ALL Sessions Times are Eastern Daylight Time (EDT)
How to Find Your Local Time for a Session

If you are in the **Central** time zone, subtract 1 hour, e.g., 11:00 AM EDT is 10:00 AM CDT
If you are in the **Mountain** time zone, subtract 2 hours, e.g., 11:00 AM EDT is 9:00 AM MDT
If you are in the **Pacific** time zone, subtract 3 hours, e.g., 11:00 AM EDT is 8:00 AM PDT

**Tuesday, October 5**
**Session 1 – Cancer Pathobiology and Neuropathology**
12:30-3:30 PM
**Session Co-Chairs:** Alexander T. Sougiannis, PhD, and Michelle Alves, PhD

*Isaiah J. Fidler Memorial Keynote Lecture*
12:30-1:15 PM
**The Metastatic Cell is a Decathlon Champion**
Diane Bielenberg, PhD
*Boston Children’s Hospital, Harvard Medical School, Boston, MA*

**Young Investigator Short Talks**
1:15-1:30 PM
**CAN1 - DCLK1 Promotes Cisplatin Resistance in Ovarian Cancer**
Samrita Dogra¹², Katherine Moxley², and Bethany N. Hannafon¹²
¹Department of Obstetrics and Gynecology, ²Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK

1:30-1:45 PM
**CAN2 - Targeting the DNA Damage Response Pathway by Combination of ATR and PARP Inhibition Imparts Synthetic Lethality to Cervical Cancer Cells**
Marlee Hill¹, Sugantha Priya Elayapillai²³, Bethany Hannafon²³, and Katherine Moxley²³
¹College of Medicine, University of Oklahoma, Oklahoma City, OK, ²Department of Obstetrics and Gynecology, University of Oklahoma Health Sciences Center, Oklahoma City, OK, ³Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK
1:45-2:00 PM  
**CAN3 - Collagen Hydroxyproline Analysis of Colon Cancer Polyps in Patients Within the Appalachian Mountain Region**  
Alexander T. Sougiannis¹, Gavin T. Cauley¹, and Peggi M. Angel²  
¹Medical University of South Carolina, College of Medicine, Charleston, SC, ²Department of Cell and Molecular Pharmacology, Medical University of South Carolina, Charleston, SC

2:00-2:15 PM  
**CAN4 - CECR2 Drives Breast Cancer Metastasis by Suppressing Macrophage Inflammatory Responses**  
Meiling Zhang and Qin Yan  
Department of Pathology, Yale School of Medicine, New Haven, CT

2:15-2:30 PM  
**NEURO1 - PECAM-1 Blockade Reduces Neutrophil Infiltration into the Subcortex Post-Stroke**  
Erika Arias, Neil Avadhoot Nadkarni, Raymond S. Fang, Maureen Haynes, Ayush Batra, William A. Muller, and David P. Sullivan  
Department of Pathology, Northwestern University, Chicago, IL

2:30-2:45 PM  
**NEURO2 - AAV-mediated Gene Replacement Therapy is Beneficial in Unverricht-Lundborg Disease Mouse Model**  
Emrah Gumusgoz, Sahba Kasiri, Jun Wu, Matthew Dear, Xin Chen, and Berge Minassian  
Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas, TX

2:45-3:00 PM  
**NEURO3 - Neuronal Death and Inflammation in Brain of SARS-CoV-2 Infected Non-Human Primates**  
Meredith G. Mayer², Ibolya Rutkai¹, Linh M. Hellmers², Bo Ning³, Zhen Huang³, Christopher J. Monjure², Carol Coyne², Rachel Silvestri², Nadia Golden², Krystle Hensley², Kristin Chandler², Gabrielle Lehmicke², Gregory J. Bix¹, Nicholas J. Maness², Kasi Russell-Lodrigue², Tony Y. Hu³, Chad J. Roy², Robert V. Blair², Rudolf Bohm², Lara A. Doyle-Meyers², Jay Rappaport², and Tracy Fischer²  
¹Department of Neurosurgery, Clinical Neuroscience Research Center, Tulane University School of Medicine, New Orleans, LA, ²Tulane National Primate Research Center, Covington, LA, ³Center for Cellular and Molecular Diagnostics, Tulane University School of Medicine, New Orleans, LA

