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 Activity!
Join ASMB colleagues for a 5K scenic run/walk. Meet at the hotel entrance on West Pratt Street at 7:20am.

9:00am - 6:00pm Registration
Location: West Foyer

9:00am - 10:30am Special Interest Session: Enhancing Visibility and Engagement in Extracellular Matrix Research: A Dialogue with Journal Editors
Location: Peale
Chairs: Andrew Leask, *University of Saskatchewan*, and David Sherwood, *Duke University*

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

Guest Symposium 1: Society for Biomaterials Biomaterials and the Matrix: Society for Biomaterials Guest Symposia
Location: Peale

Chair: Dan Abebayehu, *University of Virginia*

10:30am **Multiscale Biomolecular Assembly for Immunotherapy Design and Delivery**, Robert Oakes, *University of Delaware*

11:00am **The Mechanobiology of Senescence,** Jude Phillip, *Johns Hopkins University*

11:30am **Integrin Expression Identifies Muscle Progenitor Cell Heterogeneities for Skeletal Muscle Tissue Engineering,** Keely Laurence*, University of Delaware*

11:45am **Biodistribution and in vivo retention time of fibrin-targeting silver loaded platelet-like-particles,** Luke Tucker*, North Carolina State University*

Guest Symposium 2: Choroideremia Research Foundation: Retinal ECM dynamics in inherited retinal diseases
Location: Johnson

Chairs: Thomas Barker, *University of Virginia*, and Malia Edwards, Johns Hopkins University, *Wilmer Eye Institute*

10:30am **Introduction**

10:35am **Elucidating the role of hemicentin-1 in the retina,** Conor Sugden*, University of Manchester*

10:50am **Proteoglycan Interactions in the neuronal retina**, Ezequiel Salido, *West Virginia University*

11:10pm **Proteases and atrophy of the choroidal vasculature in retinal degeneration**, Abigail Fahim, *University of Michigan*

11:30pm **Glial remodeling in retinal degeneration: interactions with ocular basement membranes and possible scar formation,** Malia Edwards, Johns Hopkins University, *Wilmer Eye Institute*

11:50pm Panel Discussion

Poster Flash Talks
Three minutes, Three slides! Trainees will present their work in this fast-paced session. This session will include a welcome from the MESHWORK.
Location: Holiday 4-5

Chairs: Karen Posey, *McGovern Medical School at The University of Texas Health Science Center at Houston* and Jessica Wagenseil, *Washington University St. Louis. Refer to the meeting app (Whova) for the list of flash talks.*

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

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

Concurrent 1: Collagens
Location: Holiday 4-5

Chair: Nancy Forde, *Simon Fraser University*
Co-Chair: Arun Asif*, Albany Medical College*

1:30pm **Unravelling the Mechanical Properties of Collagens at the Individual Protein Level**, Nancy Forde, *Simon Fraser University*

2:00pm **Role of Sulfilimine Bonds in Collagen IV enabling Animal Evolution,** Billy Hudson*, Vanderbilt University Medical Center*

2:15pm **Recombinant Human Type I Collagen using CHO Cells,** Kazunori Mizuno*, Nippi, Inc.*

2:30pm **Iron Dysregulation Drives ECM Remodeling to Promote TNBC Invasion,** Arun Asif*, Albany Medical College*

2:45pm **Dual-Cellular 3D Bioprinting of Corneal Stroma and Endothelium Using Collagen I and IV Bioinks,** Jingjing You*, The University of Sydney*
Travel Awardee

Concurrent 2: The Provisional Matrix: Fibrin, Fibronectin and Fibulins
Location: Peale
Chair: Dieter Reinhardt, *McGill University*
Co-Chair: Carmen Halabi*, Washington University School of Medicine*

1:30pm **Fibronectin and Fibulin-associated Mechanisms Forming Matrix Marvels,** Dieter Reinhardt, *McGill University*

2:00pm **Astrocytes Increase Fibronectin Matrix Assembly and Upregulate Fibronectin-Binding Proteins in Response to Local Stimuli,** Yu Sun*, Princeton University*
Travel Awardee

