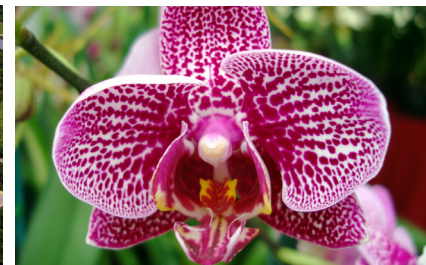


# NK2022

50 Years of NK Cells



## FINAL PROGRAM



@SNI\_NKMeeting

#NK2022

# TABLE OF CONTENTS

General Information .....	1
Travel Grant Award Recipients .....	3
Meeting Floorplan .....	4
Program-At-A-Glance.....	5
Pre-Meeting Workshop: NK Cells in the Clinic .....	6
NK2022 Meeting Program .....	7
Poster Presentations .....	14
Sponsor Information.....	26

## LOCAL SCIENTIFIC & HOST COMMITTEE

**Chair: Megan Cooper**, Washington University School of Medicine, St. Louis, MO, USA

**Chair: Todd Fehniger**, Washington University School of Medicine, St. Louis, MO, USA

**Marco Colonna**, Washington University School of Medicine, St. Louis, MO, USA

**Julie Djeu**, Moffitt Cancer Center, Tampa, FL, USA

**Anthony French**, Washington University School of Medicine, St. Louis, MO, USA

**Katherine Hsu**, Memorial Sloan Kettering Cancer Center, New York, USA

**Wayne Yokoyama**, Washington University School of Medicine, St. Louis, MO, USA

## TRAINEE SESSION CHAIRS

**Melissa Berrien-Elliott**, Washington University School of Medicine, St. Louis, MO, USA

**Stephen Waggoner**, Cincinnati Children's Hospital, Cincinnati, OH, USA

## SCIENTIFIC REVIEW COMMITTEE

**Jeanette Boudreau**, Dalhousie University, Halifax, NS, Canada

**Adelheid Cerwenka**, Heidelberg University, Mannheim, Germany

**Aharon G. Freud**, The Ohio State University, Columbus, OH, USA

**Nadia Guerra**, Imperial College London, London, United Kingdom

**Barbara L. Kee**, University of Chicago, Chicago, IL, USA

**Hans-Gustaf Ljunggren**, Karolinska Institutet, Stockholm, Sweden

**Lydia Lynch**, Trinity College, Dublin, Ireland

**Karl-Johan Malmberg**, Karolinska Institutet, Stockholm, Sweden

**Timothy E. O'Sullivan**, UCLA, Los Angeles, CA, USA

**Joseph C. Sun**, Memorial Sloan Kettering Cancer Center, New York, NY, USA

**Sophie Ugolini**, CIML, Marseille, France

**Eric Vivier**, CIML, Marseille, France

**Carsten Watzl**, Leibniz Research Center Dortmund, Dortmund, Germany

## SNI COUNCIL MEMBERS

### PRESIDENT

**Adelheid Cerwenka**, Heidelberg University, Mannheim, Germany

### PRESIDENT ELECT

**Todd A. Fehniger**, Washington University School of Medicine, St. Louis, USA

### PAST PRESIDENT

**Michael Caligiuri**, City of Hope National Medical Center, Duarte, CA, USA



# GENERAL INFORMATION

The meeting will take place at the following hotel:

## **Hyatt Regency Coconut Point Resort and Spa**

5001 Coconut Road  
Bonita Springs, Florida, United States, 34134  
Tel: +1-239-444-1234

**General Session Room:** Estero Ballroom

**Exhibit & Poster Hall:** Calusa A-E

**Registration Desk:** Conference Foyer

**Meals:** Calusa Terrace

**Welcome Reception:** Waterfall Pool Deck & Cypress Courtyard

**Gala Dinner:** Royal Palm Courtyard

Please see page 4 for a meeting floorplan.

## **ABSTRACT PRESENTATIONS**

All accepted abstracts, regardless of presentation type, will be presented as Posters. Use the **blue poster number** within the program schedule to locate posters in the Exhibit & Poster Hall and in the Abstract Book. The Abstract Book is available online at [www.nk2022.org/program/abstracts](http://www.nk2022.org/program/abstracts). For quick access, use the QR Code below:



## **Oral Abstract Presentations**

Oral abstract presentations will take place in the Estero Ballroom. Each abstract presenter will have 10 minutes total: 8 minutes for a formal presentation and 2 minutes for questions and answers. All presenters are asked to upload their slides with the AV technician in the Estero Ballroom between 6:00 am – 8:00 am on the day of their presentation.

## **Lightning Poster Presentations**

There will be two Lightning Poster Sessions held during the meeting in the Estero Ballroom. All Lightning Poster presenters will have 3 minutes to present their work and 2 minutes for questions and answers. Slides (maximum of 3) will need to be uploaded with the AV technician in the Estero Ballroom between 6:00 am – 8:00 am on the day of the presentation.

## **Poster Presentations**

Poster sessions will be held in the Exhibit & Poster Hall during the following times:

### **Poster Session I**

Sunday, May 15  
8:00 pm – 9:30 pm  
*Poster numbers 1 – 124*

### **Poster Session II**

Monday, May 16  
1:00 pm – 3:00 pm  
*Poster numbers 125 – 243*

A listing of all poster presentations can be found on page 14.

Poster presenters during **Poster Session I** may hang their poster on Saturday, May 14 between 12:00 pm – 5:00 pm or on Sunday, May 15 before 10:00 am. Posters must be removed immediately after Poster Session I ends at 9:30 pm on Sunday, May 15.

Poster presenters during **Poster Session II** may hang their poster on Monday, May 16<sup>th</sup> between 7:00 am – 10:00 am. Posters must be removed immediately after Poster Session II ends at 3:00 pm on Monday, May 16.

Any posters not removed by the posted deadline will be taken down and disposed of by staff.

## **COVID-19 INFORMATION**

Masks are not required for attendees. Attendees are welcome to wear masks if they so choose and limited quantities are available at the registration desk. All attendees have certified that they are fully vaccinated against COVID-19 in order to attend NK2022.

## **EXHIBIT & POSTER HALL**

The Exhibit & Poster Hall is located in Calusa A-E and will be open during the following times:

**Sunday, May 15**  
10:00 am – 4:30 pm  
8:00 pm – 9:30 pm

**Monday, May 16**  
10:00 am – 3:00 pm

# GENERAL INFORMATION

## EXHIBITORS

The following companies have booths in the Exhibit & Poster Hall. For company information, please refer to the Sponsor Information section on page 26.

### Journal of Leukocyte Biology and Society for Leukocyte Biology

#### Miltenyi Biotec

## MEALS

All coffee breaks, meals and the Welcome Reception are included in the regular registration rate, with the exception of the Gala Dinner on Monday, May 16. Meal times and locations can be found within the detailed program schedule.



Innate Pharma S.A. is a global, clinical-stage oncology-focused biotech company dedicated to improving treatment and clinical outcomes for patients through therapeutic antibodies that harness the immune system to fight cancer.

Innate Pharma's broad pipeline of antibodies includes several potentially first-in-class clinical and preclinical candidates in cancers with high unmet medical need.

Innate is a pioneer in the understanding of natural killer cell (NK cell) biology and has expanded its expertise in the tumor microenvironment and tumor-antigens, as well as antibody engineering. This innovative approach has resulted in a diversified proprietary portfolio and major alliances with leaders in the biopharmaceutical industry including Bristol-Myers Squibb, Novo Nordisk A/S, Sanofi, and AstraZeneca.

Based in Marseille, France, Innate Pharma is listed on Euronext Paris and Nasdaq in the US.

[www.innate-pharma.com](http://www.innate-pharma.com)

## REGISTRATION

The registration desk is located in the Conference Foyer. Please visit the registration desk upon arrival to collect your name badge and meeting materials. You will be required to wear your name badge during the meeting.

### Registration Desk Hours:

Friday, May 13: 4:00 pm – 7:00 pm

Saturday, May 14: 7:00 am – 6:00 pm

Sunday, May 15: 7:30 am – 6:00 pm

Monday, May 16: 7:30 am – 3:00 pm

Tuesday, May 17: 7:30 am – 3:30 pm

## SOCIAL EVENTS

### Welcome Reception

The Welcome Reception will take place on Saturday, May 14<sup>th</sup> from 6:00 pm – 8:00 pm on the Waterfall Pool Deck and Cypress Courtyard. The reception is included in the registration rate for all registered attendees.

### Gala Dinner – Ticket Required

The Gala Dinner will take place on Monday, May 16<sup>th</sup> from 7:00 pm – 10:00 pm in the Royal Palm Courtyard. Gala Dinner tickets will be required to enter and will be included in the registration materials for those that pre-registered for the dinner.

*Drink tickets for social events are included within registration packets. For additional drinks, a cash bar will be available at all events or drink tickets may be purchased at the registration desk for \$13 each.*

## TRANSPORTATION

Transportation between the Hyatt Regency Coconut Point (meeting venue) and the following hotels will be provided:

Hyatt Place Coconut Point

Hyatt Coconut Plantation

TownePlace Suites by Marriott - Estero

For a list of specific transfer times, please visit the Registration Desk or refer to the posted signage.

## WI-FI

Wi-Fi is available for meeting attendees within the hotel meeting space.

