Symposium: The Gut Microbiota and Disease - Session I
8:30 AM - 11:30 AM
Chair: Xiao-Ming Yin, MD, PhD • Tulane University
Co-Chairs: Wenke Feng, PhD • University of Louisville
Maria Pilar Alcaide, PhD • Tufts University
José Otero, MD, PhD • The Ohio State University

Session Description: Humans carry a vast number of bacteria and other microbiota species from birth, and you may be more bacteria than you are you. An increasing importance of microbiota in human health and diseases has been recognized. Whatever your research subjects are, chances are that they may be influenced by the microbiota. This symposium will discuss the impact of gut microbiota on diseases ranging from neurodegeneration to diabetes, from the liver to the heart, and from the immune cells to the bone.

- Chair - Welcome and Introductions
- 8:30 AM - 9:00 AM
  Gut Microbiota, Bile Acids Receptor, and Metabolism
  John YL Chiang, PhD • Northeast Ohio Medical University
- 9:05 AM - 9:35 AM
  Hepatic Autophagy, Microbiota, and Liver Injury
  Xiao-Ming Yin, MD, PhD • Tulane University
- 9:40 AM - 10:10 AM
  Gut Microbiota, Fatty Liver Disease, and Hepatocellular Carcinoma
  Bernd Schnabl, MD • University of California, San Diego
- 10:15 AM - 10:45 AM
  Intestinal Barrier Function and Metabolic Liver Disease
  Wenke Feng, PhD • University of Louisville
- 10:50 AM - 11:20 AM
  Fecal Transplantation and Immune Regulation in Liver Disease
  Shirish Barve, PhD • University of Louisville

Minisymposium: Pathobiology of Lung Disease
8:30 AM - 11:00 AM
Co-Chairs: Piyali Dasgupta, PhD • Marshall University
Sonika Patial, PhD, DVM, DACVP • Louisiana State University

Session Description: Abstract-Driven Short Talks (15-minutes each w/Q&A)
- Chair - Welcome and Introductions
Minisymposium: Mucosal Inflammation and Leukocyte Trafficking
8:30 AM - 11:00 AM

Chair: Melinda Engevik, PhD • Medical University of South Carolina
Co-Chair: David Sullivan, PhD • Northwestern University

Session Description: Abstract-Driven Short Talks (15-minutes each w/Q&A)
- Chair - Welcome and Introductions

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<th>Presentation Time</th>
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<tbody>
<tr>
<td>8:30 - 8:45</td>
<td>Richa Lamichhane</td>
<td>Myeloid-cell-specific Ablation of Tristetraprolin (TTP) Increases the Susceptibility of Female mice to Bleomycin-induced Lung Injury and Fibrosis</td>
<td>Abstract L5217</td>
</tr>
<tr>
<td>8:45 - 9:00</td>
<td>Megan Blackburn</td>
<td>Acute Over-Ventilation Does Not Cause Lung Damage in Hemorrhaged Swine</td>
<td>Abstract R2125</td>
</tr>
<tr>
<td>9:00 - 9:15</td>
<td>Ye Zeng</td>
<td>Anisodamine hydrobromide protects against acute lung injury in septic rats induced by lipopolysaccharide or cecal ligation and puncture via inhibiting apoptosis and pyroptosis</td>
<td>Abstract R2246</td>
</tr>
<tr>
<td>9:15 - 9:30</td>
<td>Elissa Hult</td>
<td>Protection of Ly2Cre+HBEFG−/− mice from bleomycin-induced lung fibrosis</td>
<td>Abstract R1999</td>
</tr>
<tr>
<td>9:30 - 9:45</td>
<td>Yao Zou</td>
<td>Inflammamsome Activation and Exosome Release in the Lung during Chronic Obstructive Pulmonary Disease: Potential Therapeutic Target of Acupuncture</td>
<td>Abstract R3056</td>
</tr>
<tr>
<td>9:45 - 10:00</td>
<td>Denis Naumov</td>
<td>Effect of TRPV4 Polymorphisms on the Development of Airway Response to Increased Inspiratory Load</td>
<td>Abstract R3451</td>
</tr>
<tr>
<td>10:00 - 10:15</td>
<td>Limei Wang</td>
<td>The expression and significance of heparanase, MMP-9 in lung tissue of rat pulmonary hypertension model</td>
<td>Abstract R1887</td>
</tr>
<tr>
<td>10:15 - 10:30</td>
<td>Tendai Hunyenyiwa</td>
<td>ROBO/SLIT in Obesity-dependent Changes in Angiogenesis and Lung Regeneration</td>
<td>Abstract R2181</td>
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Career Conversations – Doing Business in Science
9:00 AM - 10:00 AM

Sponsored by the ASIP Committee for Career Development and Diversity

Chair: Verónica Contreras-Shannon, PhD • St. Mary’s University

Session Description: Every scientist is cut from a different mold! Join us for Doing Business in Science - a conversation with Drs. Bryan Brown and Cavan Bailey about their careers in Entrepreneurship/Start-Ups and Scientific Consulting, respectively. Both will provide insights about their career, their daily life, advice to trainees interested in a similar path, and answer your questions about their career journey. This is a great opportunity to learn about the many career possibilities available to you and to build your network!
Symposium: Single Cell Transcriptome and Epigenome Analysis, Using the Power of One to Interrogate Heterogeneity
9:00 AM - 12:00 PM

Chair: Philip Iannaccone, MD, PhD • Northwestern University
Co-Chairs: Qin Yan, PhD • Yale University
       David C. Williams, Jr, MD, PhD • University of North Carolina, Chapel Hill

Session Description: Recent advances in transcriptomics have shown that gene expression states vary tremendously from cell to cell. This variation is essential in development where the specification of fate depends on controlled heterogeneity. In cancer, genetic and epigenetic changes result in highly heterogeneous expression states despite clonal origins. This session will present the emerging single-cell technologies in transcriptomics and epigenomics, data analysis pipeline, and the biological significance of these data.

- Chair - Welcome and Introductions
- 9:00 AM - 9:45 AM
  Methods for Calibration, Imputation, Visualization and Differentiation Between Samples in scRNA-seq Data Analysis
  Yuval Kluger, PhD • Yale University
- 9:45 AM - 10:30 AM
  Single-Cell Genomics in Cancer Immunotherapy
  Ansuman Satpathy, MD, PhD • Stanford University
- 10:30 AM - 11:15 AM
  Single Cell Epigenomic Analysis of the Anatomy and Neuronal Circuitry of the Brain
  ZhuZhu Zhang, PhD • Salk Institute
- 11:15 AM - 12:00 PM
  Integrative RNA and Chromatin Analysis of Single Cells in Human Tissues
  Kun Zhang, PhD • University of California, San Diego

ASIP Chat Lounge - Meet the ASIP Executive Officer
10:00 AM - 11:00 AM
- William B. Coleman, PhD • American Society for Investigative Pathology

Career Mentoring Session: Finding Your Path: Alternative Careers for Health Scientists
10:00 AM - 12:00 PM

Chair: Jennifer Sanders, PhD • Rhode Island Hospital and Brown University
Co-Chairs: David Sullivan, PhD • Northwestern University
       Marina Anastasiou, MSc • Tufts University
       Chhavi Chauhan, PhD • American Society for Investigative Pathology

Session Description: This is the first session in a webinar series aiming to describe careers for MD/PhD or PhD-trained pathology scientists that fall outside the traditional professorship track. PhD scientists working in various fields and settings will share insights and give advice to trainees looking to explore alternative paths. With health scientists employed in various commercial settings from biotech companies to industrial operations and law and editorial services, a foundation in research can lead to unexpected and attractive career options. This session will be of interest to undergraduates, graduate/medical students, or post-doctoral fellows.

- Chair - Welcome and Introductions
- 10:00 AM - 10:30 AM
  Thinking Beyond the Bench: Transferring Your Academic Training to the Business of Biotech
  Sylvia Eash, PhD • Alliance Management & Business Development
- 10:30 AM - 11:00 AM
  Expecting the Unexpected: How to Cultivate Your Passions into Potential Career Paths
  Ruchama Chaya Steinberg, PhD • Dragonfly Mental Health
- 11:00 AM - 11:30 AM
  Jargon as Gatekeeping: Why We Must Make Our Language Accessible
  Jordan Greer, MSc • Cell Press
• 11:30 AM - 12:00 PM

 estratégicamente para mantener sus opciones abiertas
Harinder Singh, PhD • University of California - Irvine

ASIP Chat Lounge - Meet the ASIP Marketing and Communications Manager
11:00 AM - 12:00 PM
• Gina LaBorde • American Society for Investigative Pathology

ASIP Highlights Session: I Am An ASIP Member and This Is My Science
12:00 PM - 1:30 PM
Sponsored by the ASIP Committee for Career Development and Diversity
Chair: Edward A. Medina, MD, PhD • University of Texas Health Science Center
Co-Chairs: Titus A. Reaves, PhD • Medical University of South Carolina
Nakisha Rutledge, BSc • Northwestern University

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.