2:15pm **Deciphering the Mechanisms of SNED1 Fibrillogenesis: A Role for Fibronectin and Collagen I?,** Leanna Leverton*, University of Illinois at Chicago*

2:30pm **Fibulin-5 Regulates Resistance Artery Function via Its Interaction with Î²1 Integrin and Downstream ROCK Signaling,** Carmen Halabi*, Washington University School of Medicine*

2:45pm **Synthetic-Platelet Loaded Fibrin Matrix Enhance Exosome Production of Mesenchymal Stem Cells,** Melika Osareh*, North Carolina State University & UNC-Chapel Hill*
Iozzo Trainee Award Finalist, Travel Awardee

Concurrent 3: PTMs and the Glyco-Matrix
Location: Johnson
Chair: Yoshi Ishikawa, *University of California San Francisco*
Co-Chair: Claudia Staab-Weijnitz*, University of Colorado*

1:30pm **Sweet Collagen IV: A Study of a Heavily Post-Translationally Glycosylated Molecule**, Yoshi Ishikawa, *University of California San Francisco*

2:00pm **Metabolic Regulation of Stem Cell Fate through Modulation of the Extracellular Matrix,** Zeenat Rashida*, UCLA*

2:15pm **Collagen Post-Translational Modifications are Altered in Pulmonary Fibrosis Including Within ECM Receptor Binding Sites,** Claudia Staab-Weijnitz*, University of Colorado, Anschutz Medical Campus*

2:30pm **Mapping the Collagen Landscape: Tissue-Specific Chain Expression and Modifications in Mice,** Ayush Nigam*, Indian Institute of Technology, Mandi*

2:45pm **Effect of Ionic Strength on Flexibility and Network formation of Collagen IV,** William Yost*, The Ohio State University*

3:00-3:30pm **Break**

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

Concurrent 4: Matricellular Proteins
Location: Holiday 4-5
Chair: Marisa Merina, *University of Liverpool*
Co-Chair: Sumit Bhutada*, Cleveland Clinic*

3:30pm **Tuning Proliferation and Death in Development and Disease**, Marisa Merina, *University of Liverpool*

4:00pm **CCN1 matricellular signaling links metabolic reprogramming to cellular dedifferentiation for intestinal regeneration,** Joonil Jun*, University of Illinois at Chicago*

4:15pm **Proteolytic Remodeling of Ocular Extracellular Matrix: Insights from the Vitreous, Zonule, and Aqueous Humor Degradome,** Sumit Bhutada*, Cleveland Clinic*

4:30pm **Pseudoachondroplasia (MT-COMP) Mouse Model of Progressive Chronic Pain Associated with Matrix Abnormalities and Joint Degeneration,** Karen Posey*, McGovern Medical School at The University of Texas Health Science Center at Houston*

4:45pm **Preclinical Evaluation of a Novel Thrombospondin-4-Based Gene Therapy to Treat Duchenne Muscular Dystrophy,** Davy Vanhoutte*, Cincinnati Children's Hospital Medical Center*

Concurrent 5: Matrix crosslinking and remodeling
Location: Peale
Chair: Carol Feghali-Bostwick, *MUSC*
Co-Chair: Ana Maria Porras*, University of Florida*

3:30pm **Leveraging Anti-fibrotic Pathways Across Organs**, Carol Feghali-Bostwick, *Medical University of South Carolina*

4:00pm **Age-Dependent Remodeling of Extracellular Matrix in Brain Meninges,** Liudmila Romanova*, Rush University Medical Center*

4:15pm **Genomic Profiling and Functional Validation of Bacteroides Enzymes Driving Extracellular Matrix Degradation,** Ana Maria Porras*, University of Florida*

4:30pm **Nascent extracellular glycoprotein profiling during critical lung stages: a nascent glycoproteome atlas for studying lung rejuvenation,** Qingyang Li*, Carnegie Mellon University*
Travel Awardee

4:45pm **Role of Macrophageâ€“Adipocyte Communication in Obesity-Driven Inflammation,** Julieta Rios-Vergara*, Temple University*
Travel Awardee

