

Matrix Nexus: From Molecular Foundations to Life

The German-Nordic Joint ECM Meeting

Organizing committee: Priscilla Briquez, Raphael Reuten, Alexander Nyström, Christine Chuang, Chloé Yeung, Arne Östman, Valerio Izzi, Fransiska Malfait, Delfien Syx from the German, Danish and Finnish National Societies for Matrix Biology, with contributions from Belgium and Sweden

Venue: Otto-Krayer Haus, Albertstrasse 25, Freiburg, Germany

Dates: Wednesday 26th March 2025 - Friday 28th March 2025

Day 1: Wednesday, March 26th 2025

Young Researcher Pre-Meeting

9:00 – 11:30 Breakfast with mentors: Raphael Reuten (University of Freiburg, Freiburg, Germany), Joan Chang (University of Manchester, Manchester, UK).

12:00 – 18:00 Arrival and registration

13:50 – 14:00 Welcome address

Session 1: Collagens

Chairs: Alexander Nyström (University of Freiburg, Freiburg, Germany) and Chloé Yeung (Institute of Sports Medicine Copenhagen, Copenhagen, Denmark)

14:00 – 14:25 [Michael Kjaer](#) (ISMC, Copenhagen, Denmark) *Collagen in the soft musculoskeletal tissue: Relation to mechanical loading*

14:25 – 14:50 [Fatima Mechta-Grigoriou](#) (Curie Institute, Paris, France) *Stromal Heterogeneity and Resistance to Immunotherapies in Breast Cancer (Remote)*

14:50 – 15:05 **Antti M Salo** (University of Oulu, Oulu, Finland) *Sequence specificity and functions of collagen prolyl 4-hydroxylases*

15:05 – 15:20 **Joan Chang** (University of Manchester) *Macrophages promote collagen deposition through circadian regulation of fibroblasts*

15:20 – 15:45 [Federica Genovese](#) (Nordic Bioscience, DK) *Endotrophin, a collagen type VI-derived matrikine, is a biomarker of risk of outcome in cardiovascular-kidney-metabolic syndrome*

15:45 – 16:05 Coffee break

Session 2: Proteoglycans

Chairs: Martin Götte (University of Münster, Münster, Germany) and Christine Chuang (University of Copenhagen, Copenhagen, Denmark)

16:05 – 16:30 [Catherine Bui](#) (University of Lorraine, Nancy, France) *Deciphering the molecular mechanisms associated with B3GALT6 mutations in a rare connective tissue disorder*

16:30 – 16:45 **Christoforos Vaxevanis** (Martin Luther University Halle-Wittenberg, Halle, Germany) *Biglycan as a mediator of bone marrow fibrosis in myeloid malignancies*

16:45 – 17:10 [Egor Dzyubenko](#) (University of Essen, Essen, Germany) *Brain extracellular matrix shapes neuroplasticity after stroke*

17:10 – 17:25 **Panagiotis Fountas** (Lund University, Malmö, Sweden) *Asporin expression preserves plaque stability by limiting calcification*

17:25 – 17:50 [Rebecca Miller](#) (University of Copenhagen, Copenhagen, Denmark) *Cell derived libraries of glycosaminoglycans and their anticoagulant function*

17:50 – 19:00 Poster session I – Odd Numbers

20:00 Dinner at Peterhof Keller

Day 2: Thursday, March 27th 2025

Session 3: Proteases

Chairs: Valerio Izzi (University of Oulu, Oulu, Finland) and Liliana Schaefer (University Frankfurt, Frankfurt, Germany)

08:15 – 08:40 [Christoph Becker-Pauly](#) (University of Kiel, Kiel, Germany) *The ups and downs of ECM remodeling by meprin metalloproteases*

08:40 – 08:55 **Kira Bickenbach** (University of Kiel, Kiel, Germany) *Targeted approach to determine the impact of cancer-associated protease variants (TACAP)*

08:55 – 09:10 **Kristina Koop** (University Hospital Erlangen, Erlangen, Germany) *Interleukin 36 mediates intestinal inflammation and fibrosis via Matrix Metalloproteinase 13*

09:10 – 09:25 **Daniel Orlov** (University of Münster, Münster, Germany) *A novel HA-based hydrogel to study the effects of heparanase-1 inhibition in triple negative breast cancer*

09:25 – 09:50 [Alexander Eckersley](#) (University of Manchester, Manchester UK) *Novel proteomic approaches for identifying organ-conserved extracellular matrix damage in ageing and disease*

9:50 – 10:25 Coffee break

Session 4: Bioengineering and Materials

Chairs: Priscilla Briquez (Medical Center University of Freiburg, Freiburg, Germany) and Jana Riegger-Koch (University of Ulm, Ulm, Germany)

10:25 – 10:50 [Jeffrey Hubbell](#) (University of Chicago, Chicago, USA) *Engineering Biomolecular Interactions with the ECM in Modulating Immune Interactions*

10:50 – 11:05 **Hamid Kohja** (FibroBiologics, Huston, USA)

11:05 – 11:20 **Michael Nash** (University of Basel, Basel, Switzerland) *Smart Hemostats for Treating Thrombocytopenic Bleeding: Engineered Elastin-Like Polypeptides for Fibrin Matrix Stabilization*

11:20 – 11:35 **Benedikt K. Kaufmann** (Munich University of Applied Sciences, Munich, Germany) *A Novel Light-Based Bioprinter - 3D Structuring of ECM-Derived Proteins and Cells*

11:35 – 12:00 [Martin Ehrbar](#) (University Hospital Zurich, Zurich, Switzerland) *Engineered Hydrogels for Bone Organoid Formation*