• Chair - Welcome and Introductions
• 12:00 PM - 12:05 PM
  My Adaptation through Innovation: Elasticity, Thickness, and Pigmentation is More than Skin Deep
  Cecelia C. Yates, PhD • University of Pittsburgh
• 12:05 PM - 12:10 PM
  Probing the Many Secret Lives of the Flesh-Eating Pathogen: A Ridiculous, Misguided, and Fulfilling Walk
  James Musser, MD, PhD • Houston Methodist Hospital
• 12:10 PM - 12:15 PM
  Bench to Bedside: Bridging The Gap
  Kelsey Dillehay McKillip, PhD • University of Cincinnati
• 12:15 PM - 12:20 PM
  Resolvin Cancer
  Dipak Panigrahy, MD • Harvard Medical School
• 12:20 PM - 12:25 PM
  Understanding Aggressive Breast Cancer Phenotypes
  Celina Kleer, MD • University of Michigan
• 12:25 PM - 12:30 PM
  e Combination: My Pathway to Translational Biophysics
  David C. Williams, Jr., MD, PhD • University at North Carolina at Chapel Hill
• 12:30 PM - 12:35 PM
  Transforming Patient’s Lives With Science: It Takes a Village
  Cary Austin, MD, PhD • Genentech
• 12:35 PM - 12:40 PM
  My Career in Pathology: Serendipity and Society Support
  Martha B. Furie, PhD • Stony Brook University
• 12:40 PM - 12:45 PM
  Studying Oxygen Sensing in Cancer: My Personal Journey
  Qing Zhang, PhD • UT Southwestern Medical Center
• 12:45 PM - 12:50 PM
  Trailblazing or Bushwhacking? Uncovering Foam Cell Biology in an Unlikely Place
  Verónica Contreras-Shannon, PhD • St. Mary’s University

• 12:50 PM - 12:55 PM
  Chromosome Variations in the Liver — Cool, But Why Should We Care?
  Andrew Duncan, PhD • University of Pittsburgh

• 12:55 PM - 1:00 PM
  It’s a Wonderful Life: Being a Physician Scientist in Clinical Pathology
  Robinina Lorenz, MD, PhD • Genentech, Inc.

• 1:00 PM - 1:05 PM
  My Personal Mexican Standoff: Reckoning Diabetic Vasculopathy
  Roberto I. Mota Alvidrez, MD, MS • University of Pittsburgh

• 1:05 PM - 1:10 PM
  It’s Been All Growth Factors, All the Time
  Patricia A. D’Amore, PhD, MBA • Massachusetts Eye & Ear/Harvard Medical School

• 1:10 PM - 1:15 PM
  Making the Most of Rejection: Lessons Learned from Transplant Pathology
  Richard Mitchell, MD, PhD • Brigham and Women’s Hospital/Harvard Medical School

**Young Scientist Leadership Award Lecture**

1:30 PM - 2:00 PM

Introduction - Satdarshan Paul Singh Monga, MD • University of Pittsburgh

Dr. Preziosi will format her award lecture as a career development talk. She has always been passionate about helping earlier-stage trainees navigate their careers, and is hoping they can learn from her experiences. In the past few years her career has taken unexpected, but welcome, turns outside of her original career goals, and ASIP has been helping her every step of the way. Her talk will feature her experiences as a graduate student, postdoc, industry scientist, and now a life science consultant, and the advice and insight that she gathered at each stage. She hopes attendees will benefit from her talk regardless of their career stage and their current goals.

• *A Personal Story of Career Development – From Early-stage Student to Starting a Career, and Navigating the Steps in Between*
  Morgan Preziosi, PhD • FENIX Group International

**ASIP Chat Lounge - Meet The American Journal of Pathology (AJP) Team**

2:00 PM - 3:00 PM

- Martha Furie, PhD • Stony Brook University
- Emily Essex • American Society for Investigative Pathology

**Minisymposium: Neuropathology**

2:00 PM - 4:30 PM

**Chair:** Christi Kolarcik, PhD • University of Pittsburgh

**Co-Chair:** Karam Soliman, PhD • Florida A&M University

**Session Description:** Abstract-Driven Short Talks (15-minutes each)

- Chair - Welcome and Introductions

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<tr>
<td>2:00 - 2:15</td>
<td>Ibolya Rutkai</td>
<td>SARS-CoV-2-associated neuropathology in non-human primates</td>
<td>Abstract R3000</td>
</tr>
<tr>
<td>2:15 - 2:30</td>
<td>Michele Alves</td>
<td>Dysregulation of breathing control through distinct molecular mechanisms of the brainstem cell population in neonatal sepsis</td>
<td>Abstract R4668</td>
</tr>
<tr>
<td>2:30 - 2:45</td>
<td>Erin Saito</td>
<td>Alzheimer's Disease Alters Oligodendrocytic Glycolytic and Ketolytic Gene Expression</td>
<td>Abstract R2461</td>
</tr>
<tr>
<td>2:45 - 3:00</td>
<td>Paul Savchenko</td>
<td>Mitochondria Damage as Early Indicator in an APPNL-G-F Mouse Model of Alzheimer's Disease</td>
<td>Abstract R3367</td>
</tr>
<tr>
<td>3:00 - 3:15</td>
<td>Cohner Secora</td>
<td>Traumatic Brain Injury Exacerbates Alzheimer’s Disease Pathology in the Retina of Rats</td>
<td>Abstract R4690</td>
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<td>2:00 - 2:15</td>
<td>Amanda Caruso</td>
<td>The Crosstalk between Tumor Stroma Components and ESR1 Mutant Breast Cancer Cells Remodels Tumor Microenvironment and Enhances Tumor Growth and Progression</td>
<td>Abstract R3453</td>
</tr>
<tr>
<td>2:15 - 2:30</td>
<td>Giusi La Camera</td>
<td>Adipocyte-derived Exosome: Novel Insight in the Link between Obesity and Breast Cancer</td>
<td>Abstract R3529</td>
</tr>
<tr>
<td>2:30 - 2:45</td>
<td>Samia Messeha</td>
<td>Gene Expression Alterations Associated with Sanguinarine-Induced Antiproliferative effects and Apoptosis in Triple-Negative Breast Cancer Cells</td>
<td>Abstract R463</td>
</tr>
<tr>
<td>2:45 - 3:00</td>
<td>Brittany Wilson</td>
<td>Analysis of microRNAs in Urinary Exosomes of Tumor-bearing Mice as a Non-invasive Tool for Lymphoma Diagnosis</td>
<td>Abstract R3201</td>
</tr>
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<td>3:00 - 3:15</td>
<td>Jian Chen</td>
<td>Loss of RNA Binding Protein, ZFP36L1, promotes EMT in hepatocellular cancer cells by regulating EMT-inducing transcription factor ZEB2</td>
<td>Abstract R4347</td>
</tr>
<tr>
<td>3:15 - 3:30</td>
<td>Na Jiao</td>
<td>Fusobacterium nucleatum, a reproducible microbial marker for CRC prescreening</td>
<td>Abstract R3241</td>
</tr>
<tr>
<td>3:30 - 3:45</td>
<td>Mark Gorrell</td>
<td>Associations between DPP9 expression, survival and gene expression signature in human hepatocellular carcinoma: Comprehensive in silico analyses</td>
<td>Abstract R4490</td>
</tr>
<tr>
<td>3:45 - 4:00</td>
<td>Angnela Adams</td>
<td>Variable GILT protein expression in melanoma cells of metastatic tumor specimens</td>
<td>Abstract R315</td>
</tr>
<tr>
<td>4:00 - 4:15</td>
<td>Carolina Mejia Peña</td>
<td>Development of a Novel 3D Model to Investigate the Role of Heterogeneity in Ovarian Cancer Chemoresistance</td>
<td>Abstract R2599</td>
</tr>
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<td>4:15 - 4:30</td>
<td>Alexander Sougiannis</td>
<td>Emodin Administration Depolarizes Tumor Associated M2-Type Macrophages in the Colorectal Cancer Tumor Microenvironment</td>
<td>Abstract R3894</td>
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**Minisymposium: Pathobiology of Cancer**
2:00 PM - 4:30 PM
**Chair:** Douglas Stairs, PhD • Penn State College of Medicine
**Co-Chair:** Qing Zhang, PhD • UT Southwestern Medical School

Session Description: Abstract-Driven Short Talks (15-minutes each)
- Chair - Welcome and Introductions

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<tr>
<td>2:00 - 2:15</td>
<td>Lindsey Kennedy</td>
<td>Secretin Treatment Promotes Hepatic Progenitor Cell Activation, Ductal-Canalicular Junction Formation and Amelioration of Liver Damage in a Model of Late-Stage Primary Biliary Cholangitis</td>
<td>Abstract R1679</td>
</tr>
<tr>
<td>2:15 - 2:30</td>
<td>Xiaojuan Chao</td>
<td>SQSTM1/p62 Inhibits whereas Nrf2 Promotes Tumorigenesis by Inducing Cell Population Remodeling and Metabolic Reprogramming in Mouse Livers with mTORC1 Activation and Defective Autophagy</td>
<td>Abstract R1924</td>
</tr>
<tr>
<td>2:30 - 2:45</td>
<td>Hui Qian</td>
<td>Dual role of p62/SQSTM1 in acetaminophen-induced early acute injury and late recovery in mice</td>
<td>Abstract R2482</td>
</tr>
<tr>
<td>2:45 - 3:00</td>
<td>Gang Liu</td>
<td>Hepatic Autophagy Deficiency Leads to Increased Production of Extracellular Vesicles</td>
<td>Abstract R2600</td>
</tr>
<tr>
<td>3:00 - 3:15</td>
<td>Akanksha Sharma</td>
<td>Differential Effects of Endotoxin Lipopolysaccharide on Stellate Cells and Portal Fibroblasts: Implications in Fibrosis Originating in Central Versus Portal Injury</td>
<td>Abstract R4097</td>
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</table>
Symposium: Disease Modeling with iPSC: From Cells to Organoids
2:00 PM - 5:00 PM

Chair: Philip M. Iannaccone, MD, PhD • Northwestern University
Co-Chairs: Satdarshan Paul Singh Monga, MD • University of Pittsburgh
approved by Alpert Medical School, Brown University

Session Description: The availability of human iPSC from various disease states presents an unprecedented opportunity to examine pathology and physiology in an intact tissue context. The decades since the early descriptions of stem cell derived “embryoid bodies”, the first example of “organoids,” have seen major advances in directed differentiation of stem cells and their organization into small structures mimicking normal organs. Organoids can be used to interrogate altered physiology and toxicology or as test beds for therapeutic intervention. Patient derived iPSC have been used to advance our understanding of many aspects of disease states. This session will highlight recent advances in both organoids and the use of directed differentiation of human iPSC in the study of disease.

