

NK2025

TASMANIA | AUSTRALIA

21st Meeting of the Society for Natural Immunity • 8-11 June, Hobart



PROGRAM

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Join us in Hobart for a meeting filled with vibrant scientific discussions, innovative ideas, and a shared passion for NK cells and ILC immunity. The field has witnessed remarkable advancements in both fundamental understanding and translational applications in recent years, and we anticipate an exciting and thought-provoking meeting. Together, let's shape the future of science and health.

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SNI COUNCIL MEMBERS

PRESIDENT

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PAST PRESIDENT

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Professor of Immunobiochemistry
Heidelberg University, Medical Faculty Mannheim
Ludolf-Krehl-Strasse 13 – 17
D-68167 Mannheim Germany

LOCAL SCIENTIFIC & HOST COMMITTEE

CHAIR

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Monash University (VIC) & Lions Eye Institute (WA)
Australia

DEPUTY CHAIR

Iona Schuster

Monash University (VIC)
Australia

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Monash University (VIC) & Lions Eye Institute (WA)
Australia

Fernando Guimaraes

Frazer Institute (QLD)
Australia

Nicholas Huntington

Monash University (VIC)
Australia

INTERNATIONAL SCIENTIFIC REVIEW COMMITTEE

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Adelheid Cerwenka

Francesco Colucci

Todd Fehniger

Barbara Kee

Hans-Gustaf Ljunggren

Karl-Johan Malmberg

Domenico Mavilio

Jordan Orange

Timothy O'Sullivan

Katy Rezvani

Chiara Romagnani

Joseph Sun

Carsten Watzl

Frederick National Laboratory for Cancer Research, Bethesda, USA

Heidelberg University, Mannheim, Germany

University of Cambridge, United Kingdom

Washington University School of Medicine, St Louis, USA

University of Chicago, USA

Karolinska Institutet, Stockholm, Sweden

Oslo University Hospital, Oslo, Norway

Milan University and Humanitas Research Hospital, Milan, Italy

Columbia University, New York, USA

University of California Los Angeles, USA

MD Anderson Cancer Center, Houston, USA

Charité University and DRFZ Berlin, Germany

Memorial Sloan Kettering Cancer Center, New York, USA

Leibniz Research Center, Dortmund, Germany

PAST MEETINGS

1st 1992, St. Petersburg, FL, USA

2nd 1994, Taormina, Italy

3rd 1995, Channel Islands Oxnard, CA, USA

4th 1997, Helsinki, Finland

5th 1998, Warrenton, VA, USA

6th 2000, Marseille, France

7th 2002, San Juan, Puerto Rico

8th 2004 Amsterdam, The Netherlands

9th 2005, Kauai, HI, USA

10th 2007, Cambridge, England

11th 2008, Perth, Australia

12th 2010, Dubrovnik, Croatia

13th 2012, Asilomar, CA, USA

14th 2013, Heidelberg, Germany

15th 2015, Montebello, QC, Canada

16th 2016, Taormina, ME, Italy

17th 2018, San Antonio, TX, USA

18th 2019, Luxembourg, Luxembourg

19th 2022, Bonita Springs, FL, USA

20th 2023, Oslo, Norway

GENERAL INFORMATION

VENUE

Hotel Grand Chancellor Hobart
1 Davey Street, Hobart, TAS 7000
+61 3 6235 4535

ROOMS

Plenary Session Room: Grand Ballroom
Poster Session: Federation Ballroom
Exhibits: Federation Ballroom
Registration desk: Mezzanine (outside Grand Ballroom)

ABSTRACT PRESENTATIONS

All accepted abstracts, including those selected for oral presentations, will be presented as Posters.

SELECTED ORAL ABSTRACT PRESENTATIONS

Selected oral abstract presentations will take place in the Grand Ballroom. Each abstract presenter will have 10 minutes total: 8 minutes for a formal presentation and 2 minutes for questions and answers.