Concurrent 6: Matrix receptors and signaling
Location: Johnson
Chair: Tim Spinger, Harvard University
Co-Chair: Marin Herrick*, University of Delaware*

3:30pm **Beyond Matrigel: New Agonists for Organoid Growth and Integrin Conformational Ensembles**, Tim Springer, *Harvard University*

4:00pm **A Novel Collagen Hybridizing Peptide for Activating LAIR-1 Inhibitory Pathway at Damaged Collagen Sites,** Regan Stephenson*, 3Helix*

4:15pm **The Receptor for Hyaluronan-Mediated Motility (RHAMM) Activates NFkB and the NLRP3 inflammasome and is a Critical Component in the Development of Bronchopulmonary Dysplasia,** Rashmin Savani*, University of Florida*

4:30pm **Mechanical Overload Destabilizes F-actin Leading to Dysregulation of Chondrocyte Matrix Homeostasis,** Marin Herrick*, University of Delaware*
Travel Awardee

4:45pm **Dissecting the Roles of SNED1-Integrin Interactions and the RGD and LDV Motifs in Cell Adhesion and Fibrillogenesis,** Dharma Tejeshwar Reddy Pally*, University of Illinois at Chicago*
Travel Awardee

5:00 - 5:15 **Break**

5:15-6:30pm **President's Welcome & Award Talks**
Location: Holiday 4-5

5:15pm ***President's Welcome,*** **Ambra Pozzi,** ***ASMB President***

5:30pm ***Junior Investigator Awardee*** **Title**, **Brian Aguado,** *University of California San Diego*

5:50pm ***Iozzo Award Winner*** **Endothelial laminin maintains the blood-brain barrier integrity by inhibiting Adcy2-cAMP-Epac signaling pathway**, **Yao Yao,** *University of South Florida*

6:10pm ***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**
Location: Holiday 4-5

Welcome from Thomas Barker, Meeting Chair and ASMB President Elect

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.

Location: Holiday 4-5 **Matrix Resources: What tools are out there?** *Chairs: Alexandra Naba and Rachel Lennon*

Location: Peale **Taking the next step, negotiating, setting up a lab** *Chair: Daniel Abebayehu*

Location: Johnson **From Invention to Impact: IP, Entrepreneurship, and Startups in Academic Research** *Chair: Davy Vanhoutte*

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

Location: Holiday 4-5
Chair: Roy Zent*, Vanderbilt University Medical Center*

8:30am **Identifying Mechanism-based and Mechanism-agnostic Interventions for Gould Syndrome**, Doug Gould, *University of California, San Francisco*

9:00am **Targeting Collagen for Therapy,** Sergei Boudko, *Vanderbilt University Medical Center*

9:15am **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
Location: Holiday 4-5
Chair: Steven Caliari, *University of Virginia*
Co-Chair: Matthew Wolf*, National Cancer Institute, NIH*

10:30am **Viscoelastic hydrogel design for investigating fibroblast-macrophage crosstalk,** Steven Caliari, *University of Virginia*

11:00am **Zone-Specific Tuning of Hyaluronic Acid-Based Hydrogels to Generate Bioengineered Cartilage with Native-Like Zonal Properties,** Thomas Manzoni*, University of Delaware*
Iozzo Trainee Award Finalist, Travel Awardee

11:15am **Controlled Decorin Delivery from Injectable Microgels Promotes Scarless Vocal Fold Repair,** Riccardo Gottardi*, University of Pennsylvania | Children's Hospital of Philadelphia*

11:30am **MatriSpheres: A 3D Self-Assembly Platform Integrating Decellularized Matrix to Recapitulate Tumor Heterogeneity and Immune Regulatory Phenotype,** Matthew Wolf*, National Cancer Institute, NIH*

11:45am **Bioengineering Temporomandibular Joint (TMJ) in vitro models for cell-matrix and mechanobiology investigations,** Priti Mulimani*, University of Illinois Chicago*