- Chair - Welcome and Introductions
- 2:00 PM - 2:35 PM
  Cellular Regenerative Components in Liver Disease
  George Michalopoulos, MD, PhD • University of Pittsburgh
- 2:35 PM - 3:10 PM
  Emergence of Sophisticated Network and Oscillations in a Human Brain Organoid Model
  Alysson Muotri, PhD • University of California, San Diego
- 3:10 PM - 3:45 PM
  iPSC-Derived Hepatocytes to Model Ebola Virus Infection
  Gustavo Mostoslavsky, MD, PhD • Boston University
- 3:45 PM - 4:20 PM
  Stem Cell Models of Hematopoiesis
  Vasil Galat, PhD • Northwestern University
- 4:20 PM - 4:55 PM
  Modeling Genetic Epilepsies with Human iPSCs and Brain Organoids
  Jenny Hsieh, PhD • University of Texas, San Antonio

Symposium: The Gut Microbiota and Disease - Session II
2:00 PM - 5:00 PM

Chair: Xiao-Ming Yin, MD, PhD • Tulane University
Co-Chairs: Wenke Feng, PhD • University of Louisville
Maria Pilar Alcaide, PhD • Tufts University
José Otero, MD, PhD • The Ohio State University

Session Description: Humans carry a vast number of bacteria and other microbiota species from birth, and you may be more bacteria than you are you. An increasing importance of microbiota in human health and diseases has been recognized. Whatever your research subjects are, chances are that they may be influenced by the microbiota. This symposium will discuss the impact of gut microbiota on diseases ranging from neurodegeneration to diabetes, from the liver to the heart, and from the immune cells to the bone.

- Chair - Welcome and Introductions
Symposium: The “Ins” and “Outs” of Vascular Inflammation
2:00 PM - 5:00 PM
Sponsored by the ASIP and the North American Vascular Biology Organization (NAVBO)
Chair: William Muller, MD, PhD • Northwestern University

Session Description: Virtually all pathology involves inflammation, and inflammation requires a functioning vascular system. The interactions of leukocytes with cells and components of the vasculature are critical for the natural progression and resolution of inflammation. This session will start with a symposium highlighting some new developments in our understanding of the mechanisms that promote migration of leukocytes into inflamed tissue, and the consequences of those interactions for the promotion and regression of inflammation. This will be followed by an extended discussion involving audience members as well as the speakers to put these findings into context with each other and with other developments in the field. We hope that this conversation will elicit critical questions for future research.

- 2:00 PM - 2:30 PM
  *Mechanisms of Integrin Activation During Neutrophil Arrest*
  Klaus Ley, MD • La Jolla Institute for Immunology

- 2:30 PM - 3:00 PM
  *Endothelial Cell Regulation of Transendothelial Migration: New Roles for Old Friends*
  William Muller, MD, PhD • Northwestern University

- 3:00 PM - 3:30 PM
  *Neutrophil Reverse Transmigration: Mechanisms and Significance*
  Sussan Nourshargh, PhD • University of London, London, United Kingdom

- 3:30 PM - 4:00 PM
  *Resolution of Inflammation in Atherosclerosis*
  Ira Tabas, MD, PhD • Columbia University

- 4:00 PM - 5:00 PM
  Panel Discussion with extensive audience participation

ASIP Chat Lounge - Meet the ASIP Committee for Career Development and Diversity (CCDD) Chair
3:00 PM - 4:00 PM
- Edward Medina, MD, PhD • University of Texas Health Science Center

ASIP Chat Lounge - Meet the ASIP Education Committee Chair
4:00 PM - 5:00 PM
- Elaine Bearer, MD, PhD • University of New Mexico Health Science Center

Rous-Whipple Award Lecture
5:00 PM - 6:00 PM
Introduction - Xiongwei Zhu, PhD • Case Western Reserve University
- *Pathology in Alzheimer Disease: A Protective Response?*
  George Perry, PhD • University of Texas at San Antonio
Women in Pathology - Leadership Development Event - Part I
6:00 PM - 7:00 PM
Sponsored by the ASIP Women in Pathology Community

Co-Chairs: Maria Pilar Alcaide, PhD • Tufts University
Jennifer Sanders, PhD • Brown University
Nakisha Rutledge, BSc • Northwestern University
Francisco Carrillo-Salinas, PhD • Tufts University

Session Description: Confident leadership requires time and self-reflection about one’s current strengths, as well as areas for development. Putting energy and intention toward developing these areas can help us not only build our authentic leadership presence and voice, but also result in greater interpersonal effectiveness and impact. In this interactive 1-hour workshop with Leadership Coach Deb Elbaum, attendees will get clearer about their current leadership skills and identify where they can put attention to be even more successful in their current or future role.

• **Confident Leadership: What Kind of Leader Do You Want To Be?**
  Deb Elbaum, MD • Executive Coaching and Leadership Development

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**Wednesday - April 28, 2021**

**Career Conversations - Publish or Perish**
8:00 AM - 9:00 AM
Sponsored by the ASIP Committee for Career Development and Diversity

Chair: Marina Anastasiou, MSc • Tufts University

Session Description: Every scientist is cut from a different mold! Join us for Publish or Perish - a conversation with Drs. Chhavi Chauhan and Diane Bielenberg about their careers in Scientific Editing & Writing, and Academic Research & Teaching, respectively. Both will provide insights about their career, their daily life, advice to trainees interested in a similar path, and answer your questions about their career journey. This is a great opportunity to learn about the many career possibilities available to you and to build your network!

• Scientific Editing and Writing
  Chhavi Chauhan, PhD • American Society for Investigative Pathology
• Academic Research and Teaching
  Diane Bielenberg, PhD • Boston’s Children’s Hospital

**ASIP Chat Lounge - Meet the ASIP Program Committee Chair**
8:30 AM - 9:30 AM

• Jonathon Homeister, MD, PhD • University of North Carolina

**Society of Toxicologic Pathology (STP) Symposium: Animal Models in Basic Research and Preclinical Science:**
**The Critical Role of the Toxicologic Pathologist**
8:30 AM - 11:30 AM
Sponsored by the ASIP Environmental and Toxicologic Pathology Scientific Interest Group

Chair: Mark Hoenerhoff, DVM, PhD • University of Michigan
Co-Chair: Jack Harkema, PhD, DVM • Michigan State University

Session Description: Veterinary toxicologic pathologists play an integral role in biomedical and basic sciences, through translation of preclinical in vivo data for the study of human disease, development of new technologies and medical interventions, and drug development. Toxicologic pathologists also play a role in determination of chemical/drug adversity in animals and humans, and help predict relevance to humans taking into account mechanisms and margin of safety. Working with researchers, clinicians, and toxicologists, toxicologic pathologists can help facilitate a better understanding of disease processes through interpretation of animal models, drug development, and improve translatability of preclinical data in the “bench to bedside” approach to patient care. Through expanding interdisciplinary collaborations with the human medical field and other disciplines, toxicologic pathologists are central to the “One Health” concept at the intersection of all aspects of health care for humans, animals, and environmental health. This session will showcase the role veterinary toxicologic pathologists play in basic research, investigative pathology, drug development, and imaging modalities to strengthen translatability of animal data to the clinic in collaboration with other scientists. This session will also highlight how toxicologic pathologists can inform on the validity, use, relevance, and power of animal models to study human disease.

• Chair - Welcome and Introductions
• 8:30 AM - 9:15 AM
  *How Toxicologic Pathologists Can Improve the Translatability and Reproducibility of Animal Models*
  Thomas Rosol, DVM, PhD, DACVP • Ohio University, College of Osteopathic Medicine

• 9:15 AM - 10:00 AM
  *Innate Lymphoid Cell Mediation of Ozone-induced Non-allergic Asthma*
  Jack Harkema, DVM, PhD, DACVP • Michigan State University College of Veterinary Medicine

• 10:00 AM - 10:45 AM
  *Animal Models to Support Vaccine Development*
  Rani Sellers, DVM, PhD, DACVP • Pfizer Inc.

• 10:45 AM - 11:30 AM
  *In-Vivo Imaging to Improve Translatability of Preclinical Research in Drug Development*
  Martin Guilhot, DVM, MSc, PhD • Charles River Laboratories, Montreal

**Symposium: The Great Debate - Fibrosis Across Organs: Triggers, Pathways, and Cellular Plasticity**
8:30 AM - 11:30 AM
*Co-Sponsored by the ASIP and the American Society for Matrix Biology (ASMB)*

**Chair:** Titus A. Reaves, PhD • Medical University of South Carolina
**Co-Chair:** Mangesh Kulkarni, PhD • University of Pittsburgh

**Session Description:** Fibrosing diseases are a broad spectrum of entities from organ-specific involvement to multi-system diseases with high morbidity and mortality and significantly unmet clinical needs. Progress in elucidating the pathogenesis of the fibroproliferative components across various diseases, including the critical roles of key cell types and the molecular mechanisms driving the transcriptional activation involved in the induction of fibrosis, has highlighted many new areas of therapeutic investigation and are currently underway. This session is designed to bring together translational biomedical researchers from a wide range of disciplines to discuss complex pathophysiologic mechanisms that underlie fibrosing diseases. You won’t want to miss the hot topic debate on Power Cell – Fibroblast or Macrophage that will follow the session talks.

