

ASMB Biennial Meeting ♦ November 16-19, 2025
Hilton Baltimore Inner Harbor
Baltimore, MD

“Matrix Marvels: 25 Years of Pioneering Progress, Infinite Potential Ahead”

Meeting Chair: Thomas Barker, PhD, *University of Virginia*

Sunday, November 16th

7:30am Fun Run/Walk Around the harbor and peninsula – Optional!

10:00am - 6:00pm Registration

Location: West Foyer

10:30am - 12:00pm Guest Symposia 1 & 2,
Poster Flash Talks

Guest Symposium 1: SFB Society for Biomaterials

Guest Symposium 2: Foundation Fighting Blindness/Choroideremia Research Foundation

Poster Flash Talks

Three minutes, Three slides! Trainees will present their work in this fast-paced session.

12:00-1:30pm Break – Lunch on Your Own

1:30-3:00pm Concurrent Sessions 1-3

Concurrent 1: Collagens

Chair: Nancy Forde, Simon Fraser University

Unravelling the Mechanical Properties of Collagens at the Individual Protein Level,
Nancy Forde, Simon Fraser University

[Plus 4 selected talks from abstracts](#)

Concurrent 2: Fibronectin and Fibullins

Chair: Dieter Reinhardt, McGill University

Fibronectin and Fibulin-associated Mechanisms Forming Matrix Marvels,
Dieter Reinhardt, McGill University

[Plus 4 selected talks from abstracts](#)

Concurrent 3: PTMs and the Glyco-Matrix

Chair: Yoshi Ishikawa, University of California San Francisco

Sweet Collagen IV: A Study of a Heavily Post-Translationally Glycosylated Molecule,
Yoshi Ishikawa, University of California San Francisco

[Plus 4 selected talks from abstracts](#)

3:00-3:30pm Break

3:30-5:00pm Concurrent Sessions 4-6

Concurrent 4: Matricellular Proteins

Chair: Marisa Merina, University of Liverpool

Tuning Proliferation and Death in Development and Disease,
Marisa Merina, University of Liverpool

[Plus 4 selected talks from abstracts](#)

Concurrent 5: Matrix crosslinking and remodeling

Chair: Carol Feghali-Bostwick, MUSC

Leveraging Anti-fibrotic Pathways Across Organs,
Carol Feghali-Bostwick, Medical University of South Carolina

[Plus 4 selected talks from abstracts](#)

Concurrent 6: Matrix receptors and signaling

Chair: Tim Springer, Harvard University

Beyond Matrigel: New Agonists for Organoid Growth and Integrin Conformational Ensembles,
Tim Springer, Harvard University

[Plus 4 selected talks from abstracts](#)

5:00 - 5:15 Break

5:15-6:30pm President's Welcome & Award Talks

Junior Investigator Awardee

Title, Brian Aguado, *University of California San Diego*

Iozzo Award Winner

Endothelial laminin maintains the blood-brain barrier integrity by inhibiting Adcy2-cAMP-Epac signaling pathway, Yao Yao, *University of South Florida*

Senior Investigator Awardee

Polymerizing laminins: Assembly, functions and disorders, Peter Yurchenco, *Rutgers University - RW Johnson Medical School*

6:30-6:40pm Break

6:40-7:45pm Keynote Lecture

The mechanobiology of diseased extracellular matrix, Viola Vogel, PhD, *ETH Zürich, Switzerland*

7:45-9:00pm Welcome Reception

Monday, November 17th

7:15-8:30am Pastries & Panels – Three Topics

Start Your Day with Insightful Conversations! Join us for interactive and informal Breakfast Discussion Sessions.

8:30-10:00am Plenary I: Basement Membranes

Identifying Mechanism-based and Mechanism-agnostic Interventions for Gould Syndrome, Doug Gould, *University of California, San Francisco*

Targeting Collagen for Therapy, Sergei Boudko, *Vanderbilt University Medical Center*

Intestinal Basement Membrane Repair Is Triggered by the Loss of Matrix Stiffness in *Drosophila*, Andrea Page-McCaw, *Vanderbilt University*

10:00-10:30am Break

10:30am-12:00pm Concurrent sessions 7-9

Concurrent 7: Engineering the Matrix: biomaterials and tissue engineering

Chair: Nasim Annabi, UCLA

Talk Title, Nasim Annabi, *UCLA*

[Plus 4 selected talks from abstracts](#)

Concurrent 8: Wound Healing Continuum anyway you slice it (cancer, fibrosis and healing)

Chair: Boris Hinz, Toronto

How Mesenchymal Stromal Cells Memorize Matrix Mechanics, Boris Hinz, *University of Toronto*

[Plus 4 selected talks from abstracts](#)

Concurrent 9: Matrix in Medicine: Women's Health

Chair: Erika Moore, University of Maryland

Polarizing Potential: Leveraging Integrin-ECM Dynamics to Guide Macrophage Fate, Erika Moore, *University of Maryland*

[Plus 4 selected talks from abstracts](#)

12:00-1:30pm Lunch on your own

1:30-3:00pm Concurrent Sessions 10-12

Concurrent 10: Next Gen Matrix: advances in proteomics

Chair: Kirk Hansen, University of Colorado

Talk Title TBA, Kirk Hansen, *University of Colorado*

[Plus 4 selected talks from abstracts](#)

Concurrent 11: Engineering the Matrix: exploring tissue and ECM mechanics

Chair: Jessica Wagenseil, Washington University St. Louis

Biomechanics and ECM Remodeling in Thoracic Aortic Aneurysms, Jessica Wagenseil, *Washington University St. Louis*

[Plus 4 selected talks from abstracts](#)

