

# ASIP 2022 Annual Meeting

at

## Experimental Biology

**Basic Science and Translational Research into Mechanisms of  
Human Disease - Improving Disease Prevention, Detection,  
Diagnosis, and Treatment**





# ASIP 2022 Annual Meeting Highlights

## EB 2022 Program Builder

<https://www.eventscribe.net/2022/EB2022/>

## Badge Pick-Up Location & Hours

Grand Hall, Pennsylvania Convention Center entrance between 11th & 12th Streets at 1119 Market Street

Friday	7:30 AM - 5:00 PM
Saturday	7:00 AM - 7:30 PM
Sunday-Monday	7:00 AM - 6:30 PM
Tuesday	7:00 AM - 5:00 PM

Broad Street Atrium, Pennsylvania Convention Center entrance between Arch Street & Race Street at 119 North Broad Street

Friday	7:30 AM - 5:00 PM
Saturday	7:00 AM - 7:30 PM

## First Aid

Pennsylvania Convention Center, Outside of Hall A

Saturday	8:00 AM - 8:30 PM
Sunday-Monday	8:00 AM - 8:00 PM
Tuesday	8:00 AM - 10:00 PM

## Speaker Practice Room Hours

- Friday: 12:00 PM - 5:00 PM
- Saturday - Tuesday, 7:00 AM - 5:00 PM
- Pennsylvania Convention Center • **Room 301**

## Exhibit Hall Location & Hours

- Pennsylvania Convention Center, **Halls A-B**
- Sat-Tue, 9:00 AM - 4:00 PM
- Sun-Tue, 9:00 AM - 4:00 PM

## ASIP Poster Viewing

- Pennsylvania Convention Center, **Exhibit Halls A-B**
- Saturday - Tuesday, 9:00 AM - 4:00 PM

## ASIP Meeting Office and Member Networking Lounge

- Pennsylvania Convention Center
- 7:00 AM - 6:00 PM • **Room 117**
- Saturday - Tuesday

## ASIP Scientific Meeting Rooms

- Pennsylvania Convention Center
- **Rooms 115 A/B/C, 116, 118 A/B/C**

## Friday Morning, April 1

ASIP Council Meeting

- Philadelphia Marriott Downtown
- 7:30 AM (Breakfast)
- 8:00 AM (Meeting Starts)
- Independence Ballrooms I-II

## Friday Evening, April 1

ASIP Council Dinner

- Del Frisco's Double Eagle Steakhouse
- 1428-1432 Chestnut Street, Philadelphia, PA
- 6:30 PM - 10:00 PM

## Saturday Morning, April 2

ASIP Program Committee Meeting (*By Invitation Only*)

- Philadelphia Marriott Downtown
- 7:30 AM - 8:30 AM • **Franklin Hall 1**

Graduate Program Director's Meeting

- Pennsylvania Convention Center
- 8:30 AM - 11:00 AM • **Room 118-A**

ASIP Member Highlights Session – I Am An ASIP Member and This Is My Science

- Pennsylvania Convention Center
- 11:00 AM - 1:00 PM • **Room 118-BC**

## Saturday Afternoon, April 2

Women in Pathology Special Lecture: Imposter Syndrome

- Pennsylvania Convention Center
- 1:00 PM - 2:00 PM • **Room 115-A**

Women in Pathology Special Lecture: Imposter Syndrome

- Pennsylvania Convention Center
- 1:00 PM - 2:00 PM • **Room 115-A**

Blood Vessel Club™ 

- Pennsylvania Convention Center
- 2:00 PM - 5:00 PM • **Room 115-C**

## Saturday Evening, April 2

Rous-Whipple Award Lecture

- Pennsylvania Convention Center
- 5:00 PM - 6:00 PM • **Room 118-A**

EB-Wide Welcome Reception

- Pennsylvania Convention Center
- 6:00 PM - 7:00 PM • **Exhibit Halls A-B**

## Sunday Morning, April 3

ASIP Membership Committee Meeting (*By Invitation Only*)

- Philadelphia Marriott Downtown
- 7:30 AM - 8:30 AM • **Room 303**

Finding Your Path: To Postdoc or Not?

- Pennsylvania Convention Center
- 8:30 AM - 10:30 AM • **Room 115-A**

Breast Cancer Workshop: Therapeutic Resistance Pathways and Emerging Drug Targets for Breast Cancer

- Pennsylvania Convention Center
- 8:30 AM - 11:00 AM • **Room 115-B**

Liver Pathobiology Workshop: Transcription Factors: Liver's REAL ID

- Pennsylvania Convention Center
- 8:30 AM - 11:00 AM • **Room 115-C**

Cotran Early Career Investigator Award Lecture

- Pennsylvania Convention Center
- 11:00 AM - 12:00 PM • **Room 116**

## Sunday Afternoon, April 3

Science Communication Workshop

- Pennsylvania Convention Center
- 11:00 AM - 12:00 PM • **Room 118-BC**

ASIP RSPC Committee Meeting (*By Invitation Only*)

- Pennsylvania Convention Center
- 12:00 PM - 1:00 PM • **Room 117**

## Sunday Afternoon, April 3

Pathobiology of Disease Course: Cell Death and Inflammation in Health and Disease

- Pennsylvania Convention Center
- 2:00 PM - 5:00 PM • **Room 115-C**

### Sunday Afternoon, April 3

ASIP Gold-Headed Cane Award Lecture

- Pennsylvania Convention Center  
5:00 PM - 6:00 PM • **Room 118-A**

Scientific Interest Groups (SIG) Interactive Poster Discussions, Networking Sessions, and Reception

- Pennsylvania Convention Center  
6:00 PM - 8:00 PM • **Terrace Ballrooms 2/3**

Club Hepatomania™ Meet the Experts

- Pennsylvania Convention Center  
7:00 PM - 8:00 PM • **Terrace Ballrooms 3**

### Monday Morning, April 4

ASIP Town Hall Meeting and Breakfast

- Pennsylvania Convention Center  
7:30 AM - 8:30 AM • **Room 115-A**

Career Workshop: 365 Days As A First-Year Faculty Member: Making Every One Count

- Pennsylvania Convention Center  
8:30 AM - 11:00 AM • **Room 118-BC**

Young Scientist Leadership Award Lecture

- Pennsylvania Convention Center  
11:00 AM - 12:00 PM • **Room 116**

### Monday Afternoon, April 4

Career Networking Luncheon

- Pennsylvania Convention Center  
12:00 PM - 2:00 PM • **Room 118-BC**

President's Symposium – Sugar Coating It: The Glycocalyx in Health and Disease

- Pennsylvania Convention Center  
2:00 PM - 5:00 PM • **Room 118-A**

### Monday Evening, April 4

ASIP Business Meeting and Awards Presentations

- Pennsylvania Convention Center  
5:15 PM - 6:30 PM • **Room 118-A**

ASIP Society-Wide Reception

- Pennsylvania Convention Center  
6:30 PM - 8:30 PM • **Room 118-BC**

Presidents' Reception (*Invitation Only*)

- Philadelphia Marriott Downtown  
8:30 PM - 10:00 PM • **Liberty Ballroom C**

### Tuesday Morning, April 5

ASIP Education Committee Meeting (*By Invitation Only*)

- Philadelphia Marriott Downtown  
7:30 AM - 8:30 AM • **Grand Ballroom E**

Outstanding Investigator Award Lecture

- Pennsylvania Convention Center  
11:00 AM - 12:00 PM • **Room 118-A**

### Tuesday Afternoon, April 5

Education Workshop: Rigor and Reproducibility in the Scientific Literature

- Pennsylvania Convention Center  
12:00 PM - 2:00 PM • **Room 118-BC**

# American Society for Investigative Pathology 2022 Meeting Program

ASIP Business Office - Philadelphia Convention Center • Room 117

Office Hours • 7:00 AM - 6:00 PM (EDT) (Saturday - Tuesday)

**SATURDAY, APRIL 2, 2022**

## ASIP Program Committee Meeting *(By Invitation Only)*

7:30 AM - 8:30 AM (EDT) • **Philadelphia Marriott Downtown, Franklin Hall 1**

## Graduate Program Director's Meeting: Competencies for Graduate Education in Investigative Pathology

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*Sponsored by the ASIP Education Committee*

**Chair:** Jennifer Sanders, PhD ▪ Brown University

**Co-Chair:** Jonathon W. Homeister, MD, PhD ▪ University of North Carolina

**Session Description:** The Graduate Program Director's Meeting is open to anyone interested in graduate education. This session will focus on the movement to establish core-competencies in graduate programs. It will start with a presentation by Dr. Bouchard from Drexel University. Dr. Bouchard oversaw the recent generation and establishment of core-competencies for their biomedical graduate programs and will provide an overview of that process. The remainder of the session will be a discussion about core-competencies specific to pathology programs, and will include presentations by two program directors on how their programs are currently meeting core-competencies. The goal of the session is to help programs develop and implement core-competency requirements for their graduate programs.

- Chair - Welcome and Introductions
- 8:30 AM - 9:20 AM (EDT)  
***Designing and Implementing Core-Competency-Based, Student-Centric Biomedical Graduate Programs***  
Michael Bouchard, PhD ▪ Drexel University
- 9:20 AM - 10:05 AM (EDT)  
***Meeting Competencies for Pathobiology and Translational Science Graduate Education at the University of North Carolina at Chapel Hill***  
Jonathon W. Homeister, MD, PhD ▪ University of North Carolina
- 10:05 AM - 10:50 AM (EDT)  
***Meeting Competencies for Pathobiology Graduate Education at Brown University***  
Jennifer Sanders, PhD ▪ Brown University
- ***Questions and Answers***

## Symposium: Research Pathology in Drug R&D and Biotech

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Sponsored by the ASIP Pathology in Biotech and Industry Scientific Interest Group*

**Chair:** Cary Austin, MD, PhD ▪ Genentech

**Co-Chair:** Shawn O'Neil, DVM, PhD ▪ Pfizer

**Session Description:** Pathology as the tissue-based science of cause and effect of disease is a key discipline in evidence-based drug research and development, and has become an area of focus and expanded capabilities in the translational research industry. This session will explore recent scientific and technological advances involving the application of investigative pathology in biotechnology and drug research and development. Presentations from pathology thought leaders across a broad set of industry settings will provide attendees with an in-depth perspective on how pathology as a discipline is making an impact in tissue-based research and the discovery and development of new drugs to address

unmet medical needs, and will highlight some of the activities currently underway within pathology departments in biotech and the pharmaceutical industry.

