NK2015
15th Meeting of the Society for Natural Immunity

May 2-6, 2015
Montebello, Québec, Canada

ORGANIZED BY:
André Veillette, Montréal, QC, Canada
Kevin Kane, Edmonton, AB, Canada
Andrew Makrigiannis, Ottawa, ON, Canada
Silvia Vidal, Montréal, QC, Canada
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- Participant Index (In electronic meeting handbook)

**Local Organizing Committee**

André Veillette, IRCM, Montreal, QC, Canada  
Kevin Kane, University of Alberta, Edmonton, AB, Canada  
Andrew Makrigiannis, University of Ottawa, Ottawa, ON, Canada  
Silvia Vidal, McGill University, Montreal, QC, Canada

**Coordinator**

Vijaya Madhoo, IRCM, Montréal, QC, Canada

**Scientific Organizing Committee**

Michael Caligiuri, The Ohio State University, Columbus, OH, USA  
Ennio Carbone, University of Magna Grecia, Catanzaro, Italy  
Daniel Davis, University of Manchester, Manchester, UK  
Guido Ferlazzo, University of Messina, Messina, Italy  
Katharine Hsu, Memorial Sloan Kettering Cancer Center, New York, NY, USA  
Lewis Lanier, UCSF, San Francisco, CA, USA  
Sylvie Lesage, Hopital Maisonneuve-Rosemont, Montreal, QC, Canada  
Wing Leung, St. Jude Children’s Hospital, Memphis, TN, USA  
Hans-Gustaf Ljunggren, Karolinska Institute, Stockholm, Sweden  
Jeffrey Miller, University of Minnesota, Minneapolis, MN, USA  
David Raulet, University of California, Berkeley, CA, USA  
Joseph Sun, Memorial Sloan Kettering Cancer Center, New York, NY, USA  
Zhigang Tian, University of Science & Technology of China, Hefei, China  
Eric Vivier, CIML, Marseille, France  
Carsten Watzl, IfADo, Dortmund, Germany  
Wayne Yokoyama, Washington University, St. Louis, MO, USA

**SNI Council Members**

President:  
Hans-Gustaf Ljunggren, Karolinska Institute, Stockholm, Sweden  
President Elect:  
Michael Caligiuri, The Ohio State University, Columbus, OH, USA  
Past President:  
Wayne Yokoyama, Washington University, St. Louis, MO, USA
General Information

Meeting Location & Registration Desk:
The meeting takes place in Outaouais Room 1 & 2 of Fairmont Le Chateau Montebello (Address: 392, Notre Dame, Montebello, QC, Canada J0Y 1L0).
The registration desk is near the reception desk of the hotel on May 2 and after that, near the entrance of the Outaouais Room. Please, visit the registration desk upon arrival to collect your name tag and other documents. Please, wear your name tag at all times during the meeting.

Oral Presentation:
We ask all presenters to adhere strictly to their time slot: 15 minutes plus 5 minutes discussion for long talks and 8 minutes plus 2 minutes discussion for short talks. There is no computer available. Please bring your own computer and set it up on the table next to the podium, at least half an hour before the beginning of your session.

Poster Presentation:
A maximum space of 106 cm X 114 cm (3.5 feet x 3.75 feet) is available for each poster. Poster boards are located on the 1st floor of the hotel on the Mezzanine Canada and in the Canada Room. All boards are labelled with the abstract number.

There are will be three poster sessions:

Poster Session 1: Poster Numbers 1 - 83
Sunday, May 3rd, 7:00 PM - 9:00 PM

Poster Session 2: Poster Numbers 84 - 166
Monday, May 4th, 7:00 PM - 9:00 PM

Poster Session 3: Poster Numbers 167 - 250
Tuesday, May 5th, 3:10 PM - 5:10 PM

Meals:
Included in the registration fee are all coffee breaks, breakfasts, lunches, dinners and banquet. Coffee is served next to the Outaouais Room in Foyer Outaouais.
The Welcome Barbecue Dinner on May 2, 2015 takes place in Summer: Marquee (No. 12 on map on Pg. 23). All other meals take place in Aux Chantignoles Restaurant.
You are provided with meal coupons of different colours for all meals at the hotel. One different colour for each day. You should give your corresponding coupon to the waiter at the entrance of the restaurant.

Banquet:
The banquet dinner on May 5, 2015 at 7:00 PM - 10:00 PM, takes place in Aux Chantignoles Restaurant and you are given coupons of different colours according to your menu selection. You need to put your coupon on the table during the banquet dinner and the waiters will collect the coupons and serve your choice.

After-Banquet Entertainment:
After the banquet dinner, there is entertainment by the Tonic Band in the Curling Room (No. 25 on map on Pg. 23) starting after 10:00 PM.
SPONSORS:

The organizers express their profound gratitude to the following sponsors:

Platinum Sponsor:

Bristol-Myers Squibb
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Silver sponsors:

Silver sponsors:

Session Sponsors:

Other Sponsor:
Travel Award Recipients

The following students or postdoctoral fellows have been awarded a Travel Award. Congratulations!

Elias Abou Samra, University of Ottawa, Ottawa, ON, Canada
Alaa Ali, University of Montreal, Montreal, QC, Canada
Rachel Bergerson, University of Minnesota, Minneapolis, MN, USA
Melissa Berrien-Elliott, Washington University, St. Louis, MO, USA
Richard Berry, Monash University, Melbourne, Australia
Vivien Béziat, Imagine Institute, Paris, France
Jeannette Boudreau, MSKCC, New York, NY, USA
Selma Boulenouar, University of Cambridge, Cambridge, UK
Frida Ewald Sander, University of Gothenburg, Gothenburg, Sweden
Dagmar Gotthardt, University of Veterinary Medicine, Vienna, Austria
Fernando Guimaraes, QIMR Berghofer Medical Research Institute, Brisbane, Australia
Huaijian Guo, IRCM, Montreal, QC, Canada
Quirin Hammer, German Rheumatism Research Center, Berlin, Germany
Alexander Iannello, University of California at Berkley, Berkley, CA, USA
Martin Ivarsson, University of Cambridge, Cambridge, UK
Vedrana Jelenčić, University of Rijeka, Rijeka, Croatia
Jenny Karo, MSKCC, New York, NY, USA
Philippa Kennedy, University of Manchester, Manchester, UK
Jianmei Leavenworth, Dana-Farber Cancer Institute, Boston, MA, USA
Gabriel André Leiva-Torres, McGill University, Montreal, QC, Canada
Sebastian Lunemann, Heinrich-Pette-Institute, Hamburg, Germany
Thuy Luu Thanh, Karolinska Institute, Stockholm, Sweden
Sharline Madera, MSKCC, New York, NY, USA
Beatrice Plougastel-Douglas, Washington University, St. Louis, MO, USA
Howard Rosoff, MD Anderson Cancer Center, Heidelberg, Germany
Steven Scoville, The Ohio State University, Columbus, OH, USA
Zsolt Sebestyen, University Medical Center Utrecht, Utrecht, The Netherlands
Andrew Sharkey, University of Cambridge, Cambridge, UK
Miho Tanaka, University of Toronto, Toronto, ON, Canada
Louis Michael Thomas, National Institutes of Health, Rockville, MD, USA
Megan Tu, University of Ottawa, Ottawa, ON, Canada
Kattria van der Ploeg, University of Cambridge, Cambridge, UK
Mary van Helden, VIB, Ghent, Belgium
Arnika Kathleen Wagner, Karolinska Institute, Stockholm, Sweden
Julia Wagner, Washington University, St. Louis, MO, USA
Andrew Wight, University of Ottawa, Ottawa, ON, Canada
Ning Wu, IRCM, Montreal, QC, Canada
Congcong Zhang, Georg-Speyer-Haus, Frankfurt, Germany
Luhua Zhang, Stanford University, Stanford, CA, USA
Erin Zook, University of Chicago, Chicago, IL, USA
# NK2015 - 15th Meeting of the Society for Natural Immunity
## May 2-6, 2015