LIGHTNING PRESENTATIONS

There will be two Lightning Sessions held during the meeting. All Lightning presenters will have 3 minutes (recommend max 3 slides) to present their work and 2 minutes for questions and answers.

INFORMATION FOR SPEAKERS/ ORAL PRESENTATIONS

Please bring your PowerPoint presentation on a USB to The Grand Ballroom at the start of the break preceding your session to be loaded and tested. If possible, please bring the presentation to be loaded on the day prior. Please be back in the room 5-10 minutes prior to your session start time to meet your Chairs for a quick briefing. A technician will be on hand to assist with any issues and to help you check your presentation. The preferred presentation dimensions are 16:9 however 4:3 will also display sufficiently.

If you are presenting on Sunday 8 June, the AV technicians will be in the Grand Ballroom from 3pm – 6pm on Saturday 7 June. Otherwise please visit the AV desk during registration. Please ensure your

presentation is loaded in advance to ensure smooth running during the session.

POSTER PRESENTATIONS

There will be two poster sessions:

Poster Session One: Sunday 8 June, 4.45pm-6.15pm, posters #100-#190

Put posters up on Sunday prior to or during morning tea (10:30-11:00), stand by poster to present at allocated time (16:45-18:15) and remove poster by Monday lunch time and before 13:00.

Poster Session Two: Monday 9 June, 8pm-9.30pm, posters #191-#278

Put posters up on Monday during lunch time from 13:00, stand by poster to present at allocated time (20:00-21:30) and remove poster Tuesday during lunch time (12:40– 14:10).

In addition to the allocated presentation time, presenters are encouraged to talk to other delegates about their posters during breaks.

Please note that we are unable to assist with the storing, freighting and taking down of posters.

Posters should be in standard A0 portrait format. Please note, we will not be able to display horizontal (landscape) posters due to space limitations. Please note that:

- Velcro dots will be supplied to hang your poster.
- Ensure you collect your poster at the conclusion of the session.

To find your poster number, please search through the presenting authors in the program section of the App (via the menu at the top) or refer to the email correspondence sent to you from ASN Events.

EXHIBITORS

Please visit the exhibitors that will be present throughout the conference. You will find them located in Federation Ballroom.

REGISTRATION

The registration desk will be located in the Mezzanine outside the Grand Ballroom. Please visit the registration desk upon arrival to collect your name badge, tickets and conference materials. You are required to wear your name badge during the whole meeting.

Registration Desk Opening Hours:

Sunday 8 June: 8:00am - 6:30pm

Monday 9 June: 8:00am - 4:30pm & 7:30pm – 9:30pm

Tuesday 10 June: 8:00am - 5:00pm

Wednesday 11 June: 8:30am - 12:30pm

SOCIAL EVENTS

WELCOME RECEPTION

Date: Sunday, 8 June 2025

Time: 6.15pm - 7.45pm

Location: Federation Ballroom, Hotel Grand Chancellor Hobart

The reception is included in the registration rate for all registered attendees and prepaid guests. Please wear your name tags to enter.

CONFERENCE DINNER

Date: Tuesday, 10 June 2025

Time: 7.00pm - 11.00pm

Location: Glen Albyn Estate

Tickets required

If you have registered to attend the conference dinner, a ticket will be included with your name badge. If you have not included the conference dinner in your registration and would like to attend, please contact ASN Staff at registration.

Buses will depart from Hotel Grand Chancellor Hobart to the conference dinner at 6:30pm. Please be outside Hotel Grand Chancellor Hobart promptly for departure. Return buses will depart Glen Albyn Estate starting at 10.30pm.

Wi-Fi

Complimentary Wi-Fi is available for delegates for the duration of the meeting. Please keep in mind the Wi-Fi is ideally suited for checking emails and using the Conference App. Please use the following login details:

Network Name: NK2025

Password: NKHOBART

CONFERENCE APP

Simply scan the QR code to view the NK2025 Conference App via your web browser.



TRAVEL AWARD RECIPIENTS

Congratulations to the following students or postdoctoral fellows who were awarded a travel grant to attend the meeting!