- Chair - Welcome and Introductions
- 8:30 AM - 9:00 AM (EDT)  
**Targeting Kallikrein-Related Peptidases as a Therapeutic Strategy for Netherton's Syndrome and Atopic Dermatitis**  
Cary Austin, MD, PhD ▪ Genentech, Inc.
- 9:00 AM - 9:30 AM (EDT)  
**Advancing Individualized Neoantigen Specific Therapies and Elucidating Tumor Evolution Using Tissue Based Techniques**  
Amy Lo, MD, MS ▪ Genentech, Inc.
- 9:30 AM - 10:00 AM (EDT)  
**Integration of Multiplex Tissue Analyte Labeling into the Anatomic Pathology Workflow**  
Keith Wharton, Jr., MD, PhD ▪ Ultivue, Inc.
- 10:00 AM - 10:30 AM (EDT)  
**Spatial Gene Expression in Histologic Sections Using Visium: Lessons Learned from Examination of Hidradenitis Suppurativa**  
Susan Westmoreland, VMD ▪ AbbVie, Inc.
- 10:30 AM - 11:00 AM (EDT)  
**Use of Mass Spectrometry to Localize and Quantify Test Articles in Tissue Sections**  
Shawn O'Neil, DVM, PhD ▪ Pfizer, Inc.
- **Questions and Answers**

### Minisymposium: Advances in Liver Homeostasis and Repair

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*This session will feature 10 abstract-driven short talks*

**Chair:** George Michalopoulos, MD, PhD ▪ University of Pittsburgh

**Co-Chair:** Chhavi Goel, PhD ▪ University of Pittsburgh

Presentation Time	Abstract ID	Abstract Title	Presenting Author
8:30 AM - 8:45 AM (EDT)	R520	Inhibiting TET1 alleviates non-alcoholic liver disease progression by targeting lipid metabolic pathways.	Joud Mulla
8:45 AM - 9:00 AM (EDT)	R721	Revealing novel molecular pathways in exosome production and pathological effects in the context of autophagy deficiency	Gang Liu
9:00 AM - 9:15 AM (EDT)	R2198	Loss of SQSTM1/p62 Induces Obesity and Exacerbates Alcohol-induced Liver Injury in Aged Mice	Hui Qian
9:15 AM - 9:30 AM (EDT)	R2987	Beta-catenin inhibition as a novel therapeutic strategy for porphyria	Anu Balogun
9:30 AM - 9:45 AM (EDT)	R3092	Loss of hepatic mTORC1 signaling affects liver homeostasis which is partially compensated by Wnt/ $\beta$ -catenin pathway activation	Shikai Hu
9:45 AM - 10:00 AM (EDT)	R3631	Single-cell spatial transcriptomics analysis of a regenerating liver	Satdarshan Paul Singh Monga
10:00 AM - 10:15 AM (EDT)	R4084	Inhibition of Phosphoinositide 3-kinase delta (PIK3CD) Suppresses Hepatocyte Proliferation by More than 50% in the Regenerating Liver after Partial Hepatectomy	Nicole Martucci
10:15 AM - 10:30 AM (EDT)	R4376	$\beta$ -catenin Overexpressing Hepatocytes Reduce Bile Stasis by Contributing to Cholangiocyte-Like Phenotype in Murine Model of Intrahepatic Cholestasis	Chhavi Goel
10:30 AM - 10:45 AM (EDT)	R4963	The Unfolded Protein Response Regulates ER-phagy in Fibrogenic Hepatic Stellate Cells	Zachary Hanquier
10:45 AM - 11:00 AM (EDT)	R5864	Hepatic Neddylation Deficiency Triggers Fatal Liver Injury via Inducing NF- $\kappa$ B-inducing Kinase and Oxidative Stress	Wei Qin Chen

### Minisymposium: Pathobiology of Cardiac Diseases and Aneurysm Formation

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-C**

*This session will feature 10 abstract-driven short talks*

**Chair:** Maria Pilar Alcaide, PhD ▪ Tufts University

**Co-Chair:** Francisco Carrillo-Salinas, PhD ▪ Tufts University

Presentation Time	Abstract ID	Abstract Title	Presenting Author
8:30 AM - 8:45 AM (EDT)	R2293	Baz1b Dosage Influences Cardiovascular Function, Predisposing to Dilated Cardiomyopathy	Basil McIntosh
8:45 AM - 9:00 AM (EDT)	R2705	EGFR Inhibition in Cardiomyocytes Stabilizes Cardiomyocyte Cohesion in a Murine Model for Arrhythmogenic Cardiomyopathy	Maria Shoykhet
9:00 AM - 9:15 AM (EDT)	R2804	Proinflammatory T Cells with Downregulated Unfolded Protein Response Genes Contribute to Experimental Heart Failure with Preserved Ejection Fraction (HFpEF)	Sasha Smolgovsky
9:15 AM - 9:30 AM (EDT)	R3436	Deletion of MyD88 in T-Cells Worsens Cardiac Pathology Through Enhanced T-Cell Survival and Induction of Cardiac Fibrosis	Abraham Bayer
9:30 AM - 9:45 AM (EDT)	R4762	The Vascular Basis of Takotsubo Syndrome	Leah Choban
9:45 AM - 10:00 AM (EDT)	R4956	Smooth Muscle-Specific Deletion of Neuropilin-1 Increases Vascular Contractility and Blood Pressure	Dakshnapriya Balasubbramanian
10:00 AM - 10:15 AM (EDT)	R5547	Osteopontin is an integral pro-fibrotic mediator of myocardial fibrosis in HIV infection.	Jake Robinson
10:15 AM - 10:30 AM (EDT)	R5562	AT1R blockade together with AT2R stimulation prevents aortic aneurysm in mice with progressively severe Marfan syndrome	Keiichi Asano
10:30 AM - 10:45 AM (EDT)	R5672	Endothelial dysfunction drives aneurysm development in Marfan syndrome	Anna Cantalupo
10:45 AM - 11:00 AM (EDT)	R6175	Adenovirus increases arrhythmia susceptibility during acute cardiac infection	Rachel Padget

### Symposium: Artificial Intelligence in Computational Pathobiology: Applications, Challenges, and the Road Ahead

8:30 AM - 11:30 AM (EDT) • **Pennsylvania Convention Center, Room 116**

*Sponsored by the ASIP Digital and Computational Pathology Scientific Interest Group*

**Chair:** Chhavi Chauhan, PhD ▪ American Society for Investigative Pathology

**Co-Chair:** Stanley Cohen, MD ▪ Rutgers-NJ Medical School

**Session Description:** AI has transformed the field of pathology by augmenting and enhancing both experimental and diagnostic pathology. Rather than making patient care more impersonal, it has made it more human-centric by empowering pathologists via adding new tools to their diagnostic armamentarium. Despite the enormous progress in digital pathology and AI, there are still several major technical and ethical issues that have impeded fast adoption. This session will provide insight into the current state of the art, lessons learned from disciplines like radiology, current and emerging challenges, and ethical considerations for sustainable and scalable use."

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
**Data Mining and the Burden of Annotation**  
Stanley Cohen, MD ▪ Rutgers-NJ Medical School
- 9:05 AM - 9:40 AM (EDT)  
**Challenges in AI-Enabled Pathology**  
Faizal Mahmood, PhD ▪ Harvard Medical School
- 9:40 AM - 10:15 AM (EDT)  
**Convergence of Radiology and Pathology**  
Maryellen Giger, PhD ▪ The University of Chicago

- 10:15 AM - 10:50 AM (EDT)  
**Computational and Virtual Imaging**  
Richard Levenson, PhD ▪ University of California at Davis Health
- 10:50 - 11:25 AM (EDT)  
**Ethical Considerations in the Use of AI**  
Chhavi Chauhan, PhD ▪ American Society for Investigative Pathology
- **Questions and Answers**

### **ASIP Member Highlights Session – I Am An ASIP Member and This Is My Science**

11:00 AM - 1:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-BC**

*Co-Sponsored by the Committee for Career Development, Education Committee, and Women in Pathology*

**Chair:** Edward Medina, MD, PhD ▪ University of Texas at San Antonio

**Co-Chair:** Daisy Shu, PhD ▪ Schepens Eye Research Institute

**Session Description:** As a Society, we cannot escape the identity crisis we have confronted in the past - what is pathology and how do pathologists fit into the basic framework of biomedical science? This is an ongoing challenge that requires our members to educate others regarding the nature of the discipline of experimental pathology and how our research describes and investigates the pathology, pathogenesis, and pathophysiology of specific diseases at the molecular, cellular, organ, and organismal level. Overcoming this identity crisis requires effort on the part of each ASIP member and our success will be evident as we continue to attract bright and enthusiastic young investigators into the diverse field of experimental pathobiology.

The American Society for Investigative Pathology presents I Am An ASIP Member and This Is My Science a dynamic and inspiring session featuring ASIP Scientists on the Cutting Edge of Discovery briefly, present their research, accomplishments, career journeys, and service to ASIP. This session highlights the diversity among our membership, and provides trainees, young scientists, pathologists, and the members of the larger scientific community the opportunity to become inspired by Trailblazers in the field of investigative pathology.

### **Trailblazer Short Talks**

11:00 AM - 12:00 PM

*This session will feature 10-short (5-minute) talks by ASIP members on their career paths and the influence of the ASIP on their success*

- Chair - Welcome and Introductions
- 11:00 AM - 11:05 AM  
***It's Been All Growth Factors, All the Time***  
Patricia A. D'Amore, PhD
- 11:05 AM - 11:10 AM  
***Learning From Rejection: What Allograft Pathology Can Teach Us About Cardiovascular Disease***  
Richard N. Mitchell, MD, PhD
- 11:10 AM - 11:15 AM  
***Post-Translational Mechanisms of Lymphomagenesis***  
Kojo Elenitoba-Johnson, MD
- 11:15 AM - 11:20 AM  
***Bench to Bedside (Book/Journals) & Beyond!***  
Chhavi Chauhan, PhD
- 11:20 AM - 11:25 AM  
***Having Fun Wallowing in Disease***  
Jonathon W. Homeister, MD, PhD

- 11:25 AM - 11:30 AM  
***From Surgeon to Scientist: Translation and Transition***  
Melanie J. Scott, PhD
- 11:30 - 11:35 AM  
***Staying in the PINK1 for Neuroprotection and Beyond***  
Charleen Chu, PhD
- 11:35 AM - 11:40 AM  
***Life Science Consultancy and Me***  
Morgan Preziosi, PhD
- 11:40 AM - 11:45 AM  
***Autophagy – It's Not Just What You Eat But What You Secrete***  
Jayanta Debnath, MD

### **Trainee Highlights Poster Session**

11:50 AM - 1:00 PM (EDT)

*This highlights poster session will feature 20 posters from trainee members on various topics*

Topic Category	Abstract ID	Abstract Title	Presenting Author
Alzheimer's Disease, Parkinson's Disease, and Other Neuropathologies	R3749	Brain-wide Network Restructuring after Chemogenetic Locus Coeruleus Activation: Implications of Tonic Noradrenergic Activity for Neurodegeneration	Taylor Uselman
Cancer	R4052	Semaphorin-3F Deletion Prevents Oral Carcinogenesis	Joud Omari
	R5613	Resolvins inhibit breast tumor progression by countering cancer stem cells	Madeline Duncan
Cardiac Diseases and Aneurysm Formation	R5547	Osteopontin is an integral pro-fibrotic mediator of myocardial fibrosis in HIV infection	Jake Robinson
Cell Death, Tissue Injury, and Repair	R6127	Hair-Bearing Human Skin Organoids from Pluripotent Stem Cells: A Novel Source of Advanced Skin Substitutes for Wound Repair	Anthony Sheets
Gene Regulation	R3094	Understanding the Tissue-Specific Transcriptional Effects of Mitochondrial Introgression in <i>Drosophila</i>	Alexandra Burgess
Inflammation and Immunologic Pathobiology	R2538	EMCN knockout leads to increased monocyte infiltration in kidney and albuminuria in mice	Zhengping Hu
	R3229	Monocytes transition to monocyte-macrophages within the inflamed vasculature via CCR2 on monocytes and endothelial TNFR2	Tanya Mayadas
	R5980	Deletion of Neuropilin-1 in the Epidermis Delays Wound Healing	Sausan Alfaris
Infectious Diseases	R5036	Capturing Coronaviruses: Comparison of Recovery Methods for Infectious Coronaviruses From Environmental Surfaces	Theresa Quintana
Liver	R5471	Conjugated Bile Acids activate Reactive Oxygen Species-p90RSK-Vascular Endothelial Growth Factor Receptor 3 signaling axis to promote lymphangiogenesis	Priyanka Banerjee
	R4234	Hyperammonemia-induced DNA-damage Response Leads to the Acquisition of Cellular Senescence in Neurons after Chronic Liver Failure	Elaina Williams
	R98	Loss of hepatic Drp1 contributes to alcohol-induced megamitochondria and exacerbates alcoholic hepatitis via impaired mitophagy and mitochondrial lipid oxidation	Xiaowen Ma



Lung Disease	R5433	The receptor for advanced glycation endproducts promotes allergen driven neutrophil dominant airway inflammation via NLRP3 inflammasome activation	Katherine Killian
Lymphatic and Vascular Pathobiology	R3914	The Effect of Endomucin on Cell Surface Receptor Signaling Is Specific for Vascular Endothelial Growth Factor Receptor 2	Issahy Cano
Metabolic Disorders, Diabetes, and Obesity	R3259	Targeting Histone Deacetylase-7 as a Novel Therapeutic Strategy for Glioblastoma Multiforme	Ola Hassan
Mucosal and Epithelial Pathobiology	R3171	The Interplay Between Enteric Tuft Cell Responses and Giardia Colonization	Olivia Sosnowski
	R5304	Intermicrovillar adhesion complex assembly requires Myosin 5b	Kristen Engevik
	R6048	Klebsiella pneumoniae utilizes intestinal mucus to increase fitness in the gastrointestinal tract	Taylor Ticer
Ocular Pathobiology	R785	Contrasting Metabolic Profiles of TGFβ2 and TNFα in the Induction of Retinal Epithelial-Mesenchymal Transition (EMT)	Daisy Shu

### **Women in Pathology Special Lecture: Imposter Syndrome**

1:00 PM - 2:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Co-Sponsored by the Committee for Career Development, Education Committee, and Women in Pathology*

**Chair:** Maria Pilar Alcaide, PhD ▪ Tufts University

**Co-Chair:** Jennifer Sanders, PhD ▪ Brown University

**Co-Chair:** Francisco Carrillo-Salinas, PhD ▪ Tufts University

**Co-Chair:** Nakisha Rutledge, BS ▪ Northwestern University

**Session Description:** This interactive session will delve into the causes of Imposter Syndrome and strategies to lessen the feeling of not belonging. Peer coaching will be utilized to build your confidence and coach others to build theirs. Participants will leave the session with a mini-action plan for battling Imposter Syndrome. A follow-up virtual event focused on strategies to quiet the inner critic is being planned so stay tuned. This session is open to all faculty and trainees.

