harbor Ballroom

7:30 – 10:00 PM

BANQUET

Pool Lawn

Wednesday, May 11, 2011

8:30 – 10:00 am

SESSION 10: The IL-1 Family and Cancer

Hunter A & B

Chair: **Joost Oppenheim**

National Institutes of Health, Bethesda, Maryland, USA

Ron Apte

Ben-Gurion University, Beer-Sheva, Israel

"Difference between Host-Derived IL-1 α and IL-1 β In Controlling Inflammation and Immunity", Paper S-16

John Lust

Mayo Clinic, Rochester, Minnesota, USA

"Blocking IL-1 β to Prevent Progression to Multiple Myeloma", Paper S-17

Michael Lotze

University of Pittsburgh Cancer Institute, Pennsylvania, USA

"Expression of IL-33 and Its Receptor In Murine Tumors: A Novel Damage Associated Molecular Pattern Molecule" (Selected Abstract, Paper 20)

10:00 am

Adjourn