  • Chair - Welcome and Introductions
  • 8:30 AM - 9:00 AM
    *Fibrosis in PDA Initiation and Progression Collagen Activation of DDRs as a Driver of Fibrosis and Cancer Progression*
    Rolf A. Brekken, PhD • UT Southwestern Medical Center
  • 9:00 AM - 9:30 AM
    *Origin of Fibrosis in the Central Nervous System*
    Jae K. Lee, PhD • University of Miami Health System
  • 9:30 AM - 10:00 AM
    *Toward Personalized TGFβ Inhibition for Cancer*
    Huocong Huang, MD, PhD • UT Southwestern Medical Center
  • 10:00 AM - 10:30 AM
    *Macrophage-Fibroblast Interactions in Fibrotic Processes*
    Bryan Brown, PhD • University of Pittsburgh
  • 10:30 AM - 11:00 AM
    *Heterocellular Crosstalk in Skin Fibrosis*
    Cecelia C. Yates, PhD • University of Pittsburgh
  • 11:00 AM - 11:30 AM
    *State of Science Debate: Power Cell – Fibroblast or Macrophage*

**Breast Cancer Workshop - Tumor Microenvironment in Breast Cancer Progression**
9:30 AM - 11:30 AM
*Supported by the ASIP Breast Cancer Scientific Interest Group*

**Chair:** Bethany Hannafon, BS, PhD • University of Oklahoma Health Sciences Center
**Co-Chair:** Piyali Dasgupta, PhD • Marshall University

**Session Description:** This session will examine the role of the tumor microenvironment in primary breast cancer development to metastatic dissemination and therapeutic resistance. Attendees will hear from leaders in the breast cancer field about tumor-host crosstalk mediated by extracellular vesicles, the role of the immune microenvironment in cancer
progression, tumor cell dormancy and its role in therapeutic resistance, and the role of the lymph node tumor microenvironment in the progression of lymph node breast cancer metastases.

- Chair - Welcome and Introductions
- 9:30 AM - 10:00 AM
  *Cancer - Host Crosstalk Through Extracellular miRNA*
  Shizheng Emily Wang, PhD • University of California, San Diego
- 10:00 AM - 10:30 AM
  *Epigenetic Regulation of Immune Microenvironment and Breast Cancer Metastasis*
  Qin Yan, PhD • Yale University
- 10:30 AM - 11:00 AM
  *Lymph Node Metastases Induce Loss of High Endothelial Venules and Lack of Lymphocyte Infiltration*
  Dennis Jones, PhD • Boston University
- 11:00 AM - 11:30 AM
  *Neutralizing Protumor Inflammation: Lessons Learned from Preclinical Mouse Models*
  Lisa Coussens, PhD • Oregon Health & Science University

**ASIP Chat Lounge - Meet the ASIP Executive Officer**
10:00 AM - 11:00 AM
- William B. Coleman, PhD • American Society for Investigative Pathology

**Blood Vessel Club™: Gut Microbiota in Vascular Disease**
10:00 AM - 12:00 PM
*Sponsored by the ASIP Inflammation/Immunopathology Scientific Interest Group and the Vascular and Mucosal Pathobiology Scientific Interest Group*

**Chair:** Jonathon W. Homeister, MD, PhD • University of North Carolina at Chapel Hill

**Session Description:** This symposium explores the newest discoveries into the role the gut microbiome has in the pathobiology of vascular diseases. Presentations by national and international experts in the field will focus on the mechanisms by which the gut microbiome can modulate both atherosclerotic vascular disease and hypertensive vascular disease.

- Chair - Welcome and Introductions
- 10:00 AM - 10:40 AM
  *The Role of Gut Microbiota-Derived Metabolites in Blood Pressure Regulation*
  David Durgan, PhD • Baylor College of Medicine
- 10:40 AM - 11:20 AM
  *A Dysfunctional Gut-Brain Axis in Hypertension*
  Mohan Raizada, PhD • University of Florida
- 11:20 AM - 12:00 PM
  *Role of the Gut Microbiota in Atherosclerotic Cardiovascular Disease*
  Debby PY Koonen, PhD • University Medical Center Groningen, The Netherlands

**ASIP Chat Lounge - Meet the ASIP Liver Pathobiology SIG Leaders**
10:00 AM - 12:00 PM
- Satdarshan Paul Monga, MD • University of Pittsburgh
- Kari Nejak-Bowen, PhD • University of Pittsburgh

**Planning for Success: Navigating Your First Faculty Position**
11:00 AM - 1:00 PM
*Sponsored by the ASIP Committee for Career Development and Diversity*

**Chair:** Christi Kolarcik, PhD • University of Pittsburgh
**Co-Chair:** Traci Parry, PhD • University of North Carolina at Greensboro

**Session Description:** Feeling overwhelmed as you wrangle your first faculty position? Come hear from our experienced faculty as they impart valuable advice and tactics on successfully planning, transitioning into, adapting, (and surviving!) your first years as a faculty member.

- Chair - Welcome and Introductions
11:00 AM - 11:30 AM  
**Planning is Good: Adapting is Even Better**  
Richard Mitchell, MD, PhD • Brigham and Women’s Hospital/Harvard Medical School

11:30 AM - 12:00 PM  
**The Sad and Mistaken Fallacy of Planning for Success**  
James Musser, MD, PhD • Houston Methodist Hospital

12:00 PM - 12:30 PM  
**The Trouble With Saying Yes Too Quickly and Not Saying No Soon Enough**  
Abigail Cox, PhD, DVM • Purdue University

12:30 PM - 1:00 PM  
**The Five Stages of Transitioning Into Your First Faculty Position**  
Verónica Contreras-Shannon, PhD • St. Mary’s University

**ASIP Chat Lounge - Meet the ASIP President and President-Elect**  
1:00 PM - 2:00 PM  
- Richard Mitchell, MD, PhD • Brigham & Women’s Hospital  
- Patricia D’Amore, PhD • Schepens Eye Research Institute/Harvard Medical School

**ASIP Chat Lounge - Meet the ASIP Breast Cancer SIG Leaders**  
2:00 PM - 3:00 PM  
- Bethany Hannafon, PhD • University of Oklahoma  
- Dennis Jones, PhD • Boston University

**Symposium: Fixing Fatty Liver**  
2:00 PM - 5:00 PM  
Sponsored by the ASIP Liver Pathobiology Scientific Interest Group  
Chair: Kari Nejak-Bowen, MBA, PhD • University of Pittsburgh

**Session Description:** In this session, we will approach the problem of non-alcoholic fatty liver disease (NAFLD) through improved understanding of the cellular and molecular mechanisms involved in disease progression. Recent advances in gut-liver axis, microbiome, and inflammation in the pathogenesis of NAFLD will be also discussed. Finally, we will explore novel signaling pathways that can be targeted for treatment of NAFLD.

- Chair - Welcome and Introductions
- 2:00 PM - 2:30 PM  
  **Cholesterol and Bile Acid Metabolism in Fatty Liver Disease**  
  Tiangang Li, PhD • University of Oklahoma Health Sciences Center
- 2:30 PM - 3:00 PM  
  **Bile Acid Receptors and NAFLD**  
  Huiping Zhou, PhD • Virginia Commonwealth University
- 3:00 PM - 3:30 PM  
  **Gut Permeability in NASH: Role of Mucosal Immune Cells, Microbiota, and Bile Acids**  
  Reben Raeman, PhD • University of Pittsburgh
- 3:30 PM - 4:00 PM  
  **Novel Treatments for NAFLD**  
  Naga P. Chalasani, MD • Indiana University
- 4:00 PM - 4:30 PM  
  **Inhibition of EGFR Receptor Prevents and Reverses Extreme NAFLD**  
  George K. Michalopoulos, MD, PhD • University of Pittsburgh
- 4:30 PM - 5:00 PM  
  **Stress-Responsive Gene FKB5 Mediates Alcohol-induced Liver Injury Through the Hippo Pathway and CXCL1 Signaling**  
  Suthat Liangpunsakul, MD • Indiana University

**Symposium: Novel Regulators and Functions of Epithelial Junctions**  
2:00 PM - 5:00 PM  
Chair: Sean Colgan, PhD • University of Colorado  
Co-Chair: William Muller, MD, PhD • Northwestern University
**Session Description:** Epithelial junctions are key regulators of tissue integrity and homeostasis, and their compromise contributes to the pathogenesis of inflammatory and immune disorders. This symposium will highlight recent developments in this exciting area of research and will touch upon developmental and disease pathways. The talks will cover the role of intercellular junction proteins in a range of tissues, including simple and complex epithelia.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM  
  **Going In Circles Gets You Somewhere: Signaling Mechanisms That Coordinate Cell Movements For Epithelial Migration**  
  Sally Horne-Badovinac, PhD • The University of Chicago
- 2:45 PM - 3:30 PM  
  **Actin and Myosin-Dependent Regulation of Epithelial Apical Junctions: How Many Skeletons are in the Closet?**  
  Andrei I. Ivanov, PhD • Lerner Research Institute of Cleveland Clinic Foundation
- 3:30 PM - 4:15 PM  
  **How Desmosomal Cadherins Help to Create Complex Epithelia**  
  Kathleen Green, PhD • Northwestern University
- 4:15 PM - 5:00 PM  
  **Regulation of Simple Epithelial Wound Repair by Desmosomal Cadherin, Desmocollin 2**  
  Asma Nusrat, MD • University of Michigan

**Pathobiology Course for Research Scientists: Resolution of Inflammation**

2:00 PM - 5:00 PM  
*Sponsored by the ASIP Education Committee*

**Chair:** Dipak Panigrahy, MD • Beth Israel Deaconess Medical Center / Harvard Medical School  
**Co-Chair:** Alexander Sougiannis, PhD • Medical University of South Carolina