- Chair - Welcome and Introductions
- 1:00 PM - 2:00 PM (EDT)  
**Recognizing and Overcoming Imposter Syndrome**  
Deb Elbaum, MD, CNTC, PCC ▪ Executive Coaching and Leadership Development
- **Questions and Answers**

### **Symposia: Hypoxia and Tumor Metabolism in the Pathogenesis of Cancer**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*Co-sponsored by the ASIP Neoplasia/Growth Regulation Scientific Interest Group and the ASIP Breast Cancer Scientific Interest Group*

**Chair:** Qing Zhang, PhD ▪ University of Texas Southwestern

**Co-Chair:** Diane Bielenberg PhD ▪ Boston Children's Hospital

**Session Description:** Hypoxia is associated with resistance towards radiation and chemotherapy. As tumors grow, they can sense the oxygen tension and reprogram critical pathways that are important for cancer cell survival and therapy resistance. One example is through upregulation of hypoxia inducible factor a (HIFa) and activation of HIF signaling downstream pathways. In recent years, there have been rapid development in our understanding of hypoxia signaling in cancer pathogenesis. From upstream, the field has evolved to understand more on how cancer cells can sense the oxygen tension through a family of 2-oxoglutarate dependent enzymes, including prolyl hydroxylases, histone demethylases and DNA hydroxylases. From downstream, there are a lot of exciting findings on von Hippel Lindau (VHL) tumor suppressor pathway. These dysregulated hypoxia signaling pathway can also contribute to altered tumor metabolism, which fuels tumor growth. Accumulatively, this symposium will provide the overview on exciting

mechanistic studies of hypoxia signaling and tumor metabolism in cancer pathogenesis. In addition, it will cover the therapeutic opportunities that can be exploited in hypoxia signaling and tumor metabolism involved in cancer.

- Chair - Welcome and Introductions
- 2:00 PM - 2:35 PM  
**Targeting Metabolic Reprogramming in Glioma**  
Samuel McBrayer, PhD ▪ University of Texas Southwestern Medical Center
- 2:35 PM - 3:10 PM  
**The Convergence of HIF and Tumor Suppressors on IFN and Its Exploitation in Kidney Cancer**  
Haifeng Yang, PhD ▪ Thomas Jefferson University
- 3:10 PM - 3:45 PM  
**Identification of New Therapeutic Targets in Cancer Oxygen Sensing Signaling**  
Qing Zhang, PhD ▪ University of Texas Southwestern Medical Center
- 3:45 PM - 4:20 PM  
**Targeting HIF-Independent Mechanisms of Hypoxic Tumor Cell State Determination**  
Abhishek Chakraborty, PhD ▪ Cleveland Clinic Foundation
- 4:20 PM - 4:55 PM  
**New Insights into Metabolic Regulation of the Epigenome in Cancer**  
Kathryn Wellen, PhD ▪ University of Pennsylvania
- **Questions and Answers**

#### **Blood Vessel Club™**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-C**  
Co-Sponsored by the North American Vascular Biology Organization (NAVBO)

**Chair:** Magali Saint-Geniez, PhD ▪ Novartis

**Co-Chair:** Patricia D'Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School

**Session Description:** The Blood Vessel Club is an annual gathering at the Experimental Biology meeting. Over the many years that this group has met there have astounding developments and advancements. From the early days when establishing the vascular endothelium in vitro was a major breakthrough in the field to the elegant and sophisticated approaches and models of today, anyone with an interest in the vasculature (and that should be everyone because all tissues are vascularized!) will find home here. This year's session will include presentations on lipid metabolism in the endothelium, the interaction of nerves and capillaries, pathologic new vessels in the eye and diabetic vascular complications. We will also hear talks from a number of abstract submissions with vascular relevance.

- Chair - Welcome and Introductions
- 2:00 PM - 2:30 PM (EDT)  
**Endothelial Lipid Metabolism**  
Zoltan P. Arany, MD, PhD ▪ University of Pennsylvania
- 2:30 PM - 3:00 PM (EDT)  
**Regulation of Corneal Angiogenesis by Peripheral Sensory Nerves**  
Jia Yin, MD, PhD ▪ Massachusetts Eye and Ear, Harvard Medical School
- 3:00 PM - 3:30 PM (EDT)  
**Deciphering the Role of HMGB1 in Diabetic Atherothrombosis, Platelet-VSMC Synergy in Disease Development**  
Roberto Ivan Mota Alvidrez, MD ▪ University of Pittsburgh
- 3:30 PM - 4:00 PM (EDT)  
**Understanding the Role of RUNX1 in Pathologic Ocular Angiogenesis**  
Leo A. Kim, MD, PhD ▪ Schepens Eye Research Institute of Mass Eye and Ear

Presentation Time	Abstract ID	Abstract Title	Presenting Author
4:00 PM - 4:15 PM (EDT)	R3286	Hydrostatic Pressure Controls Angiogenesis through Endothelial YAP1 during Lung Regeneration	Tadanori Mammoto
4:15 PM - 4:30 PM (EDT)	R3425	Involvement of Lysyl Oxidase in the Pathogenesis of Arterial Stiffness in Chronic Kidney Disease	Ravindra Sharma
4:30 PM - 4:45 PM (EDT)	R4055	Targeting Neuropilin-2 in Lymphatic Malformation	Yao Gao
4:45 PM - 5:00 PM (EDT)	R5605	The internal elastic lamina of resistance arteries facilitates vasodilation	Claire Ruddiman

### STP Guest Society Symposium: Advancing Experimental and Toxicologic Pathology with AI

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 116**

*Sponsored by the Society for Toxicologic Pathology (STP)*

*Co-Sponsored by the ASIP Digital and Computational Pathology Scientific Interest Group*

**Chair:** Melissa Schutten, DVM, PhD, DACVP ▪ Seagen

**Co-Chair:** Ruth Sullivan, VMD, PhD, DACVP ▪ Genentech

**Session Description:** Experimental and Toxicologic pathologists are increasingly users of digital images in both routine histologic analysis of tissues and advanced tissue labeling studies. The availability of digitized images in both routine and advanced analysis of tissue morphology has opened the door to the application of computational approaches, which have been revolutionized by advances in Deep Learning (DL) Artificial Intelligence (AI) methods in image analysis. This symposium will review DL approaches applicable to histologic image analysis, present recent studies leveraging AI approaches to advance insights in experimental and toxicologic pathology, and present recent efforts to build resources and community to support continued advancement of the field of “digital pathology”.

- Chair - Welcome and Introductions
- 2:00 PM - 2:30 PM (EDT)  
***Enhancing Toxicity Assessment of Histopathological Images Using Deep Learning***  
Fangyao Hu, PhD ▪ Genentech, Inc.
- 2:30 PM - 3:00 PM (EDT)  
***Ideas for Image Analysis in Infectious Disease Research***  
Gillian Beamer, DVM, PhD, DACVP ▪ Tufts University
- 3:00 PM - 3:30 PM (EDT)  
***AI-Driven Quantification of Rodent Cardiomyopathy***  
Debra Tokarz, DVM, PhD, DACVP ▪ Experimental Pathology Laboratories, Inc.
- 3:30 PM - 4:00 PM (EDT)  
***The IMI BigPicture Project, The First Year***  
Brian Knight, DVM, PhD ▪ Boehringer-Ingelheim
- 4:00 PM - 4:30 PM (EDT)  
***Experiences Building State-of-the-Art Image Data Infrastructure to Enable Computational Approaches in Toxicologic Pathology***  
Ruth Sullivan, VMD, PhD, DACVP ▪ Genentech, Inc.
- 4:30 PM - 5:00 PM (EDT)  
***Panel Discussions***

### Histochemical Society Board Meeting (By Invitation Only)

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 106-B**

### Minisymposium: Liver Pathobiology: Therapeutics and Pathway Targets

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*This session will feature 12 abstract-driven short talks*

**Chair:** Sharon DeMorrow, PhD ▪ University of Texas at Austin

**Co-Chair:** Heather Francis, PhD ▪ Richard L. Roudebush VA Medical Center

Presentation Time	Abstract ID	Abstract Title	Presenting Author
2:00 PM - 2:15 PM (EDT)	R2756	Suppression of MT1 and Melatonin Treatment Improves Liver Phenotypes in Mdr2 <sup>-/-</sup> mice	Ludovica Ceci
2:15 PM - 2:30 PM (EDT)	R2950	Investigating Susceptibility of $\beta$ -catenin-mutated Hepatocellular Carcinoma to Checkpoint Inhibitors	Evan Delgado
2:30 PM - 2:45 PM (EDT)	R3050	Therapeutic implication of SOX9 and YAP1 co-repression in advanced intrahepatic cholangiocarcinoma	Shikai Hu
2:45 PM - 3:00 PM (EDT)	R3218	Regulation of Transplanted Fetal Hepatocyte Proliferation by Histone Post-Translational Modifications	Anders Ohman
3:00 PM - 3:15 PM (EDT)	R3230	Use of Nucleoside Modified mRNA Encoding Regenerative Factors Encapsulated with Lipid Nanoparticles to Alleviate Acute and Chronic Murine Liver Diseases	Valerie Gouon-Evans
3:15 PM - 3:30 PM (EDT)	R3789	A PanFzd receptor agonist induces $\beta$ -catenin activation to promote hepatic repair after surgical and acetaminophen-induced injury	Shikai Hu
3:30 PM - 3:45 PM (EDT)	R4216	Targeting Galanin Receptor Signaling as a Novel Therapeutic Strategy for the Treatment of Fatty Liver Disease	Sharon DeMorrow
3:45 PM - 4:00 PM (EDT)	R4347	Magnetically Guided Theranostics: Enhancing the Contrast of Magnetic Resonance Imaging with Multiple-Layer Montmorillonite-Based Iron/Platinum Nanoparticles for the Treatment of Orthotopic Hepatocellular Carcinoma	Ming-Hsien Chan
4:00 PM - 4:15 PM (EDT)	R4546	Enabling regeneration in a $\beta$ -catenin-deficient liver: Unraveling a novel compensatory role of mTOR	Shikai Hu
4:15 PM - 4:30 PM (EDT)	R5088	Inhibition of Ileal Bile Acid Transport is Protective Against Cholestatic Liver Injury in Cyp2c70 <sup>-/-</sup> Mice with Humanized Bile Acid Composition	Jennifer Truong
4:30 PM - 4:45 PM (EDT)	R5218	Understanding Molecular Heterogeneity in Hepatocellular Carcinoma	Evan Delgado
4:45 PM - 5:00 PM (EDT)	R5653	Role of Jak3 in cross talk between Intestinal and biliary epithelial cells	Narendra Kumar

### Minisymposium: Cell-Cell and Cell Pathogen Interactions at Mucosal Barriers

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*This session will feature 12 abstract-driven short talks*