3:00-3:15 PM  
**NEURO4 - Interactions Between Autophagy, Herpesvirus, and Neurodegeneration in Alzheimer’s Disease**  
Amir Nafchi¹, Mona Esmaeili¹, Pouya Raeisinafchi², Orrin Myers⁴, and Elaine Bearer³  
¹Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM, ²Department of Psychology, Neuroscience & Behavior, McMaster University, Hamilton, ON, Canada, ³Department of Pathology, University of New Mexico School of Medicine, Albuquerque, NM, ⁴Department of Family and Community Medicine, University of New Mexico School of Medicine, Albuquerque, NM

3:15-3:30 PM  
**NEURO5 - Early Life Adversity Potentiates Adult Response to Acute Threat: A Brain-wide Neuroimaging and Behavior Study**  
Taylor W. Uselman¹, Russell E. Jacobs², Elaine L. Bearer¹,³  
¹Department of Pathology, University of New Mexico Health Science Center, Albuquerque, NM, ²Zilkha Neurogenetic Institute, USC Keck School of Medicine, Los Angeles, CA, ³Biology and Biological Engineering, Caltech, Pasadena, CA
Coffee Break 3:00-3:45 PM

Tuesday, October 5

Session 2 – Pathobiology of Infectious Disease
3:45-6:00 PM

**Session Co-Chairs:** Kristen Engevik, PhD, and Francisco J. Carrillo-Salinas, PhD

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**Emanuel Rubin Memorial Keynote Lecture**
3:45-4:30 PM

**Understanding HIV Infection in the Female Genital Tract**
Marta Rodriguez-Garcia, MD, PhD

*Department of Immunology, Tufts University School of Medicine, Boston, MA*

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**Young Investigator Short Talks**
4:30-4:45 PM

**IND1 - Sofia SARS Antigen FIA and Reverse-Transcriptase Polymerase Chain Reaction: Comparing Diagnostic Methods**
Blaire Anderson\(^1\), Anna Bouck\(^1\), Michael Lambert\(^2\), Dorothy Martin\(^1,2\), Heather Steinmetz\(^1\), Samantha Allen\(^1\), Joel Lefferts\(^1\), and Bing Ren\(^1,2\)

\(^1\)Department of Pathology and Laboratory Medicine, Dartmouth-Hitchcock Medical Center, Lebanon, NH, \(^2\)Springfield Hospital, Springfield, VT

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**IND2 - Estradiol Levels Influence Neutrophil Responses Against HIV in Women**
Anna Borchers\(^3\), Laura Moreno de Lara\(^1,2\), Ragav S Parthasarathy\(^1,3\), Christina Ochsenbauer\(^4\), Alexander Panda\(^5,6\), Francisco J. Carrillo-Salinas\(^1\), and Marta Rodriguez-Garcia\(^1,3\)

\(^1\)Department of Immunology, Tufts University School of Medicine, Boston MA, \(^2\)Immunology Unit, Biomedical Research Centre, University of Granada, Granada, Spain, \(^3\)Immunology Program, Tufts Graduate School of Biomedical Sciences, Boston, MA, \(^4\)Department of Medicine and UAB Center for AIDS Research, University of Alabama, Birmingham, AL, \(^5\)Tufts Medical Center/Division of Pulmonary and Critical Care, Boston, MA, \(^6\)Tufts Clinical and Translational Science Institute, Boston, MA

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**IND3 - SCFAs Impact Neutrophil Response to HIV Infection**
Francisco J. Carrillo-Salinas\(^1\), Ragav S. Parthasarathy\(^1,2\), Laura Moreno de Lara\(^1,3\), Anna Borchers\(^1\), Christina Ochsenbauer\(^4\), Alexander Panda\(^5,6\), and Marta Rodriguez-Garcia\(^1,3\)