Concurrent 8: Wound Healing Continuum anyway you slice it (cancer, fibrosis and healing)
Location: Peale
Chair: Boris Hinz, *University of Toronto*
Co-Chair: Hayley Sussman*, University of Virgnia*

10:30am **How Mesenchymal Stromal Cells Memorize Matrix Mechanics,** Boris Hinz, *University of Toronto*

11:00am **Investigating Macrophage-Mediated IL-1R1 Signaling in Pulmonary Fibrosis,** Hayley Sussman*, University of Virgnia* Travel Awardee

11:15am **Reducing Levels of Lumican to Remodel the Extracellular Matrix in Cardiac Fibrosis,** Chloe Rixon*, Eindhoven University of Technology (TU/e)*

11:30am **Th2-like exTregs Contribute to Th2 Expansion in ECM-treated Muscle Wound,** Haoning Yu*, Johns Hopkins University*

11:45am **CCN3-derived peptide BLR-200 attenuates bleomycin-induced fibrosis by preventing activation of engrailed-1/COL8A1-expressing universal fibroblasts,** Andrew Leask*, University of Saskatchewan*

Concurrent 9: Matrix in Medicine: Women's Health
Location: Johnson
Chair: Erika Moore, *University of Maryland*
Co-Chair: Francesca Duncan, *Feinberg School of Medicine Northwestern University*

10:30am **Polarizing Potential: Leveraging Integrin-ECM Dynamics to Guide Macrophage Fate,** Erika Moore, *University of Maryland*

11:00am **Cardiac Remodeling and Molecular Alterations in Ageing Female Rats,** Thea Stole, *University of Oslo*

11:15am **Senescence-Linked Fibrosis in the Post-Menopausal Human Ovary Revealed by p16-Based Histological Profiling and Spatial Transcriptomics,** Francesca Duncan, *Feinberg School of Medicine Northwestern University*

11:30am **Remodeling of The Maternal Mitral Valve During Pregnancy: A Recapitulation of Fetal Development?** Meghan Martin, *Florida International University*

11:45am **Investigating Progesterone Resistance and Fibrogenesis in Endometriosis Using Mechanosensitive and Long-Term Ex Vivo Lesion Platforms,** Danielle Klunk, *University of Virginia*
Travel Awardee

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

12:15-1:15pm **HCS Business Meeting and Award Recognition**
Join the Histochemical Society as they honor their awardees. Stay for a brief business meeting where you will learn about the society's activities of the past year and plan for the coming year.

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

Concurrent 10: Next Gen Matrix: advances in proteomics
Location: Holiday 4-5
Chair: Kirk Hansen, *University of Colorado*
Co-Chair: Zihan Ling, *Carnegie Mellon University*

1:30pm **Dissecting ECM Crosslinking: Proteomic Workflows from Model Systems to Human Disease,** Kirk Hansen, *University of Colorado*

2:00pm **The Degradome of ADAMTS8, a Protease Implicated in Pulmonary Arterial Hypertension,** Tina Burkhard, *University of Surrey*

2:15pm **Differentially Expressed Proteins Identified via Single Cell Proteomics Used as Spatial Omic Targets in Marfan Syndrome,** Ashley Dinh, *Cedars-Sinai*

2:30pm **Chemoselective Characterization of New Extracellular Matrix Deposition in Bioengineered Tumor Tissue,** Zihan Ling, *Carnegie Mellon University*

Concurrent 11: Engineering the Matrix: exploring tissue and ECM mechanics
Location: Peale
Chair: Jessica Wagenseil, *Washington University St. Louis*
Co-Chair: Jacopo Ferruzzi, *University of Texas at Dallas*

1:30pm **Biomechanics and ECM Remodeling in Thoracic Aortic Aneurysms,** Jessica Wagenseil, *Washington University St. Louis*

2:00pm **Hypoxia-induced Stroma-driven Extracellular Matrix Remodeling Impairs Immune Infiltration and Identifies Targeting Vulnerabilities in High-grade Serous Carcinoma,** Pilar de la Puente, *Sanford Research/ University of South Dakota School of Medicine*