### SATURDAY, MAY 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 - 4:30 pm</td>
<td>Arrival and Check In Registration</td>
</tr>
<tr>
<td>4:30 - 4:45 pm</td>
<td>Welcome and Introduction André Veillette Montréal, QC, Canada</td>
</tr>
<tr>
<td></td>
<td>SNI Presidential Welcome Hans-Gustaf Ljunggren Stockholm, Sweden</td>
</tr>
<tr>
<td>4:45 – 5:00 pm</td>
<td>Vinay Kumar Chicago, IL, USA In memory of Mike Bennett</td>
</tr>
<tr>
<td>5:00 - 6:00 pm</td>
<td>Keynote Lecture: Cancer Immunoeediting: Translating Basic Research Insights into Effective Cancer Immunotherapies</td>
</tr>
<tr>
<td>7:00 - 10:00 pm</td>
<td>Welcome BBQ: Summer - Marquee (No. 12 on the map on Page 23)</td>
</tr>
</tbody>
</table>

### SUNDAY, MAY 3

Registration: 8:00 am - NOON; 1:00 pm - 9:00 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 - 8:30 am</td>
<td>Breakfast</td>
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</tbody>
</table>

### SESSION 1: NK CELLS IN ANTI-TUMOR IMMUNITY (1)
Chairperson: Ennio Carbone
Session Sponsor: Miltenyi Biotec

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker Location</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 8:50 am</td>
<td>Mark Smyth Brisbane, Australia</td>
<td>Receptors and cytokines that control NK cell anti-tumor activity</td>
</tr>
<tr>
<td>8:50 - 9:10 am</td>
<td>Katharine Hsu New York, NY, USA</td>
<td>Human NK cell education: bench to bedside and back again</td>
</tr>
<tr>
<td>9:10 - 9:30 am</td>
<td>Jeffrey Miller Minneapolis, MN, USA</td>
<td>Enhancing NK cell function and making them antigen specific to treat cancer</td>
</tr>
<tr>
<td>9:30 - 9:40 am</td>
<td>Nicolas Dulphy Paris, France</td>
<td>NK cell patterns at diagnosis of AML are associated with blasts transcriptional signatures and clinical outcome (#56)</td>
</tr>
<tr>
<td>9:40 - 9:50 am</td>
<td>Rachel Bergerson Minneapolis, MN, USA</td>
<td>NK Proliferation Early After Allogeneic Hematopoietic Cell Transplantation Is Associated With Superior Disease Free Survival Due To Reduced Leukemia Relapse (#16)</td>
</tr>
<tr>
<td>9:50 - 10:00 am</td>
<td>Jacki Kornbluth St. Louis, MO, USA</td>
<td>Natural Killer Lytic-Associated Molecule (NKLAM) Influences the Maturation and Immunophenotype of Myc-Induced B Cell Lymphomas by Both NK-Independent and NK-Dependent Mechanisms (#116)</td>
</tr>
<tr>
<td>10:00 -10:30 am</td>
<td></td>
<td>Coffee Break</td>
</tr>
</tbody>
</table>
# SESSION 2: NK CELLS IN ANTI-TUMOR IMMUNITY (2)

**Chairperson:** Julie Djeu  
**Session Sponsor:** Innate Pharma

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 - 10:50 am</td>
<td>Dean Lee</td>
<td>Clinical and translational implications of IL-21 signaling in NK cells</td>
</tr>
<tr>
<td>10:50 - 11:10 am</td>
<td>Wing Leung</td>
<td>KIR typing for cancer therapy</td>
</tr>
<tr>
<td>11:10 - 11:30 am</td>
<td>Eric Vivier</td>
<td>Adaptive features of Natural Killer cells</td>
</tr>
<tr>
<td>11:30 - 11:40 am</td>
<td>Ennio Carbone</td>
<td>Analysis of T and NK cells immune response in Ipiilimumab treated Melanoma patients (#38)</td>
</tr>
<tr>
<td>11:40 - 11:50 am</td>
<td>Fredrik Thorén</td>
<td>Role of natural killer cell subsets and natural cytotoxicity receptors for the outcome of immunotherapy in acute myeloid leukemia (#221)</td>
</tr>
<tr>
<td>11:50 - NOON</td>
<td>Andreas Björklund</td>
<td>Integrative Profiling of Natural Killer Cell Repertoires Reveal a Role for Less Differentiated NK Cells in Protection from Leukemia Relapse (#25)</td>
</tr>
</tbody>
</table>

**NOON - 1:00 pm**  
Lunch

**1:00 - 1:30 pm**  
Free Time

# SESSION 3: NK CELL MEMORY

**Chairperson:** Silke Paust

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 - 1:50 pm</td>
<td>Joseph Sun</td>
<td>Mitophagy promotes the generation of natural killer cell memory</td>
</tr>
<tr>
<td>1:50 - 2:10 pm</td>
<td>Lewis Lanier</td>
<td>NK cells remember</td>
</tr>
<tr>
<td>2:10 - 2:20 pm</td>
<td>Jianmei Leavenworth</td>
<td>Intracellular osteopontin regulates homeostatic-driven long-lived natural killer cells (#127)</td>
</tr>
<tr>
<td>2:20 - 2:30 pm</td>
<td>Ravi Arya</td>
<td>Vaccine-induced NK memory cells as potent mucosal sentinels against HIV infection (#10)</td>
</tr>
<tr>
<td>2:30 - 2:40 pm</td>
<td>Ramakrishna Vankayalapati</td>
<td>IL-21 dependent expansion of memory-like NK cells enhances protective immune responses against <em>Mycobacterium tuberculosis</em> (#228)</td>
</tr>
<tr>
<td>2:40 - 2:50 pm</td>
<td>Julia Wagner</td>
<td>Human cytokine-induced memory-like (CIML) NK cells exhibit altered NK cell licensing (#233)</td>
</tr>
<tr>
<td>2:50 - 3:00 pm</td>
<td>Grzegorz Terszowski</td>
<td>With a little help from my friends – the role of immune cross-talk in NK cell response to HCMV (#216)</td>
</tr>
</tbody>
</table>