Alexander Biederstädt, Technical University of Munich & MD Anderson Cancer Center

Genome-wide CRISPR screens decipher previously unrecognized modulators to boost CAR-NK cell antitumour potency

Anthony Cort, Stanford University

Interrogating the Natural Killer cell response to human Coronavirus infection

Hijab Fatima, Columbia University Irving Medical Center

Modulating N-glycan processing enhances CD16a signal transduction and natural killer cell cytotoxicity

Alexandra Forrai, Max-Planck-Institut für Infektionsbiologie

Natural killer cell specificity towards different human cytomegalovirus strains

Rih-Sheng Huang, University of Minnesota

Reprogramming genetic circuits for enhanced NK cell functionality using non-viral precision genome editing

Mark Owyong, Weill Cornell Medical College & Memorial Sloan Kettering Cancer Center

Canonical WNT signaling by Frizzled-5 mediates the adaptive NK cell response to MCMV infection

Yeeun Paik, Washington University St. Louis

Tissue-specific requirement for T-bet in NKp46+ innate lymphoid cell homeostasis, function, and response to MCMV

Marcelo Pereira, Nationwide Children's Hospital

TGFβi Natural Killer (NK) cells in Advanced GD2-expressing Breast Cancers (DiG NKs): A novel combination therapy to tackle metastatic TNBC

Giovanna Perinetti Casoni, University of Oslo

Correcting functional gaps in iPSC-derived NK cells through CRISPR screens and transcriptional reference mapping

Katja Srpan, Memorial Sloan Kettering Cancer Center

NK cells regulate T cell activity in graft-versus-host disease via their activating receptor KIR3DS1

Ana Stojanovic, Heidelberg University

Functional co-option of HIF1α and AhR control NK cell responsiveness under hypoxia

Frederique van den Haak, Columbia University Irving Medical Center

Strategies for lytic granule repositioning to the plasma membrane to promote non-directional bystander killing in 3D tumor models

PROGRAM AT A GLANCE

SUNDAY, 8th JUNE

09:00 – 09:20	Conference Welcome & Welcome to Country
09:20 – 10:30	NK Cells in the Clinic I
10:30 – 11:00	Morning Tea
11:00 – 12:10	NK Cells in the Clinic II
12:10 – 13:00	Round Table Discussion: NK cells in the Clinic
13:00 – 14:30	Lunch
14:30 – 15:10	Lightning Session One
15:15 – 15:45	Afternoon Tea
15:45 – 16:45	Keynote Lecture
16:45 – 18:15	Poster Session One: #100 – #190
18:15 – 19:45	Welcome Reception

MONDAY, 9th JUNE

08:30 – 10:00	Specificity and Activation
10:00 – 10:30	Morning Tea
10:30 – 10:50	Eva Klein Tribute
10:50 – 12:20	Infection
12:20 – 13:40	Lunch
13:40 – 15:00	Luminaries I
15:00 – 15:20	Tasmanian Devil Immunology
15:20 – 15:50	Afternoon Tea
15:50 – 16:30	Lightning Session Two
16:30 – 20:00	Free Time
20:00 – 21:30	Poster Session Two: #191 – #279

TUESDAY, 10th JUNE

08:30 – 09:40	Cancer and Effector Function
09:40 – 10:10	Morning Tea
10:10 – 11:40	Maturation and Function
11:40 – 12:40	Metabolism
12:40 – 14:10	Lunch
14:10 – 15:10	Differentiation, Regulation and Function
15:10 – 16:20	Responses in Tissues
16:20 – 17:00	Afternoon Tea
17:00 – 17:35	Luminaries II
17:35 – 19:00	Free Time
19:00 – 23:00	Gala Dinner

WEDNESDAY, 11th JUNE

09:00 – 10:20	Cancer
10:20 – 10:50	Morning Tea
10:50 – 11:25	Luminaries III
11:25 – 12:00	Closing Remarks including NK2026
12:00 – 13:30	Lunch