\(^1\)Department of Immunology, Tufts University School of Medicine, Boston MA, \(^2\)Immunology Program, Tufts Graduate School of Biomedical Sciences, Boston, MA, \(^3\)Immunology Unit, Biomedical Research Centre, University of Granada, Granada, Spain, \(^4\)Department of Medicine and UAB Center for AIDS Research, University of Alabama, Birmingham, AL, \(^5\)Tufts Medical Center/Division of Pulmonary and Critical Care, Boston, MA, \(^6\)Tufts Clinical and Translational Science Institute, Boston, MA

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**IND4 - Elucidating the Role of Host Purinergic Signaling During Rotavirus Infection**
Kristen A. Engevik\(^1\), John T. Gebert\(^1\), Jacob L. Perry\(^1\), Francesca J. Scribano\(^1\), Takahiro Kawagishi\(^2\), Harry Greenberg\(^2\), and Joseph M. Hyser\(^1\)

\(^1\)Department of Molecular Virology & Microbiology, Baylor College of Medicine, Houston TX, \(^2\)Department of Medicine, Gastroenterology & Hepatology Stanford University, Stanford, CA
Wednesday, October 6

Session 3 – Vascular Pathobiology
12:30-3:00 PM

Session Co-Chairs: Tendai Hunyenyiwa, MS, and Ramon Bossardi Ramos, PhD

Jay M. McDonald Memorial Keynote Lecture
12:30-1:15 PM

A Role for the Glycocalyx in Angiogenesis
Patricia A. D’Amore, PhD, MBA
Department of Ophthalmology, Schepens Eye Research Institute, Harvard Medical School, Boston, MA

Young Investigator Short Talks
1:15-1:30 PM

VASC1 - Neuropilin-1 Regulates Vascular Smooth Muscle Cell Contractility and Blood Pressure
Dakshnapriya Balasubbramanian\textsuperscript{1,2}, George Lambrinos\textsuperscript{2,3}, Vivian Cristofaro\textsuperscript{2,4}, Alexander Bigger-Allen\textsuperscript{2,3}, Beibei Wang\textsuperscript{1,2}, Yao Gao\textsuperscript{1,2}, Hong Chen\textsuperscript{1,2}, Rosalyn M. Adam\textsuperscript{2,3}, Maryrose P. Sullivan\textsuperscript{2,4}, and Diane R. Bielenberg\textsuperscript{1,2}
\textsuperscript{1}Vascular Biology Program, Boston Children’s Hospital, Boston, MA, \textsuperscript{2}Department of Surgery, Harvard Medical School, Boston, MA, \textsuperscript{3}Department of Urology Research, Boston Children’s Hospital, Boston, MA, \textsuperscript{4}Division of Urology, Veterans Affairs Boston Healthcare System, Boston, MA

Cristina Espinosa-Diez, Mingjiun Liu, Mingyuan Du, Sidney Mahan, and Delphine Gomez
Department of Medicine, University of Pittsburgh, Pittsburgh, PA

VASC3 - Specific Role of Endomucin in Vascular Endothelial Growth Factor Receptor 2 (VEGFR2) Internalization and Function
Zhengping Hu\textsuperscript{1,2}, Issahy Cano\textsuperscript{1,2}, Magali Saint-Geniez\textsuperscript{1,2}, Eric Ng\textsuperscript{1,2}, and Patricia A. D’Amore\textsuperscript{1,2,3}
\textsuperscript{1}Schepens Eye Research Institute of Massachusetts Eye and Ear, \textsuperscript{2}Departments of Ophthalmology and \textsuperscript{3}Pathology, Harvard Medical School, Boston, MA

VASC4 - Obesity Inhibits Angiogenesis Through TWIST1-SLIT2 Signaling
Tendai Hunyenyiwa, Kathryn Hendee, Kienna Matus, Priscilla Kyi, Tadanori Mammoto, and Akiko Mammoto
Department of Pediatrics, Medical College of Wisconsin, Milwaukee, WI