**3:00 - 6:00 pm**  
FREE TIME

**6:00 - 7:00 pm**  
Dinner
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>7:00 - 9:00 pm</td>
<td>Poster Session 1</td>
<td>POSTERS No. 1 to 83 (Canada Room and Mezzanine)</td>
</tr>
<tr>
<td>6:30 - 8:30 am</td>
<td>Breakfast</td>
<td></td>
</tr>
<tr>
<td>6:30 - 9:00 pm</td>
<td>Registration: 8:00 am - NOON; 1:00 pm - 9:00 pm</td>
<td></td>
</tr>
<tr>
<td>8:30 - 8:50 am</td>
<td>SESSION 4: NK CELL EDUCATION AND SUBSETS (1)</td>
<td>Chairperson: Petter Höglund</td>
</tr>
<tr>
<td></td>
<td>Wayne Yokoyama</td>
<td>Ly49H-Dependent NK Cell Effector Control of Murine Cytomegalovirus Infection</td>
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<td></td>
<td>Zhigang Tian</td>
<td>Intrahepatic development of liver-resident NK cells</td>
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<td></td>
<td>Chiara Romagnani</td>
<td>Identification of Human ILC3 progenitors lacking NK cell commitment</td>
</tr>
<tr>
<td></td>
<td>Niklas Björkström</td>
<td>Identification and characterization of human intrahepatic CD49a⁺ NK cells (n=26)</td>
</tr>
<tr>
<td></td>
<td>Andrew Sharkey</td>
<td>Tissue specific education of decidual natural killer cells by maternal HLA (n=196)</td>
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<td></td>
<td>Björn Önfelt</td>
<td>Microchip-based single-cell imaging reveals that NK cell education via NKG2A regulates migration, target cell conjugation and probability of killing but not killing dynamics (n=165)</td>
</tr>
<tr>
<td>9:00 - 10:00 am</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>10:00 - 10:30 am</td>
<td>SESSION 5: NK CELL EDUCATION AND SUBSETS (2)</td>
<td>Chairperson: Megan Cooper</td>
</tr>
<tr>
<td></td>
<td>Sungjin Kim</td>
<td>Antibody-dependent memory-like cells: Formation of the memory NK cell pool in humans</td>
</tr>
<tr>
<td></td>
<td>Yenan Bryceson</td>
<td>Regulation of human NK cell differentiation and effector function</td>
</tr>
<tr>
<td></td>
<td>André Veillette</td>
<td>Receptors controlling NK cell activation and education</td>
</tr>
<tr>
<td></td>
<td>Luhua Zhang</td>
<td>Regulation of NK Cell Homeostasis by the Aryl Hydrocarbon Receptor (n=246)</td>
</tr>
<tr>
<td></td>
<td>Anne Croy</td>
<td>Heterogeneity of Leukocyte Doublets Within Early Mouse Decidua that Involve Uterine Natural Killer Cells (n=137)</td>
</tr>
<tr>
<td>11:50 - NOON</td>
<td>Anna Lünemann</td>
<td>Tonsilar NK cell subset targets cancer-associated GC-B cells during EBV infection (n=137)</td>
</tr>
<tr>
<td>NOON - 1:00 pm</td>
<td>Lunch</td>
<td></td>
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<tr>
<td>Time</td>
<td>Session</td>
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<tr>
<td>1:00 - 1:30 pm</td>
<td>Free Time</td>
<td></td>
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</tbody>
</table>
| 1:30 - 1:50 pm | **SESSION 6: INNATE LYMPHOID CELLS**  
**Chairperson:** Guido Ferlazzo  
Marco Colonna  
St. Louis, MO, USA  
Innate Lymphoid Cells in Immunity |
| 1:50 - 2:10 pm | Andreas Diefenbach  
Mainz, Germany  
Transcriptional control of innate lymphoid cell fate decisions |
| 2:10 - 2:30 pm | James Di Santo  
Paris, France  
Establishing ILC Identity with the Hematopoietic System |
| 2:30 - 2:50 pm | Guido Ferlazzo  
Messina, Italy  
Group 3 NCR⁺ Innate Lymphoid Cells accumulate in human lung cancer (#60) |
| 2:40 - 2:50 pm | Georg Gasteiger  
Mainz, Germany  
Adaptive- innate lymphocyte crosstalk in NK cell and ILC responses (#73) |
| 2:50 - 3:00 pm | Nicole Marquardt  
Stockholm, Sweden  
Fetal epithelium-derived IL-17+IL-22- ILC3 represent the main lymphocyte subset in human amniotic fluid (#148) |
| 3:00 - 6:00 pm | Free Time                                                               |
| 6:00 - 7:00 pm | Dinner                                                                  |
| 7:00 - 9:00 pm | Poster Session 2  
POSTERS No. 84 to 166 (Canada Room and Mezzanine) |

**TUESDAY, MAY 5**

Registration: 8:00 am - NOON; 1:00 pm - 5:00 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>6:30-8:30 am</td>
<td>Breakfast</td>
</tr>
</tbody>
</table>
| 8:30 - 8:50 am | Mariapia Degli-Esposito  
Perth, Australia  
NK cells dictate the balance of anti-viral immunity and autoimmunity |
| 8:50 - 9:10 am | Stipan Jonjic  
Rijeka, Croatia  
Cytomegalovirus downregulation of PVR reveals strong effect of DNAM-1 in virus control by NK cells and macrophages |
| 9:10 - 9:30 am | Hans-Gustaf Ljunggren  
Stockholm, Sweden  
NK Cell Activation in Human Hantavirus Infection Explained by Virus-Induced IL-15/IL15Rα Expression |
| 9:30 - 9:40 am | Gabriel André Leiva-Torres  
Montreal, QC, Canada  
An N-Ethyl-N-Nitrosourea Induced Mutation in the GNL1 GTPase causes susceptibility to Cytomegalovirus (#132) |
| 9:40 - 9:50 am | Jamie Schafer  
Boston, MA, USA  
Accumulation of cytotoxic CD16+ NK Cells in SIV-infected lymph nodes associated with in situ differentiation and exhaustion (#187) |
| 9:50 - 10:00 am | Laurent Brossay  
Providence, RI, USA  
Salivary gland lymphocyte response to MCMV (#35) |
| 10:00 - 10:30 am | Coffee Break                                                            |
### SESSION 8: NK CELL ACTIVATION
**Chairperson: Jordan Orange**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 - 10:50 am</td>
<td>Eric Long</td>
<td>Galvanizing Inhibition</td>
</tr>
<tr>
<td></td>
<td>Rockville, MD, USA</td>
<td></td>
</tr>
<tr>
<td>10:50 - 11:10 am</td>
<td>Daniel Davis</td>
<td>Super-resolution microscopy of human NK cell recognition</td>
</tr>
<tr>
<td></td>
<td>Manchester, UK</td>
<td></td>
</tr>
<tr>
<td>11:10 - 11:30 am</td>
<td>Carsten Watzl</td>
<td>Modulation of NK cell function by interactions between 2B4 and CD48 in cis and in trans</td>
</tr>
<tr>
<td></td>
<td>Dortmund, Germany</td>
<td></td>
</tr>
<tr>
<td>11:30 - 11:40 am</td>
<td>Melba Marie Tejera</td>
<td>MicroRNA-183 control of DAP12 silences NK and T cells in the tumor microenvironment (#215)</td>
</tr>
<tr>
<td></td>
<td>Tampa, FL, USA</td>
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</tr>
<tr>
<td>11:40 - 11:50 am</td>
<td>Bojan Polić</td>
<td>NK cells link obesity-induced adipose stress to inflammation and insulin resistance (#174)</td>
</tr>
<tr>
<td></td>
<td>Rijeka, Croatia</td>
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</tr>
<tr>
<td>11:50 - NOON</td>
<td>Thuy Luu Thanh</td>
<td>Dendritic cells prime NK-cell functions at non-inflammatory condition (#139)</td>
</tr>
<tr>
<td></td>
<td>Stockholm, Sweden</td>
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</tbody>
</table>

**NOON - 1:00 pm**  Lunch

**1:00 - 1:30 pm**  Free Time

### SESSION 9: NK CELL DEVELOPMENT AND DIFFERENTIATION
**Chairperson: Veronika Sexl**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 - 1:50 pm</td>
<td>Barbara Kee</td>
<td>Transcriptional control of natural killer cell development, maturation, and activation</td>
</tr>
<tr>
<td></td>
<td>Chicago, IL, USA</td>
<td></td>
</tr>
<tr>
<td>1:50 - 2:10 pm</td>
<td>Francesco Colucci</td>
<td>NK cells and other innate lymphoid cells at the maternal-fetal interface</td>
</tr>
<tr>
<td></td>
<td>Cambridge, UK</td>
<td></td>
</tr>
<tr>
<td>2:10 - 2:30 pm</td>
<td>Mike Caligiuri</td>
<td>Human natural killer cell development in secondary lymphoid tissues: examination of RORγt</td>
</tr>
<tr>
<td></td>
<td>Columbus, OH, USA</td>
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</tr>
<tr>
<td>2:30 - 2:50 pm</td>
<td>Cynthia Dunbar</td>
<td>Clonal tracking of rhesus macaque hematopoiesis highlights a distinct lineage origin for natural killer cells and insights into the relationships between NK cell phenotypic subsets</td>
</tr>
<tr>
<td></td>
<td>Bethesda, MD, USA</td>
<td></td>
</tr>
<tr>
<td>2:50 - 3:00 pm</td>
<td>Alaa Ali</td>
<td>GATA-3 regulates the NK cell maturation program required for bone marrow exit and proliferation (#3)</td>
</tr>
<tr>
<td></td>
<td>Ottawa, ON, Canada</td>
<td></td>
</tr>
<tr>
<td>3:00 – 3:10 pm</td>
<td>Nick Huntington</td>
<td>Id2 governs innate lymphocyte fate by tuning sensitivity to homeostatic cytokines (#99)</td>
</tr>
<tr>
<td></td>
<td>Melbourne, Australia</td>
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</tr>
<tr>
<td>3:10 - 5:10 pm</td>
<td>Poster Session 3</td>
<td>POSTERS No. 167 to 250 (Canada Room and Mezzanine)</td>
</tr>
<tr>
<td>5:10 - 7:00 pm</td>
<td>Free Time</td>
<td></td>
</tr>
<tr>
<td>7:00 - 10:00 pm</td>
<td>Banquet</td>
<td></td>
</tr>
<tr>
<td>After 10:00 pm</td>
<td>Entertainment: The Tonic Band</td>
<td>Curling Room (No. 25 on the map at Page 23)</td>
</tr>
</tbody>
</table>
**WEDNESDAY, MAY 6**

