

KAROLINSKA INSTITUTET – SEMMELWEIS UNIVERSITY
3rd BILATERAL PATHOLOGY SYMPOSIUM

November 7-8, 2025

Semmelweis University, Department of Pathology and Experimental Cancer Research,
Budapest

November 7, 2025

08.00-08.30 **Registration**

08.30-08.45 **Opening of the Symposium**

Béla Merkely, Rector of Semmelweis University
Mikael Björnstedt, Karolinska University Hospital/Karolinska Institutet

08.45-10.00 **Section A: Education at Karolinska and Semmelweis Universities**

Chairs: Mikael Björnstedt and András Matolcsy

- 1) **Curriculum reform 2.0 of Medical School in Semmelweis University.** Péter Nyirády, *Dean of Faculty of Medicine, Semmelweis University*
- 2) **MD Programme at Karolinska Institutet. New curriculum and new instructional strategy.** Monica Klimkowska, *Department of Laboratory Medicine, Karolinska Institutet*
- 3) **Integrated pathology teaching in the new MD program at KI - experiences from the first year.** Katalin Dobra, *Department of Oncology-Pathology, Karolinska Institutet*
- 4) **Four semester digital histology training for residents.** Kata Pálos, András Matolcsy, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 5) **Karolinska-Semmelweis - New ways of collaboration.** Attila Szakos, *Department of Pathology and Cancer Diagnostics, Karolinska University Hospital*
- 6) **The Biomedical Laboratory Science Programs – Meeting future needs: Challenges and environmental scanning.** Pernilla Lång, *Department of Laboratory Medicine, Karolinska Institutet*
- 7) **From paperwork to progress: How ST platform transforms specialist training.** Sulaf Abd Own, *Department, Karolinska University Hospital*

10.00-11.00 **Section B: Recent achievements in female genital tract and perinatal pathology**

Chairs: Joakim Dillner and András Rókusz

- 1) **Cervical screening using self-sampling for HPV.** Joakim Dillner, *Department of Oncology-Pathology, Karolinska University Hospital*
- 2) **Molecular classification of endometrial carcinomas in Semmelweis University.** András Rókusz, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 3) **Triaging HPV 16 and 18-positive cytology with the Genius Diagnostic System.** Henrik Edvardsson, *Department of Oncology-Pathology, Karolinska University Hospital*
- 4) **Gynecological tumors associated with rare hereditary cancer syndromes.** Kata Pálos, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 5) **Methylation status to improve detection and prediction of endometrial cancer.** Karin Sundström, *Department of Oncology-Pathology, Karolinska University Hospital*
- 6) **Cytology and ROSE in the era of precision medicine.** Eva Darai Ramqvist, *Department of Oncology-Pathology, Karolinska University Hospital*

11.00-11.20 **Coffee break**

11.20-13.00 **Section C: Recent achievements in cancer biology**

Chairs: Katalin Dobra and Anna Sebestyén

- 1) **Real life data of tumor incidence and mortality in Hungary – National Cancer Registry.** István Kenessey, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*
- 2) **The Swedish Childhood Tumor Biobank and BrainChild.** Johanna Sandgren, *Department of Oncology-Pathology, Karolinska University Hospital*
- 3) **Mimicking tumors and drug responses in 3D bioprinted in vitro growing tissues.** Anna Sebestyén, Dorottya Moldvai, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 4) **Recent advantages and emerging directions in small cell lung cancer research.** Ildikó Krencz, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 5) **ONCOBIOME-report from an EU project of microbiome impact on multiple cancers.** Lars Engstrand
- 6) **Cell plasticity in cancer metastasis.** Jonas Fuxe, *Department of Oncology-Pathology, Karolinska Institutet*
- 7) **Strategies to overcome Osimertinib-resistance in lung cancer by targeting vimentin.** Katalin Dobra, *Department of Oncology-Pathology, Karolinska Institutet*
- 8) **Single cell analysis of adrenal tumors.** Susanne Schlisio, *Department of Oncology-Pathology, Karolinska University Hospital*
- 9) **EZH2 is involved in the malignant behavior and its pharmacological degradation effectively inhibits cell growth in grade 3 meningioma.** Péter Szőke, *Department of Pathology and Experimental Cancer Research, Semmelweis University*

13.00-14.00 **Lunch**

14.00-14.30 **Coffee break**

14.30-15:30 **Oncoimmunology and oncohematology**

Chairs: Dhifaf Sarhan and Csaba Bödör

- 1) **From structure to immunogenicity through dynamical network analyses.** Adnane Achour, *SciLifeLab, Department of Medicine Solna, Karolinska Institutet*
- 2) **Immune-metabolic alterations in melanoma malignum.** Viktória Varga, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 3) **Sex immune dimorphism in PDAC – Towards gender-optimized (genderized) immunotherapy.** Dhifaf Sarhan, *Department of Laboratory Medicine, Karolinska Institutet*
- 4) **The cancer microbiome: Implications for tumor immunology and pathology.** Margaret Sällberg Chen, , *Department of Laboratory Medicine, Karolinska Institutet*
- 5) **Immunophenotypical tumour cell heterogeneity as a compartment related control.** Evelina Tidholm Qvist, *Department of Pathology and Cancer Diagnostics, Karolinska University Hospital*
- 6) **Resistance mutations in mature B-cell lymphomas.** László Tamás, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 7) **Diagnosis and clinicopathological characteristics of extramedullary myeloid neoplasia.** Alex Jeney, *Department of Pathology and Experimental Cancer Research, Semmelweis University*