MEETING PROGRAM - SUNDAY 8 JUNE

NK cells in the Clinic I

9:20 AM - 10:30 AM

Moderators: Jennifer Foltz & John Sunwoo

- 9:20 AM – 9:40 AM **Todd Fehniger, Washington University School of Medicine**
An update on memory-like NK cells and their use as cancer immunotherapy
- 9:40 AM – 10:00 AM **Jeffrey Miller, University of Minnesota**
Translating NK cell biology into the clinic: cells products versus engagers
- 10:00 AM – 10:10 AM **Dean A Lee, Nationwide Children's Hospital**
165 Development and implementation of a universal donor platform for off-the-shelf allogeneic NK cell therapy.
- 10:10 AM – 10:20 AM **Francesca Reggiani, Azienda USL-IRCCS of Reggio Emilia**
166 Natural Killer cells drive immunotherapy efficacy in Triple-Negative Breast Cancer patients by modulating their transcriptional plasticity
- 10:20 AM – 10:30 AM **Mubin Tarannum, Dana Farber Cancer Institute**
257 Mesothelin CAR memory-like NK cells secreting fusion IL12-A3 cytokine demonstrate enhanced anti-tumor responses in multiple malignancies

MORNING TEA BREAK

10:30 AM - 11:00 AM

NK cells in the Clinic II

11:00 AM - 12:10 PM

Moderators: Martin Felices & Bethany Mundy-Bosse

- 11:00 AM – 11:20 AM **Dan Kaufman, University of California- San Diego**
Overcoming glycocalyx-mediated inhibition of NK cells
- 11:20 AM – 11:40 AM **Domenico Mavilio, Istituto Clinico Humanitas and University of Milan**
Impact of tissue-specific anti-tumor NK cells in the fate of colorectal liver metastasis
- 11:40 AM – 11:50 AM **Marcelo Pereira, Abigail Wexner Research Institute at Nationwide**
167 TGFβ1 Natural Killer (NK) cells in Advanced GD2-expressing Breast Cancers (DiG NKs): A novel combination therapy to tackle metastatic TNBC
- 11:50 AM – 12:00 PM **Alexander Biederstädt, The University of Texas MD Anderson Cancer Center**
168 Genome-wide CRISPR Screens Decipher Previously Unrecognized Modulators to Boost CAR-NK Cell Antitumour Potency
- 12:00 PM – 12:10 PM **Rih-Sheng Huang, University of Minnesota**
169 Reprogramming genetic circuits for enhanced NK cell functionality using non-viral precision genome editing