**Registration:** 8:00 am - NOON

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 - 8:30 am</td>
<td>Breakfast</td>
</tr>
</tbody>
</table>

**SESSION 10: NK CELL RECEPTORS IN IMMUNE SURVEILLANCE (1)**
*Chairperson: John Trowsdale*

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<tr>
<th>Time</th>
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<tr>
<td>8:30 - 8:50 am</td>
<td>Klas Kärre</td>
<td>Phenotypic and functional alterations associated with MHC class I dependent education of NK cells</td>
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<tr>
<td>8:50 - 9:10 am</td>
<td>Peter Parham</td>
<td>A global perspective on KIR variation and its functional impact</td>
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<tr>
<td>9:10 - 9:30 am</td>
<td>Andrew Makrigiannis</td>
<td>Control of cancer and memory responses by NKC-encoded receptors</td>
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<tr>
<td>9:30 - 9:40 am</td>
<td>Katy Rezvani</td>
<td>HLA and KIR Genomics to Determine Outcome After Cord Blood Transplant (CBT) (#180)</td>
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<td>9:40 - 9:50 am</td>
<td>Vivien Béziat</td>
<td>Redundancy of adaptive NK cell responses in the absence of NKG2C and activating KIRs (#23)</td>
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<td>9:50 - 10:00 am</td>
<td>Paul Neeson</td>
<td>Targeting mechanisms for natural killer cell dysfunction in patients with multiple myeloma (#158)</td>
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<td>10:00 - 10:30 am</td>
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<td>Coffee Break</td>
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**SESSION 11: NK CELL RECEPTORS IN IMMUNE SURVEILLANCE (2)**
*Chairperson: Kerry Campbell*

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<tr>
<th>Time</th>
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<tr>
<td>10:30 - 10:50 am</td>
<td>Heidi Cerwenka</td>
<td>Exploiting adaptive features of Natural Killer cells for cancer therapy</td>
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<td>10:50 - 11:10 am</td>
<td>David Raulet</td>
<td>Evasion of NK-mediated tumor immune surveillance and therapies to prevent it</td>
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<td>11:10 - 11:20 am</td>
<td>Miho Tanaka</td>
<td>The inhibitory NKR-P1B:Clr-b recognition axis plays a role in tumour immunosurveillance in the detection of oncogenic transformation (#214)</td>
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<tr>
<td>11:20 - 11:30 am</td>
<td>Kattria van der Ploeg</td>
<td>Identifying Ligands for Activating Killer Ig-like Receptors on HCMV infected fibroblasts (#226)</td>
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<td>11:30 – 11:40 am</td>
<td>David Tomaz</td>
<td>Fluorescent tagged NK cell receptors to study the integration of signals in natural killer cells at the immunological synapse (#222)</td>
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<tr>
<td>11:40 - NOON</td>
<td>André Veillette</td>
<td>Closing Remarks &amp; Invitation to next meeting</td>
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<td>NOON - 1:00 pm</td>
<td>Michael Caligiuri</td>
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**Lunch (Lunch boxes will also be available)**
List of Posters

1. **NKR-P1:CLR recognition systems: A relationship that could dominate innate intestinal immunity**
   Abou-Samra E, Hickey Z, Carlyle JR, Makrigiannis AP

2. **Identification of two MCMV immunoevasins that modulate NK cell recognition via the NKR-P1B:Clr-b axis**
   Aguilar OA, Samaniego J, Sampaio I, Lau T, Rahim MMA, Popović B, Krmpotić A, Makrigiannis A, Jonjić S, Allan DSJ, Carlyle JR

3. **GATA-3 regulates the NK cell maturation program required for bone marrow exit and proliferation**
   Ali AK, Oh J, Vivier E, Busslinger M, Lee SH

4. **An in vitro model of innate lymphoid cell function and differentiation**
   Allan DSJ, Kirkham CL, Aguilar OA, Qu LC, Chen P, Fine JH, Serra P, Awong G, Gommerman JL, Zúñiga-Pflücker JC, Carlyle JR

5. **Immune Cell Expansion, In Vivo Trafficking and Natural Killer Cell Anti-Tumor Efficacy in a Preclinical Model of Human Ovarian Cancer**
   Pandey V, Oyer JL, Igarashi RY, Copik AJ, Altomare DA

6. **Dose-dependent role of GM-CSF in regulating NK-cell migratory properties revealed in a microfluidic-based platform**
   Andalural Nandanopoli S, Upreti D, Su RC, Ball B, Lin F, Kung SKP

7. **Characterization of KIR intermediate promoters reveals four distinct promoter types associated with distinct expression patterns of KIR subtypes**
   Anderson SK, Li H, Drashansky T, Wright PW

8. **IFNγ has variable effects on expression of MHC Class I and ICAM-1 in pediatric cancers which alter sensitivity to NK cell lysis**
   Aquino-López A, Senyukov V, Lee DA

9. **The checkpoint regulator PD-1 inhibits NK cell responses to tumors.**

10. **Vaccine-induced NK memory cells as potent mucosal sentinels against HIV infection**
    Arya RP, Hernandez-Sanabria M, Le DT, Gill HS, Paust S

11. **Role of NK cells in innate defense against HCV**

12. **Immunosuppressive properties of malignant monocytes in chronic myelomonocytic leukemia**

13. **Nanometre-scale organisation of the highly polymorphic NK cell receptor KIR3DL1 and its HLA class I ligands revealed by super-resolution microscopy**
    Barthen CC, Williamson DJ, Davis DM

14. **The transcription factor Zbtb32 is required for NK cell proliferation during viral infection**
    Beaulieu AM, Zawislak CL, Nakayama T, Sun JC

15. **TLR9-Stimulated Plasmacytoid Dendritic Cells Induce Strong Natural Killer Cell Cytotoxicity Against Neuroblastoma**

16. **NK Proliferation Early After Allogeneic Hematopoietic Cell Transplantation Is Associated With Superior Disease Free Survival Due To Reduced Leukemia Relapse**
    Bergerson RJ, Cooley S, Curtsinger J, Shanley R, Miller JS, Verneris MR

17. **CD16 is expressed on few inhibitory KIR+ NK Cells: Implications for ADCC activity and HIV vaccine strategies**

18. **NK cells localize in synovium in a CXCR3 dependent fashion and promote joint damage in a mouse model of osteoarthritis**
    Bourdon J, Sciumè G, Sanseviero E, Santoni A, Bernardini G

19. **Multiple Myeloma impairs localization of effector NK cells in the bone marrow by altering the chemokine microenvironment**
    Ponzetta A, Benigni G, Antonangeli F, Sciumè G, Sanseviero E, Santoni A, Bernardini G

20. **The role of unlicensed NK cells during post-consolidation immunotherapy in AML**

21. **microRNA-142 is critical for peripheral NK cell homeostasis and function**

22. **The Structure of the Cytomegalovirus-Encoded m04 Glycoprotein, a Prototypical Member of the m02 Family of Immunoevasins**

23. **Redundancy of adaptive NK cell responses in the absence of NKG2C and activating KIRs**

24. **Development of new anti-KIR monoclonal antibodies and analysis of KIR antibody cross reactivity**
    Bjordahl R, Bonnevie J, Munshi C, Houchnis JP

