

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 16<sup>th</sup>**

**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 7:15am.*

**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**

*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**

*Chair: Dan Abeyayehu, 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: Foundation Fighting  
Blindness/Choroideremia Research Foundation**

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

- 1:30pm **Glial remodeling, including subretinal  
membrane formation, and Bruch's  
membrane changes in eyes with  
Choroideremia**, Malia Edwards, Johns  
Hopkins University, *Wilmer Eye Institute*
- 2:00pm **Proteoglycan Interactions in the  
neuronal retina**, Ezequiel Salido, *West  
Virginia University*
- 2:20pm **Proteases and atrophy of the choroidal  
vasculature in retinal degeneration**,  
Abigail Fahim, *University of Michigan*
- 2:40pm **Elucidating the role of hemicentin-1 in  
the retina**, Conor Sugden, *University of  
Manchester*

- 2:55pm Closing Remarks

**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.

*Chairs: Karen Posey, McGovern Medical School at  
The University of Texas Health Science Center at  
Houston and Jessica Wagenseil, Washington  
University St. Louis*

**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*

- 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, Albany NY*
- 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**

Chair: Dieter Reinhardt, *McGill University*

- 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  $\alpha 1$  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**

Chair: Yoshi Ishikawa, *University of California San Francisco*

- 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**

*Chair: Marisa Merina, University of Liverpool*

- 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**

*Chair: Carol Feghali-Bostwick, MUSC*

- 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 Macrophage-Adipocyte Communication in Obesity-Driven Inflammation**, Julieta Rios-Vergara, *Temple University*  
*Travel Awardee*

**Concurrent 6: Matrix receptors and signaling**

*Chair: Tim Springer, Harvard University*

- 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

Room# **Taking the next step, negotiating, setting up a lab** Chair: Daniel Abebayehu

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

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

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

5:15pm **Presidents Welcome**

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

**7:45-9:00pm** Welcome Reception

**Monday, November 17<sup>th</sup>**

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

Room# **Matrix Resources: What tools are out there?**  
Chairs: Alexandra Naba and Rachel Lennon

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

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**  
Chair: Nasim Annabi, *UCLA*

10:30am **Talk Title**, Nasim Annabi, *UCLA*

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)**  
*Chair: Boris Hinz, Toronto*

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 Virginia* [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**

*Chair: Erika Moore, University of Maryland*

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 societies 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**

*Chair: Kirk Hansen, University of Colorado*

- 1:30pm **Talk Title TBA**, 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*
- 2:45pm [Plus 1 more selected talk from abstracts](#)
- Concurrent 11: Engineering the Matrix: exploring tissue and ECM mechanics**  
Chair: Jessica Wagenseil, *Washington University St. Louis*
- 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**  
Organized by ASMB trainees  
Chair: Mallar Bhattacharya, *University of California San Francisco*
- 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*

- 3:30pm **Talk Title TBA, 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**

*Moderator: Joanne Murphy-Ullrich, University of Alabama at Birmingham*

*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: **Denis Baskin**, *University of Washington and the Journal of Histochemistry & Cytochemistry*; **Sarah Calve**, *University of Colorado*; **Valerio Izzi**, *University of Oulu, ISMB President*; and **Mathieu Petitjean**, *Phamanest*.

**Tuesday, November 18<sup>th</sup>**

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

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

- Room# **Importance of Advocacy w/ hands-on training (AIMBE)**

*Chair: Jason Marvin, PhD, Director of Outreach and Engagement, AIMBE*

- Room# **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.

- Room# **Academia or Industry: Where do I go?**  
*Chair: Upendra Chalise*

**8:30am-10:00am Plenary III: ECM Pharmacology: The Matrix as a biomarker**  
*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*
- 9:00am **Endotrophin and Fibroinflammation – from the Cardiorenal Metabolic Syndrome to Cancer,** Philipp Scherer, *University of Texas Southwestern*
- 9:30am **Talk title TBA Speaker TBA**

**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*

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

11:00am	<b>Collagen V-dependent wound healing: microscale stiffness effect through traction and adhesion assembly</b> , Sangyoon Han, <i>Michigan Technological University</i>	<b>Therapy and Fibrotic Disease</b> , Alice Browne, <i>NCI, NIH</i>
11:15am	<b>Mapping highly compartmentalized primary fibroblasts reveals mitochondrial dynamics are governed by cell-matrix interactions</b> , Breanne Hewitt, <i>Drexel University</i>	11:45am <b>Age-related Structural, Biochemical, And Mechanical Changes In The Mouse Intervertebral Discs</b> , Chitra Dahia, <i>Hospital for Special Surgery, Weill Cornell Medica</i>
11:30am	<b>Uncovering the role of the extracellular matrix in intestinal organoid symmetry breaking</b> , Michael Blatchley, <i>Syracuse University</i>	<b>Concurrent 15: Founders Awardee and Iozzo Trainee Talks</b> <i>Chair: Jeff Miner, ASMB Past-President and Award Committee Chair</i>
11:45am	<b>The Absent in Melanoma 2 (AIM2) inflammasome is required for lamellipodia formation and fibroblast migration</b> , Ive-Anwuli Ralph-Uyalor, <i>Drexel University - Philadelphia, PA</i>	10:30am <b>Founders Awardee Talk Extracellular Matrix in Development and Diseases</b> , Neha Dinesh, <i>McGill University</i>
<b>Concurrent 14: Matrix in Medicine: From Genomics to Metabolism</b> <i>Chair: Mete Civelek, University of California, Los Angeles</i>		10:55am <b>Iozzo Trainee Award Introduction and Finalists</b>
10:30am	<b>Genetic Determinants of Vascular Smooth Muscle Cell Function in Coronary Artery Disease</b> , Mete Civelek, <i>University of California, Los Angeles</i>	11:00am Upendra Chalise, <i>University of Minnesota</i>
11:00am	<b>High molecular weight hyaluronan is a novel therapeutic agent against lung epithelial injury, inflammation and disease</b> , Stavros Garantziotis, <i>NIH</i>	11:10am Stephen Decker, <i>University of Utah</i>
11:15am	<b>Regulation of the Extracellular Matrix by Hyperglycemia May Contribute to Behavioral Dysregulation</b> , Adriana Mendez, <i>Icahn School of Medicine at Mount Sinai</i>	11:20am Lexi Rindone, <i>Johns Hopkins University</i>
11:30am	<b>Remodeling the Tumor Extracellular Matrix via Hyaluronic Acid Depletion: Implications for Cancer</b>	11:30am Thomas Manzoni, <i>University of Delaware</i>
		11:40am Melika Osareh, <i>North Carolina State University &amp; UNC-Chapel Hill</i>
		11:50am Iram Fatima Siddiqui, <i>McGill University</i>
		<b>12:00-1:30pm</b> Lunch on your own
		<b>1:30-3:00pm</b> Concurrent Sessions 16-18
		<b>Concurrent 16: The 'other' Matrix: Computational Methods for High Dimensional Data</b> <i>Chair: Sylvie Ricard-Blum, University of Lyon</i>



*Introduction by ISMB and recognition of Distinguished Investigator Award*

*University of North Carolina at Chapel Hill*

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

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*

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*

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

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

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

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*

**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*

**Concurrent 17: Matrix in Medicine: Marfan, Loews-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*

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

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*

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

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

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** *(YET TO BE DETERMINED)*

**Wednesday, November 19<sup>th</sup> GRAND FINALE**

11:45

*Closing remarks from the meeting chair*

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

- 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: TBD*

*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*