**Network:** @Hyatt\_Meeting

**Password:** NK2022

# TRAVEL GRANT AWARD RECIPIENTS

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

**Abir K. Panda**, NIAID, NIH

**Ameera Gaafar**, King Faisal Specialist Hospital and Research Center

**Anna-Marie Pedde**, Institute of Molecular Immunology and Experimental Oncology (TU Munich)

**Antonia O. Cuff**, Imperial College London

**Everardo Hegewisch-Solloa**, Columbia University Irving Medical Center

**Ilona Hagelstein**, German Cancer Consortium

**Irene Garces-Lazaro**, Heidelberg University

**Jelena Zeleznjak**, University of Rijeka, Faculty of Medicine, Center for Proteomics

**Kristin M. Snyder**, University of Minnesota

**Lizeth G. Meza Guzman**, Walter and Eliza Hall Institute of Medical Research

**Malcolm J. W. Sim**, University of Oxford

**Marcelo De Souza Fernandes Pereira**, Nationwide Children's Hospital

**Matthew R. Lordo**, The Ohio State University

**Nicholas A. Maskalenko**, Fox Chase Cancer Center

**Philippe Rasclé**, Duke University

**Pia Fittje**, Leibniz Institute for Experimental Virology (HPI)

**Xue Yao**, Purdue University



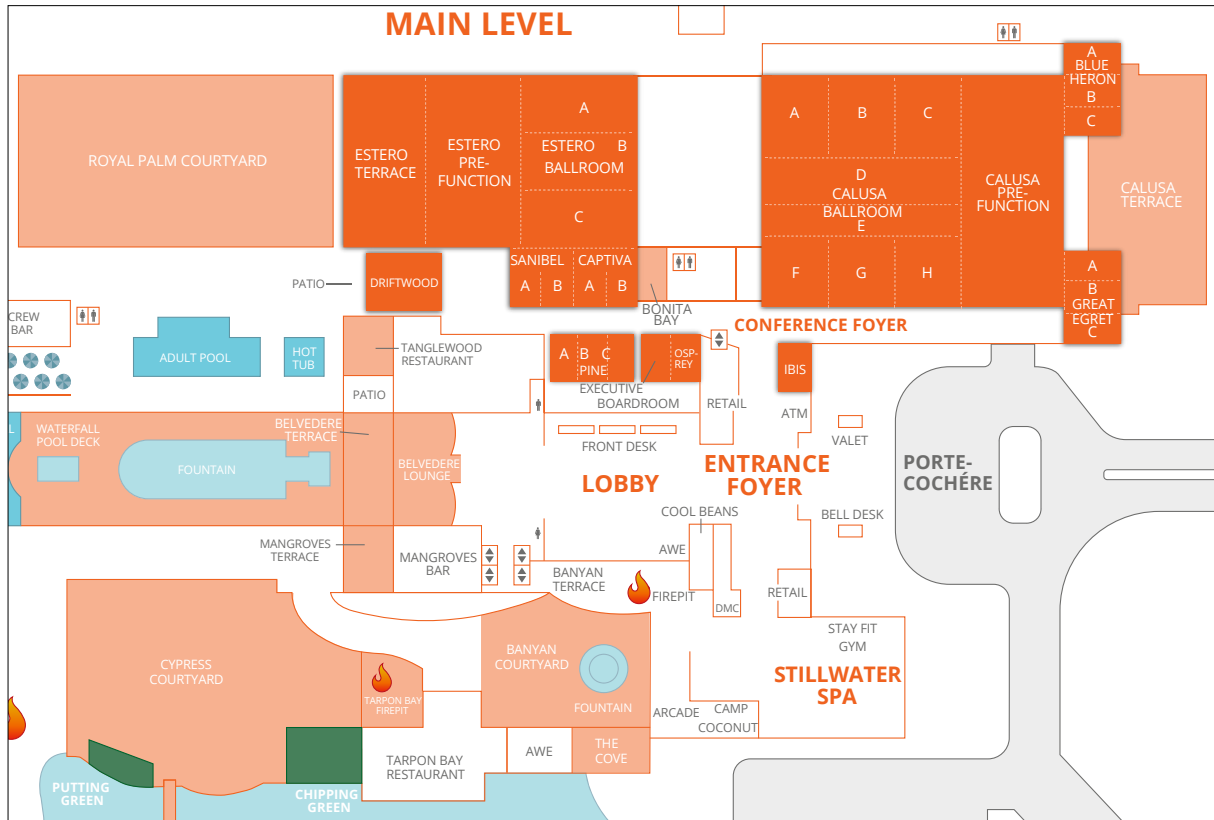
## ONCOLOGY EVOLVED

Developing the next generation of NK cell therapies  
Now hiring in San Diego, St. Louis, and remote



# MEETING FLOORPLAN

HYATT REGENCY COCONUT POINT



## ACTIVATING UNTAPPED POWER

A one-of-a-kind approach for revolutionary outcomes. We give patients the chance to fight cancer in a powerful new way.



[affimed.com](http://affimed.com)

# PROGRAM-AT-A-GLANCE

<b>SATURDAY, MAY 14</b>		
8:30 am – 2:00 pm	Meeting Workshop: NK Cells in the Clinic <i>Separate Registration Required</i>	Estero Ballroom
4:45 pm – 5:00 pm	Welcome to NK2022	Estero Ballroom
5:00 pm – 6:00 pm	Keynote: 50 Years of NK Cells	Estero Ballroom
6:00 pm – 8:00 pm	Welcome Reception	Waterfall Pool Deck and Cypress Courtyard
<b>SUNDAY, MAY 15</b>		
7:00 am – 8:30 am	Breakfast	Calusa Terrace
8:30 am – 10:15 am	NK Cells and Pathogen Immunity	Estero Ballroom
10:15 am – 10:45 am	Coffee Break	Calusa A-E
10:45 am – 12:45 pm	ILCs & Tissue-Associated NK Cells	Estero Ballroom
12:45 pm – 2:00 pm	Lunch	Calusa Terrace
12:45 pm – 2:00 pm	Meet the Mentor Trainee Lunch Session <i>Separate Registration Required</i>	Estero Ballroom
2:00 pm – 4:00 pm	NK Cells and Cancer I	Estero Ballroom
4:00 pm – 4:30 pm	Coffee Break	Calusa A-E
4:30 pm – 5:40 pm	NK Cell Education & Receptors	Estero Ballroom
6:00 pm – 7:30 pm	Dinner	Calusa Terrace
7:30 pm – 8:00 pm	Lightning Poster Session I	Estero Ballroom
8:00 pm – 9:30 pm	Poster Session I	Calusa A-E
<b>MONDAY, MAY 16</b>		
7:00 am – 8:30 am	Breakfast	Calusa Terrace
8:30 am – 10:30 am	Mechanisms of NK Cell Activation	Estero Ballroom
10:30 am – 11:00 am	Coffee Break	Calusa A-E
11:00 am – 12:30 pm	NK Cells and Cancer II	Estero Ballroom
12:30 pm – 1:00 pm	Lighting Poster Session II	Estero Ballroom
1:00 pm – 3:00 pm	Lunch & Poster Session II	Calusa Terrace Calusa A-E
7:00 pm – 10:00 pm	Gala Dinner <i>Separate Registration Required</i>	Royal Palm Courtyard
<b>TUESDAY, MAY 17</b>		
7:00 am – 8:30 am	Breakfast	Calusa Terrace
8:30 am – 10:00 am	NK Cell Development and Differentiation	Estero Ballroom
10:00 am – 10:30 am	Coffee Break	Estero Prefunction
10:30 am – 12:00 pm	NK Memory & Effector Responses	Estero Ballroom
12:00 pm – 1:30 pm	Lunch	Calusa Terrace
1:30 pm – 3:00 pm	NK Cells and Pathogen Immunity II	Estero Ballroom
3:00 pm – 3:15 pm	Final Remarks and Invitation to NK2023	Estero Ballroom

# MEETING WORKSHOP: NK CELLS IN THE CLINIC

**SATURDAY, MAY 14**

*Separate Registration Required*

<b>8:30 am – 10:00 am</b>	<b>NK Cells in the Clinic Workshop I</b>	<b>Estero Ballroom</b>
Moderators:	<i>Todd Fehniger, Washington University School of Medicine Dean Lee, Nationwide Children's Hospital</i>	
8:30 am – 8:50 am	<i>Jeff Miller, University of Minnesota</i>	
8:50 am – 9:10 am	<i>Katy Rezvani, University of Texas</i>	
9:10 am – 9:30 am	<i>Evelyn Ullrich, Goethe University Frankfurt</i>	
9:30 am – 9:40 am	<b>1</b> CD16ahigh NK cell infiltration predicts improved survival in high grade ovarian cancer and demonstrates prognostically beneficial spatial relationships with T cells and macrophages <i>Sarah Nersesian, Dalhousie University</i>	
9:40 am – 9:50 am	<b>2</b> Redirecting NK cells to the lymph nodes to augment their lymphoma-targeting capacity <i>Laura Sanz Ortega, Karolinska Institutet</i>	
9:50 am – 10:00 am	<b>3</b> Circulating natural killer cells differentiated ex vivo into tissue-resident cells represent a novel class of cancer immunotherapies <i>Nina Horowitz, Stanford University</i>	
<b>10:00 am – 10:30 am</b>	<b>Coffee Break</b>	<b>Estero Prefunction</b>
<b>10:30 am – 12:00 pm</b>	<b>NK Cells in the Clinic Workshop II</b>	<b>Estero Ballroom</b>
Moderator:	<i>Michael Verneris, University of Colorado</i>	
10:30 am – 10:50 am	<i>Todd Fehniger, Washington University School of Medicine</i>	
10:50 am – 11:10 am	<i>Veronika Bachanova, University of Minnesota</i>	
11:10 am – 11:30 am	<i>Eric Vivier, CIML</i>	
11:30 am – 11:40 am	<b>4</b> Thymic reprogramming: Acute systemic inflammation changes the cellular output of the thymus towards NK cell production <i>Peter Tougaard, VIB-UGent</i>	
11:40 am – 11:50 am	<b>5</b> A Tri-specific killer engager (TriKE®) targeting prostate-specific membrane antigen (PSMA) enhances NK cell killing of prostate cancer <i>Gwen Phung, University of Minnesota-Twin Cities</i>	
11:50 am – 12:00 pm	<b>6</b> A novel memory-like NK cell CAR targeting proximal mesothelin domain shows promising pre-clinical activity in ovarian cancer using cell lines and patient derived organoids <i>Mubin Tarannum, Dana Farber Cancer Institute</i>	
<b>12:00 pm – 12:45 pm</b>	<b>Roundtable Discussion</b>	<b>Estero Ballroom</b>
Moderator:	<i>Todd Fehniger, Washington University School of Medicine</i>	
<b>12:45 pm – 2:00 pm</b>	<b>Lunch</b>	<b>Calusa Terrace</b>

NK Cells in the Clinic Workshop Sponsors



# NK2022 MEETING PROGRAM

**SATURDAY, MAY 14, 2022**

7:00 am – 6:00 pm Registration Open Conference Foyer

4:45 pm – 5:00 pm Welcome to NK2022 Estero Ballroom

*Megan Cooper, Washington University School of Medicine*

*Todd Fehniger, Washington University School of Medicine*

5:00 pm – 6:00 pm Keynote: 50 Years of NK Cells Estero Ballroom

Moderators:

*Megan Cooper, Washington University School of Medicine*

*Todd Fehniger, Washington University School of Medicine*



**Prof. Angela Santoni** is Emeritus of Immunology and Immunopathology at the Sapienza University of Rome and Scientific Director of the Pasteur Institute-Italia. She was Vice President and President of the International Society of Natural Immunity, and President of the Italian Society of Immunology, Clinical Immunology and Allergology. Currently, she is member of the Council of International Union Immunological Societies. Over the years, she has been involved in studying several aspects of NK cell biology, providing relevant contributions on the signaling events leading to NK cell adhesion, migration and effector functions; on the modulation of NK activating stress ligand expression and NK cell recognition; on the role of NK cells in the immunosurveillance against senescent cells; on the role of tumor-microenvironment in the modulation of NK/ILC functions.