25. **Integrative Profiling of Natural Killer Cell Repertoires Reveal a Role for Less Differentiated NK Cells in Protection from Leukemia Relapse**

26. **Identification and characterization of human intrahepatic CD49a+ NK cells**
27. NK cells and ALL: A rat model of T cell lymphoblastic leukemia  
Boieri M, Sudworth A, Kveberg L, Ingjerdningen M

28. Development of an IL-2 Independent NK cell Line Expressing High-Affinity Fc-receptor to Augment Antibody and BiKE Therapeutics  
Boissel L, Campbell KS, Toneguzzo F, Klingemann H

29. Human NK cell licensing is determined by KIR:HLA interactions in cis and adjusted by HLA in trans.  
Boudreau JE, Liu XR, Zhang A, Dupont B, Hsu KC

30. Receptor and ligand density calibrate NK responsiveness: implications for HIV control  
Boudreau JE, Le Luduec JB, Mulrooney TJ, Hsu KC

31. Donor KIR3DL1 and HLA-B subtype combinations predict acute myelogenous leukemia control after HLA-compatible hematopoietic stem cell transplantation  

32. Lack of uterine ILCs in Nfil3−/− mice associates with fetal, placental and decidual abnormalities  

33. Dramatic changes in NK cell phenotype and function following perinatal MCMV infection  

34. Polymorphisms in KIR3DL1 dictate specificity for HLA-I allotypes  

35. Salivary gland lymphocyte response to MCMV  
Brossay L, Erick TK, Reilly EC, Wands JR

36. Differential interaction of LILRB1 Protein Variants with HLA molecules  
Yu K, Wang T, Airo F, Fu L, Davidson C, Burshtyn D

37. Combining NK cell adoptive immunotherapy with DNA methyltransferase inhibition: a double attack against acute myeloid leukemia  
Cany J, Roeven M, Huls G, Schaap NM, Dolstra H

38. Analysis of T and NK cells immune response in Ipilimumab treated Melanoma patients.  

39. Role for early-differentiated natural killer cells in infectious mononucleosis  

40. Ultrasound-assisted three-dimensional tumor formation in a multi-well microplate for monitoring natural killer cell functional behavior  
Christakou AE, Ohlin M, Wiklund M, Önfelt B

41. Serum free expansion of NK-92 cells for clinical grade manufacturing  

42. HCMV reactivation is associated with reduced relapse risk, superior disease-free survival and expansion of CD56dimCD57+NKG2C+ NK cells after reduced intensity hematopoietic cell transplantation  
Cichocki F, Davis Z, Cooley S, Schlums H, DeFor TE, Brunstein CG, Blazar BR, Wagner J, Verneris MR, Bryceson YT, Weisdorf DJ, Miller JS

43. Activation-specific metabolic requirement for NK cell interferon-gamma production  
Keppel MP, Topcagic N, Mah AY, Vogel TP, Cooper MA

44. NK cells stimulated with PM21 particles expand in vivo: potential for clinical applications.  

45. Heterogeneity of Leukocyte Doublets Within Early Mouse Decidua that Involve Uterine Natural Killer Cells  
Felker AM, Croy BA

46. Identification of MHC class Iβ ligands for stimulatory and inhibitory rat Ly49 receptors  
Dai KZ, Ryan JC, Rolstad B, Naper C, Vaage JT

47. Natural killer cell effector function following influenza virus vaccination in a population with high prevalence of HCMV infection  

48. The cytotoxicity of mbIL21-expanded natural killer cells against liposarcoma  
Dastgheyb N, Lee DA

49. Investigating the role of LILRB1 polymorphisms on expression in NK cells  
Davidson C, Burshtyn D
50. Expansion of Adaptive NK Cells and NKG2C<sup>+</sup>CD57<sup>+</sup> KIR-Expressing T-cells from Sibling, but not Umbilical Cord Blood Grafts is Induced by Recipient Latent CMV and is Associated with Protection Against CMV Reactivation

51. TRAIL-mediated killing of acute lymphoblastic leukemia by plasmacytoid dendritic cell-activated natural killer cells

52. Suppression of acute graft versus host disease by memory-like NK cells pre-activated with IL-12, IL-15 and IL-18
   **Hüber CM**, **Doisne JM**, Colucci F

53. Cancer immunotherapy with **ex vivo**-generated NK cells from hematopoietic progenitor cells

54. Frequency of KIR-HLA ligand interactions and influence of KIR2DS2 and KIR2DS4 on NK subsets from primary glioblastoma patients
   **Domínguez-Valentin M**, Gras Navarro A, Lie SA, Kristoffersen EK, Chekenya M

55. mTORC1-Dependent Metabolic Reprogramming is a Prerequisite for NK Cell Effector Function.
   **Donnelly R**, Loftus R, Keating S, Liou K, Biron C, Gardiner C, Finlay D

56. NK cell patterns at diagnosis of AML are associated with blasts transcriptional signatures and clinical outcome

57. NK cell licensing after double umbilical cord blood transplantation is driven by the self-HLA from the emerging cord blood

58. Swift and strong NK cell responses protect 129 mice against high dose influenza virus infection

59. Repetitive exposure to high dose IL-15 results in functional exhaustion of human NK cells mediated by changes in metabolic processes and signaling
   **Felices M**, Ankarlo DEM, Miller JS

60. Group 3 NCR<sup>+</sup> Innate Lymphoid Cells accumulate in human lung cancer
   Carrega P, Campana S, Moretta L, **Ferlazzo G**

61. Clinical grade activated natural killer products for adoptive immunotherapy against high-risk malignancies
   Pérez-Martínez A, Sanchez DC, **Fernández L**, Leivas A, Valentin J, de Paz R, Rodríguez R, Martínez-Lopez J

62. Abundant stage-dependent Ly49E expression by liver NK cells is not essential for their differentiation and function, and only plays a temporary role in the control of Plasmodium berghei infection

63. Involvement of the NKC domain in combination with the MHC haplotype in chemically induced colorectal cancer incidence
   **Fiserova A**, Capkova K, Hribalova V, Indrova M, Reiniš M, Richter J

64. NKp46 as a Marker for Enabling Outbred Spontaneous Large Animal Models for NK cell Therapy
   **Foltz JA**, Lee DA, Somanchi SS, Yang Y, Hughes DPM

65. Identification of a novel ILC3/NK cell intermediate in human tonsil
   **Freund AG**, Keller KA, Scoville SD, Mundy-Bosse BL, Cheng S, Caligiuri MA

66. Activating receptor signaling is required for natural killer cells to acquire Ly49 receptors during development
   **Freund J**, May RM, Yang E, Anderson S, Kambabyashi T

67. Blockade of regulatory NK cells and B cells in HBV Patients with pre-existing IFNαR signaling have improved effect during IFNα therapy
   **Fu B**, Wang D, Sun R, Tian Z, Wei H

68. Investigating the role of c-Abl kinase in Natural Killer cells

69. Killer-cell immunoglobulin-like receptor (KIR) binding to human leukocyte antigen (HLA) is dependent on HLA glycosylation

70. Dominant role of HCV on NK cell landscape in patients co-infected with HCV/HIV-1
   Keane C, Bannan C, Bergin C, **Gardiner CM**

71. Cytokines activate human NK cells to undergo glycolytic metabolic reprogramming
   Keating S, Bittencourt V, Loftus R, Brennan K, Finlay D, **Gardiner CM**

72. A single miRNA-mRNA interaction is critical for the expansion of antiviral NK cells
   **Gastegier G**, Lu LF, Chaudhry A, Bos PD, Lin LL, Zawislak CL, Sun JC, Rudensky AY

73. Adaptive-innate lymphocyte crosstalk in NK cell and ILC responses
   **Gastegier G**, Fan X, Dikiy S, Sun JC, Rudensky AY

74. Regulation of virus-specific natural killer cell memory by IL-10 and TGF-β
Id2 governs innate lymphocyte fate by tuning sensitivity to homeostatic cytokines.
100. Cytotoxic Natural Killer Cell Mechanisms in Chronic Fatigue Syndrome/Myalgic Encephalomyelitis (CFS/ME) and Multiple Sclerosis (MS)

