



UNIVERSITÀ
DEGLI STUDI
DI MILANO



UNIVERSITÀ
DEGLI STUDI
DI PALERMO

Conference of translational medicine on pathogenesis and therapy of immune-mediated diseases

Innate immunity, inflammation
and human models of diseases.

Auto-inflammation/Autoimmunity, Cancer and Viral Infections

March 27th - 29th, 2017
Palermo, Italy



www.translationalimmunology.it

preliminary program

VENUE

Aula Magna della Scuola Politecnica University of Palermo,
Campus Viale delle Scienze - 90128 Palermo

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This meeting is supported by the joint Ph.D. program between UNIPA (University of Palermo) and HUNIMED (Humanitas University)



Comune di Palermo





Monday 27th, March 2017

OPENING DAY

11:00 **REGISTRATION & WELCOME LUNCH**

SABLLIESYMPOSIA

Sponsored by BD Biosciences

APPLICATION OF ADVANCED FLOW CYTOMETRY

Chairs: Enrico Lugli, *Humanitas Research Hospital, Milan, Italy*

Silvia Della Bella, *University of Milan and Humanitas Research Hospital, Italy*

Speakers:

12:00 Mario Roederer, *NIAIMS, NIH, Bethesda, MD, USA*

Leukocyte Trafficking in Primates: More Regulation Than Green, Yellow, Red

12:35 Ido Amit, *Immunology Department, Weizmann Institute of Science, Israel*

The power of ONE: Immunology in the age of single cell genomics

13:05 Edoardo Fiorillo, *Genetic and Biomedic Research Institute (IRGB), CNR, Monserrato, Italy*

Immune system dissection and its genetic regulation: impact on complex diseases

13:35 Robert Balderas, *Vice President, R&D at BD Biosciences, USA*

Integration of receptor proteome in Panel Design for HP flow

14:05 **DISCUSSION PANEL**

MN SABLLIESYMPOSIA

Sponsored by Thermo Fisher Scientific

DRIVING EXCELLENCE AND INNOVATION IN TAKING BIOMARKERS FROM BENCH TO BEDSIDE

Chair: Joanna Mikulak, *Humanitas Research Hospital, Milan, Italy*

14:50 *Speaker:* Mike Evans, *Business Development Manager*

RNA biomarkers: Choosing the right tool for the job

15:20 *Speaker:* Gauri Ganpule, *Associated Director Product Management - Oncology*

Next Generation Sequencing advances Immuno-Oncology translational research

15:50 **DISCUSSION PANEL**

16:10 **COFFEE BREAK**

16:30

MET THE EXPERT

Sponsored by Charles River

CRISPR/CAS9 FOR RODENT MODELS OF HUMAN DISEASES: THE GOOD, THE BAD AND THE UGLY

*Chair: Anna Villa, National Research Council IRGB Institute
and Humanitas Research Hospital, Milan, Italy*

*Speaker: Guillaume Pavlovic, Genetic Engineering and Model Validation Department,
Institut Clinique de la Souris, France*

18:00 OPENING CEREMONY AND WELCOME

Domenico Mavilio, University of Milan and Humanitas Research Hospital, Italy

Francesco Dieli, University of Palermo, Palermo, Italy

Fabrizio Micari, Magnifico Rettore University of Palermo, Italy

18:20 Opening Lecture

TOPIC: IL-1 FAMILY CYTOKINES IN THERAPY

Chair: Antonio Sica, Humanitas Research Hospital, Milan, Italy

Speaker: Charles Dinarello, University of Colorado School of Medicine, Colorado, USA