Round Table Discussion: NK cells in the Clinic

12:10 PM – 1:00 PM

Moderators: Jennifer Foltz, John Sunwoo, Bethany Mundy-Bosse & Martin Felices

12:10 PM – 12:20 PM Hind Rafei

279 CREM is a regulatory checkpoint of CAR and IL-15 signaling in NK cells abs

LUNCH

1:00 PM – 2:30 PM

Lightning Session One

2:30 PM – 3:10 PM

Moderators: Gabriela Wiedemann & Aimee Merino

- 2:30 PM – 2:35 PM Veronika Bachanova, University of Minnesota
170 Phase I Study of iPSC derived CAR-NK FT596 with Rituximab as Relapse Prevention After Autologous Hematopoietic Stem Cell Transplant (auto-HSCT) for B-Cell Lymphoma (NCT04555811)
- 2:35 PM – 2:40 PM Sadia Afrin, Washington University in St. Louis
171 Defining mechanisms of NK cell dysfunction in the multiple myeloma tumor microenvironment
- 2:40 PM – 2:45 PM Dongfang Liu, Rutgers University
172 CD147-CAR-NK Cell Therapy Shows Minimal Toxicities in Human CD147 Transgenic Mouse Model with Solid Tumors
- 2:45 PM – 2:50 PM Boqun Bao, University of Science and Technology of China
173 ASB2 supports liver ILC1 maintenance and tumorcidal activities through balancing lipid metabolism
- 2:50 PM – 2:55 PM Paarth B Dodhiawala, University of Minnesota Medical School
174 Targeting the KRAS oncoprotein sensitizes pancreatic cancer to NK cell therapy
- 2:55 PM – 3:00 PM Shi Yong Neo, Singapore Immunology Network
175 Nur77 activation reinvigorates NK cell immunity in hepatocellular carcinoma
- 3:00 PM – 3:05 PM Caprice D. Eisele, The Ohio State University Comprehensive Cancer Center
176 Evidence for a Functional and Spatial Natural Killer Cell Dichotomy in Human Endometrial Cancer
- 3:05 PM – 3:15 PM Peng Li, Chinese Academy of Sciences
177 DNMT1 inhibition reprograms T cells to NK-like cells with potent antitumor activity

AFTERNOON TEA BREAK

3:15 PM – 3:45 PM

3:45 PM – 4:45 PM

Jonathan Sprent, Garvan Institute of Medical Research
Optimizing IL-2 for Immunotherapy



Professor Jonathan Sprent is a prominent Australian immunologist recognised for his pioneering and sustained contributions to the understanding of T cell immunobiology.

Jonathan Sprent's research has provided seminal insights into T cell development, thymic selection, immunological tolerance, T cell homeostasis, T cell activation and T cell memory, transplantation immunology and cancer immunotherapy.

His key discoveries include defining the mechanisms of positive and negative thymic selection and how they contribute to T cell differentiation and central tolerance; describing the role of cytokines in homeostatic T

cell proliferation and T cell memory; defining the T and B cell collaboration that occurs during antibody production; the development of novel monoclonal antibody complexes and their use as immunotherapeutic agents.

Professor Sprent's outstanding research career has been recognised by numerous awards and honours. He is a Fellow of the Royal Society (UK), a member of the National Academy of Sciences (USA) and a Fellow of the Australian Academy of Science. He was President of the American Association of Immunology. Sprent was awarded the Lifetime Achievement Award by the American Association of Immunology (AAI) in 2015 and was elected a Distinguished Fellow of AAI in 2019.

Poster Session One: Posters #100 - #190

4:45 PM – 6:15 PM

Welcome Reception

6:15 PM – 7:45 PM

MEETING PROGRAM – MONDAY 9 JUNE

Specificity and Activation

8:30 AM – 10:00 AM

Moderators: Silvana Gaudieri & Malcolm Sim

8:30 AM – 8:50 AM

Chiara Romagnani, Charité - Universitätsmedizin Berlin
Mechanisms of NK cell clonality

8:50 AM – 9:10 AM

Quirin Hammer, Karolinska Institute
Peptide-specific recognition of viruses and viral strains by NK cells

9:10 AM – 9:30 AM

Jamie Rossjohn, Monash University
NK cell receptor interactions: up close and personal

- 9:30 AM – 9:40 AM Anthony De Tomaso, University of California
178 Canonical immune signal transduction pathways underlie rapid and convergent evolution of allorecognition receptors
- 9:40 AM – 9:50 AM Philippa M Saunders, The Peter Doherty Institute for Infection and Immunity
179 Variation in KIR modifies NK cell sensitivity to HLA loss
- 9:50 AM – 10:00 AM Katja Sran, Memorial Sloan Kettering Cancer Center
254 NK cells regulate T cell activity in graft-versus-host disease via their activating receptor KIR3DS1

