

## **Joint Meeting of the German Society for Matrix Biology and the Italian Society for the Study of Connective Tissues, Münster, Germany, 26.09.-29.09.2023**

### **Programme**

#### **Pre-Meeting for Junior Researchers**

(Institut für Physiologische Chemie und Pathobiochemie, WWU Münster,  
Waldeyerstrasse 15, 48149 Münster)

Organizers: Nancy Espinoza-Sanchez (Münster), Jessica Onyeisi (Münster), Arianna Parnigoni (Varese)

#### **Tuesday, 26.09.2023**

18:00 – 23:00 **Social Event** at Cavete, Kreuzstrasse 337/38, 48143 Münster,  
<https://cavete-muenster.de/>

#### **Wednesday, 27.09.2022**

(Institut für Physiologische Chemie und Pathobiochemie, WWU Münster,  
Waldeyerstrasse 15, 48149 Münster)

##### **09:00 - 10:15 Junior Session I**

09:00 - 09:15 Introduction

09:15 - 10:15 Poster pitches

09:15 - 09:30 Kristina Bubb: *Cartilage-specific respiratory chain inactivation alters extracellular matrix homeostasis through metabolic signaling.*

09:30 - 09:45 Julia Oto: *Syndecan-1 is a novel regulator of the inflammatory secretome of ovarian cancer cells.*

09:45 - 10:00 Carla Aresi: *Modelling ciliopathies in zebrafish: a morpholino approach.*

10:10 - 10:45 Nicola Greco: *The role of Heparanase in Epithelial to Mesenchymal Transition (EMT) in breast cancer.*

10:15 - 11:00 Coffee Break

##### **11:00 - 12:15 Junior Session II**

11:00 - 12:00 Interactive discussion

12:00 - 12:15 Concluding remarks

12:15 – 14:00 Lunch Break

## **Main Meeting**

### **Wednesday, 27.09.2023**

(Main Lecture Hall, Institut für Physiologische Chemie und Pathobiochemie, WWU Münster, Waldeyerstrasse 15, 48149 Münster)

11:00 - 18:00 Registration

14:15 - 14:25 Welcome and Opening by Martin Götte (Münster) & Maurizio Onisto (Padova)

14:25-14:30 *Obituary – Ulrich auf dem Keller* (Johannes Eble, Münster)

#### **Session I: MATRIX PROTEINS – NEW FUNCTIONS AND PLAYERS**

Chairs: Johannes Eble (Münster, Germany) & Manuela Viola (Varese, Italy)

14:30 - 15:00 **Invited Lecture: Ana Magalhaes (Porto, Portugal)**

*Syndecan-4 - a maestro of gastric cancer cell invasion and intercellular communication*

15:00 – 15:15 *Secretomics reveals novel gelatinase substrates at the blood-brain barrier that are implicated in astroglial barrier function* (M. Burmeister)

15:15 – 15:30 *HAS2-AS1 is a new multi-faced regulator of triple-negative breast cancer cells metabolism* (A. Parnigoni)

15:30 – 15:45 *Functional Characterization of Dermokine in Epidermal Differentiation* (V. Canbay)

15:45 - 16:15 Coffee Break

#### **Session II: MATRIX IN MUSCULOSKELETAL DISEASES**

Chairs: Valentina Masola (Padova, Italy) & Frank Zaucke (Frankfurt, Germany)

16:15 - 16:45 **Invited Lecture: Antonio Rossi (Pavia, Italy)**

*Skeletal dysplasias caused by defects in proteoglycan biosynthesis: current issues and future perspectives*

16:45 - 17:15 **Invited Lecture: Roberta Besio (Pavia, Italy)**

*TRIC-B mutations cause CaMKII inhibition and dysregulation of TGF-beta/SMAD signalling in osteogenesis imperfecta type XIV*

17:15 – 17:30 *Impact of  $\alpha$ -MSH on the inflammatory state of senescent human osteoarthritic chondrocytes* (N. Schäfer).

17:30 - 18:00 Coffee Break

18:00 - 19:00 **Keynote Lecture: Sara Wickström (Münster, Germany)**

*Regulation of stem cell fate by extracellular matrix mechanics*

19:00-22:00 **Welcome Reception and Poster Session I**

(Institut für Physiologische Chemie und Pathobiochemie, WWU Münster, Waldeyerstrasse 15, 48149 Münster)

## Thursday, 28.09.2023

### Session III: MATRIX IN IMMUNOLOGY AND INFLAMMATION

Chairs: Lydia Sorokin (Münster, Germany) & Marco Franchi (Italy)

08:45 - 09:15 **Invited Lecture: Catherine Moali (Lyon, France)**

*Fibrillar procollagens as disease biomarkers and substrates of BMP-1/tolloid-like proteinases*

09:15 – 09:30 *Changes in chondroitin sulfate as marker of neuroinflammation in the brain during experimental autoimmune encephalomyelitis* (R. Vieira da Silva)

09:30 – 9:45 *Hyaluronan oligosaccharides in part mediate LPS-induced inflammation in human chondrocytes by up-regulating JAGGED1-NOTCH pathway* (A. D'Ascola)