**Dr. Michael Caligiuri** is President of the City of Hope National Medical Center in Los Angeles, California, where he holds the Deana and Steve Campbell Physician-in-Chief Distinguished Chair. He is a physician – scientist whose basic and translational work has focused on immunotherapy for both liquid and solid tumors. Dr. Caligiuri is an elected member of the American Society for Clinical Investigation, the American Association of Physicians, and the USA National Academy of Medicine; elected Fellow in the American Association for the Advancement of Science and the American Association for Cancer Research (AACR) Academy. He is past president of the Association for American Cancer Institutes, the Society of Natural Immunity, and the AACR. His laboratory has studied human natural killer (NK) cells for 35 years with over 400 original peer-reviewed publications on NK cells and/or cancer. Over the years, the Caligiuri laboratory has elucidated the sites, stages, cytokines and molecular mechanisms involved in the differentiation of human NK cells from CD34(+) hematopoietic stem cells, and the discovery of IL-15 as the key cytokine for human NK cell development, survival, growth, and activation, and is currently pioneering CAR-engineering of NK cells for cancer immunotherapy. Dr. Caligiuri has designed and conducted clinical studies modulating NK cells for over 1,000 patients with cancer.

6:00 pm – 8:00 pm Welcome Reception Waterfall Pool Deck and Cypress Courtyard

# NK2022 MEETING PROGRAM

**SUNDAY, MAY 15, 2022**

7:00 am – 8:30 am	Breakfast	Calusa Terrace
7:30 am – 6:00 pm	Registration Open	Conference Foyer
8:30 am – 10:15 am	NK Cells and Pathogen Immunity	Estero Ballroom
Moderators:	<i>Miguel Lopez-Botet, University Pompeu Fabra</i> <i>Stephen Waggoner, Cincinnati Children's Hospital</i>	
8:30 am – 8:45 am	Tribute to Dr. Christine Biron <i>Jordan Orange, Columbia University Medical Center</i>	
8:45 am – 9:05 am	<i>Wayne Yokoyama, Washington University School of Medicine</i>	
9:05 am – 9:25 am	<i>Mariapia Degli-Esposti, Monash University</i>	
9:25 am – 9:45 am	<i>Hans-Gustaf Ljunggren, Karolinska Institutet</i>	
9:45 am – 9:55 am	<b>7</b> NK cells eliminate Epstein-Barr virus bound to B cells through a specific antibody-mediated uptake <i>Elisenda Alari-Pahissa, Universitat Pompeu Fabra</i>	
9:55 am – 10:05 am	<b>8</b> Dynamic regulation of DNA methylation by innate and adaptive immune memory cells during infection <i>Colleen Lau, Memorial Sloan Kettering Cancer Center</i>	
10:05 am – 10:15 am	<b>9</b> Tissue-niches and transcriptional control of resident NK cells and ILC1 during development and infection <i>Georg Gasteiger, WueSI - Wuerzburg Institute of Systems Immunology</i>	
10:00 am – 4:30 pm	Exhibit & Poster Hall Open	Calusa A-E
10:15 am – 10:45 am	Coffee Break	Calusa A-E
10:45 am – 12:45 pm	ILCs & Tissue-Associated NK Cells	Estero Ballroom
Moderators:	<i>Selma Boulouvar, Harvard University</i> <i>Dorothy Sojka, Loyola University Chicago, Stritch School of Medicine</i>	
10:45 am – 11:05 am	<i>Marco Colonna, Washington University School of Medicine</i>	
11:05 am – 11:25 am	<i>Nadia Guerra, Imperial College London</i>	
11:25 am – 11:45 am	<i>Aahron Freud, The Ohio State University</i>	
11:45 am – 12:05 pm	<i>Tim O'Sullivan, UCLA</i>	
12:05 pm – 12:25 pm	<i>Francesco Colucci, University of Cambridge</i>	
12:25 pm – 12:35 pm	<b>10</b> Increased activity of uterine ILC3 during tissue repair phases of the reproductive cycle <i>Antonia O. Cuff, Imperial College London</i>	
12:35 pm – 12:45 pm	<b>11</b> Innate lymphoid cells in the Collaborative Cross <i>Christian Voshenrich, Institut Pasteur</i>	
12:45 pm – 2:00 pm	Lunch	Calusa Terrace
12:45 pm – 2:00 pm	Meet the Mentor Trainee Lunch Session	Estero Ballroom

*Separate Registration Required.* Attendees will gather briefly in Estero Ballroom for introductions. During this time, more detailed information will be provided on lunch and small group breakouts.

# NK2022 MEETING PROGRAM

## SUNDAY, MAY 15, 2022

<b>2:00 pm – 4:00 pm</b>	<b>NK Cells and Cancer I</b>	<b>Estero Ballroom</b>
Moderators:	<i>Rebecca Auer, Ottawa Hospital Research Institute</i> <i>Melissa Berrien-Elliott, Washington University School of Medicine</i>	
2:00 pm – 2:20 pm	<i>Katherine Hsu, Memorial Sloan Kettering Cancer Center</i>	
2:20 pm – 2:40 pm	<i>Adelheid Cerwenka, Heidelberg University</i>	
2:40 pm – 3:00 pm	<i>Frank Cichocki, University of Minnesota</i>	
3:00 pm – 3:20 pm	<i>John B. Sunwoo, Stanford University</i>	
3:20 pm – 3:40 pm	<i>Dan Kaufman, University of California San Diego</i>	
3:40 pm – 3:50 pm	<b>12</b> A dysfunctional program imprinted by prostaglandin E2 signaling shuts off natural killer cell communication pathways and disables immunosurveillance of metastasis <i>Anna-Marie Pedde, TU Munich</i>	
3:50 pm – 4:00 pm	<b>13</b> High-dimensional flow cytometry analysis reveals altered Natural Killer cell populations in childhood leukemia patients <i>Camille Guillerey, The University of Queensland</i>	
<b>4:00 pm – 4:30 pm</b>	<b>Coffee Break</b>	<b>Calusa A-E</b>
<b>4:30 pm – 5:40 pm</b>	<b>NK Cell Education &amp; Receptors</b>	<b>Estero Ballroom</b>
Moderators:	<i>Anthony French, Washington University School of Medicine</i> <i>Colleen Lau, Memorial Sloan Kettering Cancer Center</i>	
4:30 pm – 4:50 pm	<i>Lewis Lanier, UCSF</i>	
4:50 pm – 5:10 pm	<i>Petter Höglund, Karolinska Institutet</i>	
5:10 pm – 5:20 pm	<b>14</b> Transient TBK1 blockade enhances genetic modification susceptibility in NK cells and T cells <i>Nutsa Burduli, Karolinska Institutet</i>	
5:20 pm – 5:30 pm	<b>15</b> The G protein-coupled receptor GPR56 is an inhibitory checkpoint for NK cell migration <i>Lise Kveberg, University of Oslo</i>	
5:30 pm – 5:40 pm	<b>16</b> The CD16 L48H/R polymorphism enables more compact receptor clustering and enhances natural killer cell-mediated antibody-dependent cellular cytotoxicity <i>Nicholas A. Maskalenko, Fox Chase Cancer Center</i>	
<b>6:00 pm – 7:30 pm</b>	<b>Dinner</b>	<b>Calusa Terrace</b>
<b>7:30 pm – 8:00 pm</b>	<b>Lightning Poster Session I</b>	<b>Estero Ballroom</b>
Moderator:	<i>Yenan Bryceson, Karolinska Institutet</i>	
7:30 pm – 7:35 pm	<b>17</b> Single-cell cloning of NK cells for in-depth analysis of HLA-E-dependent adaptive functions against influenza <i>Philippe Rascle, Duke University</i>	
7:35 pm – 7:40 pm	<b>18</b> Liver Innate Lymphocytes orchestrate Endothelial Regulation of Adaptive Immunity <i>Jia-Xiang See, Heidelberg University</i>	
7:40 pm – 7:45 pm	<b>19</b> Characterization of human innate lymphoid cells across different tissues identifies a bonafide human ILC1s in the small intestine <i>Natalia Jaeger, Washington University School of Medicine</i>	

# NK2022 MEETING PROGRAM

## SUNDAY, MAY 15, 2022

- 7:45 pm – 7:50 pm **20** The impact of CD8a on ML and cNK cell proliferation and response to IL-15  
*Celia C. Cubitt, Washington University School of Medicine*
- 7:50 pm – 7:55 pm **21** Tissue-specific imprinting and heterogeneity of natural killer cells and group 1 innate lymphoid cells  
*Noella Lopes, Centre D'Immunologie de Marseille-Luminy*
- 7:55 pm – 8:00 pm **22** Tissue-resident CD103+ CD49elow NK cells accumulate in lung cancer and localize in close contact with tumor cells  
*Paolo Carrega, University of Messina*

**8:00 pm – 9:30 pm** Exhibit & Poster Hall Open Calusa A-E  
Poster Session I: Posters 1 – 124

See page 14 for a full listing of Posters

## MONDAY, MAY 16, 2022

**7:00 am – 8:30 am** Breakfast Calusa Terrace

**7:30 am – 3:00 pm** Registration Open Conference Foyer

**8:30 am – 10:30 am** Mechanisms of NK Cell Activation Estero Ballroom

Moderators: *Eva König, St. Anna Children's Cancer Research Institute*  
*Ana Stojanovic, Heidelberg University*

8:30 am – 8:50 am *Megan Cooper, Washington University School of Medicine*

8:50 am – 9:10 am *Jordan Orange, Columbia University Medical Center*

9:10 am – 9:30 am *Emily Mace, Columbia University Medical Center*

9:30 am – 9:50 am *Carsten Watzl, Leibniz Research Center Dortmund*

9:50 am – 10:00 am **125** Circulating Natural Killer cells potentiate white adipose tissue inflammation during obesity through XCL1-dependent recruitment of cDC1  
*Andrew D. Hildreth, UCLA*

10:00 am – 10:10 am **126** CD3-zeta adaptor structure determines functional differences between human and mouse CD16 Fc-gamma receptor signaling in natural killer cells  
*Oscar A. Aguilar, University of California - San Francisco*

10:10 am – 10:20 am **127** Genome-Wide CRISPR screen identifies TMEM30A as a key regulator of NK cell cytotoxicity  
*Linnea Kristenson, University of Gothenburg*

10:20 am – 10:30 am **128** A XBP1s-PIM-2 positive feedback loop controls IL-15-mediated survival of natural killer cells  
*Shoubao Ma, City of Hope National Medical Center*