Blocking IL-1 Family Cytokines to Treat Disease

19:05 OPENING RECEPTION, POSTER SESSION - BUILDING 19

SICILIAN APERICENA



Tuesday 28th, March 2017

AUTO-INFLAMMATION AND AUTO-IMMUNITY

9:00 **Opening Lecture**

SOME LESSONS FROM AUTOINFLAMMATORY DISEASES

Chair: Alberto Martini, *G. Gaslini Institute, Genoa, Italy*

Speaker: Dan Kastner, *NHGRI, NIH, Bethesda, MD, USA*

Autoinflammatory Diseases: Modern-Day Shadows on an Ancient Wall

FIRST SESSION

FROM AUTO-INFLAMMATION TO AUTOIMMUNITY

Chairs: Richard Siegel, *NIAIMS, NIH, Bethesda, MD, USA*

Mariana Kaplan, *NIAIMS, NIH, Bethesda, MD, USA*

Speakers:

10:00 Richard Siegel, *NIAIMS, NIH, Bethesda, MD, USA*

**Auto-Inflammation to Autoimmunity:
Innate Immune Cell Influences on Autoimmune Disease**

10:20 Mariana Kaplan, *NIAIMS, NIH, Bethesda, MD, USA*

Neutrophil subsets and NETs in the pathogenesis of systemic rheumatic diseases

10:40 Alberto Martini, *G. Gaslini Institute, Genoa, Italy*

Some lessons from autoinflammatory diseases

11:00 Yenan Bryceson, *Karolinska Institutet, Karolinska University Hospital Huddinge Center for Hematology and Regenerative Medicine (HERM), Huddinge, Sweden*

SAMD9L: at the cross-roads of infection, inflammation, and cancer

11:20 **SHORT TALK**

Natalia Dmitrieva

**Studies of Mechanisms Involved in Autosomal Dominant Hyper-IgE Syndrome:
Case for Hypoxia Inducible Factor 1 α Stabilization as a Possible Therapy
Option for Impaired Ability to Support Angiogenesis**

11:30 **DISCUSSION PANEL**

11:40 - 12:10

COFFEE BREAK & POSTER VIEW

MET THE EXPERT

Sponsored by Novartis

12:10 **NEW PERSPECTIVE IN THE TREATMENT OF PERIODIC FEVERS AND OTHER AUTOINFLAMMATORY DISEASES**

Chair: Ivona Aksentijevich, National Human Research Genome Institute, Bethesda, USA

Speaker: Marco Gattorno, G. Gaslini Institute, Genoa, Italy

13:00 **LUNCH & POSTER VIEW - BUILDING 19**

MET THE EXPERT

Sponsored by Merck

13:50 **AMNIS IMAGING FLOW CYTOMETRY: AN INNOVATIVE AND POWERFUL TOOL FOR UNCONVENTIONAL FLOW CYTOMETRY ASSAYS**

Chair: Silvia Della Bella, University of Milan and Humanitas Research Hospital, Italy

Speaker: Carlo Raviolo, Merck, spA

SECOND SESSION

FROM AUTO-INFLAMMATION TO CARDIOVASCULAR DISEASES

Chairs: Manfred Boehm, Center for Molecular Medicine, NHLBI-NIH, Bethesda, USA

Fabio Malavasi, University of Torino Medical School, Italy

Speakers:

14:30 *Manfred Boehm, Center for Molecular Medicine, NHLBI-NIH, Bethesda, USA*

Vascular endothelium inflammation:

from genetic insights to therapeutic perspectives

14:50 *Ivona Aksentijevich, National Human Research Genome Institute, Bethesda, USA*

Vascular endothelium inflammation:

from genetic insights to therapeutic perspectives

15:10 *Min Ae Lee-Kirsch, University Carl Gustav Carus Technische Universität Dresden, Germany*

Nucleic acid-mediated autoinflammation and autoimmunity - type I interferonopathies

15:30 *Connie Weyand, Stanford University School of Medicine, Stanford, USA*

T-Cell Immunity in Large Vessel Vasculitis

15:50 **SHORT TALK**

Marinos Kallikourdis

T cell costimulation blockade blunts pressure overload-induced heart failure

16:00 **DISCUSSION PANEL**

16:10 - 16:40 **COFFEE BREAK & POSTER VIEW**

THIRD SESSION

AUTOINFLAMMATION TO PRIMARY IMMUNO DEFICIENCIES AT THE BORDERS WITH INFECTIONS

Chairs: Anna Villa, *National Research Council IRGB Institute and Humanitas Research Hospital, Milan, Italy*
Steven Holland, *NIAD, Bethesda, MD, USA*

