

Barntumörbanken Symposium 2025

Precision Medicine in Pediatric Oncology

27-28 November 2025

Aula Medica

Karolinska Institutet, Stockholm



**Karolinska
Institutet**



Barntumörbanken

KAROLINSKA
UNIVERSITY HOSPITAL

Welcome to Barntumörbanken Symposium 2025

Welcome to the Precision Medicine in Pediatric Oncology - A Scientific Symposium organized by The Swedish Childhood Tumor Biobank, arranged in Aula Medica, Karolinska Institutet in Stockholm 27-28 November 2025. For two days, international and national speakers will share research discoveries and clinical experiences, focusing on key areas within pediatric cancer research, clinical trials, "OMICS", precision cancer medicine, biobanking and research infrastructure. The Swedish Childhood Tumor Biobank (Barntumörbanken) is funded by The Swedish Childhood Cancer Fund and was established with the aim to improve knowledge on the biology, treatment and outcome of childhood tumors.

Initiated by the Swedish Childhood Tumor Biobank (Barntumörbanken) and in collaboration with Genomic Medicine Sweden Childhood Cancer working group, this symposium aims to raise awareness of pediatric cancers and the research conducted in this field and related areas.

The symposium will open with addresses by Professor Annika Östman Wernerson (President, Karolinska Institutet), Patrik Rossi (Director Cancer Theme, Karolinska University Hospital, Chair Karolinska Comprehensive Cancer Center), Ola Mattsson (Secretary General, The Swedish Childhood Cancer Fund) and Michaela Hollis (State Secretary to the Minister for Health Care). Confirmed international speakers include Stefan Pfister (German Cancer Research Center, Heidelberg), Felix Sahm (Department of Neuropathology Heidelberg University Hospital), Pratiti (Mimi) Bandopadhyay (Dana-Farber Cancer Institute/Boston Children's Cancer and Blood Disorder Center) and Marta M. Alonso (The Cima Universidad de Navarra).

Furthermore, the following national/nordic speakers are also confirmed: Tuuli Lappalainen, David Gisselsson Nord, Päivi Östling, Fredrik J Swartling, Neda Haj-Hosseini, Emma Tham, Martin Dalin, Karsten Nysom, Torben Ek, Ann Nordgren, Svetlana Lagercrantz, Lars O. Baumbusch, Petter Brodin, Tobias Sjöblom and Mathias Uhlen.

We warmly welcome you to this excellent opportunity to hear from scientific experts, engage in insightful discussions and network with colleagues and representatives from healthcare, academia, and industry.

For the Swedish Childhood Tumor Biobank

Gustaf Ljungman and Johanna Sandgren



Practical information

Venue

The Symposium takes place on 27-28 November in the Erling Persson Hall, located at Aula Medica, Karolinska Institute (Nobels väg 6, 171 65 Solna).

Registration desk opening hours

Thursday 27 November: 12.00-17.00

Friday 28 November: 08.00 - 11.00

Name badge

Please keep your name badge on and visible at all times during the entire Symposium, as it is your ticket for the lectures, coffee and lunch.

Coffee breaks and lunch

The registration fee includes coffee breaks and lunch during the conference, according to the programme. Lunch and coffee will be served in the foyer outside the Erling Persson Hall and at the entrance level near the poster exhibition.

Conference dinner

A conference dinner will be held at Haga Bottega Restaurant, located in the Elite Hotel Carolina Tower.

Date: Thursday 27 November

Start time: 19.00

Place: Haga Bottega

Address: Eugeniavägen 6, Solna

Requirement: If you have registered for the dinner, your name badge will be marked with "Dinner 27 Nov".

Therefore, bring your name badge, as it is your entrance ticket to attend the dinner.

Wifi at Aula Medica

Network: KI-Guest.

No password required; re-login is necessary every 4 hours.

Contact

Academic Conferences

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Programme

Thursday 27 November 2025

- | | |
|---------------|--|
| 12.00 – 13.00 | REGISTRATION + POSTER SET UP + COFFEE |
| 13.00 – 13.30 | Welcome address
Johanna Sandgren, The Swedish Childhood Tumor Biobank
Gustaf Ljungman, The Swedish Childhood Tumor Biobank