**Chair:** Anny-Claude Luissint, PhD ▪ University of Michigan

**Co-Chair:** Amy Engevik, PhD ▪ Medical University of South Carolina

Presentation Time	Abstract ID	Abstract Title	Presenting Author
2:00 PM - 2:15 PM (EDT)	R382	Colonic MUC2 Mucin Is Stabilized by FCGBP To Resist Salmonella Enterica Invasion In Goblet Cells	Hayley Gorman
2:15 PM - 2:30 PM (EDT)	R2090	Mechanistic Insights into Macrophages Regulation of Neutrophil Transendothelial Migration in Inflamed Mucosa	Xingsheng Ren
2:30 PM - 2:45 PM (EDT)	R2238	Intestinal epithelial CAR-Like Membrane Protein promotes mucosal barrier function and prevents colitis-associated cancer in mice	Anny-Claude Luissint
2:45 PM - 3:00 PM (EDT)	R2734	Sialylation of CD11b/CD18 regulates Neutrophil Transepithelial Migration and Neutrophil Inflammatory function in the Intestine	Jennifer Brazil
3:00 PM - 3:15 PM (EDT)	R2860	Time-of-Day Influence on Central Nervous System Autoimmunity	Coline Barnoud
3:15 PM - 3:30 PM (EDT)	R2970	Myosin chaperone, UNC-45A, is a novel regulator of intestinal epithelial barrier integrity and repair	Susana Lechuga
3:30 PM - 3:45 PM (EDT)	R3266	Altered Mucosal Glycosylation Patterns during Giardia spp. Infection are Time-Dependent and Tissue-Specific	Elena Fekete
3:45 PM - 4:00 PM (EDT)	R3728	Acidosis regulation of epithelial barrier function and immune signaling	Ian Cartwright



4:00 PM - 4:15 PM (EDT)	R4702	First Description of Different Neutrophil Populations in the Mucosa of the Female Genital Tract Identified by Spatial Transcriptomics	Francisco Carrillo-Salinas
4:15 PM - 4:30 PM (EDT)	R5304	Intermicrovillar adhesion complex assembly requires Myosin 5b	Kristen Engevik
4:30 PM - 4:45 PM (EDT)	R6087	Coronin 1A is Uniquely Expressed in the Human Follicle Associated Epithelium and is Required for Human M Cell Maturation and Function	Janet Staab
4:45 PM - 5:00 PM (EDT)	R6287	Essential role for epithelial HIF-xenophagy axis in control of Salmonella infection and dissemination	Alexander Dowdell

### Rous-Whipple Award Lecture

5:00 PM - 6:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

- Introduction - Peter Howley ▪ Harvard Medical School
- 5:00 PM - 6:00 PM  
***The Biology Behind PD-1 Checkpoint Blockade***  
Arlene Sharpe, MD, PhD ▪ Harvard Medical School
- **Questions and Answers**

### EB Welcome Reception Meeting

6:00 PM - 7:30 PM (EDT)

**Pennsylvania Convention Center, Exhibit Hall AB**

### Women in Pathology Networking Event

6:30 PM - 9:00 PM (EDT) • **Philadelphia Marriott Downtown, Liberty Ballroom C**

*Sponsored by The Women in Pathology*

**Hosts:** Maria Pilar Alcaide, PhD ▪ Tufts University  
Jennifer Sanders, PhD ▪ Brown University  
Fran Carrillo-Salinas, PhD ▪ Tufts University  
Nakisha Rutledge, BS ▪ Northwestern University



**ASIP Women in Pathology Special Virtual Event**  
May 4, 2022 - 1:00 PM EST

## Social Media and the Modern Scientist



Carmen De Miguel, PhD  
Assistant Professor, University of Alabama at Birmingham



**ASIP Membership Committee Meeting (By Invitation Only)**

7:30 AM - 8:30 AM (EDT) • **Philadelphia Marriott Downtown, Room 303**

**Histochemical Society Council Meeting (By Invitation Only)**

7:30 AM - 9:00 AM (EDT) • **Pennsylvania Convention Center, Room 117 (ASIP Business Office)**

**Finding Your Path: To Postdoc or Not?**

8:30 AM - 10:30 AM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Co-Sponsored by the ASIP Committee for Career Development and the ASIP Education Committee*

**Chair:** Jennifer Sanders, PhD ▪ Brown University

**Co-Chair:** David Sullivan, PhD ▪ Northwestern University

**Co-Chair:** Marina Anastasiou, PhD ▪ Tufts University

**Moderator:** Chhavi Chauhan, PhD ▪ American Society for Investigative Pathology

**Session Description:** Health scientists are employed in a variety of sectors including academia, industry, biotech, law, government and editorial services. While a MD/PhD or PhD provides a foundation in research that leads to many attractive career options, post-graduate training can vary among sectors. This session will feature a panel of successful scientists employed across these sectors sharing their insights and advice on whether a traditional academic postdoctoral fellowship is necessary and/or beneficial to trainees interested in their area and what additional training opportunities or steppingstones should be considered. This session will be of interest to undergraduates, graduate/medical students, postdoctoral fellows and anyone interested in graduate education.

- Chair - Welcome and Introductions

**Panelist Discussions - Questions and Answers**

- Robbina Lorenz MD, PhD ▪ Genetech, Inc.
- Satdarshan (Paul) Singh Monga, MD, FAASLD ▪ University of Pittsburgh
- Morgan Preziosi, PhD, ▪ Fenix Group International, LLC

**Breast Cancer Workshop: Therapeutic Resistance Pathways and Emerging Drug Targets for Breast Cancer**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*Sponsored by the ASIP Breast Cancer Scientific Interest Group*

**Chair:** Dennis Jones, PhD ▪ Boston University

**Co-Chair:** Bethany Hannafon, PhD ▪ University of Oklahoma

**Session Description:** The development of therapeutic resistance is one of the most significant clinical problems in the treatment of breast cancer. This session will explore current basic and translational research in the mechanisms associated with therapeutic resistance and will introduce emerging drug targets in the treatment of breast cancer. Attendees will hear from leaders in the breast cancer field about the genetic and cellular underpinnings of resistance to breast cancer therapies. The presentations in this session will illuminate strategies to maximize the potential of targeted therapies and immunotherapies for breast cancer treatment. This session will also focus on the role of cancer stem cells and dormant cancer cells in setting the stage for metastatic recurrence due to therapeutic resistance.

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
**Activating Mutations in HER2 Confer Resistance to Therapy in Breast Cancer**  
Utthara Nayar, PhD ▪ Johns Hopkins Bloomberg School of Public Health
- 9:05 AM - 9:40 AM (EDT)  
**Tumor-Fibroblast Crosstalk Mediates Resistance to HER2-Targeted Therapies in HER2+ Breast Cancer**  
Ioannis Zervantonakis, PhD ▪ University of Pittsburgh

- 9:40 AM - 10:15 AM (EDT)  
**Pathways Regulating the Survival and Recurrence of Residual Cancer Cells**  
James V. Alvarez, PhD ▪ Fred Hutchinson Cancer Research Center
- 10:15 - 10:50 AM (EDT)  
**Heterogeneity of MHC-I and MHC-II Antigen Presentation in Immunotherapy Outcomes in Breast Cancer**  
Justin M. Balko, PharmD, PhD ▪ Vanderbilt University Medical Center
- **Questions and Answers**

### **Liver Pathobiology Workshop: Transcription Factors: Liver's REAL ID**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-C**

*Sponsored by the Liver Pathobiology Scientific Interest Group*

**Chair:** Vik Meadows, PhD ▪ Indiana University

**Co-Chair:** Michael D. Thompson, MD, PhD ▪ Washington University in St. Louis

- Chair - Welcome and Introductions
- 8:30 AM - 8:55 AM (EDT)  
**Regulation of Transcription Factors by MET and EGFR in Liver**  
Bharat Bhushan, PhD ▪ University of Pittsburgh
- 8:55 AM - 9:20 AM (EDT)  
**Adult-to-Fetal Hepatocyte Reprogramming in Alcohol-induced Liver Injury**  
Anna Mae Diehl, MD ▪ Duke University
- 9:20 AM - 9:45 AM (EDT)  
**Pioneer Transcription Factors**  
Klaus H. Kaestner, PhD ▪ University of Pennsylvania
- 9:45 AM - 10:10 AM (EDT)  
**Role of HNF4alpha in Regeneration and Injury**  
Udayan Apte, PhD, DABT ▪ University of Kansas Medical Center
- 10:10 AM - 10:35 AM (EDT)  
**ATF4 in Alcoholic Liver Disease**  
Liuyi Hao, PhD ▪ University of North Carolina at Greensboro
- 10:35 AM - 11:00 AM (EDT)  
**FOXO and Insulin Signaling in Liver**  
Paul Titchenell, PhD ▪ University of Pennsylvania
- **Questions and Answers**

### **Minisymposium: Inflammation and Immunologic Pathobiology of Disease**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*This session will feature 10 abstract-driven short talks*

**Chair:** Menglu Yang, MD, PhD ▪ Schepens Eye Research Institute of Massachusetts Eye and Ear Infirmary

**Co-Chair:** David Sullivan, PhD ▪ Northwestern University

Presentation Time	Abstract ID	Abstract Title	Presenting Author
8:30 AM - 8:45 AM (EDT)	R2538	EMCN knockout leads to increased monocyte infiltration in kidney and albuminuria in mice	Zhengping Hu
8:45 AM - 9:00 AM (EDT)	R2810	Self-DNA induced inflammation impairs the normal function of myoepithelial cells of the lacrimal gland	Menglu Yang
9:00 AM - 9:15 AM (EDT)	R2944	Regulation of endothelial DNA methylation by IL-6 signaling	Ramon Bossardi Ramos
9:15 AM - 9:30 AM (EDT)	R3995	Inhibitory Effect of Podocyte-Specific Silencing of Acid Sphingomyelinase Gene on NLRP3 Inflammasome Activation and Glomerular Injury During Hyperhomocysteinemia	Dandan Huang

9:30 AM - 9:45 AM (EDT)	R4087	Exosome-Mediated Release of NLRP3 Inflammasome Products from Podocytes to Trigger Glomerular Inflammatory Response During Obesity	Guangbi Li
9:45 AM - 10:00 AM (EDT)	R5044	Dual COX-2/sEH Inhibition and Immune Checkpoint Blockade Regress Bladder Cancer Tumors in Mice	Eva Rothenberger
10:00 AM - 10:15 AM (EDT)	R5210	The Fragile X Syndrome-Related Protein, FMRP, Modulates Innate Immune Gene Expression in Macrophages	Krystal Vail
10:15 AM - 10:30 AM (EDT)	R5354	Human CD99L2 Regulates a Step in TEM Independent of PECAM and CD99 Regulated Steps	Nakisha Rutledge
10:30 AM - 10:45 AM (EDT)	R5646	Inhibition of PECAM-1 Significantly Delays Leukocyte Extravasation into the Subcortex Post-Stroke	Erika Arias
10:45 AM - 11:00 AM (EDT)	R5980	Deletion of Neuropilin-1 in the Epidermis Delays Wound Healing	Sausan Alfaris

### ASIP Poster Viewing

10:00 AM - 1:00 PM (EDT) • [Philadelphia Convention Center, Exhibit Hall AB](#)

Poster Manning Times: 11:45 AM - 12:45 PM (EDT)

- Lymphatic and Vascular Pathobiology
- Molecular and Cellular Pathobiology of Liver Diseases
- Mucosal and Epithelial Pathobiology
- Ocular Pathobiology
- Pathobiology of Infectious Diseases

### Cotran Early Career Investigator Award Lecture

11:00 AM - 12:00 PM (EDT) • [Pennsylvania Convention Center, Room 116](#)

- Introduction - Jayanta (Jay) Debnath ▪ University of California, San Francisco
- 11:00 AM - 12:00 PM (EDT)  
***Cohesin Gene Mutations in Tumorigenesis: From Genomics Discovery to Mechanistic Analysis Revealing Targetable Vulnerabilities***  
David Solomon, MD, PhD ▪ University of California at San Francisco
- ***Questions and Answers***

### Science Communication Workshop

12:00 PM - 2:00 PM (EDT) • [Pennsylvania Convention Center, Room 118-BC](#)

**Chair:** Patricia A. D'Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School

**Co-Chair:** Dan Milner, MD ▪ American Society for Clinical Pathology

**Session Description:** So what is it that you work on? This can be asked by your uncle, your mom, people at your college reunion, the freshman undergraduate who you are meeting at a welcome reception, your ten-year old, and on and on. Another day you get a call from the New York Times or NPR who want you to comment on a recent paper that has hit the popular press. In another event, you are selected by your department to go to Capitol Hill on Advocacy Day to communicate the importance of basic research. Do you know what to say and how to say it?