**Session Description:** Unresolved inflammation is a major mechanism of pathogenesis in many human diseases. A paradigm shift is emerging in our understanding of the pathogenesis of inflammation which results not only from persistent activation of inflammatory signals, but also from the active loss of pro-resolution mechanisms. Differentiating between the suppression and resolution of inflammation driven by pro-resolution mediators is critical for the treatment of various inflammatory diseases.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM  
  **Resolvins and Novel Pro-Resolving Mediators (SPM) are Immunoresolvent Agonists**  
  Charles N. Serhan, PhD • Brigham and Women’s Hospital / Harvard Medical School
- 2:45 PM - 3:30 PM  
  **Dysregulation of Resolution in Atherosclerosis**  
  Gabrielle Fredman, PhD • Albany Medical College
- 3:30 PM - 4:15 PM  
  **Pro-Resolving Mediators as Novel Diagnostic and Prognostic Biomarkers for Personalized Medicines**  
  Jesmond Dalli, PhD, FHEA • BARTS and the London School of Medicine and Dentistry, London, England
- 4:15 PM - 5:00 PM  
  **Pro-Resolving Lipid Mediators in Tissue Repair**  
  Matthew Spite, PhD • Brigham and Women’s Hospital / Harvard Medical School

**Symposium: Coagulation and Fibrinolytic Factors and Innate Immunity**

2:00 PM - 5:00 PM  
**Chair:** Wendy Mars, PhD • University of Pittsburgh  
**Co-Chair:** Steven Gonias, MD, PhD • University of California, San Diego

**Session Description:** Proteins involved in both the coagulation and fibrinolysis pathways do much more than their well-described historical roles affecting the formation and dissolution of clots. This session will highlight data from leaders in the field who are studying the function of hemostasis factors in innate immunity.

- Chairs - Welcome and Introductions
- 2:00 PM - 2:45 PM  
  **Coagulation Signaling in Immunity**  
  Wolfram Ruf, MD • The Scripps Research Institute
• 2:45 PM - 3:30 PM  
**Fibrinogen and Innate Immunity in Neurological Disease**  
Katerina Akassoglou, PhD • University of California, San Francisco

• 3:30 PM - 4:15 PM  
**The Role of Plasminogen/Plasmin in Experimental Polymicrobial Sepsis**  
Lirlândia Pires de Sousa, PhD • Universidade Federal de Minas Gerais, Brazil

• 4:15 PM - 5:00 PM  
**Cellular Receptors for Fibrinolysis Proteins in Innate Immunity**  
Steven Gonias, MD, PhD • University of California

**Outstanding Investigator Award Lecture**  
5:00 PM - 6:00 PM  
Introduction - Abul Abbas, MBBS • University of California, San Francisco

• **Autophagy and Secretion in Cancer**  
Jayanta Debnath, MD • University of California, San Francisco

**Club Hepatomania™ Meet the Liver Experts – All Duct Up**  
6:00 PM - 8:00 PM  
*Sponsored by the ASIP Liver Pathobiology Scientific Interest Group*

**Co-Chairs:** Satdarshan Paul Singh Monga, MD • University of Pittsburgh  
Kari Nejak-Bowen, PhD, MBA • University of Pittsburgh

**Session Description:** The selected experts for this session possess broad expertise in cholangiocyte biology, cholangiopathologies, biliary fibrosis, liver development, and liver repair using experimental models.

• Chair - Welcome and Introductions
• **The Contributions and Complications of Ductular Reaction in Fibrosis-driven Hepatic Diseases**  
Heather Francis, PhD, FAASLD • Indiana University
• **Zebrafish as a Model for the Plasticity of Hepatocytes and Cholangiocytes During Regeneration**  
Donghun Shin, PhD • University of Pittsburgh

• Group Discussions

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**Thursday - April 29, 2021**

**ASIP Town Hall Meeting**  
7:30 AM - 8:30 AM  
**Chair:** Richard Mitchell, MD, PhD • Brigham and Women’s Hospital  
**Co-Chairs:** Patricia D’Amore, PhD • Schepens Eye Research Institute, Harvard Medical School  
William B. Coleman, PhD • American Society for Investigative Pathology

**Session Description:** Are you a new member of the ASIP and want to become more involved? Are you interested in working with the ASIP leadership and committees? Join us for open conversation in a casual virtual environment where we network together with the common goal of building a stronger ASIP.

**ASIP Chat Lounge - Meet the ASIP President and President-Elect**  
8:30 AM - 10:00 AM

• Richard Mitchell, MD, PhD • Brigham & Women’s Hospital
• Patricia D’Amore, PhD • Schepens Eye Research Institute/Harvard Medical School

**Career Conversations – Innovation**  
9:00 AM - 10:00 AM  
*Sponsored by the ASIP Committee for Career Development and Diversity*

**Chair:** Verónica Contreras-Shannon, PhD • St. Mary’s University

**Session Description:** Every scientist is cut from a different mold! Join us for Innovations - a conversation with Drs. Karthika Perumal and Robinna Lorenz about their careers in Patent Law and Biotechnology, respectively. Both will provide insights about their career, their daily life, advice to trainees interested in a similar path, and answer your questions about their career journey. This is a great opportunity to learn about the many career possibilities available to you and to build your network!
Symposium: Mechanisms of Hepatic Tumorigenesis
9:00 AM - 12:00 PM
Sponsored by the ASIP Liver Pathobiology Scientific Interest Group
Chairs: Satdarshan Paul Singh Monga, MD • University of Pittsburgh
Co-Chair: Heather Francis, PhD, FAASLD • Indiana University

Session Description: This symposium will provide up-to-date research (both clinical and translational) on liver cancer, specifically in hepatocellular and cholangiocarcinoma. Tumor phenotypes and signaling mechanisms will be discussed along with the role of the tumor microenvironment and cellular reprogramming. The overarching goals of this session are to provide a better understanding of the tumor microenvironment and cellular signaling events that regulate tumorigenesis in both hepatocellular and cholangiocarcinoma cancers, and to identify potential targetable components for treatment of liver cancers.

- Chair - Welcome and Introductions
- 9:00 AM - 9:30 AM
  From PSC to Cholangiocarcinoma: The Role of Mast Cells and Inflammation
  Heather Francis, PhD, FAASLD • Indiana University
- 9:30 AM - 10:00 AM
  NOTCH-YAP1/TEAD-DNMT1 Axis ERRegulates Hepatocyte Reprogramming into Intra-Hepatic Cholangiocarcinoma
  Sungjin Ko, DVM, PhD • University of Pittsburgh
- 10:00 AM - 10:30 AM
  Beta-Catenin, Tumor Microenvironment, and Immuno-Oncology
  Armaia Lujambio, PhD • Mount Sinai
- 10:30 AM - 11:00 AM
  Mechanism of Liver Metastasis Enhanced by Fatty Liver
  Ekihiro Seki, MD, PhD • Cedars Sinai Medical Center
- 11:00 AM - 11:30 AM
  mTORC2/Akt Signaling Cascade During Hepatic Carcinogenesis
  Xin Chen, PhD • University of California, San Francisco
- 11:30 AM - 12:00 PM
  Deciphering the Anti-Oncogenic Effects of Pro-Oncogenic Molecules in the Liver
  Gen-Sheng Feng, PhD • University of California, San Diego

VAMP Symposium: Immune Regulation of Barrier Forming Cells
9:30 AM - 12:00 PM
Sponsored by the ASIP Vascular and Mucosal Pathobiology Scientific Interest Group
Chairs: Jennifer Brazil, PhD • University of Michigan
Co-Chair: Francis W. Luscinskas, PhD • Brigham & Women’s Hospital

Session Description: Interactions at the immune-gastrointestinal epithelial interface are implicated in the chronic mucosal inflammation that is characteristic of inflammatory bowel disease. Immune cell intestinal epithelial interactions also play a critical role in the response to parasitic worms and during food induced anaphylactic reactions. Therefore, this symposium will highlight critical cellular and molecular interactions at the intestinal epithelial barrier under homeostasis and disease, discuss key steps that regulate the trafficking of neutrophils (key innate immune cells implicated in pathologic mucosal tissue damage) and detail how specialized epithelial cells (tuft cells) act as intestinal immune sentinels.

- Chair - Welcome and Introductions
- 9:30 AM - 10:05 AM
  Type-2 Immunity at the Intestinal Epithelial Barrier
  Simon Hogan, PhD • University of Michigan
- 10:05 AM - 10:40 AM
  Intermittent Rolling is a Striking Defect of the Neutrophil Extravasation Cascade Caused by Myosin1e Deficiency
  Michael Schnoor, PhD • CINVESTAV, Mexico City, Mexico
10:40 AM - 11:15 AM

**Intestinal Tuft Cells: Immune Sentinels and Effectors**
Jakob von Moltke, PhD • University of Washington

11:15 AM - 11:30 AM

**Abstract R3672 – Gut Dysbiosis and Barrier Disruption are Associated with Diastolic Dysfunction in a Novel Mouse Model of Heart Failure with Preserved Ejection Fraction**
Francisco J. Carrillo-Salinas, PhD • Tufts University

11:30 AM - 11:45 AM

**Abstract R2096 – Insights into the Impact of Inflammatory Acidification on the Mucosa**
Ian M. Cartwright, PhD • University of Colorado Anschutz Medical Campus

11:45 AM - 12:00 PM

**Abstract R2078 – Structural and Chemical Alterations to the Intestinal Mucus Barrier During Giardia duodenalis Infection**
Elena Fekete, BSc • University of Calgary

**ASIP Chat Lounge - Meet the ASIP Gene Expression SIG Leaders**
10:00 AM - 11:00 AM
- David Williams, MD, PhD • University of North Carolina
- Qin Yan, PhD • Yale University School of Medicine
- Philip Iannaccone, MD, PhD • Northwestern University

**Symposium: Emerging Technologies From the Bench Disrupting Diagnosis and Care Near the Bedside**
10:00 AM - 12:00 PM
*Sponsored by the ASIP Molecular Diagnostic Pathology Scientific Interest Group*

**Chair:** D. Hunter Best, PhD • University of Utah
**Co-Chair:** Gregory J. Tsongalis, PhD • Dartmouth-Hitchcock Health System

**Session Description:** This session will explore emerging genomic and molecular diagnostic tools that are being rapidly adopted in patient care, in the process transforming and disrupting the standard approach to clinical challenges as diverse as newborn diagnostics, microbiology, and oncology.

