

5 - 9 May 2000

The 18th International
**Natural Killer
Cell Workshop**



NK

The 6th Annual Meeting
**of the Society
for Natural
Immunity**

MARSEILLE - FRANCE

<http://ciml.univ-mrs.fr/meetings/index.html>

Saturday, May 6

8:40-8:50am

Welcome Introduction

8:55-10:30am

Session 1: Differentiation of NK cells
Chairpersons: D. Raulet, P. Hoglund

- 8:50-9:10am **Formation of the NK cell repertoire**
David Raulet
- 9:10-9:30am **NK cell tolerance**
Peter Höglund
- 9:30-9:45am **Characterization of committed natural killer cell precursors in murine bone marrow**
Eleftheria Rosmaraki
- 9:45-10:00am **Ly-49 expression and function in development: analysis of activating and inhibitory receptors**
John Ortaldo
- 10:00-10:15am **The influence of MHC class I on the Ly49 receptor repertoire in Ly49A and Ly49C transgenic mice**
Linda Fahlén
- 10:15-10:30am **The src family kinase fyn plays a role in the formation of the Ly49 receptor repertoire**
Werner Held

10:30-11:00am

Coffee Break

11:00am-1:00pm

Session 2: MHC receptors
Chairpersons: M. Colonna, M. Lopez-Botet

- 11:00-11:15am **A novel family of IgSF receptors expressed on myeloid cells**
Marco Colonna
- 11:15-11:30 **Influence of HCMV on NKR recognition of HLA class I**
Miguel Lopez-Botet
- 11:30-11:45am **HLA recognition by KIR**
Eric Long
- 11:45-12:00am **Crystal structure of a KIR-HLA complex reveals peptide recognition and allotype specificity**
Peter Sun
- 12:00-12:15am **Crystal structure of the lectin-like natural killer cell receptor Ly49A complexed with its MHC class I ligand, H-2D^d**
Roy Mariuzza
- 12:15-12:30am **Correlation of structure, binding, and function of Ly49 natural killer cell inhibitory receptors.**
David Margulies
- 12:30-12:45am **Residues in Ly-49C involved in binding MHC class I**
Jonas Sundbäck
- 12:45am-1:00pm **The activating Ly-49D and inhibitory Ly-49A receptors demonstrate distinct requirements for interaction with H2-D^d**
Mary Nakamura

1:00-2:30pm

Lunch

3:30pm-5:30pm

Session 3: Non-MHC receptors
Chairpersons: A. Moretta, V. Kumar

3:30-3:55pm

Human natural cytotoxicity receptors and co-receptors

Alessandro Moretta

3:55-4:20pm

The Road from 2B4 to human perforin gene defects

Vinay Kumar

4:20-4:45pm

Molecular structure of human non-MHC receptors in NK cells

Roberto Biassoni

4:45-5:00pm

KLRE1, a novel inhibitory lectin-like receptor on NK cells, lacks ITIM motifs in the intracellular domain

Ingunn Westgaard

5:00-5:15pm

Cloning and characterization of rat C1qRp, a receptor on NK cells

Guro Lovik

5:15-5:30pm

Gene structure of the human NK cell receptor 2B4 and identification of a novel alternative transcript

Porunelloor Mathew

6:00pm-7:00pm

Poster viewing

7:00pm-8:15pm

Diner

8:30pm-10:30pm

Poster discussion
Chairperson: E. Dissen

9:00-10:30am

Session 4: Polymorphism and regulation of NK receptors
Chairpersons: P. Parham, J. Trowsdale

- 9:00-9:25am **Genomics and variation of NK receptors**
John Trowsdale
- 9:25-9:50am **Diversity of primate NK receptors**
Peter Parham
- 9:50-10:00am **Analysis and comparison of potential regulatory regions of Ly49C and J**
Fumio Takei
- 10:00-10:10am **Genomic organization of the catfish NCCRP-1 gene and identification of a new gene family based on similarities with the zebrafish receptor ortholog.**
Liliana Jaso-Friedmann
- 10:10-10:20am **The Ly-49 repertoire of 129/J mice**
Andrew Makrigianis
- 10:20-10:30am **Linkage of the NKG2/CD94 region with LOX-1 and Ly49-L in the human NK locus and comparative analysis of regulatory gene regions**
Yuri Sobanov

10:30-11:00am

Coffee Break

11:00am-1:00pm

Session 5: T cells with NK receptors
Chairpersons: L. Lanier, E. Vivier

- 11:00-11:20am **Activating NK cell receptors on NK cells and T cells**
Lewis Lanier
- 11:20-11:40am **Characterization of NKR⁺CD8⁺ T cells**
Sophie Ugolini
- 11:40-12:00am **CD1d functions in the context of innate rather than adaptive immunity**
Albert Bendelac
- 12:00-12:20am **Vaccination with tumor-specific antigens**
Pierre Coulie
- 12:20-12:40am **Differential expression of LIR1 and KIR inhibitory receptors at the interface between effector and memory cytotoxic T-lymphocyte**
Neil Young
- 12:40-12:50am **Expression of inhibitory NK cell receptors on memory CD8⁺ T cells and CD8⁺ T cells during an immune response**
Christopher McMahon
- 12:50-1:00pm **Dynamics of the CD8⁺Ly49G2⁺ T cell response to LCMV infection**
Craig Peacock