VASC5 - COVID Coronary Vascular Thrombosis: Correlation with Neutrophil But Not Endothelial Activation
Justin E. Johnson\textsuperscript{1}, Dan Jane-wit\textsuperscript{1,2}, Declan McGuone\textsuperscript{3}, Mina L. Xu\textsuperscript{3}, Richard N. Mitchell\textsuperscript{4}, Peter Libby\textsuperscript{5}, Jordan S. Pober\textsuperscript{1}
**VASC6 - H3K4 Di-methylation Governs Smooth Muscle Lineage Identity and Promotes Vascular Homeostasis by Restraining Plasticity**

Mingjun Liu¹², Cristina Espinosa-Diez¹, Sidney Mahan¹, Mingyuan Du¹³, Anh T. Nguyen⁴, Scott Hahn¹, Raja Chakraborty⁵⁶, Adam C. Straub¹⁷⁸, Kathleen A. Martin⁵⁶, Gary K. Owens⁴⁹, and Delphine Gomez¹²

¹Department of Immunobiology, Yale University School of Medicine, New Haven, CT, ²Department of Cardiology, West Haven VA Medical Center, West Haven, CT, ³Department of Pathology, Yale University School of Medicine, New Haven, CT, ⁴Department of Pathology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ⁵Division of Cardiovascular Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

**VASC7 - SNAP29 Restricts Cardiac Arrhythmias by Insulating a Subset of Desmosomal Proteins and Connexin43 from Autophagic Degradation**

Jie Wang, Jason Pellman, Robert Lyon, Yan Liang, Valeria Mezzano, Jing Zhang, Vishal Nigam, Yusu Gu, Nancy Dalton, Kirk L. Peterson, and Farah Sheikh

Department of Medicine, University of California – San Diego, San Diego, CA

**Wednesday, October 6**

**Session 4 – Inflammation and Immunopathology**

3:30-6:15 PM

**Session Co-Chairs:** Nakisha Rutledge, BS, and Erik Butcher, PhD

**Janardan K. Reddy Memorial Keynote Lecture**

3:30-4:15 PM

**How Inflammation Begets Pathology**

William A. Muller, MD, PhD

Department of Pathology, Feinberg School of Medicine, Northwestern University, Chicago, IL

**Young Investigator Short Talks**

4:15-4:30 PM

**INFL1 - Adipose Tissue Role in Neonatal Sepsis.**

Michele J. Alves, Juliet Torres, Silvio Fernandes de Araujo Junior, Paollo Fadda, Jennifer Mele, Catherine Czeisler, and Jose Otero

Department of Pathology, The Ohio State University, College of Medicine, Columbus, OH
4:30-4:45 PM
INFL2 - Differentially Methylated Positions After IL-6 in the Endothelium
Ramon Bossardi Ramos, Nina Martino, and Alejandro Adam
Department of Molecular and Cellular Physiology, Albany Medical College, Albany, NY

4:45-5:00 PM
INFL3 - Identification and Characterization of a First Series of Small Molecule Inhibitors of Feline Islet Amyloid Polypeptide Aggregation
Kelsey E. Duggan1, Kendra N. Nylen2, Nurhanis B.M. Isa2, Malikah O’Dell2, and Jessica S. Fortin1,3
1College of Veterinary Medicine, Michigan State University, East Lansing, MI, 2Department of Chemistry, College of Natural Science, Michigan State University, East Lansing, MI, 3Current Address - Department of Basic Medical Sciences, College of Veterinary Medicine, Purdue University, West Lafayette, IN

5:00-5:15 PM
INFL4 - Identifying the Targets of Perforin Mediated Killing
Vineet Garlapally, Vandana Chaturvedi, and Michael Jordan
Department of Pathobiology and Molecular Medicine, University of Cincinnati, Cincinnati Children’s Hospital, Cincinnati, OH

5:15-5:30 PM
INFL5 - Cationic Antimicrobial Peptide, E35, Reduces LPS-induced Inflammation in Mice
Joud Mulla1, Sultan Abdelhamid1, Zachary Secunda1, Bashar Al Matour1, Nijmeh Alsaadi1, Berthony Deslouches2, and Melanie J. Scott1
1Department of Surgery, University of Pittsburgh, Pittsburgh, PA, 2Department of Environmental and Occupational Health, University of Pittsburgh, Pittsburgh, PA