In this session, we will hear from a professional science writer as well as one of our own (Jim Musser) who, during COVID, had a lot of opportunity to speak to the press. In the end, we will try our hand at communicating our science to different (theoretical) audiences and get feedback from the science writer and our peers.

- Chair - Welcome and Introductions
- 12:00 PM - 12:35 PM (EDT)  
***Science Storytelling: How to Explain Research in a Way That's Accessible and Compelling?***  
Christina Hernandez Sherwood ▪ Freelance Writer and Editor



- 12:35 PM - 12:50 PM (EDT)  
***How to Talk to the Media and Not Lose Your Job***  
James Musser, MD, PhD ▪ Houston Methodist Medical Center

### **Participation Activity and Panelist Discussions**

- 12:50 PM - 1:00 PM (EDT)  
***Explanation of Activity and Directions***  
Patricia A. D'Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School
- 1:00 PM - 1:15 PM (EDT)  
***Examples of Scientists Speaking to Laypeople***  
Patricia A. D'Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School  
James Musser, MD, PhD ▪ Houston Methodist Medical Center  
Dan A. Milner MD, MSc, MBA ▪ The American Society for Clinical Pathology
- 1:15 PM - 1:30 PM (EDT)  
***Time to Work on Your Pitches***
- 1:30 PM - 2:00 PM (EDT)  
***Audience Participation with Feedback From the Panel***

### **ASIP RSPC Committee Meeting (By Invitation Only)**

12:00 PM - 1:00 PM (EDT) • **Pennsylvania Convention Center, Room 117 (ASIP Business Office)**

### **Gene Expression Workshop: Newborn Genetic Screening: Methods, Ethics, and Disease Modification**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Sponsored by the ASIP Gene Expression Scientific Interest Group*

**Chair:** Qin Yan, PhD ▪ Yale University

**Co-Chair:** D. Hunter Best, PhD ▪ University of Utah and ARUP Laboratories

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
***Genome First Care, Ethics of Returning Genomic Data to Patients***  
Michael Murray, MD ▪ Yale University School of Medicine
- 2:45 PM - 3:30 PM (EDT)  
***Therapy for Immunodeficiency Including Use of T Cell Receptor Excision Circles for Newborn Screening***  
Jennifer Puck, MD ▪ University of California, San Francisco
- 3:30 PM - 4:15 PM (EDT)  
***Clinical Translation of Modern Genomic Diagnostic Technologies to Improve Patient Outcomes, Particularly in Cancer***  
Jonathan Berg, MD, PhD ▪ University of North Carolina at Chapel Hill
- 4:15 PM - 5:00 PM (EDT)  
***Genetic Testing in the Neonatal ICU***  
Rita Ryan, MD ▪ Case Western Reserve University
- ***Questions and Answers***

### **Symposium: Cellular Orchestra of Liver Health and Disease**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*Sponsored by the ASIP Liver Pathobiology Scientific Interest Group*

**Chair:** Jennifer Sanders, PhD ▪ Brown University

**Co-Chair:** Satdarshan (Paul) Singh Monga, MD, FAASLD ▪ University of Pittsburgh

- Chair - Welcome and Introductions

- 2:00 PM - 2:30 PM (EDT)  
**Macrophages in Liver Repair and Regeneration**  
Cynthia Ju, PhD ▪ University of Texas Health Science Center
- 2:30 PM - 3:00 PM (EDT)  
**The Cell-Molecule Circuitry of Wnt Signaling in Liver Regeneration**  
Satdarshan (Paul) Singh Monga, MD, FAASLD ▪ University of Pittsburgh
- 3:00 PM - 3:30 PM (EDT)  
**Liver Cells and the Extracellular Matrix**  
Rebecca G. Wells, MD ▪ University of Pennsylvania
- 3:30 PM - 4:00 PM (EDT)  
**Regulating of Liver Cell Repopulation by mTOR in Alcoholic Hepatitis**  
Wen-Xing Ding, PhD ▪ University of Kansas Medical Center
- 4:00 PM - 4:30 PM (EDT)  
**Microenvironment Reprogramming in HCC**  
Xin Wei Wang, PhD ▪ National Cancer Institute
- 4:30 PM - 5:00 PM (EDT)  
**Cell/Cell Interactions in Organoid Cultures**  
Mo Ebrahimkhani, MD ▪ University of Pittsburgh
- **Questions and Answers**

### **Pathobiology of Disease Course: Cell Death and Inflammation in Health and Disease**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-C**

*Sponsored by the ASIP Education Committee*

**Chair:** Dipak Panigrahy, MD ▪ Beth Israel Deaconess Medical Center/Harvard Medical School

**Co-Chair:** Sergei Grivennikov, PhD ▪ Cedars-Sinai Medical Center

**Session Description:** Cell death plays an important role in the regulation of inflammation and the resolution of inflammatory reactions. Cell death can contribute to inflammatory responses, and various forms of cell death can themselves incite inflammation. The maintenance of tissue homeostasis necessitates both the recognition and removal of invading microbial pathogens, as well as the clearance of dying cells via the resolution of inflammation. Cell death and cell birth are maintained in balance normally. However, in cancer and other inflammation-driven diseases, these processes become unbalanced, allowing for expansion of cells and disease progression. Apoptotic cell death plays an important role in inflammatory processes and in the resolution of inflammation. Understanding the interactions between cell death and inflammatory responses is critical to developing novel therapies for inflammatory diseases. In this highly relevant patho-biology course, world experts in the field will present on various elements of inflammation and cell death, including how these topics are relevant across diseases such as tuberculosis and cancer. Specific attention will be given to how dying cells (e.g., tumor cells) can drive cancer progression. Additionally, novel therapies that target inflammation and cell death will be discussed. This course will provide significant insight on inflammation and cell death in human health and disease from leading experts across disciplines.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
**Pro-Oncogenic Potential of Apoptotic Cells in the Tumor Microenvironment**  
Christopher D. Gregory, PhD ▪ University of Edinburgh
- 2:45 PM - 3:30 PM (EDT)  
**Microbes, Tumor-Elicited Inflammation and Cancer**  
Sergei Grivennikov, PhD ▪ Cedars-Sinai Medical Center
- 3:30 PM - 4:15 PM (EDT)  
**Inflammation in Health and Disease**  
Ann C. Skulas-Ray, PhD ▪ The University of Arizona

- 4:15 PM - 5:00 PM (EDT)  
***Inflammation and Cell Death in Tuberculosis***  
Selvakumar Subbian, PhD ▪ Rutgers University
- ***Questions and Answers***

### **NAVBO Guest Society Symposium – At the Intersection: Cell-Matrix Interactions in Vascular Development and Disease**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-B**

*Sponsored by the North American Vascular Biology Organization (NAVBO)*

**Chair/Organizer:** Beth Kozel, MD, PhD ▪ National Heart Blood Lung Institute, National Institutes of Health

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
***Temporal and Cell-type Specific Roles of Fibronectin During Formation and Remodeling of the Aortic Arch***  
Sophie Astrof, PhD ▪ Rutgers University
- 2:45 PM - 3:30 PM (EDT)  
***New Genetic Markers of Endothelial Invasion in Collagen Matrices***  
Kayla Bayless, PhD ▪ Texas A&M College of Medicine
- 3:30 PM - 4:15 PM (EDT)  
***Functions of Extracellular Matrix Glycoproteins in the Aortic Wall***  
Dieter Reinhardt, PhD ▪ McGill University
- 4:15 PM - 5:00 PM (EDT)  
***Of Mice and Men: Consequences of Elastic Fiber Disease***  
Beth Kozel, MD, PhD ▪ Heart Blood Lung Institute, National Institutes of Health

### **Minisymposium: Viral and Bacterial Pathogenesis**

2:00 PM - 4:30 PM (EDT) • **Pennsylvania Convention Center, Room 116**

*This session will feature 10 abstract-driven short talks*

**Chair:** Melinda Engevik, PhD ▪ Medical University of South Carolina

**Co-Chair:** Gregory Tsongalis, PhD ▪ Dartmouth-Hitchcock Health System

Presentation Time	Abstract ID	Abstract Title	Presenting Author
2:00 PM - 2:15 PM (EDT)	R591	Novel SARS-CoV-2 Inactivation Formulation Supports Extended COVID-19 Testing/Surveillance	Tian Yu
2:15 PM - 2:30 PM (EDT)	R714	Assessing the effects of COVID-19-induced hypoxia and ACE2 signaling on the human blood-brain barrier in-vitro	Iqra Pervaiz
2:30 PM - 2:45 PM (EDT)	R2675	Anaerobic Bacterial Biofilms Inhibit Neutrophil Responses via the Release of Stable Small-Molecule Effectors	Joey Lockhart
2:45 PM - 3:00 PM (EDT)	R2703	Interferon-alpha or -beta Facilitates SARS-CoV-2 Pulmonary Vascular Infection by Inducing ACE2	Ke Yuan
3:00 PM - 3:15 PM (EDT)	R3150	Pulmonary Endothelial Activation with COVID-19: Possible Role of Reactive Oxygen Species	Oindrila Paul
3:15 PM - 3:30 PM (EDT)	R3214	Using Forward and Reverse Genetics to Understand Calcium Dysregulation in Enteric Viral Virulence	Kristen Engevik
3:30 PM - 3:45 PM (EDT)	R3754	HoxB8-conditional Neutrophil Progenitor Transplant Provides a Therapeutic Benefit for S. aureus Pulmonary Infection in a Murine Model of Chronic Granulomatous Disease (CGD)	Kristina Hinman
3:45 PM - 4:00 PM (EDT)	R4117	SARS-CoV-2 and Hippo Signaling Pathway: A Potential Therapeutic Target	Vaithi Arumugaswami
4:00 PM - 4:15 PM (EDT)	R5659	Elucidating the Antibiotic Resistance of Acinetobacter Calcoaceticus Strains	Janiece Glover
4:15 PM - 4:30 PM (EDT)	R5680	Using Droplet Digital PCR to Detect Cyanobacteria in Human Lung Tissue	Guohong Huang

### Minisymposium: Molecular and Cellular Pathobiology of Breast Cancer

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*This session will feature 12 abstract-driven short talks*

**Chair:** Dennis Jones PhD ▪ Boston University

**Co-Chair:** Patricia Mendonca, PhD ▪ Florida A&M University

Presentation Time	Abstract ID	Abstract Title	Presenting Author
2:00 PM - 2:15 PM (EDT)	R703	Flordid Lymphovascular Invasion of Inflammatory Breast Cancer is Due to Geometric Embolic Budding	Arnav Modi
2:15 PM - 2:30 PM (EDT)	R2273	Effects of Cardamonin on PD-1/PD-L1 Checkpoint in Triple-Negative Breast Cancer	Patricia Mendonca
2:30 PM - 2:45 PM (EDT)	R2303	Anticancer effects of the Xanthophyll Fucoxanthin on Genetically Different Triple-Negative Breast Cancer Cells	Shade Ahmed
2:45 PM - 3:00 PM (EDT)	R2478	Triple isozyme LDH Inhibition in breast cancer cells does not alter energy production but negatively regulates cell proliferation independent of the absence of lactic acid	Elizabeth Mazzio
3:00 PM - 3:15 PM (EDT)	R2586	Thymoquinone Anticancer Effects Through the Upregulation of NRF2 and the Downregulation of PD-L1 in MDA-MB-231 Triple-Negative Breast Cancer Cells	Getinet Adinew
3:15 PM - 3:30 PM (EDT)	R2673	Effects of Diallyl Trisulfide on TNF- $\alpha$ -stimulated Genetically different Triple-Negative Breast Cancer Cells	Konan Kanga
3:30 PM - 3:45 PM (EDT)	R2907	Elucidating PIK3CA-cooperating mutations in breast cancer using an inducible and mammary-specific genetic mutagenesis system	Maryknoll Palisoc
3:45 PM - 4:00 PM (EDT)	R3105	Expression Status of Proton Sensing Receptor GPR68 in Various Breast Cancer Molecular Subtypes	Noha Elemam
4:00 PM - 4:15 PM (EDT)	R3106	CD68, CD86 and CD163 Expression Profile in Breast Cancer Molecular Subtypes	Iman Talaat
4:15 PM - 4:30 PM (EDT)	R4616	Solid stress impairs lymphocyte infiltration into lymph node metastases	Dennis Jones
4:30 PM - 4:45 PM (EDT)	R4640	Protectins Inhibit Estrogen Receptor Negative Breast Cancer Growth in Mice	Franciele Kipper
4:45 PM - 5:00 PM (EDT)	R5613	Resolvins inhibit breast tumor progression by countering cancer stem cells	Madeline Duncan