Opening remarks
Annika Östman Wernerson, President, Karolinska Institutet
Patrik Rossi, Director Cancer Theme, Karolinska University Hospital, Chair Karolinska CCC.
Ola Mattsson, Secretary General, The Swedish Childhood Cancer Fund.
Michaela Hollis, State Secretary to the Minister for Health Care. |
| 13.35 – 14.10 | Keynote: Translational pediatric oncology – in Europe and worldwide
Stefan Pfister
<i>Chairs: Gustaf Ljungman, Johanna Sandgren</i> |
| 14.15 – 14.50 | Application of functional precision medicine in cancer
<i>Chairs: Johanna Sandgren, Jakob Stenman</i>
Importance and prerequisites for precision medicine, Pävi Östling
Models for testing novel treatments in childhood cancer, Fredrik Swartling |
| 14.55 – 15.30 | Pediatric Cancer Predisposition
<i>Chairs: Gustaf Ljungman, Ann Nordgren</i>
Childhood Cancer Predisposition – ChiCaP, Ann Nordgren
TP53 cancer predisposition syndrom, Svetlana Lagerkrantz |
| 15.30 – 16.00 | COFFEE AND POSTER EXHIBITION |
| 16.00 – 16.25 | Keynote: Access to innovative therapies for children and adolescents with cancer in Europe and beyond.
Karsten Nysom
<i>Chairs: Gustaf Ljungman, Magnus Sabel</i> |
| 16.30 – 16.45 | Access to targeted therapies in Sweden, Torben Ek |
| 16.50 – 17.25 | Liquid biopsies in pediatric cancer
<i>Chairs: Torben Ek, Geraldine Giraud</i>
Liquid biopsies for CNS-tumors, Emma Tham
Liquid biopsies for extracranial solid tumors, Martin Dalin |
| 17.30 – 17.55 | Rapid-Fire Poster presentation
<i>Chairs: Per Kogner, Jakob Stenman</i> |
| 17.55 – 18.45 | Poster exhibition and networking |
| 19.00 - 21.00 | DINNER AT HAGA BOTTEGA |

Programme

Friday 28 November 2025

- 08.30 – 09.05 Key note: Application of novel diagnostic methodology and AI in pediatric brain tumors.
Felix Sahm
Chairs: Alia Shamikh, David Gisselsson Nord
- 09.10 – 09.45 Impact of developments in pathology and immunology for pediatric cancer patients
Chairs: Sandra Wessman, Per Kogner
Tumor cell evolution/heterogeneity, David Gisselsson Nord
Immunological understanding for the development of novel therapies, Petter Brodin
- 09.50 – 10.25 New diagnostics and integration of health data for research and clinical value
Chairs: Johanna Sandgren, David Gisselsson Nord
Potentials of radiology and pathology images and AI in pediatric brain tumor diagnostics, Neda Haj-Hosseini
Genomic Medicine Sweden Childhood Cancer and Brainchild, David Gisselsson Nord
- 10.25 – 10.55 COFFEE AND POSTER EXHIBITION
- 10.55 – 11.30 Large scale biomedical initiatives and resources for precision medicine
Chairs: Johanna Sandgren, Jessica Nordlund
U-CAN, Biobank Sverige, Tobias Sjöblom
Precision Omics Initiative Sweden (PROMISE), Tuuli Lappalainen
- 11.35 – 12.10 Keynote: Oncolytic viruses for immune therapy in children
Martha Alonso
Chairs: Fredrik Swartling, Per Nyman
- 12.10 – 13.00 LUNCH AND POSTER EXHIBITION
- 13.00 – 13.35 Keynote: Fusion partners as untapped therapeutic opportunity for pediatric cancers.
Pratiti Bandopadhyay
Chairs: Fredrik Swartling, Per Kogner
- 13.40 – 14.15 Childhood cancer biobanks
Chairs: Johanna Sandgren, Gustaf Ljungman
The Norwegian Childhood Cancer Biobank, Lars Baumbusch
Latvian Pediatric Cancer Initiative (LPCI), Monta Briviba
New Biobank at the Children's Hospital in Riga, Roberts Melbârdis
- 14.20 – 14.50 Selected presentations from submitted abstracts/posters (2)
Chairs: Johanna Sandgren, Gustaf Ljungman
- Abstract 5 (95520): *A multi-modal, functional precision oncology platform for pediatric solid tumors: Framework and initial molecular findings*, Vilja Pietiäinen.
- Abstract 9 (95460): *CAR T-induced vascular alterations in diffuse intrinsic pontine glioma (DIPG)*, Lars Karlsson.

Programme

- 14.50 – 15.20 COFFEE AND POSTER EXHIBITION
- 15.20 – 15.55 Key note: Next generation precision medicine for childhood tumors
Mathias Uhlen
Chairs: Gustaf Ljungman, Johanna Sandgren
- 16.00 – 16.15 Concluding remarks and best poster awards
Gustaf Ljungman, Johanna Sandgren
(Best poster committee: Per Kogner, Jakob Stenman, Magnus Sabel, Sandra Wessman)

Keynote speakers

Stefan Pfister

Director Preclinical Program, Hopp Children's Cancer Center Heidelberg and is heading the Division Pediatric Neurooncology at DKFZ.

Stefan serves as Director Preclinical Program, Hopp Children's Cancer Center Heidelberg and is heading the Division Pediatric Neurooncology at DKFZ. His research focuses on the genetic and epigenetic characterization of childhood brain tumors by applying next-generation profiling methods, the development of faithful models and functional validation of findings, and the preclinical testing of new treatment options using these models.