101. Senescent tumor cells activate NK responses by trans-presenting IL-15
   Iannello A, Puri N, Weist B, Zhang L, Ardolino M, Raulet DH

102. Analysis of CD16 and CD161 signal transduction by affinity proteomics
   Kveberg L, Lund-Johansen F, Inngjerdingen M

103. Phenotype analysis of human decidual NK cells using CyTOF

104. Enhanced NK cell-dependent surveillance of tumors in NKG2D-deficient mice
   Jelenčić V, Wensveen FM, Lenartić M, Polić B

105. Comprehensive gene expression analysis of activated human NK cells
   Jensen H, Chen SY, Folkesen LF, Nolan GP, Lanier LL

106. The Role of TGFβ in NK cell-mediated cytotoxicity in medulloblastoma
   Kannan G, Somanchi S, Lee DA

107. The RAG recombinase dictates functional heterogeneity and cellular fitness in innate lymphocytes
   Karo JM, Schatz DG, Sun JC

108. Nanometer-scale organisation of inhibitory Natural Killer cell receptors at the immune synapse – diversity at the level of genes and alleles affecting localisation
   Kennedy PR, Williamson DJ, Stacey KB, Davis DM

109. Peptide specific binding of KIR2DS2 to HLA-C
   Cassidy S, Naiyer M, Mansour S, Purbhoo M, Khakoo SI

110. P7 defines a peptide antagonist for KIR2DL2/3 at HLA-C*03
    Mbiribindi B, Khakoo SI

111. Use of a Cytotoxic Peptide as an Immunotherapeutic Agent in the Treatment of Metastatic Breast Cancer

112. Dysregulation of immune cells jeopardises pregnancy: Maternal p110δ signalling is essential for reproductive fitness in mice
    Kieckbusch J, Colucci F

113. NK cell function triggered by multiple activating receptors is negatively regulated by glycogen synthase kinase-3β
    Kwon HJ, Kim HS

114. Natural killer cells regulate eosinophilic inflammation in chronic rhinosinusitis
    Choi GE, Kim HS

115. Upregulation of Clr-b, an MHC-independent Inhibitory NK Cell Ligand, is an Early Event During MCMV Infection
    Kirkham CL, Aguilar OA, Mesci A, Chu WKL, Fine JH, Allan DSJ, Mossman K, Carlyle JR

116. Natural Killer Lytic-Associated Molecule (NKLAM) Influences the Maturation and Immunophenotype of Myc-Induced B Cell Lymphomas by Both NK-Independent and NK-Dependent Mechanisms
    Gullickson G, Kornbluth J

117. NK cells expressing self-inhibitory KIR2DL receptors exhibit a reduced capacity to inhibit HIV-1 replication in vitro
    Körner C, Simoneau C, Granoff M, Corleis B, Scully E, Kwon D, Jost S, Altfeld M

118. CXCR2 Chemokine Receptor Transduction of Human NK Cells to Improve Migration to Tumors
    Kremer V, Wennerberg E, Seitz C, Lundqvist A

119. NK cells 30 days after allogeneic stem cell transplantation present an immunophenotype consistent with an early maturation stage with signs of activation

120. Human NK Cells Suppress Influenza Infection in an Autologous System
    Kronstad LM, Blish CA

121. Multiple roles of LYST in control of regulated exocytosis: association of LYST mutation positions with defective NK cell function in Chediak-Higashi syndrome

122. Innate transplantation by means of an alpha/beta T-cell depleted allogeneic stem cell transplantation from matched related and unrelated donor grafts
    de Witte M, Fleurke G, van de Wagen L, Slaper I, Kuball J

123. Modelling Cytotoxic T lymphocyte and Natural Killer cell migration
    Lyrmann H, Neef M, Schoppmeyer R, Backes C, Schwarz EC, Qu B, Hoth M, Lautenschläger F, Kruse K, Kummerow C

124. KLF12 Regulation of NK cell Development and/or Function
125. The effects of HLA haplotypes on NK cell KIR repertoire development
Lam VC, and Lanier LL

126. TGF-β is required for the development of intestinal CD103+CD11b+ dendritic cells which control group 3 innate lymphoid cell homeostasis
Won TJ, Laouar A, Laouar Y

127. Intracellular osteopontin regulates homeostatic-driven long-lived natural killer cells
Leavenworth J, Verbinnen B, Wang Q, Shen E, Cantor H

128. The role of Ly49ε expression on intestinal intraepithelial lymphocytes in the development and progression of inflammatory bowel diseases, tumor immune response and bacterial infection

129. Ex vivo expanded canine non-B, non-T large granular NK lymphocytes are originated from CD3+CD5dim cytotoxic large granular lymphocytes
Lee SH, Shin DJ, Yoon MS, Cho D, Kim SK

130. Tim-3 and Cemcam1 Mark Exhaustion in Murine NK Cells
Lee Y, Sunwoo JB

131. Interleukin-17-dependent regulation of NK cell function
Nur S, Bär E, LeibundGut S

132. An N-Ethyl-N-Nitrosourea Induced Mutation in the GNL1 GTPase causes susceptibility to Cytomegalovirus
Leiva-Torres GA, Caignard G, Charbonneau B, Caron M, Sladek R, Vidal S

133. Respiratory influenza virus infection induces NK cells memory in mouse
Li T, Wang J, Chen Y, Sun R, Tian Z

134. EZH2 regulates NK cell development and function via repressing NKG2D

135. Regulatory T cells suppress effector NK cell responses during an acute retroviral infection by consumption of IL-2
Littwitz E, Dittmer U, Gibbert K

136. Guided Differentiation of Educated NK cells for Cancer Therapy
Liu L, Béziat V, Oei Yi Scheng V, Ljunggren HG, Malmberg KJ

137. Tonsilar NK cell subset targets cancer-associated GC-B cells during EBV infection
Jud A, Berger C, Nadal D, Lunemann A

138. Genotype specific sequence variations in HCV core-derived epitope alter binding of KIR2DL3 to HLA-C*03:04 and modulate NK cell function
Lunemann S, Chapel A, Hoelzemer A, Wedemeyer H, Altfeld M

139. Dendritic cells prime NK-cell functions at non-inflammatory condition

140. The NK cell developmental synapse: defining critical contacts in NK cell maturation
Mace EM, Orange JS

141. Distinct Stage-Specific Function of T-Box Transcription Factors In The Antiviral NK Cell Response
Madera S, Pikovskaya O, Reiner SL, Sun JC

142. Ly49:MHC-I interactions are deleterious during influenza virus infection: Superior protection by unlicensed NK cells
Mahmoud AB, Tu MM, Zein HS, Wight A, Rahim MMA, Lee SH, Sekhon HS, Brown EG, Makrigiannis AP

143. Expansion of functional LIR-1+NKG2C+ and FcγR-deficient NK cells in CMV DNA positive renal transplant patients
Makwana NB, Foley B, Irish AB, Lee S, Fernandez S, Price P

144. Haploidentical NK Cells Therapy Against High Risk Myelodysplastic Syndrome - Early and Transient Microchimerim Associated with Complete Remission

145. Examination of KIR clonal-like NK cell expansions during chronic viral hepatitis and IFNα therapy
Malone DFG, Lunemann S, Sandberg JK, Ljunggren HG, Wedemeyer H, Björkström NK

146. iNKT and NK activation in HIV-1 and HIV-2 infections associate with CD4 level and viral load

147. Crystallographic and NMR Structure Determination of CMV Immunoenavasins Provides Insight into Function and Evolution
Margulies DH, May N, Natarajan K, Tilahun M, Jiang J, Morozov G, Boyd LF, Mage MG, Vogeli B, Ying J, Sgourakis N, Bax A

148. Fetal epithelium-derived IL-17+IL-22- ILC3 represent the main lymphocyte subset in human amniotic fluid
Marguardt N, Ivarsson MA, Mjöberg J, Sundström E, Åkesson E, Seiger Å, Westgren M, Michaëllson J

