

NK CELL & ILC MEETING 2024 - Final Programme

16th October	
8:00 - 9:00	Registration Check-in
9:00 - 9:15	Opening Ceremony
SESSION 1 : NK-ILC Development	
Chairs:	
9:15 - 9:45	James Di Santo <i>Pasteur Institute, Paris, France</i> Defining Signals that Dictate ILC Fate and Function
09:45 - 10:15	Emily Mace <i>Columbia University Irving Medical Center, New York, USA</i> Arrested development: cell dynamics in human NK cell differentiation
10:15 - 11:00	Break & Poster session - NK-ILC Development / NK-ILC Metabolism & Activation / NK-ILC & Infections
11:00 - 11:30	Karl-Johan Malmberg <i>Institute for Cancer Research, Oslo, Norway</i> Designing a synthetic killer based on a natural template
11:30 - 12:00	Nathalie Bendriss-Vermare <i>CrcI Umr Inserm 1052, France</i> Regulation of NK cell plasticity and activation by cytokines in cancers
12:00 - 12:10	Avinash Bhandoola <i>National Cancer Institute, Bethesda, United States</i> Different developmental pathways generate functionally distinct populations of natural killer cells
12:10 - 12:20	Kevin Schmid <i>Department of Internal Medicine II, Technical University of Munich, Germany,</i> Extended TGF-β exposure and its transcriptional and epigenetic impact on NK cells
12:20 - 12:30	Annika Niehrs <i>Karolinska Institutet, Stockholm, Sweden</i> Tissue-resident but not conventional NK cells access tissue parenchyma and recirculate via lymphatics at steady state
12:30 - 14:00	Lunch

16th October	
SESSION 2 : NK-ILC Metabolism & Activation	
Chairs:	
14:00 - 14:30	Georg Gasteiger <i>Institute of Systems Immunology, Würzburg, Germany</i> Differentiation and function of tissue-resident NK cells
14:30 - 15:00	Katharine Hsu <i>Memorial Sloan Kettering Cancer Center, New York, USA</i> PD-L1 ligation enhances NK cell anti-tumor function via a metabolic shift from glycolysis to fatty acid oxidation
15:00 - 15:10	Carmelo LUCI <i>INSERM U1065, Nice, France</i> CD44 in group 1 innate lymphoid cells impacts the development and progression of metabolic steatohepatitis by regulating liver and the gut inflammation
15:10 - 15:20	Christoph Klose <i>Charité, Berlin, Germany</i> Group 2 innate lymphoid cells regulate nociceptive and gait functions of the peripheral nervous system
15:20 - 15:30	Elisabeth Littwitz-Salomon <i>1 Institute for Virology, University Hospital Essen, University of Duisburg-Essen, Essen, Germany</i> <i>2 Institute for the Research on HIV and AIDS-associated Diseases, University Hospital Essen, University of Duisburg-Essen, Essen, Germany</i> The suppressive environment in obesity impedes the antiviral functions of NK cells
15:30 - 16:15	Break & Poster session - NK-ILC Development / NK-ILC Metabolism & Activation / NK-ILC & Infections
16:15 - 16:45	Joseph Sun <i>Memorial Sloan Kettering Cancer Center, New York, USA</i> NK cell responses in the host-pathogen conflict
16:45 - 17:30	Thierry Walzer <i>International Research Center on Infectious Diseases, Lyon, France</i> Pivotal role of exogenous pyruvate in human Natural Killer cell metabolism
17:30 - 17:40	Yeara Jo <i>University of California, Berkeley, Berkeley, United States</i> Identification of PTPN22 as a dynamically regulated suppressor of NK effector functions
17:40 - 17:50	Nicolas Dulphy <i>1 Université Paris Cité - INSERM UMR_S1160, Paris, France</i> <i>2 Assistance Publique - Hopitaux de Paris, Paris, France</i> Myelodysplastic Syndrome associated TET2 mutations impairs NK cell production and function
17:50 - 18:00	Oliver Knight <i>1 Institute of Medical Immunology, Charité-Universitätsmedizin Berlin, Berlin, Germany</i> <i>2 German Rheumatism Research Center (DRFZ), a Leibniz Institute, Berlin, Germany</i> The pathogenic role of natural killer cells in childhood arthritis
18:00 - 18:30	Meeting of the German NK/ILC society
18:00 - 22:00	Welcome Reception