**10:00 am – 3:00 pm** Exhibit & Poster Hall Open Calusa A-E

**10:30 am – 11:00 am** Coffee Break Calusa A-E

# NK2022 MEETING PROGRAM

## MONDAY, MAY 16, 2022

<b>11:00 am – 12:30 pm</b>	<b>NK Cells and Cancer II</b>	<b>Estero Ballroom</b>
Moderators:	<i>Camille Guillerey, The University of Queensland</i> <i>Sandro Matosevic, Purdue University</i>	
11:00 am – 11:20 am	<i>David Finlay, Trinity College Dublin</i>	
11:20 am – 11:40 am	<i>David Raulet, University of California Berkeley</i>	
11:40 am – 12:00 pm	<i>Silke Paust, Scripps Research</i>	
12:00 pm – 12:10 pm	<b>129</b> Augmenting Chimeric Antigen Receptor NK cell Anti-tumor Activity by Synapse Tuning <i>Peter Chockley, St Jude Children's Research Hospital</i>	
12:10 pm – 12:20 pm	<b>130</b> Multifunctional Natural Killer Cell Engager Releasing CXCL10 Augments Natural Killer Cell Recruitment and Anti-tumor Efficacy against Glioblastoma <i>Xue Yao, Purdue University</i>	
12:20 pm – 12:30 pm	<b>131</b> TGF $\beta$ -imprinting of primary NK cells decreased CD38-NADase, improved cell killing, ADCC and metabolism <i>Marcelo De Souza Fernandes Pereira, Nationwide Children's Hospital</i>	
<b>12:30 pm – 1:00 pm</b>	<b>Lighting Poster Session II</b>	<b>Estero Ballroom</b>
Moderator:	<i>Laurent Brossay, Brown University</i>	
12:30 pm – 12:35 pm	<b>141</b> HIV-1 mediated downregulation of CD155 impacts the antiviral activity of KIR2DL5+ NK cells <i>Pia Fittje, Leibniz Institute for Experimental Virology (HPI)</i>	
12:35 pm – 12:40 pm	<b>142</b> NK cell exhaustion: when the serial killer needs to slow down <i>Kévin Pouxvielh, Sanofi / Inserm U1111 Centre International de Recherche En Infectiologie</i>	
12:40 pm – 12:45 pm	<b>143</b> Single-cell transcriptomics in human bone marrow delineates CD56dimGranzymeK+ subset as intermediate stage in NK cell differentiation <i>Janine Melsen, Leiden University Medical Center</i>	
12:45 pm – 12:50 pm	<b>144</b> Early life infections extensively reshape the transcriptional profile and functionality of NK cells <i>Ilija Brizic, Center for Proteomics, Faculty of Medicine, University of Rijeka</i>	
12:50 pm – 12:55 pm	<b>145</b> Primary Human NK Cells Transduced with the High Affinity CD64 Fc Receptor Can Be Successfully Pre-loaded with anti-HIV BNABs and Trigger Strong ADCC Against HIV-1 Infected Autologous CD4+ Primary T Cells <i>Costin Tomescu, The Wistar Institute</i>	
12:55 pm – 1:00 pm	<b>146</b> Identification of a soluble NK inhibitory protein of HCMV <i>Virginia M. Vlachava, Cardiff University</i>	
<b>1:00 pm – 3:00 pm</b>	<b>Lunch &amp; Poster Session II: Posters 125 – 243</b>	<b>Calusa Terrace</b> <b>Calusa A-E</b>
	See page 14 for a full listing of Posters	
<b>7:00 pm – 10:00 pm</b>	<b>Gala Dinner</b>	<b>Royal Palm Courtyard</b>
	<i>Separate Registration Required</i>	

# NK2022 MEETING PROGRAM

**TUESDAY, MAY 17, 2022**

7:00 am – 8:30 am	Breakfast	Calusa Terrace
7:30 am – 3:30 pm	Registration Open	Conference Foyer
8:30 am – 10:00 am	<b>NK Cell Development and Differentiation</b>	<b>Estero Ballroom</b>
Moderators:	<i>Kerry Campbell, Fox Chase Cancer Center Frank Cichocki, University of Minnesota</i>	
8:30 am – 8:50 am	<i>Barbara Kee, University of Chicago</i>	
8:50 am – 9:10 am	<i>Karl-Johan Malmberg, Karolinska Institutet</i>	
9:10 am – 9:30 am	<i>Chiari Romagnani, Charité University and Deutsches Rheuma Forschungszentrum Berlin</i>	
9:30 am – 9:40 am	<b>132</b> Single de novo truncation mutants in IRF8 associated with mild human natural killer cell deficiency <i>Luis Pedroza, Columbia University</i>	
9:40 am – 9:50 am	<b>133</b> Binary promoter switches in transcription factors: A model for the digital programming of cell fate determination <i>Stephen K. Anderson, Leidos Biomedical Research Inc.</i>	
9:50 am – 10:00 am	<b>134</b> Single Cell RNA-seq Characterization of an Adaptive Population of NK cells After Primary CMV Infection in Rhesus Macaques <i>Stefan Cordes, National Institutes of Health</i>	
10:00 am – 10:30 am	Coffee Break	Estero Prefunction
10:30 am – 12:00 pm	<b>NK Memory &amp; Effector Responses</b>	<b>Estero Ballroom</b>
Moderators:	<i>Aimee Beaulieu, Rutgers University Lise Kveberg, University of Oslo</i>	
10:30 am – 10:50 am	<i>Joe Sun, Memorial Sloan Kettering Cancer Center</i>	
10:50 am – 11:10 am	<i>Sophie Ugolini, CIML</i>	
11:10 am – 11:30 am	<i>Bethany Mundy-Bosse, The Ohio State University</i>	
11:30 am – 11:40 am	<b>135</b> Cbl-b regulates the activation threshold of Natural Killer cells <i>Lizeth G. Meza Guzman, Walter and Eliza Hall Institute of Medical Research</i>	
11:40 am – 11:50 am	<b>136</b> Mapping human natural killer cell development in pediatric tonsil by imaging mass cytometry and high-resolution microscopy <i>Everardo Hegewisch-Solloa, Columbia University Irving Medical Center</i>	
11:50 am – 12:00 pm	<b>137</b> Human Cytomegalovirus-Specific Adaptive NK Cells Are Maintained as Clonal Expansions with Divergent and Convergent Epigenetic Signatures <i>Timo Rueckert, Deutsches Rheuma-Forschungszentrum</i>	
12:00 pm – 1:30 pm	Lunch	Calusa Terrace

# NK2022 MEETING PROGRAM

**TUESDAY, MAY 17, 2022**

1:30 pm – 3:00 pm	NK Cells and Pathogen Immunity II	Estero Ballroom
Moderators:	<i>Stipan Jonjic, Faculty of Medicine University of Rijeka</i> <i>Sytse Piersma, Washington University School of Medicine</i>	
1:30 pm – 1:50 pm	<i>Catherine Blish, Stanford University</i>	
1:50 pm – 2:10 pm	<i>Eric Long, National Institute of Allergy and Infectious Diseases</i>	
2:10 pm – 2:30 pm	<i>Jeanette Boudreau, Dalhousie University</i>	
2:30 pm – 2:40 pm	<b>138</b> MicroRNA-29b Regulates Group 1 Innate Lymphoid Cells During Cytomegalovirus Infection <i>Matthew R. Lordo, The Ohio State University</i>	
2:40 pm – 2:50 pm	<b>139</b> Cytomegalovirus and host interplay via Ly49 receptors – the story’s not over yet! <i>Jelena Zeleznjak, University of Rijeka, Faculty of Medicine, Center for Proteomics</i>	
2:50 pm – 3:00 pm	<b>140</b> Natural Killer cell subset perturbations and functional potency in HIV/HBV co-infection <i>Dimitra Peppas, University College London</i>	
3:00 pm – 3:15 pm	Final Remarks and Invitation to NK2023	Estero Ballroom
	<i>Todd Fehniger, Washington University School of Medicine</i> <i>Karl-Johan Malmberg, Karolinska Institutet</i>	

gamida 

## COMMITTED TO CURES

Pioneering next-generation cell therapies for patients with cancer and other serious diseases.

Assets in Development

### OMIDUBICEL

A potentially curative advanced cell therapy with positive Phase 3 results for patients with hematologic malignancies in need of an allogeneic bone marrow transplant

### GDA-201

NAM-enabled NK cells under investigation to treat non-Hodgkin lymphoma

Pipeline of genetically engineered NK cell programs applying the clinically validated, NAM-enabled technology designed to direct NK cells against specific tumor markers to potentially improve targeting, persistence and cancer killing of hematological and solid tumors.

GDA-301

GDA-401

GDA-501

GDA-601



CHECK OUT OUR  
COMPANY AND  
PIPELINE HERE:  
[gamida-cell.com](http://gamida-cell.com)

Omidubicel and GDA-201 are investigational therapies, and their safety and efficacy have not been evaluated by the U.S. Food and Drug Administration or any other health authority. For more information on clinical trials, please visit [www.clinicaltrials.gov](http://www.clinicaltrials.gov).

GC-US-00023

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 23** A Phase I Study of Universal-Donor TGF $\beta$ -Imprinted NK Cell Therapy in Combination with Carboplatin for Canine Osteosarcoma  
*Aarohi Thakkar, M.S., Nationwide Children's Hospital*
- 24** Inhibition of NK and myeloid cell inhibitory receptor interactions by anti-MHC-I augments innate and adaptive immunity in both mouse and man.  
*Abir K. Panda, NIAID, NIH*
- 25** Universal prospects of cryopreserved "off-the-shelf" umbilical cord blood CD34+ progenitor cell-derived NK cell therapeutics: Clinical and preclinical evaluation of GTA002 and genetically modified candidates  
*Adil D. Duru, Glycostem Therapeutics B.V.*
- 26** A Tri-specific Killer Engager against B7-H3 (GTB-5550) enhances Natural Killer cell mediated killing of multiple myeloma  
*Aimee M. Merino, MD PhD, University of Minnesota*
- 27** NKG2A Knock-out Natural Killer Cell overcome Human Leukocyte Antigen E mediated inhibition and improve Chimeric Antigen Receptor NK anti-tumor activity against solid tumor  
*Alice Mac Donald, University of Montreal*
- 28** Overcoming barriers to the NK cell response against multiple myeloma: manipulating the NKG2A/HLA-E checkpoint and CAR engineering of memory-like NK cells  
*Alice Y. Zhou, Washington University School of Medicine*
- 29** Multimodal activation of ex vivo expanded GTA002 NK cells efficiently targets melanoma  
*Amanda A. Van Vliet, Glycostem Therapeutics*
- 30** Dysregulated DNAM-1 and KIR2DL1 expression in CD56dim NK cells correlates with poor outcome in Acute myeloid leukemia  
*Amanda Costa, University of Sao Paulo*
- 31** Development of a Natural Killer cell manufacturing platform  
*Angela Mekes, Miltenyi Biotec B.V. & Co. KG*
- 32** Engineering TGF- $\beta$  resistant NK cells  
*Anna Rea, Pompeu Fabra University*
- 33** Bispecific antibody-mediated redirection of NKG2D-CAR natural killer cells facilitates dual targeting and enhances antitumor activity  
*Anne Scherer, MSc, Georg Speyer Haus*
- 34** Harnessing CD70-directed chimeric antigen receptor natural killer cells with interleukin 15 is necessary to eradicate solid tumor cells and cancer-associated fibroblasts  
*Astrid Van Den Eynde, Center for Oncological Research*
- 35** Investigating the crosstalk between NK Cells and Cancer associated Fibroblasts in the Tumor Microenvironment and its role in Driving Malignancy  
*Aviad Ben-Shmuel, Weizmann Institute*
- 36** Improved anti-tumor Activity via Combined use of iPSC-Derived Natural Killer Cells with Macrophages and anti-CD47 Blockade  
*Benjamin Goldenson, MD, PhD, UC San Diego*
- 37** Miniaturized and multiplexed evaluation of NK cell cytotoxicity against patient-derived sarcoma spheroids in a novel multichambered microwell chip  
*Bjorn Onfelt, KTH - Royal Institute of Technology*
- 39** IMPLICATIONS OF THE RUXOLITINIB (JAK1/JAK2 INHIBITOR) ON GRAFT-VERSUS-LEUKAEMIA EFFECT MEDIATED BY THE NK CELL.  
*Carmen Mestre Duran, Hospital Universitario La Paz*
- 40** Impacts of Heparin versus Acid Citrate Dextrose Solution A (ACD-A) on Natural Killer (NK) Cells from Peripheral Blood Collection  
*Catherine A. Cash, Nationwide Children's Hospital*
- 41** A clinical-grade manufacturing platform using CliniMACS Prodigy for CAR-NK cell-based immunotherapy  
*Congcong Zhang, Miltenyi Biotec B.V. & Co. KG*
- 42** Comparative analysis of tissue-resident NK cells, T cells, and ILCs in distinct areas of human lung tumor tissue  
*Demi Brownlie, Karolinska Institutet*