- Chair - Welcome and Introductions
- 10:00 AM - 10:30 AM
  **Precision Medicine: Where Time and Technology Meet**
  Gregory J. Tongalis, PhD • Dartmouth-Hitchcock Health System
- 10:30 AM - 11:00 AM
  **Measuring More in Biology: Getting Signal Compression Do all the Hard Work**
  Aditya Rajagopal, PhD • CalTech
- 11:00 AM - 11:30 AM
  **Host Response and Point-of-Care Nanopore Sequencing for Diagnosis of Infections: Changing the Paradigm**
  Charles Chiu, MD, PhD • University of California, San Francisco
- 11:30 AM - 12:00 AM
  **Rapid Genomic Medicine in Pediatric ICUs: A New way of Practicing Medicine**
  Stephen Kingsmore, MD, DSc • Rady Children’s Institute for Genomic Medicine

**ASIP Chat Lounge - Meet the ASIP Executive Officer**
11:00 AM - 12:00 PM
- William B. Coleman, PhD • American Society for Investigative Pathology

**HCS, ASIP, AAA Symposium: Geographic Information System (GIS) for Tissues and Tumors: Mapping Quantitative Data into an Anatomical Context**
12:00 PM - 2:00 PM
*Sponsored by the ASIP, the Histochemical Society, and the American Association for Anatomy*

**Chair:** Paul Goodwin, PhD • Cytiva

**Session Description:** Histochemistry is the science of identifying biomolecules in context of biological structures. The science is moving from qualitative and descriptive to quantitative and precise. Moreover, adjacent tools have been established that provide quantitative data but lack the structural context (-omics). For example, we can identify and enumerate immune cells but we struggle with quantitative descriptors of their place relative to important anatomical structures such as blood vessels, extracellular matrix, and even other cells. This session brings together speakers to talk about data analytics in context of
geospatial descriptors and biologists (anatomists, pathologists, physiologists, etc.) who are working with spatial mapping of quantitative data within biological systems.

- **12:00 PM - 12:30 PM**
  **Keynote: Using Telescope as Microscope: Applying Geospatial Analysis Within an Anatomical Context**
  Xun Shi, PhD • Dartmouth College

- **12:30 PM - 12:50 PM**
  **“Google Maps” For Tissue Biology - How to Find Topographic Biomarkers?**
  Denis Schapiro, PhD • Harvard Medical School and The Broad Institute of Harvard and MIT

- **12:50 PM - 1:10 PM**
  **Spatial Analysis of Multiplex Immunohistochemistry Data Enables Systems Analysis of Hypoxia and Improved Stratification of Lung Cancer Patient Outcomes**
  Parag Mallick, PhD • Canary Center at Stanford Cancer

- **1:10 PM - 1:30 PM**
  **Mapping the Spatial Architecture of Human Tissues in Health and Disease with Multiplexed Ion Beam Imaging**
  Erin F. McCaffrey • Stanford University

- **1:30 PM**
  **Panel Discussions**

**Minisymposium: Endothelial Cells in Immunity and Cardiovascular Disease**
2:00 PM - 4:30 PM

**Chair:** Pilar Alcaide, PhD • Tufts University  
**Co-Chair:** Kathryn Hendee, PhD • Medical College of Wisconsin

**Session Description:** Abstract-Driven Short Talks (15-minutes each)

- Chair - Welcome and Introductions

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<tr>
<th>Presentation Time</th>
<th>Presenting Author</th>
<th>Abstract Title</th>
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<tr>
<td>2:00 - 2:15</td>
<td>Kathryn Hendee</td>
<td>Twist1 Signaling in Age-dependent Decline in Angiogenesis</td>
<td>Abstract R2593</td>
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<tr>
<td>2:15 - 2:30</td>
<td>Theresa Dinh</td>
<td>A genomic address code directs assembly and function of NXX2-3:COUP-TFII complexes that drive organotypic expression of the mucosal vascular addressin</td>
<td>Abstract R2535</td>
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<tr>
<td>2:30 - 2:45</td>
<td>Guangbi Li</td>
<td>Control of TRPML1 Channel Activity and Lysosome Trafficking by Acid Ceramidase in Mouse Coronary Arterial Endothelial Cells</td>
<td>Abstract R4045</td>
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<td>2:45 - 3:00</td>
<td>Marina Anastasiou</td>
<td>Stimulator of Interferon Genes (STING) regulates Re-endothelialization Following Vascular Injury</td>
<td>Abstract R1616</td>
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<tr>
<td>3:00 - 3:15</td>
<td>Ramon Bossardi Ramos</td>
<td>SOCS3 Limits Pro-Inflammatory Signature in Septic Endothelium</td>
<td>Abstract R1790</td>
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<td>3:15 - 3:30</td>
<td>Nigeste Carter</td>
<td>Human Coronary Artery Endothelial Cells Release Extracellular Vesicles that Have Angiostatic and Anti-Proliferative Effects</td>
<td>Abstract R4612</td>
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<td>3:30 - 3:45</td>
<td>Menglan Xiang</td>
<td>A Single-Cell Transcriptional Roadmap of the Mouse and Human Lymph Node Lymphatic Vasculature</td>
<td>Abstract R4027</td>
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<td>3:45 - 4:00</td>
<td>Kevin Brulois</td>
<td>Single cell trajectories reveal a developmental sequence from angiogenic capillary progenitors to mature high endothelial cells</td>
<td>Abstract R4300</td>
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<td>4:00 - 4:15</td>
<td>Angela Glading</td>
<td>Protein Kinase Ca (Pkcα) Regulates the Nucleocytoplasmic Shuttling of KRT1</td>
<td>Abstract R4269</td>
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**The Journal of Histochemistry & Cytochemistry Lecture**
2:00 PM - 3:00 PM

**Chair:** Stephen Hewitt, MD, PhD • Editor, Journal of Histochemistry and Cytochemistry • National Cancer Institute/National Institutes of Health

**Session Description:** Over 53% of PhDs are awarded to women. Yet, only 12% of recognized innovators in the United States are women. Women and diverse employees have technical skill and knowledge, yet their contributions are not patented at the same rate as those of their male counterparts. These statistics suggest that our organizations may not be capturing the full contribution of a large segment of our technical workforce – resulting in significant lost opportunity costs (e.g., unpatented inventions, delayed disclosures, etc.) The insights and perspectives of women are necessary to solve the monumental
challenges our organizations face. Join HCS and the Journal of Histochemistry & Cytochemistry as we explore what is needed to help organizations move the needle on achieving gender parity in innovation.

- **Gender Diversity in Innovation Toolkit Created by IPO**
  Mercedes K. Meyer, PhD, JD • Drinker Biddle and Reath, LLP

**Presidential Symposium: Second Chapters: Careers in Academia After a Life in the Lab**
2:00 PM - 4:00 PM

**Chair**: Richard N. Mitchell, MD, PhD • Brigham and Women’s Hospital and Harvard Medical School

**Session Description**: Hard-wired into the ASIP Mission Statement is the promotion of the “discovery, advancement, and dissemination of basic and translational knowledge in experimental pathology and related disciplines.” This is achieved by many of the ASIP membership through their research pursuits—and the associated publications and meeting presentations. However, ASIP has an equally important responsibility (also highlighted in the Mission Statement) in “disseminating knowledge…and fostering educational activities”…across the spectrum from undergraduates to industry, and from politicians to emeritus professors. Indeed, Ramzi Cotran always strongly believed that one couldn’t be a good pathologist and investigator without being a stellar educator. It’s equally important to emphasize that sharing our discoveries requires a robust editorial process, and couldn’t be accomplished without a solid and enlightened ASIP leadership in support of the Society and its meetings. Consequently, the goal of the ASIP President’s Symposium at EB2021 is to spotlight the administrative, editorial, and educational roles played by ASIP members, and share the trials and tribulations—and the satisfaction—that can come from contributing to the core ASIP mission in ways outside of the laboratory.

- 2:00 PM - 2:30 PM
  **Leveraging Unexpected Opportunities: from Endothelium to Editor-in-Chief**
  Martha Furie, PhD • Stony Brook University

- 2:30 PM - 3:00 PM
  **From the Ivory Tower to the Great Society**
  William B. Coleman, PhD • American Society for Investigative Pathology

- 3:00 PM - 3:30 PM
  **From Flexner to Gen Z: Basic Science Educators - Hang onto Your Hats and Enjoy the Ride**
  Peter Anderson, DVM, PhD • University of Alabama at Birmingham

- 3:30 PM - 4:00 PM
  **George Bernard Shaw Wasn’t Entirely Correct**
  Richard N. Mitchell, MD, PhD • Brigham and Women’s Hospital and Harvard Medical School

**Symposium: Deep Learning and Artificial Intelligence in Pathology**
2:00 PM - 5:00 PM

**Chair**: Stanley Cohen, MD • Rutgers University

**Co-Chair**: John Tomaszewski, MD • University of Buffalo

**Session Description**: The use of artificial intelligence has become ubiquitous in many aspects of human endeavor including medicine. In particular, Pathology is well-positioned to take advantage of this methodology both because of our heavy reliance on large amounts of laboratory data and the need for high level image interpretation. This session will begin with an overview of the underlying mechanisms of artificial intelligence and deep learning, followed by examples of the implementation of AI in solving problems such as tumor grading, interactions between tumors and the host’s immune response, with the ultimate aim of prognostic prediction. The session will conclude with progress in the fusion of multiple pathology data streams via AI-based strategies.