17th October	
SESSION 3 : NK-ILC & Infections	
Chairs:	
9:00 - 09:30	Niklas Björkström <i>Karolinska Institutet, Stockholm, Sweden</i> Human NK cell diversity at the maternal-fetal interface
9:30 - 10:00	Laurent Brossay <i>Brown University, Providence, USA</i> The role of salivary gland and lung NK cells in naive and infected animals
10:00 - 10:10	Yamila Rocca <i>Würzburg Institute of Systems Immunology, Max Planck Research Group at the Julius-Maximilians-Universität Würzburg, Würzburg, Germany</i> Differentiation and interactions of tissue-resident NK cells in human skin
10:10 - 10:20	Quirin Hmmer <i>Karolinska Institute, Stockholm, Sweden</i> Impaired peptide presentation as viral adaptation to evade NK cell recognition
10:20 - 11:00	Break & Poster session - NK-ILC & Cancers / NK-ILC to the clinic
11:00 - 11:30	Antigoni Triantafyllopoulou <i>German Rheumatism Research Centre, Germany</i> ILC1 as amplifiers of autoimmune organ damage
11:30 - 12:00	Sonia Tugues Solsona <i>University of Zurich, Switzerland</i> Natural Killer cell compartmentalization in metastatic surveillance
12:00 - 12:10	Simon Gressens <i>1 Immune responses in the immunocompromised host division, Human Immunology Pathophysiology Immunotherapy, St Louis Hospital, Université de Paris - INSERM, Paris, France, Paris, France</i> <i>2 Division of Innate and Comparative Immunology, Center for Human Systems Immunology, Department of Surgery, Duke University School of Medicine, Durham, United States</i> BKV diseases in kidney transplanted patients: an unsuspected role of natural killer cells?
12:10 - 12:20	Magdalena Maria Natalie Huber <i>German, Freiburg, Germany</i> Human cytomegalovirus restricts adaptive NK cell expansion and function by deploying IgG-Fc binding glycoproteins gp34 and gp68
12:20 - 12:30	Markus Uhrberg <i>Institute for Transplantation Diagnostics and Cell Therapeutics, Medical Faculty and University Hospital Düsseldorf, Heinrich-Heine University Düsseldorf, Düsseldorf, Germany, Düsseldorf, Germany</i> SARS-CoV-2 infection induces adaptive NK cell responses by spike protein-mediated induction of HLA-E expression
12:30 - 14:00	Lunch

17th October	
SESSION 4 : NK-ILC & Cancers	
Chairs:	
14:00 - 14:30	Adelheid Cerwenka <i>Heidelberg University, Germany</i> Regulation of NK cell reactivity in inflammation and cancer
14:30 - 15:00	Camilla Jandus <i>University of Geneva, Switzerland</i> Neuro-immune axes in cancer
15:00 - 15:10	Aline Pfefferle <i>Center for Infectious Medicine, Department of Medicine, Huddinge, Karolinska Institutet, Stockholm, Sweden</i> Pan-cancer profiling of tumor-infiltrating natural killer cells through transcriptional reference mapping
15:10 - 15:20	Khodor Hazime <i>Department of Life Sciences, Sir Alexander Fleming Building, Imperial College London, South Kensington, London, United Kingdom</i> Nanoscale re-structuring of the immune synapse with an engager enhances NK cell function
15:20 - 15:30	Irene Mattiola <i>1 Institute for Microbiology, Infectious Diseases and Immunology (I-MIDI), Charité Universitätsmedizin Berlin, Berlin, Germany</i> <i>2 Deutsche Rheuma Forschungszentrum (DRFZ), Berlin, Germany</i> ILC3 limit anti-tumor immunity by modulating the tumor vasculature
15:30 - 16:15	Break & Poster session - NK-ILC & Cancers / NK-ILC to the clinic
16:15 - 16:45	Satu Mustjoki <i>University of Helsinki, Finland</i> Mechanisms of resistance and sensitivity to adoptive NK cell therapies in blood cancers
16:45 - 17:30	Chiara Romagnani <i>Charité, Universitätsmedizin, Berlin, Germany</i> Signatures of NK cell activation
17:30 - 17:40	Chiara Badami <i>1 TIMM Laboratory at Sahlgrenska Center for Cancer Research, University of Gothenburg,, Gothenburg, Sweden</i> <i>2 Department of Medical Biochemistry and Cell Biology, Institute of Biomedicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden</i> BAP1 deletion disrupts IFNγ signaling and sensitizes cancer cells to NK cell cytotoxicity
17:40 - 17:50	Kévin Pouxvielh <i>1 U1111 - Centre International de Recherche en Infectiologie (CIRI), Lyon, France</i> <i>2 Sanofi, Vitry-sur-Seine, France</i> Tumor-induced Natural Killer cell dysfunction is a rapid and reversible process uncoupled from the expression of immune checkpoints
17:50 - 18:00	Jennifer Wischhusen <i>1 Division of Stem Cells and Cancer, German Cancer Research Center (DKFZ), Heidelberg, Germany</i> <i>2 Heidelberg Institute for Stem Cell Technology and Experimental Medicine (HI-STEM gGmbH), Heidelberg, Germany</i> Breast and Ovarian Cancer Cells Adopt Quiescent State to Escape NK Cell Attack
19:30	Gala Dinner - Les Terrasses du Parc