9:45 -10:00 *Basement membrane Laminin 411 Regulates Macrophages Dynamics and Adipocyte Progenitor Cells in White Adipose Tissue* (L.H. Correa)

10:05 - 10:15 Sponsor presentation CENiBRA (J. Schäfer)

10:15 – 10:45 Coffee Break

### Session IV: MATRIX IN CANCER AND STEM CELLS

Chairs: Antonio Jr Lepedda (Sassari, Italy) & Sara Wickström (Münster, Germany)

10:45 - 11:15 **Invited lecture: Maurizio Mongiat (CRO Aviano-PN, Italy)**

*Multimerin-2 as a biomarker for predicting Therapy Response*

11:15 – 11:30 *Multimerin-2 represents a barrier to cancer cell dissemination* (E. Poletto)

11:30 – 11:45 *Heparan sulfate regulates the melanoma microenvironment and infiltration of immune cells into the tumor* (M. Zulal)

11:45 - 12:45 Lunch Break

12:45 - 14:15 **Poster Session II**

### Session V: NEW TECHNOLOGIES FOR MATRIX RESEARCH

Chairs: Kay Grobe (Münster, Germany) & Luisa Bracci (Siena, Italy)

14:15 - 14:45 **Invited Lecture: Ralf Richter (Leeds, UK)**

*Probing how glycosaminoglycan binding regulates the transport and distribution of signalling proteins in the extracellular space*

14:45 – 15:00 *Evolutionary changes of SARS-CoV-2 Spike interaction with heparin analyzed on a biomimetic surface* (J. Froese)

15:00 – 15:15 *A Novel Elastin-Based Bioink for Tissue Engineering Applications* (C.S. Salazar Silva)

15:15 - 15:45 Coffee Break

15:45 - 16:50 **Young Investigator Award Session**

Chairs: Julia Marzi (Tübingen, Germany) & Maurizio Mongiat (Aviano, Italy)

15:45 – 15:50 Introduction

15:50 – 16:05 Nancy Adriana Espinoza-Sanchez (DGMB candidate)

16:05 – 16:20 Max Urbanczyk (DGMB candidate)

16:20 – 16:35 SISC candidate

16:35 – 16:50 SISC candidate

16:50 - 17:00 Break

17:00 - 18:00 **Business Meeting of the German Society for Matrix Biology**

19:30 - 23:00 **Conference Dinner** – Schlossgarten Café-Restaurant, Schlossgarten 4,  
48149 Münster; <https://www.schlossgarten.com/>

**Friday, 29.09.2023**

**Session VI: MATRIX IN FIBROSIS AND TISSUE REGENERATION**

Chairs: Julia Etich (Cologne, Germany) & Maurizio Onisto (Padova, Italy)

09:00 - 09:30 **Invited Lecture: Isotta Chimenti (Rome, Italy)**

*Stromal cell-matrix crosstalk in cardiac diseases and repair*

09:30 - 09:45 *The pro-fibrotic agonist TGF- $\beta$  increases mitochondrial respiration in human fibroblasts* (A. Damerau)

09:45 - 10:00 *Tracing fibrotic tissue remodeling and cellular infiltration by non-destructive imaging and advanced data analysis* (J. Marzi)

10:00 - 10:15 *Dextromethorphan targets collagen transport to elicit an anti-fibrotic response in in-vivo, ex-vivo and in-vitro models of pulmonary fibrosis* (M.M. Khan)

10:15 – 11:00 Coffee break

**Session VII: MATRIX IN BIOTECHNOLOGY AND BIOENGINEERING**

Chairs: Roberta Besio (Pavia, Italy) & Katja Schenke-Leyland (Tübingen, Germany)

11:00 - 11:30 **Invited Lecture: Alessandra Balduini (Pavia, Italy)**

*Extracellular matrix environment and platelet production*

11:30 – 11:45 *Marine sulfated polysaccharides for the biofabrication of small caliber synthetic vascular grafts* (G. Obino)

11:45 – 12:00 *Smart 4D BIOdegradable METallic Shape-shifting Implants for Dynamic Tissue Restoration* (N. Hassan)

12:00 – 12:15 *Role of cell surface glycosaminoglycans in the cellular uptake of citrate-coated iron oxide nanoparticles* (L. Kampen)

12:15 - 13:15 Lunch Break

**Session VIII: CELL-MATRIX INTERACTIONS**

Chairs: Rita Dreier (Münster, Germany) & Michele Scuruchi (Messina, Italy)

13:15 - 13:45 **Invited Lecture: Elisabetta Ada Cavalcanti-Adam (Heidelberg, Germany)**

*Mechanical crosstalk between cell-matrix and cell-cell adhesions*

13:45 - 14:00 *The basement membrane regulates tissue morphogenesis and mechanical stability in the cardiac valves* (F. Gunawan)

14:00 - 14:15 *Integrin alpha 10 finely regulates cartilage morphogenesis and maintenance* (P. Alberton)

14:15 Concluding remarks and end of conference