MORNING TEA BREAK

10:00 AM – 10:30 AM

Eva Klein Tribute - Hans-Gustaf Ljunggren, Karolinska Institutet

10:30 AM – 10:50 AM

Infection

10:50 AM – 12:20 PM

Moderators: Luis J. Montaner & R. Keith Reeves

- 10:50 AM – 11:10 AM Catherine Blish, Stanford University School of Medicine
NK cell responses to HIV
- 11:10 AM – 11:30 AM Joseph Sun, Weill Cornell Medical College
TCF19 drives a broad transcriptional program that potentiates optimal innate and adaptive functions of antiviral NK cells
- 11:30 AM – 11:50 AM Michaela Müller-Trutwin, Institut Pasteur
Natural killer cells in unusual cases of durable viral control
- 11:50 AM – 12:00 PM Michael J Rogers, Garvan Institute of Medical Research
180 Mevalonate kinase deficiency is associated with lack of mature NK cells and a dysregulated response to viral infection
- 12:00 PM – 12:10 PM Alexandra Forrai, Charité Universitätsmedizin
181 Natural killer cell specificity towards different human cytomegalovirus strains
- 12:10 PM – 12:20 PM Anthony Cort, Stanford University
182 Interrogating the Natural Killer Cell Response to Human Coronavirus Infection

LUNCH

12:20 PM – 1:40 PM

Luminaries I

1:40 PM – 3:00 PM

Moderators: Mariapia Degli-Esposti & Anthony Scalzo

- 1:40 PM – 2:00 PM Stipan Jonjić, University of Rijeka
Untangling the Gordian Knot: CMV and Ly49 Receptors

- 2:00 PM – 2:20 PM **Mary Carrington, Frederick National Laboratory for Cancer Research**
The complex mesh of immunogenetics, NK cell biology, and human disease
- 2:20 PM – 2:40 PM **Wayne Yokoyama, Washington University School of Medicine**
Missing-self and control of viral infections

2:40 PM – 3:00 PM DISCUSSION



Tasmanian Devil Immunology

3:00 PM – 3:20 PM

Moderator: Mariapia Degli-Esposti

- 3:00 PM – 3:20 PM **Andrew Flies, University of Tasmania**
Tasmanian devil immunology and transmissible cancers

AFTERNOON TEA BREAK

3:20 PM – 3:50 PM

Lightning Session Two

3:50 PM – 4:30 PM

Moderators: Richard Stanton & Erik Dissen

- 3:50 PM – 3:55 PM Simon Kollnberger, Cardiff University School of Medicine
258 Human cytomegalovirus encodes a hypervariable immunoevasin that binds killer cell immunoglobulin-like receptors
- 3:55 PM – 4:00 PM Alexander Barrow, University of Melbourne
259 Nkp44: Integrating innate immune signals to drive anti-tumour immunity
- 4:00 PM – 4:05 PM Jens Niemann, Leibniz Research Centre for Working Environment and Human Factors
260 Identification of serial killing natural killer cells
- 4:05 PM – 4:10 PM Tessa M Campbell, Karolinska Institutet
261 Self-renewal of conventional and adaptive NK cells in the periphery
- 4:10 PM – 4:15 PM Izumi de los Rios Kobara, University School of Medicine
262 Interferon-mediated NK cell activation is associated with limited neutralization breadth during SARS-CoV-2 infection
- 4:15 PM – 4:20 PM Louisa Alim, The University of Queensland
263 Deciphering the mechanistic roles of TNF signaling via TNFR1 and TNFR2 on NK cell-mediated anti-tumor immunity.
- 4:20 PM – 4:25 PM Randy A Melanson, University of Chicago
264 Investigating the role of Ets1 in NK cell maturation and function.
- 4:25 PM – 4:30 PM Michael A Ruesch, Ohio State University Comprehensive Cancer Center