Concurrent 12: Multi-cellular contributions to the ECM

Organized by ASMB trainees

Chair: Mallar Bhattacharya, University of California San Francisco

Myeloid-mesenchymal interactions in the fibrotic niche, Mallar Bhattacharya, *University of California San Francisco*

[Plus 4 selected talks from abstracts](#)

3:00-3:30pm Break

3:30-5:00pm Plenary II: Next Gen Matrix: imaging and spatial-omics (adv methods)
Session Sponsored by The Histochemical Society

Nature's Blueprint: Advanced Biomaterials for Regenerative Medicine, Katja Schenke-Layland, *University of Tübingen*

Decoding the spatial niches of antigen-presenting cancer-associated fibroblasts, Huocong Huang, *University of Texas Southwestern*

Talk Title TBA, Nicole Endlich, *Universitätsmedizin Greifswald*

5:00-6:30pm Poster Session I

6:30-7:30pm Debate!
Moderator: Joanne Murphy-Ullrich, University of Alabama at Birmingham

Join us for a lively and thought-provoking debate on some of the hottest topics in scientific research today..

Tuesday, November 18th

7:15-8:30am Pastries & Panels – Three Topics
Start Your Day with Insightful Conversations! Join us for interactive and informal Breakfast Discussion Sessions.

8:30am-10:00am Plenary III: ECM Pharmacology: The Matrix as a biomarker
Chair: Morten Karsdal, Nordic Bio

Biomarkers of extracellular matrix (ECM): Prognostic, diagnostic, predictive and pharmacodynamic tools for enhancing drug development on chronic diseases of lung, liver, heart, kidney, intestine, skin and solid tumors, Morten Karsdal, *Nordic Bio*

Endotrophin and Fibroinflammation – from the Cardiorenal Metabolic Syndrome to Cancer, Philipp Scherer, *University of Texas Southwestern*

Talk title TBA, Detkef Schuppan, *University Medical Center of the Johannes Gutenberg University*

10:00-10:30am Break

10:30am-12:00pm Concurrent sessions 13-15

Concurrent 13: Engineering the Matrix: Cell-ECM mechanosensing
Chair: Brent Hoffman, Duke University

Probing the Effects of Molecular Tension on Protein Function in Cellulo, Brent Hoffman, *Duke University*

[Plus 4 selected talks from abstracts](#)

Concurrent 14: Matrix in Medicine: From Genomics to Metabolism
Chair: Mete Civelek, University of Virginia

Genetic Determinants of Vascular Smooth Muscle Cell Function in Coronary Artery Disease, Mete Civelek, *University of Virginia*

Plus 4 selected talks from abstracts

Concurrent 15: Founders Awardee and Iozzo Trainee Talks

Chair: Jeff Miner, ASMB Past-President and Award Committee Chair

Founders Awardee Talk
Extracellular Matrix in Development and Diseases, Neha Dinesh, *McGill University*

Six awardee finalists talks

12:00-1:30pm Lunch on your own

1:30-3:00pm Concurrent Sessions 16-18

Concurrent 16: The 'other' Matrix: Comarfmputational Methods for High Dimensional Data

Chair: Sylvie Ricard-Blum, University of Lyon

The First Draft of the Human Extracellular Matrix Interactome: A Matter of Context, Sylvie Ricard-Blum, *University of Lyon*

Plus 4 selected talks from abstracts

Concurrent 17: Matrix in Medicine: Marfan, Loeys-Dietz, and Vascular Ehler-Danlos Syndromes *Marfan Foundation Sponsored Session*

Chair: Lynn Sakai, PhD, Oregon Health and Science University

CoChair: Josephine Grima, PhD, The Marfan Foundation

A New Mouse Model with a Point Mutation in the Hybrid Domain of Fibrillin-1 Reveals the Contribution of Immune Cells in Development of Aortic Dissection, Hiromi Yanagisawa, *University of Tsukuba*

Plus 4 selected talks from abstracts

3:00-3:30pm Break

3:30-5:00pm **Plenary IV: ECM Pharmacology: Targeting and Modeling the Disease Matrix**

Chair: Ambra Pozzi, Vanderbilt University Medical Center, and ASMB President

Decoding ECM composition and biology to identify novel therapeutic targets in tissue fibrosis and solid tumors, Giuseppe Mazza, **Engitix**
Hit the hidden — a novel therapeutic approach in IPF treatment through targeting force sensitive extracellular conformations, Ping Hu, **Vasarya Therapeutics**
Engineering the ECM to Model the Evolving Ovarian Cancer Microenvironment, Pam Kreeger, *University of Wisconsin*

5:00-6:30pm **Poster Session II**

7:00pm **ASMB Social** – all are welcome to attend

Wednesday, November 19th

8:00-10:00am **Breakfast and Plenary V: Wound Healing Continuum Anyway You Slice It (Cancer, Fibrosis and Healing)**

Lung Fibroblast Heterogeneity in Health and Disease, Dean Sheppard, *University of California, San Francisco*

Stromal-matrix Networks Dictate Sexually Dimorphic Development of Immune-mediated Inflammatory Diseases (IMIDs), Kim Midwood, *University of Oxford*

Interplay Between Inflammation and Extracellular Matrix Tension Drives Tumor Initiation, Progression and Treatment Response, Valerie Weaver, *University of California, San Francisco*

Announcement of Iozzo Trainee Award Winners

10:15-11:45am

Plenary VI: The 'Other'

Matrix: Where AI and Machine Learning Meet the ECM

Location: TBD

Chair: Matthieu Petijean, Pharmanest

Talk title TBA, Matthieu Petijean, Pharmanest

Decoding Biology: Insights Through the Lens of AI-directed Drug Discovery, Brandon Probst,

Recursion Pharmaceuticals

Talk title TBA, Speaker Name, Institution