2:15pm **Decorin Promotes Nascent Proteoglycan Retention in Cartilage Matrix by Strengthening Collagen II-Aggrecan Integration,** Thomas Li, *Drexel University*

2:30pm **Distinct Molecular and Structural Traits of Permanent versus Transient Cartilage in Early Development,** Jiaqi Xiang, *Drexel University*

2:45pm **Bioenergetic Pathways Regulate Distinct Patterns of Invasion and Extracellular Matrix Remodeling in Breast Cancer Cells Upon YAP/TAZ Activation,** Jacopo Ferruzzi, *University of Texas at Dallas*

Concurrent 12: Multi-cellular contributions to the ECM
Location: Johnson
Organized by ASMB trainees
Chair: Mallar Bhattacharya, *University of California San Francisco*
Co-Chair: Taylor Krajewski, *Lehigh University*

1:30pm **Myeloid-mesenchymal interactions in the fibrotic niche**, Mallar Bhattacharya, *University of California San Francisco*

2:00pm **Macrophages Regulate Fibroblasts to Coordinate Fibrosis After Cardiac Pressure Overload,** Upendra Chalise, *University of Minnesota*
Iozzo Trainee Award Finalist, Travel Awardee

2:15pm **Single Cell Spatial Profiling of the Matrisome in Malignant Brain Cancer,** Joseph McCarty, *The University of Texas MD Anderson Cancer Center*

2:30pm **Effects of Macrophage Polarization on Aneurysmal Smooth Muscle Cell Behavior in an in vitro Non-Contact Coculture System,** Taylor Krajewski, *Lehigh University*

2:45pm **Integrated Single Cell and Spatial Transcriptomics Analysis Reveals Distinct Senescent Cell Phenotypes that Regulate Fibrosis,** Lexi Rindone, *Johns Hopkins University*
Iozzo Trainee Award Finalist

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
Location: Holiday 4-5
Chairs: A. Sally Davis Horner, *Davis Consulting, University of Pretoria, and Kansas State University and* Liliana Schaefer, *Goethe-Universität Frankfurt am Main*

3:30pm **Forces and Structures: Mechanical Stress, Matrix Production, and Super Resolution Imaging — A Study on Podocytes,** Nicole Endlich**,** *Universitätsmedizin Greifswald*

4:00pm **Decoding the spatial niches of antigen-presenting cancer-associated fibroblasts**, Huocong Huang, *University of Texas Southwestern*

4:30pm **Fluorescence Lifetime Whole-Tumor mapping Reveals the Impact of Tumor Microenvironment on Antibody Drug–Target Engagement**, Margarida Barroso, *Albany Medical College*, HCS Carpenter Rasch Awardee

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

6:30-7:30pm **Debate! Artificial Intelligence: opportunities and challenges for the matrix community**
Location: Holiday 4-5

Moderator: Joanne Murphy-Ullrich, *University of Alabama at Birmingham*
Time Keeper: Ambra Pozzi, ASMB President

Please join our panelists for a discussion of how AI can benefit ECM research, biotech, and drug discovery. We will also discuss AI's impact on

publishing, peer review, mentoring, teaching, and the environment.

Panelists include: **Sarah Calve**, *University of Colorado;* **Valerio Izzi**, *University of Oulu, ISMB President;* and **Mathieu Petitjean**, *Phamanest.*

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.

Location: Peale **Importance of Advocacy w/ hands-on training (AIMBE)**
Chair: Jason Marvin, PhD, Director of Outreach and Engagement, AIMBE

Location: Holiday 4-5 **Mentoring Roundtables**
Chairs: Ryan Petrie, Drexel University, and Sergei Budko, Vanderbilt University
Choose your table by topic and enjoy a pastry while you discuss career topics with a mentor and colleagues.