Karsten Nysom, MD, PhD,

Karsten is a pediatric hematology-oncology specialist with a particular focus on pediatric neuro-oncology and pediatric precision cancer medicine.

Karsten is based at Copenhagen University Hospital – Rigshospitalet, where he founded and leads Denmark's national phase 1–2 clinical trials unit for children and adolescents with cancer. Remarkably, nearly half of the unit's trial participants come from outside Denmark, primarily from other Nordic countries.

Between 2019 and 2024, Dr. Nysom headed the NOPHOMatch project, funded by NordForsk, which successfully opened two major investigator-initiated phase 1-2 clinical trials—INFORM2 NivEnt and ESMART—in the Nordic region. NOPHOMatch also launched weekly Nordic web meetings to discuss children and adolescents with relapsed or treatment-resistant cancers.

In addition to his clinical and research leadership, Dr. Nysom chairs the Education and Training Committee of the Innovative Therapies for Children and Adolescents with Cancer (ITCC) consortium.

Felix Sahm

Prof Dr Dr Sahm, MD, PhD, MBA is a board-certified neuropathologist, Vice-Chair of the Dept. of Neuropathology and Head of the Div. Molecular Neuropathology at Heidelberg University Hospital, Heidelberg, Germany. He is Full Professor of Neuropathology at University of Heidelberg, Faculty of the National Center for TumorDiseases (NCT) Germany, and co-speaker of the Molecular Diagnostics and Early Detection branch of the German Consortium for Translational Cancer Research (DKTK).

The research group he leads focuses on the identification of novel biomarkers for diagnosis, prognostication and prediction of response in brain tumors.

This approach has resulted in a variety of discoveries and assay developments with over 300 publications (first / senior author e.g. in Lancet Oncology, JCO, Nature Cancer, Nature Medicine).

Prof Sahm serves in several trials of the European Organization for Research and Treatment of Cancer (EORTC) as reference molecular neuropathologist. He is author of multiple guidelines for the German Societies of Neurology, Pathology, Neuropathology, or Radiooncology, the European Association of Neuro-oncology (EANO), the European Society of Medical Oncology (ESMO). Prof Sahm serves as member of the working group for the WHO classification, the cIMPACT Steering Committee of the International Society of Neuropathology, the ITCC-Brain Steering Committee, as chair of the EORTC-BTG Translational Research Committee, and formerly as member of the EANO Executive committee. He is also member of the National Expert Council for Accreditation and auditor for the German Accreditation Body.

Prof Sahm is co-founder of the academic spin-off Heidelberg Epignostix GmbH, a company founded 2023. Epignostix offers SaaMD-solutions based on their proprietary, patented approach of classifying tumors more accurately with a DNA methylation-based AI application.



Marta M. Alonso

Marta M. Alonso Co-Director of the Solid Tumor Program at CIMA and Group Leader of the Brain Tumor Unit at the Clínica Universidad de Navarra. Following her training at MD Anderson Cancer Center (2003–2009), she launched her independent research in 2010 with support from a Ramón y Cajal contract and a Marie Curie grant. Her work focuses on developing tumor-targeted oncolytic adenoviruses to treat pediatric brain and other solid tumors. By integrating clinical and laboratory research, her goal is to create effective, less toxic therapies that improve outcomes for children with high-risk cancers.



Pratiti (Mimi) Bandopadhyay, MBBS, PhD

Pratiti (Mimi) Bandopadhyay, MBBS, PhD, is a pediatric neuro-oncologist and scientist within the Dana-Farber/Boston Children's Cancer and Blood Disorders Center, an Associate Professor of Pediatrics at the Harvard Medical School, and an Institute Member of the Broad Institute of MIT and Harvard. She also serves as a faculty member for the Harvard Medical School PhD Program in Biological and Biomedical Sciences (BBS), and as the Director of the DFCI Pediatric Low-Grade Glioma Program. Mimi and the Bandopadhyay Lab apply genomic approaches to understand the drivers of pediatric brain tumors, and to identify therapeutic vulnerabilities.



Mathias Uhlen

Mathias Uhlen's research is focused on protein science, antibody engineering and precision medicine and ranges from basic to more clinical research (<https://www.scilifelab.se/researchers/mathias-uhlen/>). Since 2003, he leads the Human Protein Atlas program. His research has resulted in more than 850 publications and more the 110,000 citations (h-index 144) according to Google Scholar. He is co-founder of 21 biotech companies and he was the Founding Director of the Science for Life Laboratory (SciLifeLab), a Swedish national infrastructure for molecular bioscience. He is member of several Swedish and international academies, including KVA, IVA and NAE (National Academy of Engineering, USA).

Exhibition

Thank you to our collaborators, GMS – Genomic Medicine Sweden, Biobank Sverige, SciLifeLab, and to all exhibitors for supporting the Barntumörbanken Symposium 2025.

Collaborators



Exhibitors