Speakers:

16:40 Steven Holland, *NIAD, Bethesda, MD, USA*

Leukocyte Adhesion Deficiency Type 1: More than tissue neutropenia

17:00 Anna Villa, *National Research Council IRGB Institute and Humanitas Research Hospital, Milan, Italy*

Wiskott-Aldrich deficient platelets at the border of inflammation and autoimmunity

17:20 Ridha Barbouche, *Institut Pasteur de Tunis, Tunis*

PGM3 deficiency: from molecular basis to intervention approaches

17:40 **SHORT TALK**

Francesca Conti

**Epstein-Barr virus chronic infection in two patients with APDS syndrome:
a combined risk factor for developing lymphoproliferative disorders.**

17:50 **DISCUSSION PANEL**

FINAL SESSION

LENTIVIRUS TECHNOLOGY IN GENE THERAPY

18:00 **MEET THE EXPERT**

Sponsored by Miltenyi Biotec

Chair: Anna Villa, *National Research Council IRGB Institute and Humanitas Research Hospital, Milan, Italy*

Speaker: Boro Dropulic, *Lentigen Technology, Inc. a Miltenyi Biotec Company, Gaithersburg, USA*

**Generation of Lentiviral-vector modified CAR-T cells
targeted to Leukemia using an automated process**

18:20-19:20

Closing Lecture

Chair: Anna Villa, *National Research Council IRGB Institute and Humanitas Research Hospital, Milan, Italy*

Speaker: Luigi Naldini, *San Raffaele Institute and Telethon Institute, Milan, Italy*

Genetic engineering of hematopoiesis to treat inherited immunodeficiencies and cancer

20:00 **SOCIAL DINNER IN DOWNTOWN PALERMO**

@ Hotel Piazza Borsa, Via Cartari, 18, 90133 Palermo



Wednesday 29th, March 2017

CANCER AND VIRAL IMMUNITY

FIRST SESSION

INNATE IMMUNITY AND CANCER I

Chairs: Raffaella Bonecchi, *HUNIMED University and Humanitas Research Hospital, Milan, Italy*
Stefania Vetrano, *HUNIMED University and Humanitas Research Hospital, Milan, Italy*

Speakers:

9:00 Marco Cassatella, *University of Verona, Italy*

Role of slanDCs/CD16⁺slan⁺monocytes in human tumors

9:20 Gioacchino Natoli, *HUNIMED University and Humanitas Research Hospital, Milan, Italy*

Transcriptional control in inflammation

9:40 Michele de Palma, *École Polytechnique Fédérale de Lausanne (EPFL) Lausanne, Switzerland*

Reprogramming the tumor immune microenvironment

10:00 Carola Ries, *Roche Innovation Center Munich, Germany*

Targeting macrophages - Of mice and men

10:20 Massimiliano Mazzone, *University of Leuven, Leuven, Belgium*

Harnessing tumor inflammation: implications for cancer therapy and diagnosis

10:40 **SHORT TALK**

Maria Rosaria Galdiero

Neutrophil plasticity in thyroid cancer

10:50 **DISCUSSION PANEL**

11:00 - 11:30 **COFFEE BREAK**

MINI-SYMPOSIA

INNATE LYMPHOID CELLS AND TRANSLATIONAL MEDICINE

Sponsored by Stemcell – Voden

Chair: Massimo Locati, *University of Milan, Humanitas Research Hospital, Milan, Italy*

Speakers:

11:30 Francesco Annunziato, *University of Florence, Italy*

Phenotypical and functional characterization of human ILC2

11:45 Camilla Jandus, *University of Lausanne, Switzerland*

Innate lymphoid cells: new players in anti-tumor immunity?