1:00-2:30pm

Lunch

3:30pm-5:30pm

Session 6: Signal transduction and effector mechanisms
Chairpersons: A. Santoni, P. Leibson

3:30-3:45pm

Overview

Paul Leibson

3:45-4:00pm

Integrin-initiated signaling during NK cell activation

Angela Santoni

4:00-4:15pm

Genetic dissection of mouse KARAP/DAP12 molecule function

Elena Tomasello

4:15-4:30pm

The Rho family guanine nucleotide exchange factor Vav-2 regulates the development of cell-mediated cytotoxicity

Daniel Billadeau

4:30-4:45pm

Functional dichotomy in NK cell signaling: Vav1-dependent and Vav1-independent mechanisms

Francesco Colucci

4:45-5:00pm

Direct tumor lysis by natural killer cells utilizes a Ras-independent MAPK signal pathway

Julie Djeu

5:00-5:15pm

The adaptor protein Shc acts as a negative modulator of NK cell mediated cytotoxicity

Riccardia Galandrini

5:15-5:30pm

Adhesion to target cells is disrupted by the killer cell inhibitory receptor

Deborah Burshtyn

6:00pm-7:00pm

Poster viewing

7:00pm-8:15pm

Diner

8:30pm-10:30pm

Poster discussion
Chairperson: J. Ortaldo

9:00-10:30am

Session 7: Physiopathology (I)
Chairpersons: B. Rolstad, N. Valiante

- 9:00-9:05am **Introduction**
Nick Valiante
- 9:05-9:25am **Compartmental regulation of NK cells - Mechanisms for shaping innate to adaptive defense during viral infections**
Chris Biron
- 9:25-9:45am **Human cytomegalovirus GPUL40 induces HLA-E cell surface expression: a novel escape mechanism from natural killer cell attack ?**
Véronique Braud
- 9:45-10:00am **KIR epitope incompatibility in the graft-vs-host direction predicts control of leukemia relapse after mismatched hematopoietic transplantation**
Loredana Ruggeri
- 10:00-10:15am **Lymphocytes of innate immunity in the intra-hepatic immune response to chronic viral hepatitis C infection.**
Nick Valiante
- 10:15-10:30am **ULBP-1,-2,-3, novel MHC class I-related molecules which bind to human cytomegalovirus glycoprotein UL-16, activate NK cells**
Marek Kubin
- 10:30-10:35am **Concluding remarks and introduction of poster session**
Bent Rolstad

10:35-11:00am

Coffee Break

11:00am-12:50

Session 8: NK cells - Cytokines and trafficking
Chairpersons: G. Trinchieri, M. Caligiuri

- 11:00-11:05am **Introductory remarks**
Georgio Trinchieri
- 11:05-11:20am **Cytokine regulation in NK subsets**
Michael Caligiuri
- 11:20-11:35am **Hepatocyte-derived chemotactic factors for NK cells vs T cells: implications for the regulation of leukocyte recruitment and antimetastatic response in the liver.**
Robert Wiltrout
- 11:35-11:50am **Analysis of chemokine receptors in patients with lymphoproliferative disease of granular lymphocytes**
Renato Zambello
- 11:50-12:05am **Modification of P-selectin glycoprotein ligand-1 with a natural killer cell-restricted sulfated lactosamine creates an alternate ligand for L-selectin**
Pascale Andre
- 12:05-12:20am **Assessment of trafficking of murine and human NK cells to the pregnant uterus**
Anne Croy
- 12:20-12:35am **Expansions in NK and CD8+ T cells are followed by a fatal leukemia in IL-15 transgenic mice and reveal a critical role for posttranscriptional regulation of IL-15**
Todd Fehniger

12:35-12:50am

Toward elucidating ligands for NKR-PIA and other lectin-type proteins of the innate immune system

Ten Feizi

1:00-2:30pm

Lunch

3:00pm

Touristic tour

8:30pm

Gala diner

9:00-11:00am

Session 9: Physiopathology (II)
Chairpersons: K. Kärre, L. Moretta

9:00-9:15am

Klas Kärre

9:15-9:30am

Lorenzo Moretta

9:30-9:45am

Clustering of NK cell receptors and their ligands *in vitro* and *in vivo*
Jack Strominger

9:45-10:00am

The biology of human uterine NK cells
Ashley King

10:00-10:15am

The human dendritic cell (DC) / NK cell cross-talk: fibroblast / stromal factors-primed DC trigger NK cell functions
Laurence Zitvogel

10:15-10:30am

NKT cell-mediated immunoregulation in the pathogenesis of insulin-dependent diabetes mellitus
Marika Falcone

10:30-10:45am

Definition of functions of pregnancy-associated uterine NK cells using knockout mice and cDNA microarray analysis
Anne Croy

10:45-11:00am

Direct natural killer cell-mediated killing of syngenic dorsal root ganglia neurons *in vitro*
Eva Backström

11:00-11:30am

Coffee Break

11:30am-12:30

Keynote lecture
P. Greenberg

1:00-2:30pm

Lunch