

Precision Medicine in Neuroblastoma - from bench to bedside 2025



Date: March 31-April 1, 2025
Location: Torsten Wiesel J3:04, Bioclinicum, Solna

Program

Day 1

12.30-13.15 **Lunch** and Registration

13.15-13.30 **Welcome**

John Inge Johnsen, Karolinska Institutet
Johan Holmberg, Karolinska Institutet/Umeå University

Session 1 - Clinical development in neuroblastoma

Chairs: Jakob Stenman-Diana Treis, Karolinska Institutet/Karolinska University Hospital

13.30-14.15 **Invited speaker: Molecular radiotherapy for neuroblastoma: Clinical aspects and laboratory interactions**

Mark Gaze, University College London, UK

14.15-14.30 **Targeted Radiosensitization in High-Risk Neuroblastoma: A High-Throughput Drug Screening Discovery**

Se Whee Sammy Park, Karolinska Institutet

14.30-14.45 **Targeting Teneurin 4 suppresses tumor growth and induces differentiation in neuroblastoma**

Sara Abu Ajamieh, Karolinska Institutet

14.45-15:00 **From Primary Tumors to Metastases: A Single-Cell Perspective on High-Risk Neuroblastoma Evolution**

Oscar Bedoya Reina, Karolinska Institutet

15.00-15.45 **Coffee break and poster viewing**

Session 2- Developmental biology of neuroblastoma

Chairs: Susanne Schlisio-Panagiotis Alkinoos Polychronopoulos, Karolinska Institutet

15.45-16.30 **Invited speaker: Altered cell states: Assessing the impact of neuroblastoma-linked lesions on human neural crest development**

Anestis Tsakiridis, University of Sheffield, UK

16.30-16.45 **Single-cell MultiOmics and spatial transcriptomics demonstrate neuroblastoma developmental plasticity**

Yizhou Hu, Karolinska Institutet

16.45-17.00 **Modelling neuroblastoma using induced pluripotent stem cells derived from patients with ALKR1275Q germline mutation**

Mingzhi Liu, Karolinska Institutet

17.00-17.15 **Targeting Distinct Neuroblastoma Cell States: NCAM1+ Adrenergic Tumor Cells and FGFR1+ Resistant Mesenchymal Cells**

Celine Hafkesbrink, Karolinska Institutet

17.15-17.30 **Enhancing Neuroblastoma Organoid Diversity with Single-Cell Transcriptomics Heterogeneity Measurement**

Liu E, Karolinska Institutet

17.30-18.30 **Mingle and Poster viewing**

18.45-23.00 **Dinner at KI faculty club**

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Day 2 Program

Session 3 - Translational research advances in neuroblastoma

Chairs: Mohammad Alzrigat, Karolinska Institutet -Rebeca Parracho, Uppsala University

- 09.00-09.45 **Invited speaker: Factors triggering neuroblastoma initiation and progression**
Sofie Mohlin, Lund University
- 09.45-10.00 **In vivo modelling of bone-metastatic neuroblastoma**
Emmi Puuvuori, Karolinska Institutet
- 10.00-10.15 **Combined targeting of PRDX6 and GSTP1 as a potential differentiation strategy for neuroblastoma treatment**
Judit Liaño-Pons, Karolinska Institutet
- 10.15-10.45 **Coffee break and poster viewing**
- Session 4 - Precision medicine in neuroblastoma**
- Chairs: Kasper Karlsson-Conny Tümmler, Karolinska Institutet*
- 10.45-11.30 **Invited speaker: Tailor-made analysis of circulating tumor DNA for sensitive disease monitoring in neuroblastoma**
Martin Dalin, Göteborg University
- 11.30-11.45 **HIF2α negatively regulates MYCN protein levels and promotes a low-risk noradrenergic phenotype in neuroblastoma**
Juan Yuan, Umeå University
- 11.45-12.00 **Interplay between metabolic reprogramming and the tumor microenvironment for development of precision medicine strategies for neuroblastoma**
Lourdes Sainero-Alcolado, Karolinska Institutet
- 12.00-12.45 **Invited speaker: Title TBD**
Sven Nelander, Uppsala University
- 12.45-12.55 **Closure**
Marie Arsenian-Henriksson, Karolinska Institutet
John Inge Johnsen, Karolinska Institutet
- 13.00- **Lunch and further discussions**