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 43** Efficient scale-up and pre-clinical evaluation of single-self-KIR+NKG2C+ adaptive NK cells for therapy against high-risk AML/MDS  
*Ebba Sohlberg, Karolinska Institutet*
- 45** ILC1-like cell expansion is driven by CXCR3-dependent macrophage accumulation in colorectal cancer liver metastasis  
*Eleonora Russo, Sapienza University of Rome*
- 46** Characterization of a subset of tissue resident NK cells in ovarian cancer ascites with anti-tumor properties  
*Elin Bernson, University of Cambridge*
- 47** Evaluation of CD38-KO/CD38-CAR Human Primary Natural Killer Cells against CD38-expressing Lymphoma, Leukemia, and Myeloma  
*Ella C. Troy, BS, Nationwide Childrens Hospital*
- 48** Epigenetic and post-transcriptional regulation of B7H6 surface expression by cancer cells  
*Ellen Sofie Pete, University of Oslo, Norway*
- 49** T-cell receptor engineering of primary NK-cells to therapeutically target tumours and tumour immune evasion  
*Els P. Van Hees, Leiden University Medical Centre*
- 50** Expansion of NK cells for allogenic cell therapy  
*Erica L. Heipertz, PhD, Thermo Fisher Scientific*
- 51** Primary CD33-targeting chimeric antigen receptor-modified NK cells efficiently target acute myeloid leukemia  
*Evelyn Ullrich, Goethe University Frankfurt*
- 52** New molecular targets to overcome immune therapy resistance  
*Faith O. David, St. Anna Children's Cancer Research Institute GmbH*
- 53** Improved leukemia clearance following adoptive transfer of NK cells engineered to overexpress the gain-of-function bone marrow homing receptor CXCR4-R334X  
*Filip Segerberg, Karolinska Institutet*
- 54** Nicotinamide promotes natural killer cell homing, metabolism, and antitumor function for enhanced immunotherapy  
*Frank Cichocki, University of Minnesota*
- 55** Contribution of CMV viremia in the expansion of cytokine induced memory-like NK cells in patients with post-transplant relapse  
*Grace C. Birch, PhD, BSc, Dana Farber Cancer Institute*
- 56** Development of an iPSC-derived NK cell screening platform for discovery of NK cell optimized Chimeric Antigen Receptors (CARs) for next-generation CAR-NK cell immunotherapies  
*Huang Zhu, Shoreline Bioscience*
- 57** Immunocytokines with target cell-restricted IL-15 activity for treatment of B cell malignancies  
*Ilona Hagelstein, German Cancer Consortium*
- 58** Development of a 3-dimensional head and neck cancer cell culture model for the assessment of NK cell-based therapies  
*Ioana Sonya Ciulean, Fraunhofer-Institut Fur Zelltherapie Und Immunologie*
- 59** Hypoxia Inducible Factor-1a deficiency unleashes human NK cell function in hypoxic solid tumors  
*Irene Garces-Lazaro, Universität Heidelberg*
- 60** Exploring Mechanisms of Activating-Receptor Induced Exhaustion in Human NK Cells  
*Jacob Myers, University of Minnesota, Twin Cities*
- 62** Disruption of TGF- $\beta$  signaling pathway in human iPSC-derived NK cells promotes improved anti-tumor activity against hepatocellular carcinoma  
*Jaya Lakshmi Thangaraj, MTech, PhD, University of California San Diego*
- 63** Optimization of cytokine support for adoptively transferred human NK cells in immunodeficient NSG mice  
*Jennifer Tran, Washington University School of Medicine in St. Louis*
- 64** Novel bispecific innate cell engager AFM28 in combination with allogenic natural killer cells for the treatment of CD123-positive acute myeloid leukemia and myelodysplastic syndrome  
*Jens Pahl, PhD, Affimed GmbH*

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 65** Combined use of cytokines and PM21-particle activation expands NK cells with memory-like features  
*Jeremiah Oyer, University of Central Florida*
- 66** Targeted delivery of a PD-L1-blocking scFv by anti-B7-H3.CAR-NK cells shows potential as a new approach to immunotherapy for osteosarcoma  
*Jiao Wang, Purdue University*
- 67** Dual targeting of CAR-NK cells to PD-L1 and HER2 facilitates specific elimination of cancer cells of solid tumor origin and overcomes immune escape by antigen loss  
*Paola Ortiz Montero, Dresden University of Technology*
- 68** PARP inhibitors render otherwise resistant ovarian and breast carcinoma cells sensitive towards NK-cell mediated lysis  
*Jiri Eitler, Faculty of Medicine Carl Gustav Carus, Dresden University of Technology*
- 69** FLYSYN: Results of the first-in-human trial evaluating an Fc optimized FLT3 antibody in acute myeloid leukemia patients with minimal residual disease  
*Jonas S. Heitmann, University Hospital Tuebingen*
- 70** CAR-NK cells expressing soluble interleukin-15 exhibit sustained antitumor activity  
*Jonathan Druge, Miltenyi Biotec B.V. & Co. KG*
- 71** Bispecific antibodies binding to PD-L1 and NKG2D mediate selective targeting of NKG2D-CAR natural killer cells to PD-L1-positive tumor cells  
*Jordi Pfeifer Serrahima, PhD, Georg-Speyer-Haus*
- 72** PD1-based chimeric-switch receptor expressing NK cells recover from immune checkpoint inhibition in multiple myeloma  
*Katharina H. Susek, Karolinska Institute*
- 73** Arming of iPSC-derived NK cells Expressing a Novel CD64 Fusion Receptor with Therapeutic Antibodies as an Off-the-Shelf, Multi-antigen Tumor-targeting Strategy  
*Kathleen J. Dixon, University of Minnesota*



SOCIETY FOR  
LEUKOCYTE  
BIOLOGY

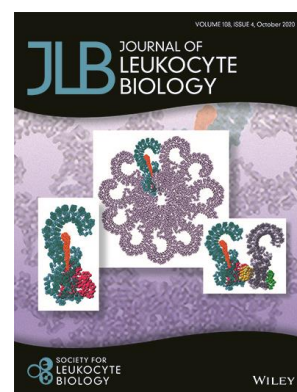
JLB JOURNAL OF  
LEUKOCYTE  
BIOLOGY

## JLB Dedicated Issue

Be part of a special issue of JLB focused on the meeting!  
Mark your calendar to *submit by August 31, 2022*

Be sure to indicate  
your submission is  
from NK2022 when  
submitting!

Contact [ppopp@leukocytebiology.org](mailto:ppopp@leukocytebiology.org) with questions.



The October 2020 issue of JLB contains a cluster of articles related to the 18<sup>th</sup> Meeting of the Society for Natural Immunity's 2019 meeting in Luxembourg. Look for the May 2023 issue of JLB for a cluster of articles related to the NK 2022 meeting in Bonita Springs, FL.

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 74** Deletion of ADAM 17 in primary NK cells  
*Kinnari D. Sorathia, Nationwide Children's Hospital*
- 75** Engineered iPSC-derived NK cells expressing a novel CD64 fusion receptor armed with multiple therapeutic antibodies to circumvent tumor heterogeneity in ovarian cancer  
*Kristin M. Snyder, University of Minnesota*
- 76** Characterization of CRISPR/AAV Generated Anti-CD33 CAR NK cells for Acute Myeloid Leukemia  
*Kyle A. Beckwith, Ohio State University*
- 77** Engineered induced pluripotent stem cell-derived natural killer cells reactively co-target TIGIT and CD73 in the glioblastoma tumor microenvironment  
*Xue Yao, Purdue University*
- 78** Modulating natural killer cell metabolism by inhibiting Glucose Transporters reduces IFN $\gamma$  production but enhances serial killing  
*Lea Katharina Picard, Leibniz Research Centre for Working Environment and Human Factors*
- 79** Specific Targeting Hypoxia Metastatic Breast Tumor with Allogeneic Off-the-Shelf Anti-EGFR CAR NK Cells Expressing an ODD Domain of HIF-1 $\alpha$   
*Lei Tian, City of Hope*
- 80** PM21-particle expanded and cryopreserved Natural Killer cells retain their effector function in vitro and in vivo.  
*Liza Robles, University of Central Florida*
- 82** Deletion of glycogen synthase kinase 3 beta in primary NK cells alters oxidative phosphorylation.  
*Marcelo De Souza Fernandes Pereira, Nationwide Childrens Hospital*
- 83** A Direct Comparison of CAR NK Cells and CAR T Cells for CD19+ Malignancies.  
*Margaret Lamb, MD, NCH*
- 84** Human Cytokine-Induced Memory-Like NK cells Demonstrate Increased Reactivity To Non-Small-Cell Lung Cancer Tumor Spheroids and Superior Ability to Eliminate CD133+ Cancer Stem Cells  
*Maria Guevara Lopez, University of Genoa*
- 85** Low dose cytokine-activated characterization and proliferation of anti-tumoral NK cells  
*Maria Jose Felgueres, National Biotechnology Centre (CNB - CSIC)*
- 86** Exploring the feasibility of CD38-targeting CAR-NK therapy for Multiple Myeloma by harnessing features of cytokine-expanded NK cells  
*Maria Karvouni, Karolinska Institute*
- 87** IL-15 immunocytokines directed to CD135 and CD133 with target cell-restricted IL-15 activity for treatment of acute myeloid leukemia  
*Martina S. Lutz, University Hospital Tuebingen*
- 88** Development of WU-NK-101, a feeder cell-free expanded allogeneic memory NK cell product with potent anti-tumor activity  
*Mary Elizabeth Mathyer, PhD, Wugen*
- 89** Irradiation enhances tumor surveillance by NK cells and their synergistic functions against both parental and stem-like liver cancer  
*Meesun Yoon, Chonnam National University Hwasun Hospital*
- 90** NFAT1 and NFAT2 are major regulators in NK cell immunosurveillance  
*Melanie Maerklin, University Hospital Tuebingen*
- 91** B7H3-Targeting Tri-specific Killer Engager (TriKE®) Induces Natural Killer Cell Activation and Antibody Dependent Cellular Cytotoxicity against Head and Neck Squamous Cell Carcinomas  
*Melissa J. Khaw, University of Minnesota Twin-Cities*
- 92** How do leukemic cells escape natural killer cell-mediated surveillance? Uncovering novel immune evasion mechanism(s)  
*Michelle Claudine Buri, St. Anna Children's Cancer Research Institute*
- 93** Chimeric antigen receptor-NK cells against severe acute respiratory syndrome coronavirus 2  
*Mila Bjelica, University of Montreal*