- Chair - Welcome and Introductions
- 2:00 PM - 2:35 PM
  **Data Analytics Comes of Age**
  John Tomaszewski, MD • University of Buffalo

- 2:35 PM - 3:10 PM
  **AI 101: What is AI and How are It’s Algorithmic Strategies Implemented?**
  Stanley Cohen, MD • Rutgers University

- 3:10 PM - 3:45 PM
  **Deep Learning based Pathomic Biomarkers**
  Joel Saltz, MD • Stony Brook Medicine

- 3:45 PM - 4:20 PM
  **Reducing Intra- and Inter-Observer Variability via AI Assistance**
  Faisal Mahmood, MD • Brigham and Women’s Hospital/Harvard Medical School
4:20 PM - 4:55 PM

**Deep Learning Driven Data Fusion as Pathology's New Frontier**
John Tomaszewski, MD • University of Buffalo

**Summary**
Stanley Cohen, MD • Rutgers University

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**ASIP Business Meeting and Award Presentations**
5:00 PM - 6:30 PM

**Chair:** Richard N. Mitchell, MD, PhD • Brigham and Women’s Hospital and Harvard Medical School

**Session Description:** During this session, members will hear reports from the President, Secretary Treasurer, and other members of the ASIP Council (Committee Chairs) with respect to the state of Society operations, programs, and finances. In addition, the 2021 meritorious awards will be presented, and Trainee and Young Faculty Scholar Awardees will be recognized. The event will conclude with the ceremonial passing of the gavel to the President of the Society.

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**Women in Pathology – Leadership Development Event – Part II**
6:30 PM - 7:30 PM

**Co-Chairs:** Maria Pilar Alcaide, PhD • Tufts University
Jennifer Sanders, PhD • Brown University
Nakisha Rutledge, BSc • Northwestern University
Francisco Carrillo-Salinas, PhD • Tufts University

**Session Description:** The mission of the Women in Pathology Session 2 at EB 2021 is to build upon what is learned in Session 1 about confident leadership. Attendees will engage in conversations focused on the following topics, and discuss how these sessions have contributed to shape their confidence, and career paths.

- Resilience and wellness
- Managing your inner critic
- Active listening and difficult conversation
- Vision and setting boundaries

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**Career Conversations – Government and Science Policy**
8:00 AM - 9:00 AM

*Sponsored by the ASIP Committee for Career Development and Diversity*

**Chair:** Daisy Shu, PhD • Schepens Eye Research Institute

**Session Description:** Every scientist is cut from a different mold! Join us for Government and Policy - a conversation with Drs. Yvette Seger and William Stetler-Stevenson about their careers in Public Policy and Research in Government, respectively. Both will provide insights about their career, their daily life, advice to trainees interested in a similar path, and answer your questions about their career journey. This is a great opportunity to learn about the many career possibilities available to you and to build your network!

- Public Policy
  - Yvette Seger, PhD • Federation of American Societies for Experimental Biology

- Research and Government
  - William Stetler-Stevenson, MD, PhD • National Cancer Institute, NIH

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**Symposium: Drinking from the Firehose: Progress in the Practical Uses of Big Data**
8:30 AM - 11:30 AM

**Chair:** Dan Milner, Jr., MD, MSc, FASCP • American Society for Clinical Pathology

**Co-Chair:** Kevin Gardiner, MD, PhD • Columbia University Medical Center

**Session Description:** Human diagnostic medicine has always been fed by the vast array of research from the bench but with considerable lag from first discovery to clinical use. The advent of advance information technology, increasing computational capacity, and enormous data per patient has hastened research efforts. Translation into immediate, practical clinical applications occur constantly, creating a flooding river of data acquisition, analysis, and interpretation. In this session, four leaders at the forefront of their fields will discuss specific examples of big data and the immediate and future impacts on human health. From the areas of transfusion medicine, digital pathology, informatics, and immunomics, the flood of science and data will be presented through the lens of complex yet practical big data projects and explain how to prepare for and benefit from them in both the research laboratory and the clinical sphere.

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**Friday - April 30, 2021**
• Chair - Welcome and Introductions

8:30 AM - 9:15 AM

**Blood Group Typing at the Genome Level**
William Joseph Lane, MD, PhD • Brigham and Women's Hospital

9:15 AM - 10:00 AM

**Digital Pathology Predictive Analysis**
Anant Madabhushi, PhD • Case Western Reserve University

10:00 AM - 10:45 AM

**Supporting the NIDDK Kidney Precision Medicine Project (KPMP): Standing up the U-M Pathology AI/Data Visualization Center and Core Lab - Five Years in Retrospect**
Ulysses Balis, MD • University of Michigan

10:45 AM - 11:30 AM

**Big-Data: Immunomics in Pathology and Medicine**
Ramy Arnaout, MD, DPhil • Beth Israel Deaconess Hospital

**ACVP-ASIP Symposium: Comparative Hemostasis and Thrombosis**
9:00 AM - 11:00 AM
*Sponsored by the ASIP Veterinary and Comparative Pathology Scientific Interest Group and the American College of Veterinary Pathologists (ACVP)*

**Chair:** Nora L. Springer, DVM, PhD, DACVP • Kansas State University

**Co-Chair:** Katherine N. Gibson-Corley, DVM, PhD, DACVP • Vanderbilt University

**Session Description:** Veterinary scientists discuss cutting edge research in canine hemostasis and thrombosis and correlate to the equivalent human disease.

• Chair - Welcome and Introductions

9:00 AM - 9:40 AM

**Canine Lipoproteins Alter Endothelial Cell Function, Fibrinolysis, and Fibrin Clot Structure**
Erica Behling-Kelly, DVM, PhD, DACVP • Cornell University

9:40 AM - 10:20 AM

**Inherited Platelet Function Disorders in Animals With Comparison to Their Human Counterparts**
Peter Christopherson, DVM, PhD, DACVP • Auburn University

10:20 AM - 11:00 AM

**Immune-Mediated Hemolytic Anemia, NETs, and Thrombosis: Tangled Together?**
Dana LeVine, DVM, PhD, DACVIM • Iowa State University

**XXth Annual Workshop in Graduate Education in Pathology: Training and Fellowship Grants**
9:00 AM - 11:00 AM
*Sponsored by the ASIP Education Committee*

**Chair:** Titus A. Reaves, PhD • Medical University of South Carolina

**Co-Chair:** José Otero, MD, PhD • The Ohio State University

**Session Description:** This session will focus on everything the prospective grantee needs to know about training grants (T's, and F's) that score and get funded. The information presented will be invaluable as the grant environment is a constantly evolving. Preparation is essential to overcome the challenges facing grant writers coupled with being knowledgeable on the types of training grants that are best for your individual situation. The speaker, Dr. McManus has extensive experience as she has been a PI for a number of years, and has had success in writing and obtaining all types of grants. Attendees will understand the current state of the industry and the information presented will assist the grant writer to enter and stay at the forefront of the process. The session concludes with Dr. Jackie Bader, an early career researcher, who was successful in obtaining one of these training grants.

• Chair - Welcome and Introductions

9:00 AM - 10:00 AM

**Training Grant F’s and T’s**
Linda McManus, PhD • University of Texas Health San Antonio

10:00 AM - 11:00 AM

**Pathway to Post-Doc Through NIH's F99/K00: The Bigger, Better Alternative to an F31 Fellowship**
Jackie Bader, PhD • Vandelbilt Medical Center
Chronic cholestatic liver disease results from bile secretory defects or impairment of bile flow, and there are few effective medical therapies available. The Wnt/beta-catenin signaling pathway has a well-described role in liver physiology and pathology. Our findings demonstrate that modulation of this pathway also alters the progression of cholestasis. We recently identified a role for beta-catenin in regulating bile acid metabolism during cholestasis induced by bile duct ligation (BDL). Loss of beta-catenin from hepatocytes results in notable protection from liver injury, fibrosis, and ductular response, which coincides with decreased total hepatic bile acids secondary to enhanced farnesoid X receptor (FXR) activation. This led to the identification of a novel association between beta-catenin and FXR that is unresponsive to bile acids or FXR agonists but sensitive to beta-catenin inhibition. Exogenous suppression of beta-catenin expression during cholestatic injury negatively regulates bile acid synthesis and also alters the bile acid composition in liver and gallbladder, suggesting a potential therapeutic opportunity for modulating beta-catenin in cholestatic patients. Surprisingly, however, exogenous knockdown of beta-catenin in a second model of cholestasis, the Mdr2 KO mouse, exacerbates rather than alleviates hepatobiliary injury, leading to a significant increase in ductular reaction and fibrosis compared to Mdr2 KO alone. In contrast to the protective effect of beta-catenin loss in the BDL model, beta-catenin knockdown in Mdr2 KO interfered with expression of BA transporters, hepatocyte polarity, canalicular structure, and the regenerative response, with the resulting imbalance between ongoing injury and restitution leading to worsening of the Mdr2 KO phenotype. Thus, the role of beta-catenin in regulating bile acid synthesis and composition in the liver is pleiotropic, and suitable therapeutic inhibition of beta-catenin in cholestatic liver diseases should be context-dependent.