Free Time

4:30 PM – 8:00 PM

Poster Session Two: Posters #191 - #279

8:00 PM – 9:30 PM

MEETING PROGRAM – TUESDAY 10 JUNE

Cancer and Effector Function

8:30 AM – 9:40 AM

Moderators: Eugene Oltz & Nicholas Huntington

- 8:30 AM – 8:50 AM **David Raulet, University of California, Berkeley**
Intrinsic regulators of NK cell activation and desensitization
- 8:50 AM – 9:10 AM **Satu Mustjoki, University of Helsinki**
Single-Cell Functional Genomic Profiling of Primary AML Cell Sensitivity to NK Cells and the Impact of Small Molecule Drugs
- 9:10 AM – 9:20 AM **Sofía Beatriz Soler, University Hospital Bonn**
183 Enhanced NK-cell Cytotoxicity by Combining CRISPR/Cas9 Genome Editing and RIG-I Activation.
- 9:20 AM – 9:30 AM **Carsten Watzl, Leibniz Research Center Dortmund (IfADo)**
184 The entry mechanism of Granzyme B into target cells and the functional role of different granzymes for the cytotoxic activity of human NK cells
- 9:30 AM – 9:40 AM **Yoshihiro Hayakawa, University of Toyama**
185 PP2A: a key negative regulator of NK cell homeostasis and effector functions

Morning Tea Break

9:40 AM – 10:10 AM

Maturation and Function

10:10 AM – 11:40 AM

Moderators: Andrew Brooks & Daniel Murin

- 10:10 AM – 10:30 AM **Jordan Orange, Columbia University Irving Medical Center**
Seeking deficiencies of and superpowers in killing
- 10:30 AM – 10:50 AM **Iva Nikolic, Monash University**
Systematic discovery of cytokine checkpoints in natural killer cell anti-tumour immunity
- 10:50 AM – 11:10 AM **Dimitra Peppas, UCL**
Harnessing Distinct NK Cell Properties for Therapeutic Applications: Insights from HBV and HIV Infection

- 11:10 AM – 11:20 AM Ana Stojanovic, Mannheim Heidelberg University
186 *Functional co-option of HIF1 α and AhR control NK cell responsiveness under hypoxia*
- 11:20 AM – 11:30 AM Mark Owyong, Memorial Sloan Kettering Cancer Center
187 *Canonical WNT signaling by Frizzled-5 mediates the adaptive NK cell response to MCMV infection*
- 11:30 AM – 11:40 AM Harrison Sudholz, University of California
188 *Core fucosylation of IL-2RB is required for natural killer cell homeostasis*

Metabolism

11:40 AM – 12:40 PM

Moderators: Yoshihiro Hayakawa & Colleen Lau

- 11:40 AM – 12:00 PM **Tim O'Sullivan, UCLA**
Nutrient control of human NK cell functions
- 12:00 PM – 12:20 PM **Rebecca Delconte, Memorial Sloan Kettering Cancer Center**
Glucocorticoids rewire tissue-specific NK cell metabolism
- 12:20 PM – 12:30 PM Hijab Fatima, Columbia University Irving Medical Center
266 *Modulating N-glycan processing enhances CD16a signal transduction and natural killer cell cytotoxicity*
- 12:30 PM – 12:40 PM Cathal Keane, Trinity College
267 *Macrophage-Derived Lipids act as Metabolic Regulators to Suppress NK Cell Functions*

LUNCH

12:40 PM – 2:10 PM

Differentiation, Regulation and Function

2:10 PM – 3:10 PM

Moderators: Barbara Kee & Alexander Barrow

- 2:10 PM – 2:30 PM **Gabrielle Belz, University of Queensland**
268 *GFI1-FOXO1 regulation of NK cell maturation and function*
- 2:30 PM – 2:50 PM **Emily Mace, Columbia University Irving Medical Center**
269 *Allelic bias in differentiated NK cells contributes to heterogeneous cellular phenotypes*
- 2:50 PM – 3:00PM Yeeun Paik, Washington University School of Medicine
270 *Tissue-specific requirement for T-bet in NKp46+ innate lymphoid cell homeostasis, function, and response to MCMV*
- 3:00 PM – 3:10 PM Giovanna Perinetti Casoni, University of Oslo
271 *Correcting functional gaps in iPSC-derived NK cells through CRISPR screens and transcriptional reference mapping*