12:00 Yanet Valdez, *StemCell Technologies Vancouver BC Canada*
Rapid Isolation of functional Innate Lymphoid Cells

12:20 **Lecture**

THE YIN YANG OF INNATE IMMUNITY AND CANCER

Chair: Massimo Locati, University of Milan and Humanitas Research Hospital, Italy

Speaker: Alberto Mantovani, HUNIMED University and Humanitas Research Hospital, Milan, Italy

13:20 **LUNCH & POSTER VIEW - BUILDING 19**

SECOND SESSION

INNATE IMMUNITY AND CANCER II

Chairs: Bruno Silva-Santos, University of Lisbona, Lisbona, Portugal
Francesco Dieli, University of Palermo, Palermo, Italy

Speakers:

14:20 Franco Locatelli, *University of Pavia, Pavia, Italy*

The role of innate immunity in T-cell depleted HLA-haploidentical hematopoietic cell transplantation in children with hematological malignancies

14:40 Bruno Silva-Santos, *University of Lisbona, Lisbona, Portugal*

Innate killers in cancer surveillance and immunotherapy

15:00 Dmitry Gabrilovich, *Wistar Institute, Philadelphia, PA, USA*

Therapeutic targeting of myeloid cells in cancer, more questions than answers

15:20 **SHORT TALK**

Elena Ciaglia

Nk cells in human brain tumor control: evidence of a distinct phenotypic and functional pattern in tumor vs non tumor infiltrated brain

15:30 **DISCUSSION PANEL**

15:40 - 16:10 **COFFEE BREAK & POSTER VIEW**

16:10 **IN TRANSITION: FROM CANCER TO INFECTION**

Chair: Domenico Mavilio, University of Milan and Humanitas Research Hospital, Italy

Speaker: Elisabeth Murchison, University of Cambridge, U.K.

THIRD SESSION

INNATE IMMUNITY AND VIRAL INFECTIONS

Chairs: Luis Montaner, *Wistar Institute, Philadelphia, PA, USA*

Domenico Mavilio, *University of Milan and Humanitas Research Hospital, Italy*

Speakers:

16:30 Luis Montaner, *Wistar Institute, Philadelphia, PA, USA*

BEAT-HIV Collaboratory: Clinical studies to harness innate and adaptive strategies towards an HIV cure

16:50 Frank Kirchhoff, *Ulm University Medical Center, Ulm, Germany*

Innate immune evasion or counteraction by pandemic HIV-1 Strains

17:10 David Weiner, *Wistar Institute, Philadelphia, PA, USA*

Synthetic DNA Vaccine strategies for difficult immune targets

17:30 Miguel Lopez-Botet, *University Pompeu Fabra, Barcelona, Spain*

Adaptive human NK cell response to cytomegalovirus: implications in pathology

17:50 **SHORT TALK**

Daniela Covino

Whole transcriptome profiling of primary human macrophages identifies an association between CCL2 neutralization-mediated inhibition of HIV replication and deregulation of host genes and pathways involved in antiviral responses

18:00 **DISCUSSION PANEL**

18:10 **Closing Lecture**

THUMAN RETROVIRUSES: FROM THEIR DISCOVERIES AND LINKAGE TO DISEASES TO THEIR THERAPY AND CONTROL.

Chair: Domenico Mavilio, *University of Milan and Humanitas Research Hospital, Italy*

Speaker: Robert Gallo, *Institute of Human Virology, University of Maryland School of Medicine, Co-Founder & Scientific Director, Global Virus Network, USA*

19:00 **CLOSING REMARKS**

Domenico Mavilio, *University of Milan and Humanitas Research Hospital, Italy*

Francesco Dieli, *University of Palermo, Palermo, Italy*



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Marco Gattorno, Steve Holland, Massimo Locati, Enrico Lugli,
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