Location: Johnson **Academia or Industry: Where do I go?** *Chair: Upendra Chalise*

8:30am-10:00am **Plenary III: ECM Pharmacology: The Matrix as a biomarker**
Location: Holiday 4-5
Chair: Morten Karsdal, *Nordic Bio*

8:30am **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*

9:10am **Endotrophin and Fibroinflammation – from the Cardiorenal Metabolic Syndrome to Cancer,** Philipp Scherer, *University of Texas Southwestern*

9:40am **A Secret Code of the Extracellular Matrix? Deciphering Matricellular Proteins as Predictive Biomarkers and Therapeutic Targets in Chronic Fibroinflammatory Diseases,** Casimiro Gerarduzzi, *University of Montreal*

10:00-10:30am **Break**

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

Concurrent 13: Engineering the Matrix: Cell-ECM mechanosensing
Location: Johnson
Chair: Brent Hoffman, *Duke University*
Co-Chair: Michael Blatchley, *Syracuse University*

10:30am **Probing the Effects of Molecular Tension on Protein Function in Cellulo,** Brent Hoffman, *Duke University*

11:00am **Collagen V-dependent wound healing: microscale stiffness effect through traction and adhesion assembly,** Sangyoon Han, *Michigan Technological University*

11:15am **Mapping highly compartmentalized primary fibroblasts reveals mitochondrial dynamics are governed by cell-matrix interactions,** Breanne Hewitt, *Drexel University*

11:30am **Uncovering the role of the extracellular matrix in intestinal organoid symmetry breaking,** Michael Blatchley, *Syracuse University*

11:45am **The Absent in Melanoma 2 (AIM2) inflammasome is required for lamellipodia formation and fibroblast migration,** Ive-Anwuli Ralph-Uyalor, *Drexel University - Philadelphia, PA*

Concurrent 14: Matrix in Medicine: From Genomics to Metabolism
Location: Peale
Chair: Mete Civelek, *University of California, Los Angeles*
Co-Chair: Adriana Mendez*, Icahn School of Medicine at Mount Sinai*

10:30am **Genetic Determinants of Vascular Smooth Muscle Cell Function in Coronary Artery Disease,** Mete Civelek, *University of California, Los Angeles*

11:00am **High molecular weight hyaluronan is a novel therapeutic agent against lung epithelial injury, inflammation and disease,** Stavros Garantziotis*, NIH*

11:15am **Regulation of the Extracellular Matrix by Hyperglycemia May Contribute to Behavioral Dysregulation,** Adriana Mendez*, Icahn School of Medicine at Mount Sinai*

11:30am **Remodeling the Tumor Extracellular Matrix via Hyaluronic Acid Depletion: Implications for Cancer Therapy and Fibrotic Disease,** Alice Browne*, NCI, NIH*

11:45am **Age-related Structural, Biochemical, And Mechanical Changes In The Mouse Intervertebral Discs,** Chitra Dahia*, Hospital for Special Surgery, Weill Cornell Medica*

Concurrent 15: Founders Awardee and Iozzo Trainee Talks
Location: Holiday 4-5
Chair: Jeff Miner, ASMB Past-President and Award Committee Chair

10:30am **Founders Awardee Talk Extracellular Matrix in Development and Diseases,** Neha Dinesh, *McGill University*

10:55am **Iozzo Trainee Award Introduction and Finalists**

11:00am Upendra Chalise*, University of Minnesota*

11:10am Stephen Decker*, University of Utah*

11:20am Lexi Rindone*, Johns Hopkins University*

11:30am Thomas Manzoni*, University of Delaware*

11:40am Melika Osareh, *North Carolina State University & UNC-Chapel Hill*

11:50am Iram Fatima Siddiqui, *McGill University*

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

1:30-3:00pm **Concurrent Sessions 16-17**

Concurrent 16: The 'other' Matrix: Computational Methods for High Dimensional Data
Location: Holiday 4-5
Chair: Sylvie Ricard-Blum, *University of Lyon*
Introduction by ISMB and recognition of Distiguished Investigator Award
Co-Chair: Valerio Izzi*, University of Oulu*

1:30pm **ISMB Opening and Distinguished Investigator Introduction**

1:30pm **The First Draft of the Human Extracellular Matrix Interactome: A Matter of Context**, Sylvie Ricard-Blum, *University of Lyon*