### Gold-Headed Cane Award Lecture

5:00 PM - 6:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

- Introduction - Kojo Elenitoba-Johnson, MD ▪ Perelman School of Medicine at the University of Pennsylvania
- 5:00 PM - 6:00 PM (EDT)  
***Classification of Lymphoma in the Modern Era – A Marriage of Pathology and Genomics***  
Elaine S. Jaffe, MD ▪ National Cancer Institute
- ***Questions and Answers***

### Scientific Interest Group (SIG) Night – Networking and Trainee Scholar Awards Presentations

6:00 PM - 8:00 PM (EDT) • **Pennsylvania Convention Center, Terrace Ballrooms 2/3**

### Club Hepatomania™ Meet the Experts

7:00 PM - 8:00 PM (EDT) • **Pennsylvania Convention Center, Terrace Ballroom 3**

*Sponsored by the ASIP Liver Pathobiology Scientific Interest Group*

**Chair:** Satdarshan (Paul) Singh Monga, MD, FAASLD ▪ University of Pittsburgh

**Co-Chair:** Kari Nejak-Bowen, PhD ▪ University of Pittsburgh



- 7:00 PM - 7:30 PM (EDT)  
***Fibrosis of the Liver***  
Rebecca G. Wells, MD ▪ University of Pennsylvania
- 7:30 PM - 8:00 PM (EDT)  
***Synthetic Biology and the Liver***  
Mo Ebrahimkhani, MD ▪ University of Pittsburgh

**Histochemical Society Awards Reception**

7:00 PM - 9:00 PM (EDT) • [Pennsylvania Convention Center, 118-C](#)



Seeks  
YOUR  
Research

submit to

The American Journal of  
**PATHOLOGY**

AJP.AMJPATHOL.ORG



**ASIP**  
American Society for Investigative Pathology

**Leadership Academy**  
October 2-4, 2022  
featuring  
Deb Elbaum, MD, CNTC, PCC  
Executive Coaching and Leadership Development



## MONDAY, APRIL 4, 2022

### ASIP Town Hall Meeting

7:30 AM - 8:30 AM (EDT) • **Pennsylvania Convention Center, Room 115-A**

**Chair:** Patricia A. D'Amore, PhD, ASIP President

**Co-Chair:** William A. Muller, MD, PhD, ASIP President-Elect

**Co-Chair:** William B. Coleman, PhD • American Society for Investigative Pathology

### Symposium: Epigenetics of Cancer Immunology

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*Co-Sponsored by the ASIP Gene Expression Scientific Interest Group and the ASIP Neoplasia/Growth Regulation Scientific Interest Group*

**Chair:** Qin Yan, PhD • Yale University

**Co-Chair:** Haifeng Yang, PhD • Thomas Jefferson University

- Chair - Welcome and Introductions
- 8:30 AM - 9:00 AM (EDT)  
***Epigenetic Basis of Response to Immune Checkpoint Blockades***  
Rugang Zhang, PhD • The Wistar Institute
- 9:00 AM - 9:30 AM (EDT)  
***Investigating the Functional Role of 3D Chromatin Features in T-Cells***  
Golnaz Vahedi, PhD • University of Pennsylvania
- 9:30 AM - 10:00 AM (EDT)  
***Epigenetic Regulation of Retroelements and Innate Immunity in Cancer***  
Katherine Chiappinelli, PhD • George Washington School of Medicine
- 10:00 AM - 10:30 (EDT)  
***Epigenetic Silencing by SETDB1 Suppresses Tumor Intrinsic Immunogenicity***  
Gabriel Griffin, MD • Dana-Farber Cancer Institute/Harvard Medical School
- 10:30 AM - 11:00 AM (EDT)  
***Epigenetic Regulation of Metastasis and Tumor Immune Evasion***  
Qin Yan, PhD • Yale University School of Medicine
- ***Questions and Answers***

### Symposium: Utilization of Next-Generation Sequencing in Clinical Diagnostics

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-C**

*Sponsored by the ASIP Molecular Diagnostic Pathology Scientific Interest Group*

*Co-Sponsored by the Association for Molecular Pathology (AMP)*

**Chair:** D. Hunter Best, PhD • University of Utah and ARUP Laboratories

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
***Rapid Whole Genome Sequencing in NICU Patients***  
D. Hunter Best, PhD • ARUP Laboratories
- 9:05 AM - 9:40 AM (EDT)  
***Somatic Mutation Profiling in Solid Tumors***  
Gregory J. Tsongalis, PhD • Dartmouth-Hitchcock Medical Center
- 9:40 AM - 10:15 AM (EDT)  
***Personalized Genomic Diagnostics as an Enabler of Precision Oncology***  
Kojo Elenitoba-Johnson, PhD • University of Pennsylvania

- 10:15 AM - 10:50 AM (EDT)  
***Two Years and 60,000 SARS-CoV-2 Genomes: Houston, Texas – What Have We learned?***  
James Musser, MD, PhD ▪ Houston Methodist Medical Center
- ***Questions and Answers***

### **HCS Guest Society Symposium: Cancer – Instructive Roles of Extracellular Matrix**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Sponsored by The Histochemical Society (HCS)*

**Chair:** Liliana Schaefer, PhD ▪ Goethe-Universität Frankfurt am Main

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
***Rigid Microenvironments and Genetic Change: Correlations and Causation***  
Dennis E. Discher, PhD ▪ University of Pennsylvania
- 9:05 AM - 9:40 AM (EDT)  
***How Changes in Extracellular Matrix Assembly Contribute to Disease***  
Jean E. Schwarzbauer, PhD ▪ Princeton University
- 9:40 AM - 10:15 AM (EDT)  
***Role of ECM in Chemotherapy-Induced Metastasis***  
Madeleine Oudin, PhD ▪ Tufts University
- 10:15 AM - 10:50 AM (EDT)  
***Mitophagy, Angiogenesis, and Extracellular Matrix in the Development and Progression of Breast Cancer***  
Thomas Neill, PhD ▪ Jefferson University
- ***Questions and Answers***

### **Symposium: New Mechanisms that Regulate Epithelial Barrier Integrity and Repair**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*Sponsored by the Vascular and Mucosal Pathobiology Scientific Interest Group*

**Chair:** Andrei I. Ivanov, PhD ▪ Cleveland Clinic

**Co-Chair:** Asma Nusrat, MD ▪ University of Michigan

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
***Microbiota Control of Barrier Function and Wound Healing***  
Sean Colgan, PhD ▪ University of Colorado
- 9:05 AM - 9:40 AM (EDT)  
***Mechanisms Linking Cell Metabolism and Epithelial Barrier Formation***  
Kris A. DeMali, PhD ▪ University of Iowa
- 9:40 AM - 10:15 AM (EDT)  
***Identifying Mechanisms that Contribute to Regeneration of the Retinal Pigment Epithelium in the Eye***  
Jeffrey Gross, PhD ▪ University of Pittsburgh
- 10:15 AM - 10:50 AM (EDT)  
***Pluripotent Stem Cell Models of Lung Development and Disease***  
Darrell N. Kotton, MD ▪ Boston University and Boston Medical Center
- ***Questions and Answers***

### **Career Workshop: 365 Days As A First-Year Faculty Member: Making Every One Count**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 118-BC**

**Chair:** Traci Parry, PhD ▪ University of North Carolina at Greensboro

**Co-Chair:** Christi Kolarcik, PhD ▪ University of Pittsburgh

**Session Description:** Congratulations! You have earned your first faculty appointment. Now you can start saving for retirement through a sponsored University program, you can be added to lists for parking passes, and you may even get an office with a door! In this session, we will feature speakers that have “been there and done that” as well as some that are just beginning to get their academic feet wet. Each will share some thoughts, suggestions, and advice on meeting and thriving in the challenging first year as a member of the faculty. We will also offer time for a question and answer session where you can ask anything that might help you succeed while staying mentally healthy! Attendees will receive a handout with a checklist of things to do as a first-year faculty member with spaces open to add during the session!

- Chair - Welcome and Introductions
- 8:30 AM - 9:05 AM (EDT)  
***Stacking Cards in Your Favor as a New PI***  
Satdarshan (Paul) Singh Monga, MD, FAASLD ▪ University of Pittsburgh
- 9:05 AM - 9:40 AM (EDT)  
***Populating and Motivating Your Laboratory***  
Patricia D’Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School
- 9:40 AM - 10:15 AM (EDT)  
***Launching Your Lab and Sustaining a Research Program: Tips and Lessons Learned From My Journey***  
Maria Pilar Alcaide, PhD ▪ Tufts University
- 10:15 AM - 10:50 AM (EDT)  
***Tips for Your Second Faculty Year and Beyond***  
Andrew Duncan, PhD ▪ University of Pittsburgh
- ***Questions and Answers***

### **ASIP Poster Viewing**

10:00 AM - 1:00 PM (EDT) • **Philadelphia Convention Center, Exhibit Hall AB**

Poster Manning Times: 11:45 AM - 12:45 PM (EDT)

- Metabolic Disorders, Diabetes, and Obesity
- Molecular and Cellular Pathobiology of Liver Diseases
- Neuropathology
- Pathobiology of Cardiac Development and Cardiovascular Diseases

### **Young Scientist Leadership Award Lecture**

11:00 AM - 12:00 PM (EDT) • **Pennsylvania Convention Center, Room 116**

- Introduction - Jonathon Homeister, MD, PhD ▪ University of North Carolina
- 11:00 AM - 12:00 PM (EDT)  
***Characterization of Ezh2-Deficient Genetically Engineered Mouse Models of Neuroendocrine-Differentiated Prostate Cancer***  
Kristine M. Wadosky, PhD ▪ Arvinas, Inc.
- ***Questions and Answers***

### **Journal of Histochemistry and Cytochemistry Lecture**

11:00 AM - 12:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-A**

**Chair:** Stephen Hewitt, MD, PhD ▪ National Cancer Institute/National Institutes of Health

- Chair - Welcome and Introductions



- 11:00 AM - 12:00 PM (EDT)  
**Mapping Kidney and Cardiovascular Fibrotic Disease Using Spatial and Single Cell Genomic**  
Rafael Kramann, MD, PhD, FASN ▪ RWTH Aachen University
- **Questions and Answers**

### **Career Networking Luncheon**

12:00 PM - 2:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-BC**

**Chair:** Veronica Contreras-Shannon, PhD, St. Mary's University

**Co-Chair:** Morgan Preziosi, PhD ▪ Fenix Group International, LLC

- Chair - Welcome and Introductions
- **Table 1 - Life Science Consulting**  
Morgan Preziosi, PhD ▪ FENIX Consulting Firm
- **Table 2 - Biotech/Pharma Scientist**  
Robinna Lorenz, MD, PhD ▪ Genetech, Inc.
- **Table 3 - Science Communication**  
Yasha Duggal, PhD ▪ Penn State University
- **Table 4 - Government Careers in Science**  
William Stetler-Stevenson, MD, PhD ▪ National Cancer Institute/National Institutes of Health
- **Table 5 - Academia - Core Director**  
Kelsey Dillehay McKillip, PhD ▪ UC Biorepository
- **Table 6 - Professor**  
Jonathon W. Homeister, MD, PhD ▪ University of North Carolina
- **Table 7 - Lab PI**  
Kirk Wangenstein MD, PhD ▪ University of Pennsylvania
- **Table 8 - Chief Medical Officer**  
Dan A. Milner MD, MSc, MBA ▪ The American Society for Clinical Pathology
- **Table 9 - Science Entrepreneur**  
Cecelia Yates, PhD ▪ University of Pittsburgh
- **Table 10 - Academic/Professional Society**  
William B. Coleman, PhD ▪ American Society for Investigative Pathology