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 94** Comparative proteomics profiling of NK-cell derived extracellular vesicles from primary NK cells and cell lines reveal optimal composition for anti-tumor activity of extracellular vesicles  
*Miriam Aarsund Larsen, University of Oslo*
- 95** Memory-like differentiation in combination with cetuximab and ephA2 chimeric antigen receptor (CAR) expressing memory-like NK cells exhibit potent response to head and neck cancer  
*Miriam T. Jacobs, Washington University*
- 96** Differential phenotype and gene expression profiles of adaptive NK cell subsets in blood and tissue of cytomegalovirus positive glioblastoma patients  
*Mohammad Aminur Rahman, PhD, University of Bergen*
- 97** Natural Killer cell engagers targeting CD19 boost NK cell activity against pediatric B-cell precursor acute lymphoblastic leukemia  
*Natalia Colomar Carando, IRCCS Ospedale Policlinico San Martino*
- 98** Pre-Clinical Studies of Camelid Nanobody-based NK Cell Engager Molecules Targeting B7-H3  
*Nicholas Zorko, MD, PhD, University of Minnesota*
- 99** Patient-derived three-dimensional-organoid models to study combination therapies of natural killer cells and antibody-dependent cellular cytotoxicity-inducing antibodies in pancreatic cancer  
*Nicky A. Beelen, Maastricht University*
- 100** Enabling treatment options against colorectal cancer by enhancing functionality of stem cell derived NK cells  
*Nina Lamers, PhD, Glycostem Therapeutics*
- 101** Uncovering a new NK-mediated pathway to tumor cell death by Natural Killer Lytic Associated Molecule (NKLAM) ubiquitin ligase activity  
*Paul A. Willard, St Louis University School of Medicine*
- 102** Multiparametric analysis of NK cell reconstitution post-transplant to evaluate impact of graft sources in the setting of AML  
*Peter Hinderlie, University of Minnesota*
- 103** The hypoxic tumor environment poses proliferative, metabolic and cytotoxic challenges to natural killer cell immunotherapy  
*Philippa Kennedy, University of Minnesota*
- 104** Characterization of a novel subset of Natural Killer cells in autoimmune uveitis patients by single cell RNAseq  
*Pulak R. Nath, National Eye Institute, National Institutes of Health*
- 105** Acute fasting induces anti-tumor immunity via natural killer cell redistribution  
*Rebecca B. Delconte, PhD, Memorial Sloan Kettering Cancer Center*
- 106** Autologous expanded NK cells with dinutuximab for patients with relapsed/refractory neuroblastoma: manufacturing success and correlative studies on NANT2013-01  
*Robin J. Nakkula, Res. Inst. of Nationwide Childrens Hospital*
- 107** Fatty acid oxidation fuels natural killer cell cytotoxicity and anti-tumor function  
*Sam Sheppard, Memorial Sloan Kettering Cancer Center*
- 108** Safety analysis of canine natural killer cells expanded ex vivo in a mouse model of graft-versus-host disease  
*Sang-Ki Kim, Kongju National University*
- 109** NK CELL ENGINEERING TO SPECIFICALLY TARGET SOLID TUMORS LIKE RHABDOMYOSARCOMA  
*Soraya Benhaddou, Sainte Justine Research Center*
- 110** The Fc-optimized antibody 7C6-GAALIE promotes natural killer cell effector functions against acute myeloid leukemia  
*Stefanie Maurer, Icahn School of Medicine at Mount Sinai*
- 111** Anti-tumor activity of NK cells in in vitro models of thymic tumors  
*Susanne Christine Kleiner, University of Heidelberg*

# POSTER PRESENTATIONS

## POSTER SESSION I: SUNDAY, MAY 15

- 112** Analysis of the longitudinal effects of AFM24, a CD16A/epidermal growth factor receptor-targeting bispecific innate cell engager, in patients with EGFR-expressing solid tumors  
*Susanne Wingert, Affimed GmbH*
- 113** Knockout of the inhibitory receptor TIGIT enhances anti-tumor response of ex vivo expanded Natural Killer cells  
*Taylor J. Croom-Perez, PhD, University of Central Florida*
- 114** Induction of PD-L1 on PM21-particle expanded Natural Killer cells and its effect on NK cell function  
*Taylor J. Croom-Perez, PhD, University of Central Florida*
- 115** Non-viral engineering with the Sleeping Beauty transposon system yields CD19-CAR NK cells with a safe vector integration profile and high antileukemic efficiency  
*Tobias Bexte, Experimental Immunology, Childrens' Hospital, University Hospital Frankfurt/M*
- 116** Combinatorial effect of NKG2A and KIR receptors drives Interferon gamma-mediated melanoma resistance to NK cells.  
*Tomas Hofman, Mannheim Institute for Innate Immunoscience*
- 117** Context- and Subset-dependent Natural Killer cell activation by interleukin-33 in tumors  
*Valentin Picant, Cancer Research Center of Lyon, CRCL*
- 118** TIGIT dominates NK cell recognition of PVR levels on tumor cells leading to donor-dependent responses to checkpoint blockade  
*Valentina Carannante, Karolinska Institutet*
- 119** Inflammatory cytokines perturb NK cell function and gene signature in acute and chronic myeloid leukemias  
*Valeriya Kuznetsova, University of Alabama at Birmingham*
- 120** High-resolution natural killer cell phenotyping by mass cytometry in EBV+ and EBV- individuals  
*Wenming Zhang, Stanford University*
- 121** KIR-based inhibitory CARs overcome CAR-NK cell trogocytosis-mediated fratricide and tumor escape  
*Ye Li, UT Health*
- 122** A transformable three-dimensional simulated solid tumor culture model reveals widespread killing potential of natural killer cells with controlled lytic granule positioning  
*Yu Li, Columbia University*
- 123** Natural killer cells release subsets of extracellular vesicles with distinct profiles and tumor-targeting abilities  
*Yunjie Wu, University of Oslo*
- 124** An iPSC Derived NK cell controls glioblastoma multiformae in vivo as a direct injection cellular immunotherapeutic  
*Zachary B. Davis, PhD, University of Minnesota*


### Poster Session I Sponsors



# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

- 147** Clinical process development of TGF- $\beta$ -imprinted IL-21-expanded NK cells  
*Aarohi Thakkar, M.S., Nationwide Children's Hospital*
- 148** Evaluating the Impact of a Novel Beta Actin Variant as Cause of a Functional Natural Killer Cell Deficiency  
*Abigail E. Reed, Columbia University Medical Center*
- 149** Partial restoring NK cell function by enhancing of non-canonical IL-2 signaling pathway in human STAT5b-deficient NK cells  
*Alexander Vargas-Hernandez, PhD, Texas Children's Hospital / Baylor College of Medicine*
- 150** The role of adaptive Natural Killer cells during acute HIV-1 infection with different subtypes  
*Aljawharah Alrubayyi, University of Oxford*
- 151** HARNESSING CX3CR1 ANTAGONISM TO PROMOTE NK CELL MIGRATION TOWARDS TUMOUR IN OBESITY ASSOCIATED CANCER.  
*Eimear Mylod, Trinity College Dublin*
- 152** Tissue-specific NK cell responses during aGvHD  
*Amanda Sudworth, University of Oslo*
- 153** Forecasting of Kidney Transplanted Rejection Using Multivariate analysis and Machine-Learning Algorithms: A 10-year Follows up, Single Center Study of Allograft Outcomes in Kidney Transplanted Recipients  
*Ameera Gaafar, PhD, King Faisal Specialist Hospital and Research Center*
- 154** Fine-tuning NK cell responsiveness by the Aryl-hydrocarbon receptor  
*Ana Stojanovic, Heidelberg University*
- 155** Profiling of natural killer cells in the critically ill to distinguish between sepsis and non-infectious systemic inflammation  
*Anna Coulibaly, Dept. of Anesthesiology & Surgical Intensive Care Medicine*
- 156** Control of NK cell function in tissues: human intrahepatic CD56bright NK cells upregulate the co-inhibitory receptor TIGIT and downregulate the co-stimulatory receptor DNAM-1  
*Annerose E. Ziegler, MD, Leibniz Institute for Experimental Virology (HPI)*
- 157** NKp44/HLA-DP-dependent control of HBV infection  
*Annika Niehrs, Leibniz Institute for Experimental Virology (HPI)*
- 158** CD137 costimulation counteracts TGF- $\beta$  inhibition of NK cell anti-tumor function  
*Aura Muntasell, Hospital Del Mar Medical Research Institute*
- 159** Induction of NK cell-mediated antibody-dependent cellular cytotoxicity (ADCC) against SARS-CoV-2 after natural infection is more potent than after vaccination  
*Benjamin Kraemer, University of Bonn*





Nkarta is pleased to sponsor the

**19<sup>TH</sup> ANNUAL MEETING OF THE SOCIETY FOR NATURAL IMMUNITY**

**May 14-17**

Hyatt Coconut Point  
in Bonita Springs, FL

[www.nkartatx.com](http://www.nkartatx.com)



# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

- 160** HLA-DPA1\*02:01|B1\*01:01 is a risk haplotype for primary sclerosing cholangitis that enables NKp44 binding and activation of NKp44+ NK cells  
*Britta Franziska Zecher, University Medical Centre Hamburg-Eppendorf*
- 161** Targeting ADAM17 on human NK cells with a mAb increases their proliferation by IL-15  
*Bruce Walcheck, University of Minnesota*
- 162** Lysosomal remodeling and granzyme B content define a stable global metric of NK cell function across KIR and HLA genotypes  
*Camille Philippon, Oslo University Hospital*
- 163** Memory-like NK cells: a promising therapy for Ewing sarcoma  
*Carla Martín Cortázar, Hospital La Paz Institute for Health Research - IdiPAZ*
- 164** Effect of JAK Inhibition on the Induction of Proinflammatory HLA-DR+CD90+ Rheumatoid Arthritis Synovial Fibroblasts by NK Cell-derived Interferon-?  
*Carsten Watzl, PhD, Leibniz Research Center Dortmund*
- 165** Transcription factor 19 control of antiviral NK cell immunity  
*Celeste Dang, Memorial Sloan Kettering*
- 166** Differential cytokine receptor signal regulations by homologous non-receptor protein tyrosine phosphatases in natural killer cells  
*Chu-Han Feng, Goodman Cancer Research Institute, McGill University*
- 167** Investigation of the expression and function of CD96 (TACTILE) on human uterine NK cells  
*Corinna Mayer, Karolinska Institutet*
- 168** Assessment of TCR complex expression kinetics in NK cells  
*Hazel Reilly, Karolinska Institutet*
- 169** Mathematical modeling dissects maturation pathway of natural killer cells in response to mouse cytomegalovirus  
*Darren Wethington, The Ohio State University*
- 170** Education of uterine natural killer cells by maternal MHC drives fetal growth  
*Delphine M. Depierreux, University of Cambridge*
- 171** Adaptive NK cells recognize pp65 specific peptides presented by dendritic cells and acquire recall responses  
*Dhifaf Sarhan, Karolinska Institutet*
- 173** Impact of liver-resident and auto reactive NK cells in the pathogenesis of Primary Biliary Cholangitis  
*Domenico Mavilio, MD, PhD, Humanitas Clinical and Research Center and University of Milan*
- 174** Polysaccharides from Norwegian Angelica show potent NK cell activation  
*Emilie S. Ulriksen, University of Oslo*
- 175** Comparing the relative strength of NK receptor-ligand partnerships reveals 2B4 as a dominant signal for NK cell activation  
*Emily Carter, Dalhousie University*
- 176** Novel two-phase natural killer cell expansion medium preserves NK cell function and activity  
*Emily Carter, Dalhousie University*
- 177** IRF4 controls NK cell differentiation and clonal expansion during viral infection  
*Endi K. Santosa, Weill Cornell Graduate School / Memorial Sloan Kettering*
- 178** Additive Effects of Type I Interferons and Galectin-9 on the Suppression of Hepatitis C Virus Infection by Interferon-alpha-activated Natural Killer Cells  
*Ester Badami, PhD, Fondazione RiMED*
- 179** Characterization of NK cell-mediated anti-viral responses against JC polyomavirus  
*Esther M. Lee, BA, Duke University*
- 180** NCAM on stromal cells promotes precursor survival and proliferation throughout NK cell development  
*Everardo Hegewisch-Solloa, Columbia University Irving Medical Center*
- 181** Killer cell immunoglobulin-like receptor-gene content is not associated with COVID-19 severity  
*Falk Heidenreich, DKMS gGmbH*
- 182** An NKG2A gene polymorphism skews the NK cell repertoire, impacts NK cell function and affects the outcome of immunotherapy in acute myeloid leukemia  
*Fredrik B. Thoren, PhD, University of Gothenburg*

# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

- 183** Deconvoluting effector states of NK cells in intestinal inflammation and colitis-driven cancer  
*Gianluca Scarno, Sapienza University of Rome*
- 184** In vivo tumour-induced memory-like Natural killer cells: a phase I trial of INKmine  
*Helena Arellano-Ballester, University College London*
- 185** A novel method to produce clinical scale induced pluripotent stem cell-derived natural killer (iPSC-NK) cells with improved anti-tumor activity for next-generation allogeneic cell therapies  
*Huang Zhu, Shoreline Bioscience*
- 186** Marked differences in NK cell phenotype and function between SARS CoV 2-infected individuals with mild and severe disease  
*Hugh T. Reyburn, PhD, CNB-CSIC*
- 187** Inability to respond to type I interferon signalling has surprisingly little effect on human NK cell development and function  
*Hugh T. Reyburn, PhD, CNB-CSIC*
- 188** RNA polymerase II pausing in antiviral NK and CD8+ T cells  
*Hyunu Kim, Gerstner Sloan Kettering Graduate School*
- 189** Hypoxia-Inducible Factor 1 controls Natural Killer cell metabolism  
*Abigaëlle Pelletier, University of Zurich*
- 190** Mechanisms of enhanced antibody dependent cellular cytotoxicity in adaptive natural killer cells  
*Jenna K. Dick, University of Minnesota*
- 191** Human cytokine-induced memory-like NK cells have a distinct single cell transcriptional and epigenetic profile in vitro and in patients  
*Jennifer A. Foltz, PhD, Washington University School of Medicine*
- 192** Natural killer cells depend on IRE1's canonical function for vigorous proliferation during viral infection  
*Jessica Vettters, VIB-Ugent Center for Inflammation Research*
- 193** Targeting the Spike Protein of SARS-CoV-2 by Natural Killer Cells Engineered with an ACE2-CAR and IL-15 to Treat COVID-19  
*Jianhua Yu, City of Hope*
- 194** CAR-mediated retargeting of NK cells overcomes tumor immune escape based on ICAM-1 downregulation  
*Jiri Eitler, Faculty of Medicine Carl Gustav Carus, Dresden University of Technology*
- 195** Fli1 restricts memory precursor NK cell formation during viral infection  
*Joey Li, UCLA*
- 196** Ly49R activation receptor detection of virus-modified MHC I and antiviral immunity significantly enhanced in self-licensed NK cells  
*John M. Cronk, University of Virginia*
- 197** Dissecting human uterine immune variation with a focus on natural killer cells  
*Jonna Bister, PhD student, MD, Karolinska Institutet*
- 198** Partial loss of function mutations in GINS4 lead to natural killer cell deficiency with neutropenia  
*Jordan S. Orange, MD, PhD, Columbia University*
- 199** Investigating the Role of Natural Killer Cells in the Control of Latent Epstein-Barr Virus Infection  
*Josselyn K. Pena, Stanford University*
- 200** Antibody 'Hotspots' induce antibody-dependent cell-mediated cytotoxicity against SARS-CoV-2 spike-expressing lung fibroblasts  
*Kayla Holder, Memorial University*
- 201** Hobit confers tissue-dependent programs to type 1 innate lymphoid cells  
*Kentaro Yomogida, Washington University in St. Louis*
- 202** Natural Killer cell-mediated antibody-dependent cellular cytotoxicity in severe acute respiratory syndrome coronavirus 2-infected individuals and vaccine recipients  
*Kerri Hagemann, Leibniz Institute for Experimental Virology (HPI)*
- 203** IL-17A producing ILC3 might be involved in duodenal adenoma formation in familial adenomatous polyposis  
*Kim Kaiser, University Hospital Bonn*

# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

- 204** Immunoglobulin A Fc receptor (CD89)-expressing natural killer cells are enriched in the mucosae and may function as a rheostat for cell signaling and antibody dependent cellular cytotoxicity  
*Kyle Kroll, Duke University*
- 205** Dynamics of Vg9Vd2 T cell cytotoxic functions at the single cell level  
*Kyra Kuhnigk, Karolinska Institutet*
- 206** Allele imputation for the Killer cell Immunoglobulin-like Receptor KIR3DL1/S1  
*Laura Ann Leaton, University of Colorado Anschutz*
- 207**  $\beta$ -Glucan-Induced IL-10 Secretion by Monocytes Triggers Porcine NK Cell Cytotoxicity  
*Leen Hermans, Ghent University*
- 208** Dissociation of Human Natural Killer Cell Phenotypic and Transcriptomic Profiles  
*M. Kazim Panjwani, PhD, Memorial Sloan-Kettering Cancer Center*
- 209** Interrogating the natural killer cell response to COVID-19  
*Madeline Lee, Stanford University*
- 210** Dissecting the peptide-specificity of inhibitory and activating KIR  
*Malcolm J. W. Sim*
- 211** UTX is an epigenetic regulator of natural killer cell development and anti-viral effector function.  
*Mandy Cheng, University of California, Los Angeles*
- 212** Deciphering how natural killer cells kill *P. falciparum*-infected red blood cells  
*Maria A. Hernandez Castaneda, University of Minnesota*
- 213** IL-15 priming alters the regulation of IFN- $\gamma$  production in NK cells  
*Maria Cimpean, Washington University in St Louis*
- 214** Human NK cell function varies across the maternal-fetal interface  
*Marie Frutoso, Fred Hutchinson Cancer Research Center*
- 215** NK / ILC1 responses to MCMV infection of ovaries and adrenal glands  
*Marija Mazor, University Of Rijeka*
- 216** The thymus beyond T cell development: Thymic-derived myeloid cells  
*Mario Ruiz Perez, Sr., PhD, University of Gent*
- 217** Characterization of innate lymphoid cells in the rat and their correlation to gut commensal microbes  
*Marit Inngjerdigen, University of Oslo*
- 218** Regulation of NK cell development by Fzd5  
*Mark Owyong, Memorial Sloan Kettering Cancer Center*
- 220** Regulation of Natural Killer Cell Functions by Catecholamines  
*Martin Obholzer, Leibniz Research Centre for Working Environment & Human Factors*
- 221** Novel NK cell culture medium supports enhanced proliferation and cytotoxic activity of peripheral blood NK cells  
*Matthew H. Forsberg, PhD, University of Wisconsin-Madison*

True **NK CELL PIONEERS** on a mission to develop efficacious and safe **AUTOLOGOUS** cell therapies that

**MAKE A DIFFERENCE** to the patients

Our lead product is currently evaluated in a randomized two-arm phase II study in combination with the ADCC-competent anti-CD38 mAb isatuximab (Sarclisa®) as a consolidation therapy following ASCT in newly diagnosed multiple myeloma patients



**XNK THERAPEUTICS**  
Individualized NK Cell Therapies

# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

- 222** Long-term evolution of the adaptive NKG2C+ NK cell response to cytomegalovirus infection in kidney transplantation: an insight on the diversity of host-pathogen interaction  
*Michelle Ataya Fernandez, PhD, Fundacio IMIM*
- 223** Insights into NK cell ontogeny in human endometrium from uterus transplant recipients  
*Paige Porrett, University of Alabama at Birmingham*
- 224** Mature Human NK Cells Require T-bet and Eomes to Maintain Critical Effector Response Mechanisms  
*Pamela Wong, Washington University in St. Louis School of Medicine*
- 226** SARS-CoV-2 encodes for an HLA-E-stabilizing peptide that abrogates inhibition of NKG2A-expressing NK cells  
*Quirin Hammer, Karolinska Institute*
- 227** The more, the merrier- Subsequent pregnancies are better protected from bacterial infections  
*Rebecca Kotzur, The Hebrew University Jerusalem*
- 228** NK cells integrate environmental cues to induce DC-mediated cellular immunity to HIV  
*Renee R. Anderko, PhD, University of Pittsburgh*
- 229** Novel multiplex analyses reveal distinct natural killer cell signaling pathway activation during lentivirus infection  
*Sho Sugawara, Duke University*
- 230** Fate mapping of single NK cells identifies a type 1 innate lymphoid-like lineage that bridges innate and adaptive recognition of viral infection  
*Simon Grassmann, Memorial Sloan Kettering Cancer Center*
- 231** RNA sequencing-based comparison of porcine conventional NK cells versus tissue-resident liver NK cells  
*Sofie Denaeghel, PhD, UGhent University*
- 233** Characterization of Natural Killer Cells in Autoantibody-Mediated Neurological Diseases  
*Soumya S. Yandamuri, MSE, PhD, Yale School of Medicine*
- 234** Susceptibility of NK cells to hypoxia-adenosinergic immunosuppression  
*Stephen Hatfield, PhD, Northeastern University*
- 235** Soluble HLA-G activates primary human NK cells through KIR2DL4  
*Sumi Rajagopalan, PhD, NIAID/NIH*
- 236** Presence of IL-18 secreting Natural Killer B-cells in SIV infected colon which have properties and functions of natural killer cells and B-cells  
*Sungro Jo, Rush University Medical School*
- 237** TIGIT blockade improves anti-tumor activities of ex vivo expanded NK cells  
*Faqrul Hasan, University of Central Florida*
- 238** Understanding human NK cell differentiation through investigation of NK cell deficiency  
*Tessa M. Campbell, Karolinska Institute*



Next-Generation  
NK Cell Therapies  
with Universal  
Impact

 **Vycellix**<sup>™</sup>

Vycellix is a collaborating partner in NextGenNK,  
Sweden's NK Cell Competence Center  
at Karolinska Institutet.