2:00pm **The MatriGO Project: Systematic Curation and Refinement of ECM-related Terms in Gene Ontology,** Daiqing Chen*, University of Illinois Chicago*

2:15pm **GENESIS: rapid generation of super-resolution tissue maps from spatial transcriptomics data,** Valerio Izzi, *University of Oulu*

2:30pm **Machine Learning of human gene expression across tissues identifies a Matrix-Lamina axis confirmed by live imaging while perturbing tissue,** Dennis Discher, *University of Pennsylvania*

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

Chair: Lynn Sakai, PhD, *Oregon Health and Science University*
CoChair: Josephine Grima, PhD, *The Marfan Foundation*

1:30pm **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*

2:00pm **Vascular Ehlers-Danlos Syndrome Donor Cell Derived Matrix Elucidates Role of COL3A1 Mutations in ECM Mechanics,** William Polacheck, *University of North Carolina at Chapel Hill*

2:15pm **The Pathogenic ADAMTSL2 D167N Variant Causes Geleophysic Dysplasia-like Tissue Changes in Bone, Heart, Lung and Skin,** Timothy Mead, *Case Western Reserve University / UH Rainbow Babies and Children's Hospital*

2:30pm **Fibrillin-1 regulates extracellular matrix cues and modulates adipose tissue differentiation and metabolism,** Iram Fatima Siddiqui, *McGill University*
Iozzo Trainee Award Finalist, Travel Awardee

2:45pm **Mast Cell Chymase contributes to ECM Remodeling in Thoracic Aortic Aneurysm in Marfan syndrome,** Daniel Martin, *Cleveland Clinic*

3:00-3:30pm **Break**

3:30-5:00pm **Plenary IV: ECM Pharmacology: Targeting and Modeling the Disease Matrix**
Location: Holiday 4-5
Chair: Ambra Pozzi, *Vanderbilt University Medical Center, and ASMB President*

3:30pm **Decoding ECM composition and biology to identify novel therapeutic targets in tissue fibrosis and solid tumors,** Giuseppe Mazza, *Engitix*

4:00pm **Hit the hidden — a novel therapeutic approach in IPF treatment through targeting force sensitive extracellular conformations**, Ping Hu, *Vasarya Therapeutics*

4:30pm **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 – Ticket Required**
Off-site Location: Mustang Alley

Wednesday, November 19th GRAND FINALE

8:00-10:00am **Breakfast and Plenary V: Wound Healing Continuum Anyway You Slice It (Cancer, Fibrosis and Healing)**
Location: Holiday 4-5
Chair: Suneel Apte, *Lerner Research Institute, Cleveland Clinic*

8:00am **ASMB Business Meeting and Award Recognition and *Announcement of Iozzo Trainee Award Winners***

8:30am **Lung Fibroblast Heterogeneity in Health and Disease,** Dean Sheppard, *University of California, San Francisco*

9:00am **Stromal-matrix Networks Dictate Sexually Dimorphic Development of Immune-mediated Inflammatory Diseases (IMIDs),** Kim Midwood, *University of Oxford*

9:30am **Interplay Between Inflammation and Extracellular Matrix Tension Drives Tumor Initiation, Progression and Treatment Response,** Valerie Weaver, *University of California, San Francisco*

10:00-10:15am **Mid-Morning Stretch and Coffee Refill!**

10:15-11:45am **Plenary VI: The 'Other' Matrix: Where AI and Machine Learning Meet the ECM**
Location: Holiday 4-5
Chair: Mathieu Petitjean, *Pharmanest*

10:15am **Decoding the ECM: How AI and Digital Pathology Illuminate Hidden Fibrotic Patterns,** Mathieu Petitjean, *Pharmanest*

10:45am **Decoding Biology: Insights Through the Lens of AI-directed Drug Discovery**, Brandon Probst, *Recursion Pharmaceuticals*

11:15pm **Fibrosis in context: In vivo screening to understand and treat matrix pathobiology,** Martin Borch Jensen, *Gordian Biotechnology*

11:45 ***Closing remarks from the meeting chair***