18th October	
SESSION 5 : NK-ILC to the clinic	
Chairs:	
9:00 - 09:30	Evelyn Ullrich <i>Johann Wolfgang Goethe University, Frankfurt, Germany</i> Engineered Primary NK Cells for Innovative Cancer Therapy
9:30 - 10:00	Ebba Sohlberg <i>Karolinska Institutet, Stockholm, Sweden</i> Maximizing “missing-self” of allogeneic NK cell therapies
10:00 - 10:10	Sarah Hamada <i>CIRI, Centre International de Recherche en Infectiologie, Université de Lyon, INSERM U1111, Université Claude Bernard Lyon 1, CNRS, UMR5308, ENS de Lyon, Lyon, France</i> Inhibition of mTOR pathway prevents missing self-induced NK cells-mediated rejection
10:10 - 10:20	Dhifaf Sarhan <i>Karolinska Institutet, Stockholm, Sweden</i> Adaptive NK cells for immunotherapy of solid tumors
10:20 - 11:00	Break
11:00 - 11:30	Jeffrey S. Miller <i>University of Minnesota, Minneapolis, USA</i> Designing off-the-shelf antigen specific NK cells using gene edited induced pluripotent stem cells (iPSC) or trispecific killer engagers (TriKEs)
11:30 - 12:00	Eric Vivier <i>Centre d'Immunologie de Marseille-Luminy, France</i> Harnessing innate immunity in cancer therapy
12:00 - 12:10	Amanda Campbell <i>NCH, Columbus, United States</i> Targeting the checkpoint receptor TIGIT via CRISPR/Cas9 genome editing to promote natural killer cell anti-tumor activity
12:10 - 12:20	Tobias Bexte <i>1 German Red Cross Blood Service Baden-Württemberg - Hessen, Institute for Transfusion Medicine and Immunohematology Frankfurt, Frankfurt am Main, Germany</i> <i>2 Goethe University, Department of Pediatrics, Frankfurt am Main, Germany</i> Deletion of the KLRC1-gene can overcome pro-inflammatory inhibition of CD33-targeting primary CAR-NK cells
12:20 - 12:30	Sigrid Dubois <i>NIH, Bethesda, United States</i> Engineering of Natural killer cells to express a tumor-targeting T-cell receptor and membrane-tethered IL-15/IL-21 improves anti-tumor activity in solid tumors
12:30 - 13:00	Conclusions & Awards Ceremony