149. Vaccine FastDC stimulated with IFN-γ and TLR ligand-based cocktails induce NK cells with enhanced and long lasting functionality over clinical gold standard DC
Leclercq G
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<td>150. Peripheral NK cell populations originate from site-specific immature NK cells more than from BM-derived mature NK cells Pinhas N, Sternberg-Simon M, Chiossone L, Shahaf G, Walzer T, Vivier E, Mehr R</td>
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<td>151. STAT1 isoform specific functions in NK cell biology Meissl K, Klein K, Witalisz-Siepracka A, Prchal-Murphy M, Sexl V, Müller M, Strobl B</td>
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<td>153. Uterine natural killer cells and uterine mast cells are both required for optimal spiral artery remodeling Meyer N, Woidacki K, Zenclussen AC</td>
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<td>155. Blockade of p38 MAPK restores proliferation in senescent human NK cells Müller-Durovic B, Lanna A, Maini M, Akbar A</td>
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<td>156. KIR3DS1 specific D0 domain polymorphisms disrupt KIR3DL1 surface expression and HLA binding Mulrooney TJ, Zhang AC, Goldgur Y, Boudreau JE, Hsu KC</td>
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<td>158. Targeting mechanisms for natural killer cell dysfunction in patients with multiple myeloma Canfield R, Robbins M, Prince HM, Ritchie DS, Neeson PJ</td>
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<td>164. Impaired cytotoxicity of NK cells in lung metastases during breast cancer progression Ohs I, Tugues Solsona S, Becher B</td>
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<td>165. Microchip-based single-cell imaging reveals that NK cell education via NKG2A regulates migration, target cell conjugation and probability of killing but not killing dynamics Forslund E, Sohlberg E, Enqvist M, Olofsson PE, Malmberg KJ, Önfelt B</td>
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<td>166. Quantitative analysis of β-actin clearance dynamics by non-diffraction limited STED nanoscopy at the NK cell lytic synapse Mace EM, Orange JS</td>
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<td>167. BNIP3-mediated mitophagy promotes the generation of natural killer cell memory O'Sullivan TE, Sun JC</td>
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<td>169. Analysis of inhibitory 2B4 receptor in XLP1 patients: diagnostic tool and differential capability to inhibit various activating NK cell pathways Pende D, Meazza R, Tuberosa C, Cetica V, Falco M, Loiacono F, Mingari MC, Moretta L, Bottino C, Aricò M.</td>
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<tr>
<td>170. The development potential of liver hematopoietic progenitor cells Peng H, Tang L, Sun R, Tian Z</td>
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<td>171. Human Skeleton To Be An Immune System To Generate NK Cells Peng M</td>
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<tr>
<td>173. 3D Structure of the Mouse Natural Killer Complex Plougastel-Douglas B, Taffner S, Yokoyama WM</td>
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<td>174. NK cells link obesity-induced adipose stress to inflammation and insulin resistance</td>
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175. In vivo Effects of Recombinant Canine IL-15 on the Generation and Function of NK cells in Dogs
   Puga Yung G, Gruaz L, Seebach J

176. Specific expansion of virus-specific NK cell subset lacking the inhibitory NKR-P1B receptor during murine cytomegalovirus infection
   Rahim MMA, Wight A, Mahmoud AB, Aguilar OA, Lee SH, Carlyle JR, Makrigiannis AP

177. Dynamics of NK cell activation during endotoxinemia: A matter of compartmentalization
   Rasid O, Cavaillon JM

178. Cytomegalovirus-infected primary endothelial cells preferentially activate NKG2C⁺ NK cells

179. Use of Killer cell Immunoglobulin-like Receptor genes as markers of hematopoietic chimerism in double-unit cord blood transplantation

180. HLA and KIR Genomics to Determine Outcome After Cord Blood Transplant (CBT)

181. Involvement of the NKC domain in combination with the MHC haplotype in the development of MHC-I positive and negative tumours

182. TLR-stimulated neutrophils instruct NK cells to promote adaptive immunity

183. CD14⁺ cells. IL-12 and HLA-E control HCMV-driven NKG2C⁺ NK cell expansion
   Rölle A, Pollmann J, Ewen EM, Halenius A, Hengel H, Cerwenka A

184. The IL-15-based ALT-803 complex enhances FcyRIIIa-triggered NK cell responses and in vivo clearance of B cell lymphomas

185. Sequence-based typing of TCGA and 1000 Genome samples associates KIR2DS4 secreted variants with susceptibility to cancer and KIR2DS4 functional variants with protection against cancer
   Rossof H

186. The peripheral blood Natural Killer cells from Crohn disease patients are activated and possess higher cytotoxic activity
   Samarani S, Sagala P, Grimard G, Deslandres C, Amre D, Ahmad A

187. Accumulation of cytotoxic CD16⁺ NK Cells in SIV-infected lymph nodes associated with in situ differentiation and exhaustion
   Schafer JL, Li H, Estes JD, Reeves RK

188. Manipulating Natural Killer Cell KIR Populations and NK Licensing ex vivo During Stimulation and Propagation
   Schafer J, Senyukov VV, Lee DA

189. Comparative analysis of NK cell reconstitution after allogeneic and autologous hematopoietic stem cell transplantation
   Schmied L, Terszowski G, Passweg J, Stern M

190. Human CD56bright NK cells express RORyt and derive from a CD34⁺IL-1R1⁺RORyt⁺ precursor

191. Tumor cell recognition of g9d2TCR T cells is dictated via Small Rho GTPase by linking mevalonate pathway to BTN3A1 (CD277)

192. CD8αα costimulation to γδT cell receptors involves diverse molecular interactions with ligands that include MHC class I-like molecules

193. Rapid Decrease in Hepatitis C Virus Viremia by Direct Acting Antivirals Improves the NK Cell Response to IFNα
   Serti E, Park H, Rivera E, Liang TJ, Ghany M, Rehermann B

194. Successful IFN-Free Therapy of Chronic Hepatitis C Virus Infection Normalizes Natural Killer Cell Function

195. Glioblastoma-infiltrating NK cells are dysfunctional and have a severely altered phenotype

196. Tissue specific education of decidural natural killer cells by maternal HLA
   Sharkey AM, Xiong S, Gardner L, Farrell LE, Ivarsson M, Kennedy P, Chazara O, Hibi SE, Colucci F, Moffett A

197. In vivo Effects of Recombinant Canine IL-15 on the Generation and Function of NK cells in Dogs
   Wensveen FM, Jelenčić V, Valentić S, Šestan M, Wensveen TT, Theurich S, Glasner A, Mendrila D, Štimac D, Wunderlich FT, Brüning JC, Mandelboim O, Polić B
198. Recruitment of protective NK cells to the lymph node during ectromelia virus infection requires the successive action of TLR9-MyD88-expressing CD11c⁺ cells, interferon gamma-producing lymph node-resident NK cells and chemokine-producing inflammatory monocytes


199. Promiscuous KIR binding to HLA-C*05 is peptide-specific for KIR2DL3 and peptide-independent for KIR2DL1

Sim MJW, Malaker SA, Shabanowitz J, Hunt DF, Rajagopalan S, Altmann DM, Boyton RJ, Long EO

200. CD300c is uniquely expressed on CD56bright Natural Killer Cells and its function alters from CD300a upon ligand recognition.