### **President's Symposium – Sugar Coating It: The Glycocalyx in Health and Disease**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

**Chair:** Patricia D'Amore, PhD ▪ Schepens Eye Research Institute, Harvard Medical School

**Co-Chair:** Zhengping Hu, MD, PhD ▪ Schepens Eye Research Institute, Harvard Medical School

**Session Description:** The vascular glycocalyx, a mesh of glycoproteins, proteoglycans and absorbed plasma proteins, is localized to the luminal surface of the endothelium. The glycocalyx plays a numbers of roles in vascular homeostasis and in a variety of pathologies. Under homeostatic conditions the glycocalyx acts as a barrier to inflammatory cells, a mechanosensor, and a platform for the regulation of coagulation, to name a few. This symposium will provide an overview of the glycocalyx structure and function under normal conditions and then focus on a the glycocalyx in a selection of disease processes, including atherosclerosis, diabetes and viral injury to the lung.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
**Biomechanics of Endothelial Glycocalyx in Health and Disease**  
Michael Goligorsky, MD, PhD ▪ New York Medical College

- 2:45 PM - 3:30 PM (EDT)  
***Atherosclerosis: From the Perspective of the Endothelial Glycocalyx***  
Eno Ebong, PhD ▪ Northeastern University College of Engineering
- 3:30 PM (EDT) - 4:15 PM (EDT)  
***Hyperglycemia-induced Changes in the Retinal Endothelial Glycocalyx***  
Norman R. Harris, PhD ▪ Louisiana State University Health Science Center
- 4:15 PM (EDT) - 5:00 PM (EDT)  
***Alveolar Epithelial Glycocalyx Shedding During Viral Lung Injury: Harm or Benefit?***  
Eric P. Schmidt, MD ▪ University of Colorado School of Medicine
- ***Questions and Answers***

#### **ASIP Business Meeting and Awards Presentations**

5:15 PM - 6:30 PM (EDT) • **Pennsylvania Convention Center, Room 118-A**

**Chair:** Patricia A. D'Amore, PhD, ASIP President

#### **ASIP Society-Wide Reception**

6:30 PM - 8:30 PM (EDT) • **Pennsylvania Convention Center, Room 118-BC**

#### **Presidents' Reception (*Invitation Only*)**

8:30 PM - 10:00 PM (EDT) • **Philadelphia Marriott Downtown, Liberty Ballroom C**

**Host:** Patricia A. D'Amore, PhD, ASIP President

**Co-Host:** Richard N. Mitchell, MD, PhD, ASIP Past-President

**Co-Host:** Dani Zander, MD, ASIP Past-President

**Coming in Fall 2022 –**

**The Second Annual Young Investigators Virtual Meeting**

Featuring short talks from young investigators and keynote lectures  
from leaders in the pathobiology research field



**Young Investigators  
Virtual Meeting**

*Virtual & Interactive*

#PISA2022

**FALL**

**2022**

**ASIP Education and Career Development Committee Meeting (By Invitation Only)**

7:30 AM - 8:30 AM (EDT) • **Philadelphia Marriott Downtown, Grand Ballroom E**

**Symposium: Leukocyte Trafficking and Function in Inflamed Tissues**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Sponsored by the Vascular and Mucosal Pathobiology Scientific Interest Group*

**Chair:** Ronen Sumagin, PhD ▪ Northwestern University

**Co-Chair:** Veronica Azcutia Criado, ▪ University of Michigan

- Chair - Welcome and Introductions
- 8:30 AM - 8:55 AM (EDT)  
***Genetic Alteration of Neutrophil Trafficking and Effector Function***  
Craig Lefort, PhD ▪ Brown University
- 8:55 AM - 9:20 AM (EDT)  
***Gamma Delta Intraepithelial Lymphocyte Regulation of the Intestinal Barrier***  
Karen Edelblum, PhD ▪ Rutgers New Jersey Medical School
- 9:20 AM - 9:45 AM (EDT)  
***Monocyte and Macrophage Dynamics in Atherosclerosis***  
Jesse Williams, PhD ▪ University of Minnesota
- 9:45 AM - 10:10 AM (EDT)  
***T-Cell Trafficking in Cardiac and Vascular Inflammation***  
Maria Pilar Alcaide, PhD ▪ Tufts University
- 10:10 AM - 10:35 AM (EDT)  
***Macrophage-Neutrophil Interactions at the Vascular Barrier***  
Ronen Sumagin, PhD ▪ Northwestern University
- 10:35 AM - 11:00 AM (EDT)  
***Imaging Neutrophil Dynamics in the Intestinal Mucosa***  
Veronica Azcutia-Criado, PhD ▪ University of Michigan
- ***Questions and Answers***

**Symposium: Immunity and Inflammation in the Brain: Roles in Neurodegenerative Diseases and Brain Tumor Treatment**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*Sponsored by the ASIP Neuropathology Scientific Interest Group*

**Chair:** Elaine Bearer, MD, PhD ▪ University of New Mexico

**Co-Chair:** Jose Otero, MD, PhD ▪ Ohio State University

- Chair - Welcome and Introductions
- 8:30 AM - 9:00 AM (EDT)  
***Inflammation in Neurodegenerative Diseases***  
Kiran Bhaskar, PhD ▪ University of New Mexico Health Science Center
- 9:00 AM - 9:30 (EDT)  
***Single-Cell Methods to Investigate Mechanisms of Tau-Mediated Neurodegeneration***  
Inma Cobos, MD ▪ Stanford University Medical School
- 9:30 AM - 10:00 AM (EDT)  
***Glial Reactivity in Alzheimer's Disease***  
Edward B. Lee, MD, PhD ▪ University of Pennsylvania

- 10:00 AM - 10:30 AM (EDT)  
***Astrocytic Responses and Vascular Changes in Dementia***  
Randy L. Woltjer, MD ▪ Oregon Health Sciences University
- 10:30 AM - 11:00 AM (EDT)  
***Autophagy in Alzheimer's Disease: A Data-Mining Study***  
Elaine L. Bearer, MD, PhD ▪ University of New Mexico Health Science Center
- **Questions and Answers**

### **ASMB Guest Society Symposium: Genetic Diseases Reveal Pathological Processes Controlled by the Extracellular Matrix**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 115-C**

*Sponsored by the American Society for Matrix Biology (ASMB)*

**Chair:** Jeffrey Miner, PhD, FASN ▪ Washington University

**Co-Chair:** Ambra A. Pozzi, PhD ▪ Vanderbilt University

- Chair - Welcome and Introductions
- 8:30 AM - 9:00 AM (EDT)  
***Pseudoachondroplasia Early Joint Degeneration: A Tale of ER Stress***  
Karen Posey, PhD ▪ University of Texas Health Science Center
- 9:00 AM - 9:30 AM (EDT)  
***Pancreatic Cancer-Associated Fibroblasts and Self-Generated ECM Constitute a Functional Unit***  
Edna Cukierman, PhD ▪ Fox Chase Cancer Center
- 9:30 AM - 10:00 AM (EDT)  
***Molecular Genetics of Epidermolysis Bullosa: The Paradigm of Heritable Disorders of the Cutaneous Basement Membrane Zone***  
Jouni Uitto, MD, PhD ▪ Thomas Jefferson University
- 10:00 AM - 10:30 AM (EDT)  
***Role of Receptor Tyrosine Kinases in Kidney Fibrosis***  
Ambra Pozzi, PhD ▪ Vanderbilt University Medical Center
- 10:30 AM - 11:00 AM (EDT)  
***Manipulating Glomerular Basement Membrane Composition in Alport Syndrome***  
Jeffrey Miner, PhD, FASN ▪ Washington University School of Medicine
- **Questions and Answers**

### **Minisymposium: Mechanisms of Liver Injury**

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 116**

*This session will feature 10 abstract-driven short talks*

**Chair:** Xiao-Ming Yin, MD, PhD ▪ Tulane University

**Co-Chair:** Laura Molina, PhD ▪ University of Pittsburgh

Presentation Time	Abstract ID	Abstract Title	Presenting Author
8:30 AM - 8:45 AM (EDT)	R98	Loss of hepatic Drp1 contributes to alcohol-induced megamitochondria and exacerbates alcoholic hepatitis via impaired mitophagy and mitochondrial lipid oxidation	Xiaowen Ma
8:45 AM - 9:00 AM (EDT)	R1956	A Novel Murine Model for Studying Alcohol-associated Biliary Dysfunction	Shengmin Yan
9:00 AM - 9:15 AM (EDT)	R3068	Mast Cell (MC)-Induced Cholestasis is Dependent on Apical Sodium Bile Acid Transporter (ASBT) Expression	Vik Meadows
9:15 AM - 9:30 AM (EDT)	R3151	The protective effects of estrogen on biliary and liver damage are independent of ER- $\beta$ signaling in female Mdr2 <sup>-/-</sup> mice	Travis Owen

9:30 AM - 9:45 AM (EDT)	R3167	In the Absence of YAP, TAZ Contributes to Hepatocyte Adaptation in Chronic Cholestasis in Females	Laura Molina
9:45 AM - 10:00 AM (EDT)	R3452	METTL3 Enhances Hepatocellular Carcinoma Progression by Regulating Polycomb Repressive Complex 1 (PRC1) Components BMI1 and RNF2	Weina Chen
10:00 AM - 10:15 AM (EDT)	R3952	Characterization of Hepatic Injury During the Azoxymethane Model of Acute Liver Failure	Matthew McMillin
10:15 AM - 10:30 AM (EDT)	R4234	Hyperammonemia-induced DNA-damage Response Leads to the Acquisition of Cellular Senescence in Neurons after Chronic Liver Failure	Elaina Williams
10:30 AM - 10:45 AM (EDT)	R5471	Conjugated Bile Acids activate Reactive Oxygen Species-p90RSK-Vascular Endothelial Growth Factor Receptor 3 signaling axis to promote lymphangiogenesis	Priyanka Banerjee
10:45 AM - 11:00 AM (EDT)	R5479	Lipocalin-2 Stimulates Proliferation and a Profibrotic Cholangiocyte Phenotype during Cholestasis	April O'Brien

### Minisymposium: Molecular and Cellular Pathobiology of Cancer

8:30 AM - 11:00 AM (EDT) • **Pennsylvania Convention Center, Room 118-A**

*This session will feature 10 abstract-driven short talks*

**Chair:** Diane Bielenberg, PhD ▪ Boston Children's Hospital

**Co-Chair:** Triet Bui, MSCI ▪ Northwestern University

Presentation Time	Abstract ID	Abstract Title	Presenting Author
8:30 AM - 8:45 AM (EDT)	R82	Aminoisoquinolines Penetrate the Blood-Tumor Barrier and May Inhibit Metastasis of Lung Cancer to the Brain	Kimaya Bakhle
8:45 AM - 9:00 AM (EDT)	R693	Utility of Secretagoin as a Novel Marker for the Diagnosis of Lung Neuroendocrine Carcinoma	Yigit Baykara
9:00 AM - 9:15 AM (EDT)	R767	Niche-specific transcriptional reprogramming leads to pro-angiogenic neutrophil specialization in colon cancer	Triet Bui
9:15 AM - 9:30 AM (EDT)	R2661	Microsatellite Instability Testing for Lynch Syndrome in Colorectal Adenomas	Blaire Anderson
9:30 AM - 9:45 AM (EDT)	R3041	Microbial multidimensional signature assessment reveals microbial SNVs as the superior non-invasive biomarkers for early detection of colorectal cancer	Wenxing Gao
9:45 AM - 10:00 AM (EDT)	R3971	miRNA-Based Cancer Classifier from TCGA Expression Profiles	Tashifa Imtiaz
10:00 AM - 10:15 AM (EDT)	R4052	Semaphorin-3F Deletion Prevents Oral Carcinogenesis	Joud Omari
10:15 AM - 10:30 AM (EDT)	R4111	P-cadherin regulates intestinal epithelial repair, but is dispensable for colitis associated colon cancer development	Nayden Naydenov
10:30 AM - 10:45 AM (EDT)	R4190	HSF1 Signaling Inhibits Apoptosis in Hepatoblastoma	Edward Hurley
10:45 AM - 11:00 AM (EDT)	R4304	Differential Extracellular Matrix Proteomic Signatures in Malignant and Benign Polyps from Appalachian Region Colon Cancer Patients	Alexander Sougiannis