NK CELL & ILC MEETING 2024 - Poster Sessions

Poster number	Title	Author
NK-ILC Development		
P-001	Interleukin-35 impairs human NK cell effector functions and induces their ILC1-like conversion with tissue residency features	Lara Revol-Bauz
P-002	A novel human ILC1-like NK cell progenitor that originates in the thymus and preferentially generates KIR+ NK cells	Julian Reiss
P-003	The transcriptional network underlying ILC specification	Christelle Harly
P-004	Extended TGF- β exposure and its transcriptional and epigenetic impact on NK cells	Kevin Schmid
P-005	Type I IFN Signalling Limits the Plasticity of Group I ILC	Ananthi Kumar
P-006	Effective Proliferation Methods of Immune Cells Including NK Cells with Dual culture protocol and with specific ingredients.	Jung Hoon Oh
P-007	Multi-methodologic dissection of human Natural Killer cell ontogenesis to study the contribution of unconventional NK cell subsets and other Innate Lymphoid Cells (ILCs)	Alessandro Frigo
P-008	Immunomodulatory Environment of Bone Marrow Niche of Myeloid Leukemia	Veronika Svubova
P-009	Selective expression of the activating receptor Nkp65 demarcates human ILC3 from mature NK cells	Ines Kühnel
P-010	Feeder-free culture system for ex vivo generation of large numbers of NK cells from hematopoietic stem and progenitor cells	Marta Martin Corredera
NK-ILC Metabolism & Activation		
P-011	Group 2 innate lymphoid cells are an essential source of interleukin-5 required for development and function of B1 cells	Christoph Klose
P-012	Impact of CPPs on NK cell CQAs to improve the understanding of cell expansion - an experimental study using design of experiments	Gregor Mattered
P-013	Subverting TGF- β suppression by knocking out SMAD4 enhances human NK cell anti-tumor function.	Aura Muntasell
P-014	Modulation of NK cell effector functions by human-plasma derived-IgG and recombinant IgG1-Fc hexamer	Daniela Reis Galvão

Poster number	Title	Author
NK-ILC Metabolism & Activation		
P-015	The pathogenic role of natural killer cells in childhood arthritis	Oliver Knight
P-016	Identification of PTPN22 as a dynamically regulated suppressor of NK effector functions	Yeara Jo
P-017	CD44 in group 1 innate lymphoid cells impacts the development and progression of metabolic steatohepatitis by regulating liver and the gut inflammation	Carmelo Luci
P-018	Cell movement upregulates IL-2-stimulated NK cells survival and downregulates the levels of p53-related apoptosis and ERK expression	Zeyneb Hadjidj
P-019	Erythrocytes and lack of cell movement induce a switch of IL-2-stimulated NK cells toward a regulatory phenotype	Zeyneb Hadjidj
P-020	Ksp37: an unexplored molecule poised for rapid release in functionally primed NK cells	Charlotte Hermans
P-021	Investigating AMPK's Role in NK Cell Biology: Growth, Activation, and Autophagy	Ameline Hamond
P-022	The role of intracellular Ca ²⁺ fluctuations for NK cell killing efficiency	Lea Kaschek
P-023	Neutrophil serine proteases process IL-18 to a cytokine variant with enhanced activity	Anne Wöhr
P-024	Patient-derived organoid/NK cell co-cultures: Deciphering mechanisms to increase anti-colon cancer NK cell reactivity	Andreas von Kries
P-025	Bile acid composition is associated with increased liver CXCL10 and NK cell accumulation in Cyp2c deficient mice	Srijani Basu
P-026	Hexokinase switch from GCK to HK2 during hepatocellular carcinoma promotes tumor cell resistance to NK cell cytotoxicity.	Laure Perrin-Cocon
P-027	Genome-wide CRISPR/Cas9 screen reveals factors that influence the susceptibility of tumor cells to NK cell-mediated killing	Emilie Narni-Mancinelli
P-028	The effect of IFN α subtypes on NK cell effector functions	Doris Urlaub
P-029	Interleukins 15 and 18 prime Natural Killer cell antitumor function synergistically by activating mTORC1 in a non-canonical way	Lucie Fallone