12:00 – 13:05 Lunch break

Session 5: Early Career Researchers

Chairs: Delfien Syx (Ghent University, Ghent, Belgium) and Chloé Yeung (Institute of Sports Medicine Copenhagen, Copenhagen, Denmark)

13:05 – 13:30 [Aude Beyens](#) (Ghent University, Ghent, Belgium) *Study of monogenic cutis laxa syndromes: paradigms for elastic fiber homeostasis*

13:30 – 13:45 **Xinyi Bao (University of Freiburg, Freiburg, Germany)** *Cochlin LCCL domain promotes anti-bacterial immune response through activation of the c-MET and EGFR in epidermal keratinocytes*

13:45 – 14:00 **Helen Dietmar (University of Heidelberg, Heidelberg, Germany)** *WNT-mediated disruption of the chondrocyte loading response by the neuropeptide α CGRP*

14:00 – 14:15 **Yazhou Long (Ludwig Maximilian University of Munich, Munich, Germany)** *Matrilin1-4 deficiency causes lumbosacral fusion and muscle impairment in mice*

14:15 – 14:40 [Eva Rog-Zielinska \(University of Freiburg, Freiburg, Germany\)](#) *Interactions between human cardiac fibroblast membrane nano-protrusions and fibrillar ECM components*

14:40 – 14:55 **Shivanika Chellamani (University of Freiburg, Freiburg, Germany)** *Basement membrane protein cross-talk influences cancer invasion*

14:55 – 15:30 Coffee break

Session 6: ECM diseases I

Chairs: Arne Östman (Karolinska Institute, Solna, Sweden) and Raphael Reuten (University of Freiburg, Freiburg, Germany)

15:30 – 15:55 [Burkhard Ludewig \(Kantonsspital St. Gallen, St. Gallen, Switzerland\)](#) *Fibroblastic niche environments in cancer and autoimmune disease*
15:55 – 16:10 **Alexia Pavlidaki (INSERM, Strasbourg, France)** *Abolishing cancer hallmarks by targeting tenascin-C with MAREMO peptides*

16:10 – 16:35 [Alexander Pietras \(Lund University, Lund, Sweden\)](#) *Microenvironmental targets in glioblastoma progression and post-radiotherapy relapse*

16:35 – 16:50 **Karthikeyan Subbarayan (Martin Luther University Halle-Wittenberg, Halle, Germany)** *Unraveling the Mechanisms of PRELP in Enhancing Immunogenicity in Melanoma*

16:50 – 17:05 **Débora Radicchi (University of Freiburg, Freiburg, Germany)** *Oncogenic RAS signaling induces basement membrane degrading-hepsin activity, facilitating skin cancer progression*

17:05 – 17:20 **Sotiria Tsiflidou (University of Oulu, Oulu, Finland)** *The roles of collagen prolyl 4-hydroxylases in pancreatic ductal adenocarcinoma*

17:20 – 18:55 Poster session II – Even Numbers

19:00 – 19:45 Business meeting (DGMB, other societies)

20:00 Evening reception

Day 3: Friday, March 28th 2025

Session 7: DGMB Young Investigator award

Chairs: Helen Dietmar (University of Heidelberg, Heidelberg, Germany)

8:00 – 9:00

08:00 – 08:20 **Leonie Ruths (University of Ulm, Ulm, Germany)** *Anaphylatoxins and their corresponding receptors as potential drivers in cartilage calcification during osteoarthritis progression*

08:20 – 08:40 **Jessica Oyie Sousa Onyeisi (University of Münster, Münster, Germany)** *Role of syndecan-4 in angiogenesis and vasculogenic mimicry in triple negative breast cancer cells*

08:40 – 09:00 **Kristina Bubb (University of Cologne, Cologne, Germany)** *Metabolic rewiring caused by mitochondrial dysfunction promotes mTORC1-dependent skeletal aging*

Session 8: ECM diseases II

Chairs: Fransiska Malfait (Ghent University Hospital, Ghent, Belgium) and Gerhard Sengle (University of Cologne, Cologne, Germany)

09:00 – 09:25 **[Patrick Mehlen](#) (Synergie Lyon Cancer Foundation, Lyon, France)** *Netrin-1, an ECM protein, from cell biology to anti-cancer drug treatment*

09:25 – 09:40 **Korbinian Schreyer (TUM School of Health and Medicine, Munich, Germany)** *Netrin-1 complexing chemokines determines sepsis survival through 3D immune cell guidance*

09:40 – 09:55 **Adriana Mendez (Icahn School of Medicine at Mount Sinai, New York, US)** *Elucidating the Role of the Extracellular Matrix in Behavioral Dysregulation in Hyperglycemia*

09:55 – 10:10 **Alina Reese (University of Münster, Münster, Germany)** *Cartilage and bone erosion in arthritis: Insights into the role of Integrin $\alpha11\beta1$*

09:55 – 10:10 **[Josephina Meester](#) (University of Antwerp, Antwerp, Belgium)** *The role of biglycan in human disease*

10:10 – 10:35 Coffee break

10:35 – 11:00 **[Taina Pihlajaniemi](#) (Oulu Center of Cell-Matrix Research, University of Oulu, Oulu, Finland)** *Collagen XIII in peripheral nerves and in cancer*

11:00 – 11:15 **Philipp Barnowski (University of Cologne, Cologne, Germany)** *Different Fbn1 mutations are causative for distinct pathomechanisms in aortic disease in Marfan mice*

11:15 – 11:40 **Gertraud Orend (INSERM, Strasbourg, France)** *Tenascin-C modulating tumor immunity*

11:40 Prizes and final remarks