- **Therapeutic Implications of Modulating Beta-Catenin in Cholestasis**
  Kari Nejak-Bowen, PhD, MBA • University of Pittsburgh
Co-Chair: Christi Kolarcik, PhD • University of Pittsburgh

Session Description: This session will showcase the ability of a successful and efficient IDP in eliminating difficult conversations in mentor-mentee interactions. Our speakers will highlight the importance of writing a successful IDP throughout your scientific career. The workshop will face out difficult scientific scenarios in which having a well-outlined IDP is beneficial in all stages of scientific career.

- Chair - Welcome and Introductions
- 12:00 PM - 12:30 PM
  The IDP: Your Road from Here to There
  Patricia A. D’Amore, PhD, MBA • Massachusetts Eye & Ear/Harvard Medical School
- 12:30 PM - 1:00 PM
  Beyond the IDP - Self-Evaluation of Progress Over an Entire Career
  Elaine Bearer, MD, PhD • University of New Mexico Health Science Center
- 1:00 PM - 1:30 PM
  Workshop: Avoiding Difficult Conversations: Creating An IDP

ASIP Chat Lounge - Meet the ASIP Vascular and Mucosal Pathobiology (VAMP) Sig Leaders
1:00 PM - 2:00 PM
- Asma Nusrat, MD • University of Michigan
- David Sullivan, PhD • Northwestern University
- Michael Schnoor, PhD • Centro de Investigacion y de Estudios Avanzados (CINVESTAV)
- Dan Milner, MD MSc(Epi) MBA • American Society for Clinical Pathology
- Bill Luscinskas, PhD • Brigham & Women’s Hospital

Minisymposium: Tissue Barriers and Intercellular Junctions
2:00 PM - 4:00 PM
Chair: Andrei Ivanov, PhD • Cleveland Clinic Foundation
Co-Chair: Kris Chadee, PhD • University of Calgary

Session Description: Abstract-Driven Short Talks (15-minutes each)

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<thead>
<tr>
<th>Presentation Time</th>
<th>Presenting Author</th>
<th>Abstract Title</th>
<th>Abstract Number</th>
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<tbody>
<tr>
<td>2:00 - 2:15</td>
<td>Joanna Cunanan</td>
<td>Shroom3 regulates epithelial differentiation during tubular repair after ischemia reperfusion injury</td>
<td>Abstract R2199</td>
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<tr>
<td>2:15 - 2:30</td>
<td>Shuhan Lu</td>
<td>Role of endothelial SOCS3 in brain permeability and retinal vascular leukoembolization</td>
<td>Abstract R1791</td>
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<tr>
<td>2:30 - 2:45</td>
<td>Michelle Smith</td>
<td>JAM-A signals through the Hippo pathway to regulate intestinal epithelial proliferation</td>
<td>Abstract L5127</td>
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<tr>
<td>2:45 - 3:00</td>
<td>Anny-Claude Luissint</td>
<td>CAR-Like Membrane Protein (CLMP) Regulates Intestinal Epithelial Cell Proliferation and Prevents Tumor Growth</td>
<td>Abstract L5279</td>
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<tr>
<td>3:00 - 3:15</td>
<td>Mengli Yang</td>
<td>RvD2 stimulates conjunctival goblet cell secretion by activating multiple Ca2+-dependent intracellular signaling pathways</td>
<td>Abstract R1844</td>
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<tr>
<td>3:15 - 3:30</td>
<td>Camilla Schinner</td>
<td>Disruption of the desmoglein adhesive interface causes Arrhythmogenic Cardiomyopathy</td>
<td>Abstract R2693</td>
</tr>
<tr>
<td>3:30 - 3:45</td>
<td>Hayley Gorman</td>
<td>FCGBP stabilizes colonic MUC2 mucin structural integrity in innate host defense against Entamoeba histolytica</td>
<td>Abstract R451</td>
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Minisymposium: Novel Insights into Cardiac Function and Myocardial Response to Injury
2:00 PM - 4:00 PM
Chair: Traci Parry, PhD • University of North Carolina at Greensboro
Co-Chair: Jonathon Homeister, PhD • University of North Carolina, Chapel Hill

Session Description: Abstract-Driven Short Talks (15-minutes each)

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<tr>
<td>2:00 - 2:15</td>
<td>Jie Wang</td>
<td>SNAP29 Restricts Cardiac Arrhythmias by Insulating A Subset of Desmosomal Proteins and Connexin43 from Autophagic Degradation</td>
<td>Abstract R2621</td>
</tr>
</tbody>
</table>
SCVP-ASIP Joint Symposium: Clonal Hematopoiesis: Impact on Inflammation and Cardiovascular Disease – Cardiac Pathology
2:00 PM - 4:00 PM
Sponsored by the ASIP Inflammation/Immunopathology Scientific Interest Group and the Society for Cardiovascular Pathology (SCVP)

Chair: James Stone, MD, PhD • Massachusetts General Hospital

Session Description: The acquisition of aberrant clonal cell populations within the bone marrow has been observed during aging. It is now becoming clear that such clonal hematopoiesis may play important roles in age-related diseases, particularly inflammatory and age-related diseases of the cardiovascular system such as atherosclerosis. This session will involve leaders in the field sharing their insights into this new and evolving area of disease-related research.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM
  **Clonal Hematopoiesis in Aging**
  Rafael Bejar, MD, PhD • University of California, San Diego
- 2:45 PM - 3:20 PM
  **Clonal Hematopoiesis and Atherosclerotic Cardiovascular Disease**
  Siddharth Jaiswal, MD, PhD • Stanford University
- 3:20 PM - 4:00 PM
  **Mechanistic Links Between Clonal Hematopoiesis and Age-Related Disease**
  Kenneth Walsh, PhD • University of Virginia

SIPMeT Symposium: Epigenetic Regulation and Cancer
2:00 PM - 5:00 PM
Sponsored by ASIP and the Società Italiana di Patologia e Medicina Traslazionale/Italian Society of Pathology and Translational Medicine (SIPMeT) Co-Sponsored by the ASIP Gene Regulation Scientific Interest Group

Chair: Massimiliano Corsi Romanelli, PhD, MD • University of Milan, Milan Italy
Co-Chair: Francesco Curcio, MD • University of Udine, Udine, Italy

Session Description: In this session, we will explore the role of epigenetic regulation in cancer development and therapy. The talks will include new and innovative methodologies, molecular studies, and novel targets for treatment.

- Chair - Welcome and Introductions
- 2:00 PM - 2:45 PM
  **Targeting Epigenome for Cancer Treatment and Prevention**
  Lucia Altucci, MD, PhD • University of Naples, Naples Italy
- 2:45 PM - 3:30 PM
  **Molecular Mechanisms of Epigenetic (Mis)Regulation**
  Tatiana Kutateladze, PhD • University of Colorado
- 3:30 PM - 4:15 PM
  **Expanding the Toolbox for Characterizing Epigenetic Protein-Protein Interactions Mediated by Post-Translational Modification**
  Marcey Waters, PhD • University of North Carolina at Chapel Hill
Expert Roundtable: Toward Understanding and Containing the COVID-19 Pandemic
2:00 PM - 5:00 PM

Chair: Chhavi Chauhan, PhD • American Society for Investigative Pathology

Session Description: This session will touch upon numerous dimensions of understanding and containing the ongoing global pandemic. This timely session is structured for various experts to present short lightening talks sharing updates on mechanisms underlying COVID-19 infections and its pathogenesis as well as exploring and predicting outcomes based on underlying co-morbidities. The experts will also share updates on the current and emerging treatments for containing the global COVID-19 pandemic. The lightening talks will be followed by a live moderated Q&A session based on audience questions. This session will appeal to researchers, clinicians, companies developing COVID-19 surveillance, management, and treatment products, as well as the caregivers and lay public.”

- Chair - Welcome and Introductions
- 2:05 PM - 2:15 PM
  Analysis of 30,000 SARS-CoV-2 Genomes, Houston, Texas: Should We Fear the Scariants?
  James Musser, MD, PhD • Houston Methodist Hospital
- 2:15 PM - 2:25 PM
  The Race for a COVID-19 Vaccine
  Emily Erbelding, MD, MPH • National Institute of Allergy and Infectious Diseases/National Institutes of Health
- 2:25 PM - 2:35 PM
  View of the COVID-19 Tsunami from the Trenches of a Clinical Molecular Lab
  Gregory J. Tsongalis, PhD • Dartmouth-Hitchcock Medical Center
- 2:35 PM - 2:45 PM
  Mitigating COVID-19 in Meat and Poultry Processing Plants
  A. Sally Davis, DVM • Kansas State University
- 2:45 PM - 2:55 PM
  Pathobiology of COVID-19: Insights into Pathophysiology and Pathogenesis From Autopsy-Based Clinicopathological Correlation
  L. Maximilian Buja, MD • University of Texas Science Center – Houston
- 2:55 PM - 3:05 PM
  The Pathophysiology of COVID-19 From an Autopsy Pathologist’s Perspective
  Richard Vander Heide, MD, PhD, MBA • Louisiana State University Health Science Center
- 3:05 PM - 3:15 PM
  The NIH COVID Autopsy Consortium: An Effort At Systematic Understanding of SARS-CoV-2 Infection
  Stephen Hewitt, MD, PhD • National Cancer Institute - NIH
- 3:15 PM - 3:25 PM
  Empowering Clinical Informatics for COVID: The National COVID Cohort Collaborative (N3C)
  Michael G. Kurilla, MD, PhD • National Center for the Advancement of Translational Sciences
- 3:25 PM - 5:00 PM
  Moderated Question and Answer Session