Dimitrova M, Zenzarrabeitia O, Borrego F, Simhadri V

201. Coordinated interrelated cytoskeletal functions regulate extensive physiologic NK cell lytic granule motility after arrival at the immunological synapse

Sinha P, Tsao D, Mace EM, Kolomeisky A, Diehl M, Orange JS

202. Natural killer cells expanded on membrane-bound IL15 or IL21 activate different miRNA transcriptional profiles with functional consequences

Somanachi A, Lee DA

203. NK cells require IL-28R for optimal in vivo activity

Souza-Fonseca-Guimaraes F, Young A, Mittal D, Martinet L, Brudigam C, Takeda K, Hill GR, Smyth MJ

204. A novel combinatorial therapy using cytolytic NK cells and anti-EGFR moAb to improve the treatment of EGFR expressing solid tumors


205. Cytokine modulate MHC class I and Ly49A expression and dynamics on the Natural Killer cell surface

Bagawath-Singh S, Staaf E, Stoppelenburg A, Spielmann T, Kambayashi T, Widengren J, Johansson S

206. High-resolution phenotyping of menstrual blood-derived uterine NK cells reveals self-KIR⁺ clonal-like expansions and a stable KIR-repertoire distinct from peripheral blood

Ivarssoon MA, Stiglund N, Westgren M, Gidlöf S, Björkström NK

207. Human Natural Killer Cell Repertoire Diversity Predicts HIV-1 Acquisition


208. LRBA is essential for allogeneic responses in bone marrow transplantation


209. A subset of NK cells negative for Ly49s3 and NKR-P1B are immature cells with the ability to develop into mature NKR-P1B cells

Sudworth A, Inngjerdingen M, Vaage JT, Rolstad B, Kveberg L

210. Co-inhibitory Factor Induced NK Cell Exhaustion and Immune Escape Mechanism in HBV-related Hepatocellular Carcinoma

Sun C, Sun R, Tian Z

211. CD200R-induced NK cell exhaustion and immune escape in hepatocellular carcinoma

Sun H, Sun C, Tian Z, Xiao W

212. Galectin-3 promotes tumor escape from natural killer cell-mediated surveillance

Sun R, Wang W, Guo H, Tian Z

213. Postoperative accumulation of myeloid derived suppressor cells impairs natural killer cell activity and contributes to metastatic disease

Tai LH, Alkayaly A, de Souza CT, Sahi S, Bennett S, Zhang J, Auer R

214. The inhibitory NKR-P1B:Clr-b recognition axis plays a role in tumour immunosurveillance in the detection of oncogenic transformation

Tanaka M, Fine JH, Kirkham CL, Ketela T, Moffat J, Allan DSJ, Carlyle JR

215. MicroRNA-183 control of DAP12 silences NK and T cells in the tumor microenvironment

Tejera MM, Donatelli SS, Zhou JM, Gilvary DL, Chen X, Eksioglu EA, Wei S, Djeu JY

216. With a little help from my friends – the role of immune cross-talk in NK cell response to HCMV

Christen L, Stern M, Terszowski G

217. Cellular immunotherapy of plasma-cell myeloma with multiple infusions of good manufacturing practice expanded haploidentical natural killer cells


218. A Decade of Experience with Cancer Treatment Using Autologous NK Cells

Terunuma H, Deng X, Terunuma A, Ashiba K, Nieta M, Watanabe K

219. Stem cell factor is an important ligand for uterine natural killer (uNK) cell development in the pathogenesis of endometriosis

Thiruchelvam U, Wingfield M, O’Farrelly C

220. NK cell education has a greater impact on proximal signaling by individual receptors than on synergy of activating receptors

Thomas LM, Long EO
<table>
<thead>
<tr>
<th>ID</th>
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<tbody>
<tr>
<td>221</td>
<td>Role of natural killer cell subsets and natural cytotoxicity receptors for the outcome of immunotherapy in acute myeloid leukemia</td>
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<tr>
<td>222</td>
<td>Fluorescent tagged NK cell receptors to study the integration of signals in natural killer cells at the immunological synapse</td>
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<td>223</td>
<td>Acquisition of activation receptor ligand by trogocytosis renders natural killer cells hyporesponsive</td>
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<td>224</td>
<td>CMV infection modulates NK cell function in vitro independently of NKG2C upregulation</td>
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<td>225</td>
<td>Ly49 receptor-dependent cancer immunosurveillance and tumor immunoediting in lymphoid and non-lymphoid cancers</td>
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<td>226</td>
<td>Identifying Ligands for Activating Killer Ig-like Receptors on HCMV infected fibroblasts</td>
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<td>227</td>
<td>An interplay of T- and E-box binding transcription factors control key checkpoints of NK cell maturation</td>
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<td>228</td>
<td>IL-21 dependent expansion of memory-like NK cells enhances protective immune responses against <em>Mycobacterium tuberculosis</em></td>
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<td>229</td>
<td>Hypoxia Promotes Human Natural Killer Cell Effector Functions In Vitro</td>
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<td>230</td>
<td>The structure of the atypical Killer Cell Immunoglobulin-like Receptor, KIR2DL4</td>
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<td>231</td>
<td>Conditional ablation of Nkp46&lt;sup&gt;+&lt;/sup&gt; cells using a novel Ncr1&lt;sup&gt;greenCre&lt;/sup&gt; mouse strain: Adaptive anti-B16 responses are impacted by the absence of Nkp46&lt;sup&gt;+&lt;/sup&gt; cells</td>
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<td>232</td>
<td>α-galactosylceramide and exosome-induced induced iNKT cell activation increases missing self recognition and preferential proliferation of educated NK cells</td>
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<td>233</td>
<td>Human cytokine-induced memory-like (CIML) NK cells exhibit altered NK cell licensing</td>
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<td>234</td>
<td>Characterization of Spontaneous and NK Cell-Induced ULBP2 Shedding from Tumor Cells</td>
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<td>235</td>
<td>Enhanced NK cells development in HIS mice by hIL-21 overexpression in vivo</td>
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<td>236</td>
<td>Scavenging of soluble NKG2D ligands from patients’ plasma to overcome NKG2D-dependent tumor-immune-escape from NK cell cytotoxicity</td>
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<td>HLA-E: a clinically relevant inhibitory factor for Natural Killer cell anti-Multiple Myeloma reactivity</td>
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<td>238</td>
<td>Investigating the role of inhibitory Ly49 receptors in T and B cell-independent immune memory</td>
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<td>239</td>
<td>NK cell-mediated tumour surveillance depends on Tyk2 but not on its kinase activity</td>
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<td>240</td>
<td>Enhancing NK cell resistance to reactive oxygen species via transduction with thioredoxin-1</td>
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<td>Characterising the direct interactions between human NK cells and <em>Plasmodium falciparum</em> infected red blood cells</td>
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<td>Education of NK cells by mechanism involving SAP family adaptors, SLAMF6 receptor and SHP-1 phosphatase</td>
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<td>243</td>
<td>Augmentation of diacylglycerol signaling enhances NK cell function without affecting Ly49 receptor acquisition or tuning</td>
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<td>244</td>
<td>Negative Regulation of Late-Stage Maturation and Function of Natural Killer Cells by Foxx1</td>
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<td>245</td>
<td>Targeted NK cells for adoptive immunotherapy of glioblastoma</td>
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### 246. Regulation of NK Cell Homeostasis by the Aryl Hydrocarbon Receptor
**Zhang L**, Shin JH, Chen C, Zhao Q, Storch B, Lu A, Sunwoo JB

### 247. DNAM-1 receptor triggers NK cell activation by coupling to enzymes Vav-1, PI3’K and PLC-γ, actin polymerization and granule polarization
**Zhang Z**, Wu N, Colonna M, Veillette A

### 248. CD27low/- nature killer cell is the major subset to aggravate experimental autoimmune encephalomyelitis

### 249. Human Intrahepatic NK cell Recognition of Cholangiocarcinoma
**Zimmer CL**, Berglin L, Melum E, Bergquist A, Björkström NK

### 250. An Essential Role or ETS1 in ILC2 Development
**Zook EC**, Ramirez K, Van der Voort G, Svensson E, Sigvardsson M, Kee BL
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<th>Time</th>
<th>2-May-15</th>
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<td>10:30 AM</td>
<td>NK CELL IN ANTI-TUMOR IMMUNITY (2)</td>
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<td>NK CELL EDUCATION AND SUBSETS (2)</td>
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<td>INNATE LYMPHOID CELLS</td>
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<td>NK CELL DEVELOPMENT AND DIFFERENTIATION</td>
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