[www.Vycellix.com](http://www.Vycellix.com)

# POSTER PRESENTATIONS

## POSTER SESSION II: MONDAY, MAY 16

**239** Impact of genetic polymorphism on NKG2C expression in NK cells, CD8+ T-cells, and Vd1+ T-cells

*Theodota Kontopoulos, Memorial Sloan Kettering Cancer Center*

**241** Fantastic three: the role of CD16, NKG2D and NCR1 in NK cell activation

*Vedrana Jelencic, University of Rijeka*

**242** KIR3DL3 is a polymorphic inhibitory receptor expressed in rare T cell populations.

*William H. Palmer, University of Colorado*

**243** The influence of HLA class I signal peptide polymorphism on HLA-E mediated regulation of NK cells

*Zhansong Lin, Ragon Institute of MGH, MIT and Harvard*

# SPONSOR INFORMATION

SNI would like to thank the following sponsors for their support of the NK2022 Meeting.

## GOLD SUPPORTERS

### Affimed

[www.affimed.com](http://www.affimed.com)

Affimed is a clinical-stage immuno-oncology company committed to giving patients back their innate ability to fight cancer by actualizing the untapped potential of the innate immune system. The company's proprietary ROCK® platform predictably generates customized innate cell engager molecules, which enable a tumor-targeted approach to recognize and kill a range of hematologic and solid tumors. Affimed's broad pipeline comprises of wholly-owned and partnered single agent and combination therapy programs and uses patients' immune cells to destroy tumor cells. This innovative approach enabled Affimed to become the first company with a clinical-stage innate cell engager.

### Fate Therapeutics

[www.fatetherapeutics.com](http://www.fatetherapeutics.com)

Fate Therapeutics is a clinical-stage biopharmaceutical company dedicated to the development of first-in-class cellular immunotherapies for patients with cancer. The Company has established a leadership position in the clinical development and manufacture of universal, off-the-shelf cell products using its proprietary induced pluripotent stem cell (iPSC) product platform. The Company's immuno-oncology pipeline includes off-the-shelf, iPSC-derived natural killer (NK) cell and T-cell product candidates, which are designed to synergize with well-established cancer therapies, including immune checkpoint inhibitors and monoclonal antibodies, and to target tumor-associated antigens using chimeric antigen receptors (CARs). Fate Therapeutics is headquartered in San Diego, CA.

### Gamida Cell

[www.gamida-cell.com](http://www.gamida-cell.com)

Gamida Cell is pioneering a diverse immunotherapy pipeline of potentially curative cell therapies for patients with blood cancers, solid tumors and other serious diseases. We apply a proprietary expansion platform leveraging the properties of nicotinamide (NAM) to a variety of cell sources — including umbilical cord blood-derived cells and NK cells — to create therapies with potential to redefine standards of care.

### Wugen

[www.wugen.com](http://www.wugen.com)

Wugen is leveraging its proprietary Moneta™ platform and deep genomic engineering expertise to develop advanced NK cell therapies. The Moneta™ platform is a robust, scalable process to manufacture off-the-shelf memory NK cell therapies, including WU-NK-101 & WU-NK-201. WU-NK-101 is a population of hyper-functional & long-lasting memory NK cells with enhanced anti-tumor activity. Memory NK cells have superior phenotype, proliferation, and metabolic fitness optimized for cancer therapy. WU-NK-201 amplifies this enhanced phenotype with cellular engineering.

## SILVER SUPPORTERS

### Innate Pharma

[www.innate-pharma.com](http://www.innate-pharma.com)

Innate Pharma S.A. is a global, clinical-stage oncology-focused biotech company dedicated to improving treatment and clinical outcomes for patients through therapeutic antibodies that harness the immune system to fight cancer.

Innate Pharma's broad pipeline of antibodies includes several potentially first-in-class clinical and preclinical candidates in cancers with high unmet medical need.

Innate is a pioneer in the understanding of NK cell biology and has expanded its expertise in the tumor microenvironment and tumor-antigens, as well as antibody engineering. This innovative approach has resulted in a diversified proprietary portfolio and major alliances with leaders in the biopharmaceutical industry including Sanofi and AstraZeneca.

# SPONSOR INFORMATION

## Miltenyi Biotec

[www.miltenyibiotec.com](http://www.miltenyibiotec.com)

Miltenyi Biotec is a global provider of products and services that empower biomedical discovery and advance cellular therapy. Our innovative tools support research at every level, from basic research to translational research to clinical application. Used by scientists and clinicians around the world, our technologies enable solutions for cellular research, cell therapy, and cell manufacturing. Our more than 30 years of expertise spans research areas including immunology, stem cell biology, neuroscience, and cancer. Today, Miltenyi Biotec has more than 3,500 employees in 28 countries – all dedicated to helping researchers and clinicians make a greater impact on science and health.

## Nkarta

[www.nkartatx.com](http://www.nkartatx.com)

Nkarta is a clinical-stage biotechnology company advancing the development of allogeneic, off-the-shelf natural killer (NK) cell immunotherapies for cancer patients. By combining its cell expansion and cryopreservation platform with proprietary cell engineering technologies and CRISPR-based genome engineering capabilities, Nkarta is building a pipeline of future cell therapies engineered for deep anti-tumor activity and intended for broad access in the outpatient treatment setting.

## Qihan Biotech

[www.qihanbio.com](http://www.qihanbio.com)

Qihan Biotech is an innovative biotechnology company applying genome-editing technology to develop novel cell therapies and organs for transplantation. The company's mission is to use high-throughput, multiplexable genome editing in combination with expertise in transplantation immunology to create immunologically privileged allogeneic cells and xenogeneic organs for use as therapies to treat cancer, organ failure, and other life-threatening medical conditions. With a vision to create a world in which cell and organ therapies are universally available to patients, Qihan Biotech has raised two rounds of financing and is advancing its cell therapy programs into IND enabling investigations. Qihan Biotech is headquartered in Hangzhou, China.

## Society for Leukocyte Biology and the Journal of Leukocyte Biology

[www.leukocytebiology.org](http://www.leukocytebiology.org)

The Society for Leukocyte Biology is a community of 1200+ like-minded researchers and clinicians. Emphasizing supporting members, SLB provides opportunities to present and publish at conferences and through the well-regarded Journal of Leukocyte Biology. Volunteer led committees provide leadership opportunities for all education and career levels; workshops and training programs provide valuable professional development training; and an extensive award program offers recognition for members at all stages. Additional support is provided to members via travel grants with a special focus on equitable outreach around the globe. Join SLB for the benefit of a small community with quality science.

## Vyccellix, Inc.

[www.vyccellix.com](http://www.vyccellix.com)

Vyccellix, Inc. is advancing the development of next-generation T cell and Natural Killer (NK) cell-based cancer therapies. Leveraging the Company's transformational VY-UC universal cell technology, Vyccellix is engineering immune-privileged, targeted effector cells without altering the components that control self-recognition (HLA) and obviating the need for immune-suppressive drugs in contexts of allogeneic cell therapies, hence redefining "off-the-shelf" treatment strategies. The Company's broad suite of proprietary engineering solutions are enhancing gene delivery, accelerating cell expansion, amplifying cell potency, and optimizing multi-antigen engagement. Vyccellix's platforms were all discovered by scientists at the world-renowned Karolinska Institutet (KI), Stockholm, Sweden.

# SPONSOR INFORMATION

## XNK Therapeutics

[www.xnktherapeutics.com](http://www.xnktherapeutics.com)

XNK Therapeutics is a clinical stage, immunotherapy company focusing its efforts on preventing and treating cancer by developing novel NK cell-based therapies. The company has established a leadership position in the clinical development and manufacture of autologous NK cell-based products using its proprietary technology platform. The company's platform technology and leading investigational drug candidate have ideal properties for targeting cancers, including settings where allogeneic cell products are not readily applicable. It is foreseen that the product will bring a critical component to tomorrow's cancer treatment strategies. XNK Therapeutics is headquartered in Stockholm, Sweden.

## BRONZE SUPPORTERS

### Dragonfly

[www.dragonflytx.com](http://www.dragonflytx.com)

Dragonfly's mission is to revolutionize disease treatment by inventing therapies that harness the body's immune system for vastly improved patient outcomes.

## HCW Biologics

[www.hcwbiologics.com](http://www.hcwbiologics.com)

HCW Biologics is developing transformative immunotherapies to lengthen healthspan by disrupting inflammaging. Inflammaging targets the unresolved inflammatory responses and chronic, low-grade inflammation associated with advancing age and believed to be a significant contributing factor to cancer and several chronic conditions. The core of HCW's discovery and development efforts revolves around the company's internally developed Tissue Factor-Based Fusion (TOBI™) platform, which is designed to engineer multi-functional fusion protein molecules and protein complexes. One of its lead molecules received FDA clearance for Phase 1b clinical trial in advanced pancreatic cancer in 2021. The company has been listed on Nasdaq (Symbol:HCWB) since 2021.

## MaxCyte

[www.maxcyte.com](http://www.maxcyte.com)

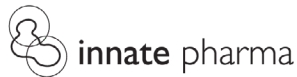
MaxCyte® is a leading provider of cell-engineering platform technologies and is responsible for helping to bring next-generation cell-based therapies to life. The Company's technology is employed by leading drug developers worldwide, including 20 of the top 25 global biopharmaceutical companies. Our Flow Electroporation® technology and next-generation EXPERT™ platform enable our partners to accelerate, streamline, and improve the drug development process from the early stages of research to commercialization. Founded in 1998, MaxCyte is headquartered in Gaithersburg, Maryland, U.S.



## GOLD SUPPORTERS



## SILVER SUPPORTERS



## BRONZE SUPPORTERS