Responses in Tissues

3:10 PM – 4:20 PM

Moderators: Hui Peng & Iona Schuster

- 3:10 PM – 3:30 PM **Marco Colonna, Washington University School of Medicine**
Regulation of NK Cell and ILC1 Function by TGF β Signaling
- 3:30 PM – 3:50 PM **Francesco Colucci, University of Cambridge**
NK cells in reproductive health and beyond
- 3:50 PM – 4:00 PM Nicole Wild, Karolinska Institutet
272 High granzyme A expression identifies a unique subset of ileal NK cells affected in gut inflammation
- 4:00 PM – 4:10 PM Binqing Fu, University of Science and Technology of China
273 Maternal natural killer cells drive neuroimmune disorders in offspring through aberrant secretion of extracellular granzyme B
- 4:10 PM – 4:20 PM Declan J Gainer, Queen's University
164 Selective deletion of the natural killer cell type-II TGF- β receptor impairs murine lung development and function

AFTERNOON TEA BREAK

4:20 PM – 5:00 PM

Luminaries II

5:00 PM – 5:35 PM

Moderator: Todd Fehniger

- 5:00 PM – 5:35 PM **Michael Caligiuri**
Stumbling, bumbling, and fumbling - uncovering the secrets of cellular innate immunity



GALA DINNER

7:00 PM – 11:00 PM

MEETING PROGRAM – WEDNESDAY 11 JUNE

Cancer

9:00 AM – 10:20 AM

Moderators: Carsten Watzl & Fernando Guimaraes

- 9:00 AM – 9:20 AM **Adelheid Cerwenka, Heidelberg University**
Harnessing NK cell reactivity against solid tumors
- 9:20 AM – 9:40 AM **Karl-Johan Malmberg, The University of Oslo**
Designing a synthetic killer based on a natural template

- 9:40 AM – 9:50 AM Frederique van den Haak, Columbia University Irving Medical Center
274 Strategies for lytic granule repositioning to the plasma membrane to promote non-directional bystander killing in 3D tumor models.
- 9:50 AM – 10:00 AM Marwa Afifi, Georgetown University
275 Fibroblast activation protein (FAP) enhances adoptive NK cell therapy in solid tumors
- 10:00 AM – 10:10 AM Margareta P. Correia, Portuguese Oncology Institute of Porto
276 Targeting Immunoepigenetics to Unlock NK-Mediated Killing of Prostate Cancer Cells
- 10:10 AM – 10:20 AM Giovanni Bernardini, Sapienza University Of Rome
277 CXCR3 Promotes Protection from Colorectal Cancer Liver Metastasis by Driving NK cell Infiltration and Plasticity

MORNING TEA BREAK

10:20 AM – 10:50 AM

Luminaries III

10:50 AM – 12:00 PM

Moderators: Petter Höglund & Jianhua Yu

- 10:50 AM – 11:10 AM **Angela Santoni, Sapienza University of Rome**
50 years with NK cells: looking back at the past to imagine the future



- 11:10 AM – 11:25 AM DISCUSSION

Closing Remarks including NK2026

11:25 AM – 12:00 PM

LUNCH

12:00 PM – 1:30 PM

POSTER PRESENTATIONS

POSTER	TITLE	AUTHOR	REPRESENTING
#100	Enhancing CAR-NK Potency and Persistence with MyD88/CD40 Costimulation	Sunil Acharya	MD Anderson Cancer Center
#101	Augmentation of NK cell persistence and anti-tumor immunity by expression of a chimeric MPL/IL2RB fusion protein	David S.J. Allan	National Heart, Lung, and Blood Institute, National Institutes of Health
#102	Accurate prediction of the strength of interaction of polymorphic NK cell receptors with MHC class I ligands modulated by peptides using protein language models	Abdallah AlShafey	Nationwide Children's Hospital
#103	Multiomic single-cell sequencing of influenza-stimulated NK cells reveals an age-, sex- and KIR-specific combination for reactivity	Eric Alves	University of Western Australia
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#122	Bone marrow stromal cells hamper leukemia cell induced NK cell activation and cytotoxicity	Salome Decombis	Hematology Research Unit Helsinki, University of Helsinki

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