### ASIP Poster Viewing

10:00 AM - 1:00 PM (EDT) • **Philadelphia Convention Center, Exhibit Hall AB**

Poster Manning Times: 11:45 AM - 12:45 PM (EDT)

- Veterinary Pathology and Animal Models of Disease
- Inflammation and Immunopathology
- Pathobiology of Lung Disease
- Gene Regulation in Development and Disease
- Cell Death, Tissue Injury, and Repair
- Digital and Computational Pathology



### Outstanding Investigator Award Lecture

11:00 AM - 12:00 PM • **Pennsylvania Convention Center, Room 118-A**

- Introduction - Richard Mitchell, MD, PhD ▪ Brigham & Women's Hospital
- 11:00 AM - 12:00 pm (EDT)  
***Proteostasis Diseases of the Eye and Brain***  
Jonathan Lin, MD, PhD ▪ Stanford University
- ***Questions and Answers***

### Education Workshop: Rigor and Reproducibility in the Scientific Literature

12:00 PM - 2:00 PM (EDT) • **Pennsylvania Convention Center, Room 118-BC**

*Sponsored by Elsevier and The American Journal of Pathology (AJP)*

**Chair:** Chhavi Chauhan, PhD ▪ American Society for Investigative Pathology

**Co-Chair:** Magali Saint-Geniez, PhD ▪ Novartis

- Chair - Welcome and Introductions
- 12:00 AM - 12:30 PM (EDT)  
***The Do's and Don'ts of Reviewing Manuscripts***  
Magali Saint-Geniez, PhD ▪ Novartis
- 12:30 - 1:00 PM (EDT)  
***Rigor and Reproducibility in Scientific Publications***  
Lindsay Allen ▪ Elsevier
- 1:00 PM - 2:00 PM (EDT)  
***Panel Discussions***

### SCVP Guest Society Symposium: Novel Insights from Single Cell Analyses of the Heart

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-A**

*Sponsored by the ASIP Inflammation/Immunopathology Scientific Interest Group and the Society for Cardiovascular Pathology (SCVP)*

**Chair:** James R. Stone, MD, PhD ▪ Massachusetts General Hospital, Harvard Medical School

- Chair - Welcome and Introductions
- 2:00 PM - 2:30 PM (EDT)  
***Neighborhood Signaling and Emergence During Cardiac Morphogenesis***  
Jonathan T. Butcher, PhD ▪ Cornell University, Meinig School of Biomedical Engineering
- 2:30 PM - 3:00 PM (EDT)  
***Deciphering the Cellular and Molecular Underpinnings of Myocarditis Immune-Related Adverse Events to Immune Checkpoint Inhibitor Therapy***  
Alexandra-Chloé Villani, PhD ▪ Massachusetts General Hospital, Harvard Medical School
- 3:00 PM - 3:30 PM (EDT)  
***Single-Cell Sequencing of Epicardial Derived Cells in Arrhythmogenic Cardiomyopathy***  
Ali J. Marian, MD ▪ University of Texas Health Science Center
- 3:30 PM - 4:00 PM (EDT)  
***Elucidation of Cellular Compositions and Single Cell Transcription in Human Cardiomyopathies***  
Yuri Kim MD, PhD ▪ Brigham and Womens Hospital, Harvard Medical School
- 4:00 PM - 4:30 PM (EDT)  
***Cellular and Transcriptional Diversity of Dilated and Hypertrophic Cardiomyopathy***  
Patrick T. Ellinor, MD, PhD ▪ Massachusetts General Hospital, Harvard Medical School
- ***Questions and Answers***

### **SIPMeT Guest Society Symposium: Microbes and Immunity**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-B**

*Sponsored by ASIP and the Italian Society of Pathology and Translational Medicine*

**Chair:** Massimiliano Corsi Romanelli, MD, PhD ▪ University of Milan

**Co-Chair:** Francesco Curcio, PhD ▪ University of Udine

**Session Description:** The microbiome is now known to modulate a diverse array of disease processes. This symposium is sponsored by one of our guest professional societies, the Italian Society of Pathology and Translational Medicine, and features an international lineup of speakers who expand our emerging understanding of the role of the gut microbiome in the pathogenesis and treatment of disease. Discussion will focus on the mechanisms whereby the microbiome alters disease in several organ systems, including the development of pneumonia, modulating adaptive immunity in cardiac remodeling, treatment of cardiometabolic disease, and the regulation of brain function and behavior. The findings discussions may have application to many other disease processes studied by meeting attendees.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
***The Lung Microbiome and Its Role in Pneumonia***  
Luigina Romani, MD ▪ University of Perugia
- 2:45 PM - 3:30 PM (EDT)  
***Gut Dysbiosis-T-Cell Interplay in Cardiac Remodeling***  
Maria Pilar Alcaide, PhD ▪ Tufts University
- 3:30 PM - 4:15 PM (EDT)  
***From Bugs to Brains: How the Gut Microbiota Regulates the Brain and Behavior***  
Melanie Gareau, PhD ▪ University of California, Davis
- ***Questions and Answers***

### **Symposium: Regulatory RNAs in Health and Disease**

2:00 PM - 5:00 PM (EDT) • **Pennsylvania Convention Center, Room 115-C**

**Chair:** Jennifer Sanders, PhD ▪ Brown University

**Co-Chair:** Sonika Patial, DVM, PhD ▪ LSU School of Veterinary Medicine

- Chair - Welcome and Introductions
- 2:00 PM - 2:30 PM (EDT)  
***Non-Coding RNAs in Liver Injury and Carcinogenesis***  
Tong Wu, MD, PhD ▪ Tulane University
- 2:30 PM - 3:00 PM (EDT)  
***DRAIC and tRFs: Novel Long and Short Non-Coding RNAs***  
Anindya Dutta, MD, PhD ▪ University of Alabama
- 3:00 PM - 3:30 PM (EDT)  
***Enhancer RNAs in Glioblastoma Stemness***  
Nikos Tapinos, MD, PhD ▪ Brown University
- 3:30 PM - 4:00 PM (EDT)  
***Role of Extracellular Non-Coding RNAs in Cancer Progression and Therapeutic Resistance in Breast and Gynecologic Cancers***  
Bethany Hannafon, PhD ▪ University of Oklahoma

Presentation Time	Abstract ID	Abstract Title	Presenting Author
4:00 PM - 4:15 PM (EDT)	R4748	LncRNA Xist Participates in Signaling Pathways Related to Pulmonary Arterial Hypertension and its Comorbidities	Dan Predescu
4:15 PM - 4:30 PM (EDT)	R5205	MicroRNA Drivers for Regenerative Capacity in Liver Transplantation	Ankita Srivastava

## ACVP Guest Society Symposium: Characterization of Animal Models of Human Neurologic Disease

2:00 PM - 5:00 PM (EDT) • [Pennsylvania Convention Center, Room 118-A](#)

Sponsored by the American College of Veterinary Pathologists (ACVP)

Co-sponsored by the ASIP Veterinary and Comparative Pathology Scientific Interest Group and the ASIP Neuropathology Scientific Interest Group

**Chair:** Jessica M. Snyder, DVM, DACVP, DACVIM ▪ University of Washington

**Co-Chair:** Kerriann Casey, DVM, DACVP ▪ Stanford University

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM (EDT)  
***Developing Therapies for Rare Pediatric Neurodegenerative Diseases***  
Charles H. Vite, DVM, DACVIM ▪ University of Pennsylvania
- 2:45 PM - 3:30 PM (EDT)  
***Postmortem Evaluation of Large Animal Models of Neurodegenerative Disease***  
Charles-Antoine Assenmacher, DVM, DACVP ▪ University of Pennsylvania
- 3:30 PM - 4:15 PM (EDT)  
***The Relevance of Modeling CNS-Immune Interactions in the Context of Multiple Sclerosis***  
Jorge I. Alvarez, PhD ▪ University of Pennsylvania
- 4:15 PM - 5:00 PM (EDT)  
***Overlapping Pathologic Features of Canine and Human Neurologic Disease: Potential Insights to be Explored***  
Molly Church, VMD, PhD, DACVP ▪ University of Pennsylvania
- ***Questions and Answers***

## Minisymposium: Alzheimer's Disease, Parkinson's Disease, and Other Neuropathologies

2:00 PM - 5:00 PM (EDT) • [Pennsylvania Convention Center, Room 116](#)

This session will feature 12 abstract-driven short talks

**Chair:** Jessica Fortin, PhD ▪ Purdue University

**Co-Chair:** Christi Kolarcik, PhD ▪ University of Pittsburgh

Presentation Time	Abstract ID	Abstract Title	Presenting Author
2:00 PM - 2:15 PM (EDT)	R530	A Phenotypic-based Drug Discovery Approach to Inhibit the Misfolding of Hyperphosphorylated Tau Isoform 1N4R	Jessica Fortin
2:15 PM - 2:30 PM (EDT)	R2012	Association of Mouse Vulnerability to Alzheimer's Disease Pathology with Mutations of Gnb5: A Modulator of G-protein Coupled Receptor Signaling	Emma Fikse
2:30 PM - 2:45 PM (EDT)	R2350	PINK1-Mediated Neuroprotection Against Mutant Tau Pathology	Britney Lizama
2:45 PM - 3:00 PM (EDT)	R2596	Stimulation of autophagy and synaptic maintenance are commonalities induced by an exercise-mimetic and diet supplement to avoid initiators of age-related cognitive decline	Michael Almeida
3:00 PM - 3:15 PM (EDT)	R2731	Autophagy and Herpesvirus: A collaboration Contributing to Alzheimer's Disease	Amir Nafchi
3:15 PM - 3:30 PM (EDT)	R3427	Endogenous Pink1 Regulates Dendritic Architecture and Spinogenesis	Charleen T. Chu
3:30 PM - 3:45 PM (EDT)	R3574	An experimental animal model of cerebral aspergillosis	Brianne Sullivan
3:45 PM - 4:00 PM (EDT)	R3749	Brain-wide Network Restructuring after Chemogenetic Locus Coeruleus Activation: Implications of Tonic Noradrenergic Activity for Neurodegeneration	Taylor Uselman
4:00 PM - 4:15 PM (EDT)	R3947	The Impact of Profilin-1 Mutations on Protein Homeostasis in Amyotrophic Lateral Sclerosis	Julianna Castle

4:15 PM - 4:30 PM (EDT)	R4219	Age-dependent behavioral and neuropathological assessment of analysis of AppNL-G-F/NL-G-F knock-in (KI) mice	Dongsheng Wang
4:30 PM - 4:45 PM (EDT)	R4949	Effects of Microglia APOE Expression on Tau Pathology	Samantha Baker
4:45 PM - 5:00 PM (EDT)	R5173	Inflammation and Hypoxia May Underlie Neuronal Death in Brain of SARS-CoV-2 Infected Non-Human Primates	Meredith Mayer

*Join us in October 2023  
in Salt Lake City, UT!*

**Elevating Science  
to New Heights**

Oct. 21-25

**Tissue, Matrix, and Pathobiology:  
Joint Meeting of ASMB, HCS, and ASIP**

**ASMB**  
American Society for Matrix Biology

**THE HISTOCHEMICAL  
SOCIETY**

**ASIP**  
American Society for Investigative Pathology

<https://asip2023.asip.org>

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.