Poster number	Title	Author
NK-ILC & Infections		
P-030	CD160, a crucial regulator for ILC2 function during helminth infection	Lennart Heepmann
P-031	Characterization of TNF- α producing adaptive NK cells in tuberculosis patients who develop a paradoxical reaction	Lisa Dejancourt
P-032	Somatic mutations define clonal NK cell memory	Timo Rückert
P-033	Virus-trained NK cells and their impact on cancers	Leonie Kerkmann
P-034	Natural Killer cells activation and memory-like phenotype development following helminth infection	Nicolas Pionnier
P-035	ILC tissue niche adaptation in response to local infection of the skin	Christin Friedrich
P-036	Natural killer cell specificity towards different human cytomegalovirus strains	Alexandra Forrai
P-037	Validation of new mTOR regulatory genes identified in a human NK cell CRISPR/Cas9 screen and their role in chronic hepatitis B infection.	Emily Sible
P-038	Endotoxin-stressed alveolar type II lower hypoxia inducible factor-1 α in human NK cells	Gizem Eylem Baslar
P-039	Investigating clonality in NKG2C- adaptive NK cells	Maximilian Mandry
P-040	HLA-E restricted NKG2C+ and NKG2A+ NK cell activities and viremia control in people living with HIV	Emma Beaumont
P-041	Lung NK cells are sufficient to control viral dissemination during respiratory MCMV infection	Miles Mundy
P-042	Regulation of tissue residency and effector functions of NK cells in local skin infections	Thomas Ossner
P-043	IL-33 Activated ILC2 play an Important Role in the Innate Immune Response against Strongyloides ratti	Sara Dörken
P-044	BKV diseases in kidney transplanted patients: an unsuspected role of natural killer cells?	Simon Gressens
NK-ILC & Cancers		
P-045	The ancient KIR3DX1 can be used to specifically target KIR3DL2-expressing tumor cells	Lutz Walter
P-046	Fc γ R3A polymorphism influences natural killer cell activation and response to anti PD-L1 (avelumab) in gestational trophoblastic neoplasia	Adrien Msika
P-047	NKp30 and epidermal growth factor receptor (EGFR) binding NK cell engagers potently trigger tumor cell lysis and pro-inflammatory cytokine release	Katja Klausz

Poster number	Title	Author
NK-ILC & Cancers		
P-048	STAT3/ICAM-1 axis in acute myeloid leukemia facilitates natural killer cell-mediated surveillance	Agnieszka Witalisz-Siepracka
P-050	Assessment of Two Protocols for Expansion Natural Killer Cells	Ameera Gaafar
P-051	The functional impact of NKG2A and NKG2D expression on NK cell activation	Isabella Terrazas
P-052	Tracking NK cell Ca ²⁺ signaling in 3D co-cultures with patient-derived organoids of colon cancer	Indra Shaltiel
P-053	Comparison of human LAK cells, tissue-resident like cells and cytokine-induced memory-like NK cells	Anaïs Nombel
P-054	Deletion of the TMEM30A gene enables leukemic cell evasion of NK cell cytotoxicity	Linnea Kristenson
P-055	Deciphering early immune surveillance mechanisms of preneoplastic cells by Natural Killer cells	Lara Revol-Bauz
P-056	Impact of Calcium Signalling on Immune Evasion in Leukemic Blasts from NK Cells	Joanne Vialle
P-057	Targeting B7-family member expressing AML with various forms of engineered NK cell preparations	Nicole Peter
P-058	Deciphering the mechanisms regulating NK cell function in metastatic melanoma	Nicolo Coianiz
P-059	A novel NK cell expansion method using a multifunctional fusion protein for the development of cell-based immunotherapies	Ammelie Svea Boje
P-060	Regulatory role of TNFAIP3 (A20) in the functionality and desensitization of human NK cells	Alexandros Karampatzakis
P-061	Unlocking NK cell potential in hematological cancers through modulation of PSMB9	Asli Kasapoglu
P-062	NK cell-mediated suppression of cytotoxic T cell responses in experimental glioma	David Vonhören
P-063	Intestinal dysbiosis orchestrated by Escherichia/Prevotella and depletion of short-chain fatty-acid-producing bacteria associated with the exhausted phenotype of NK cells in patients with cervical cancer from western Mexico	Ksenia Klimov-Kravtchenko
P-064	NK cell triggered CCL5/IFN γ CXCL9/10 axis underlies the clinical efficacy of neoadjuvant anti HER2 antibodies in breast cancer	Sara Santana Hernández
P-065	Arming NK cells : a new cell therapy against cancer	Caroline Multrier
P-066	Exploring exhaustion- How to overcome NK cell dysfunction for a durable anti-tumoral response?	Sophie-Christin Linkenbach
P-067	NK cell activity in 3D cell culture systems	Anke Flegel
P-068	Natural killer cells show a favourable phenotype in a model for mutant calreticulin-driven myeloproliferative neoplasms	Theresa Harm