15.30-17.30 **Section E: Recent achievements in GI pathology**

Chairs: Peter Zickert and Gábor Lotz

- 1) **Prognostic significance of SARIFA in esophageal and gastric cancer.** Gábor Lotz, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*
- 2) **Image analysis and multiomics in HPB cancers.** Carlos Fernandes Moro, *Department of Laboratory Medicine, Karolinska Institutet*
- 3) **Selenite modulates EMT in pancreatic ductal adenocarcinoma: Insights from in vitro and ex vivo models.** Timea Szekerczes, *Department of Laboratory Medicine, Karolinska Institutet*
- 4) **AI based histological diagnostic of colorectal cancer screening.** András Kiss, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*
- 5) **Unlocking MSC in cancer therapy: From enzyme mechanisms to redox targeting.** Arun Kumar Selvam, *Department of Laboratory Medicine, Karolinska Institutet*
- 6) **FT-IR and REIMS imaging on FFPE colorectal adenomas.** Endre Kontsek, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*

19.00 **Welcome reception**
Department of Pathology and Experimental Cancer Research, Atrium

November 8, 2025

09.00-10.00 **Key note lectures**
Chairs: Mikael Björnstedt and András Matolcsy

Richard Rosenquist Brandell: National implementation of genomics and precision medicine: The Swedish experience. *Clinical Genetics at the Department of Molecular Medicine and Surgery, Karolinska Institutet*

Csaba Bödör: State-of- the-art molecular diagnostics and research in oncohematology in Semmelweis University, *Department of Pathology and Experimental Cancer Research, Semmelweis University* 10:00-

10.00-10.30 **Coffee break**

10.30-12.30 **Section D: Precision medicine in diagnostic pathology**
Chairs: Lars Egevad and András Kiss

- 1) **From bench to bedside: Implementing broad genomic profiling of solid tumors at Karolinska – progress and challenges.** Hannes Olausson, *Department of Oncology-Pathology, Karolinska University Hospital*
- 2) **Comprehensive molecular genetic approach of pediatric extracranial solid tumors.** Rihárd Kiss, *Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 3) **Combining histology and whole genome sequencing to classify sarcomas.** Felix Haglund De Flon, *Department of Oncology-Pathology, Karolinska Institutet*
- 4) **Comparison of MMRd/MSI diagnostics in a large cancer series.** József Tímár, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*

- 5) **The role of IA in bone marrow diagnostics.** Leonie Saft, Botond Tímár, *Clinical Pathology and Cancer Diagnostics, Karolinska University Hospital and Institute, Department of Pathology and Experimental Cancer Research, Semmelweis University*
- 6) **Molecular pathology testing at Karolinska University Hospital: RNA-Seq application in cancer diagnostics.** Mehran Ghaderi, *Department of Oncology-Pathology, Karolinska University Hospital*
- 7) **AI in the diagnostics of prostate cancer.** Lars Egevad, *Department of Oncology-Pathology, Karolinska University Hospital*
- 8) **Post-COVID pathologies.** Laszlo Szekely, *Department of Laboratory Medicine, Karolinska Institutet*
- 9) **Neurodegenerative proteinopathies in the brain and peripheric organs.** Kriszta Danics *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*

12.30-14.00 **Lunch**

14.00-14.30 **Annika Östman Wernerson**
Rector of Karolinska Institutet
Karolinska Institutet – The Medical University in Sweden

Béla Merkely
Rector of Semmelweis University
Semmelweis University – On the path to top 100

14.30-15.30 **Section F: Recent achievements in renal and uroepithelial pathology**
Chairs: Annika Östman Wernerson and Levente Kuti

- 1) **“KaroKidney” – The Karolinska Kidney Research Network.** Annika Östman Wernerson, *Rector, Karolinska Institutet*
- 2) **Digital applications in renal pathology.** Deján Dobi, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*
- 3) **Detection of PD1-PDL1 interactions and cell phenotypic profiling predicts response to immunotherapy in advanced urothelial carcinoma.** David Krantz, *Department of Oncology-Pathology, Karolinska University Hospital*
- 4) **Investigation of applicability of mass spectrometry on lipids in pathological diagnosis of kidney and breast cancer.** Bálint Deák, *Department of Pathology, Forensic and Insurance Medicine, Semmelweis University*
- 5) **Diagnostic challenges and clinical outcomes in fumarate hydratase–deficient renal cell carcinoma.** Levente Kuti, *Department of Pathology and Experimental Cancer Research, Semmelweis University, National Institute of Oncology*

15.30 **Closing the symposium**

18.00 **Faculty dinner in Németh winery Etyek - Invited by the Rector of Semmelweis University**