Poster number	Title	Author
NK-ILC & Cancers		
P-069	Revelation of changes in peripheral NK cells during metastatic triple-negative breast cancer progression	Theresa Harm
P-070	Elucidating the prognostic and functional roles of NK cell subsets in bladder cancer	Md Abdullah Al Kamran Khan
P-071	Divergent regulation of group 1 ILCs during liver tumorigenesis	Karyna Pistrenko
P-072	INK4a/ARF in NK cell senescence and leukemic transformation	Julia List
P-073	Influence of the Chemerin signaling pathway on NK cell function and migration	Julia Baumgarten
P-074	PSMA-specific NK cells for prostate cancer immunotherapy	Jose Francisco Villena Ossa
P-075	Role of the aging on the tumor-infiltrating Natural Killer cells process in metastatic cutaneous melanoma	Kelly Coutant
P-076	Transdifferentiation of peripheral T cell lymphomas towards NK cell like phenotypes is accompanied by downregulation of BCL11B.	Fabrice Chatonnet
P-077	Effect of Diesels Expose Particle (DEP) on cytotoxicity of Natural killer cells	Seong-Eun Kim
P-078	Pan-cancer profiling of tumor-infiltrating natural killer cells through transcriptional reference mapping	Aline Pfefferle
P-079	Tumor-induced Natural Killer cell dysfunction is a rapid and reversible process uncoupled from the expression of immune checkpoints	Kévin Pouxvielh
P-080	BAP1 deletion disrupts IFN γ signaling and sensitizes cancer cells to NK cell cytotoxicity	Chiara Badami

Poster number	Title	Author
NK-ILC to the clinic		
P-081	Targeting the checkpoint receptor TIGIT via CRISPR/Cas9 genome editing to promote natural killer cell anti-tumor activity	Amanda Campbell
P-082	Engineering of Natural killer cells to express a tumor-targeting T-cell receptor and membrane-tethered IL-15/IL-21 improves anti-tumor activity in solid tumors	Sigrid Dubois
P-083	Detection of potentially alloreactive NK cells in kidney transplant recipients with and without microvascular inflammation	Elisenda Alari Pahissa
P-084	Role of genetic KIR-HLA-I mismatch in the development of microvascular inflammation in kidney transplant recipients	Judith Federico-Vega
P-085	Non-Viral Persistent Genetic Modification of NK Cells with Non-Integrating SMAR Vectors for Cancer Immunotherapy	Luisa Burger
P-086	Different flavors of armored CLEC12A-CAR-NK cells for treatment of acute myeloid leukemia (AML)	Jan Habermann
P-087	Validation of International Council for Harmonisation (ICH) Q2(R2) compliant 13-color flow cytometry-based Quality Control for the characterization of CAR-NK cell products	Juliane Schlueter
P-088	New Efficient Immune Assessment Protocol through Evaluation of Total Immune Cell including NK cells.	Jung Hoon Oh
P-089	CD19-CAR-NK cells induce apoptotic cancer cell death by serial killing in hematological B cell malignancies using FRET-based Casper-System	Alina Moter
P-090	Advanced CRISPR/Cas9-modified BCMA-CAR-NK cells can overcome current limitations in therapy of multiple myeloma	Lennart Krähl
P-091	Bispecific NKG2D-targeting Antibodies for Modulating Anti-Leukemia and Anti-Lymphoma NK Cell & T Cell Responses	Dorothee Winterberg
P-092	Characterization of NK cell and blast phenotype during Acute Myeloid Leukemia Disease.	Emilie Lereclus
P-093	Unlocking the Potential: Chimeric Antigen Receptor Immunotherapy with Primary NK Cells for Precision Targeting of Solid Tumors	Lisa Marie Reindl
P-094	Automated clinical-grade manufacturing of CAR-NK cells using BaEV-LV on CliniMACS Prodigy	Julia Kostyra

Poster number	Title	Author
NK-ILC to the clinic		
P-095	CLL-1-specific CAR-NK cells for the treatment of acute myeloid leukemia	Maren Prüfer
P-096	Towards Scalable Allogeneic CAR-T Manufacturing: Perfusion Optimisation and Multi-litre Scale-up in Single-use Stirred-tank Bioreactors	Julia Hengst
P-097	Single Cell RNA Sequencing Highlights Type 2 Innate Lymphoid Cells in the Th2 Immune Response Driving Breast Cancer-Related Lymphedema	Gabriela Martínez-Chacón