5:30-5:45 PM
INFL6 - Perivascular Macrophages Prime Vascular Endothelial Cells to Promote Neutrophil Adhesion and Transendothelial Migration
Xingsheng Ren, Jessica M. Urbanczyk, and Ronen Sumigan
Department of Pathology, Northwestern University Feinberg School of Medicine, Chicago, IL

5:45-6:00 PM
INFL7 - Human L2 Regulates Leukocyte Transmigration at a Unique Step between those Regulated by PECAM and CD99
Nakisha S. Rutledge, David P. Sullivan, Faith Ogungbe, and William A. Muller
Department of Pathology, Northwestern University, Feinberg School of Medicine, Chicago, IL

6:00-6:15 PM
INFL8 - Interplay Between TNFα-induced Inflammation and Metabolic Dysfunction in Retinal Pigment Epithelial Cells
Schepens Eye Research Institute of Mass Eye and Ear, Department of Ophthalmology, Harvard Medical School, Boston, MA
Thursday, October 7
Session 5 – Epithelial and Mucosal Pathobiology
12:30-3:00 PM
Session Co-Chairs: Daisy Shu, PhD, and Anny-Claude Luissint, PhD

Marilyn G. Farquhar Memorial Keynote Lecture
12:30-1:15 PM
Plasticity of the Mucosal Barrier: Insights into Regulation of Epithelial Homeostasis and Repair
Asma Nusrat, MD
Department of Pathology, Michigan Medicine, University of Michigan, Ann Arbor, MI

Young Investigator Short Talks
1:15-1:30 PM
MUC1 - Giardia duodenalis Alters Biochemical Properties of Intestinal Mucus During Infection
Elena Fekete, Thibault Allain, and Andre Buret
Department of Biological Sciences, University of Calgary, Calgary, Alberta, Canada

1:30-1:45 PM
MUC2 - Characterizing the Mucin-degrading Capacity of the Human Gut Microbiota
Janiece Glover, Taylor Ticer, and Melinda A. Engevik
Department of Regenerative Medicine and Cell Biology, Medical University of South Carolina, Charleston, SC

1:45-2:00 PM
MUC3 - Annickia polycarpa Extract Attenuates DSS-induced Colitis by Balancing Neutrophil Recruitment
Nathaniel L. Lartey\textsuperscript{1}, Hilda Vargas-Robles\textsuperscript{1}, Idaira M. Guerrero-Fonseca\textsuperscript{1}, Emmanuel K. Kumatia\textsuperscript{2}, Augustine Ocloo\textsuperscript{3}, and Michael Schnoor\textsuperscript{1}
\textsuperscript{1}Department of Molecular Biomedicine, CINVESTAV-IPN, Mexico-City, Mexico, \textsuperscript{2}Department of Phytochemistry, Centre for Plant Medicine Research. Akuapem-Mampong, Ghana, \textsuperscript{3}Department of Biochemistry, Cell, and Molecular Biology, University of Ghana, Legon-Ghana

2:00-2:15 PM
MUC4 - Giardia Muris Infection Leads to Tuft Cell Hyperplasia at Later Stages of Infection
Olivia Sosnowski, Thibault Allain, Elena Fekete, Derek M. McKay, and Andre G. Buret
Department of Biological Sciences, University of Calgary, Calgary, Alberta, Canada

2:15-2:30 PM
MUC5 - Transcorneal Electric Stimulation Therapy Induce Dry Eye by [Ca\textsuperscript{2+}]i Depletion of Goblet Cells and Reduce Mucin Production
Menglu Yang\textsuperscript{1}, Anton Lennikov\textsuperscript{1}, Kinsang Cho\textsuperscript{1}, Karen Chang\textsuperscript{1}, Tor Paaske Utheim\textsuperscript{2}, Darlene Dartt\textsuperscript{1}, and Dong Feng Chen\textsuperscript{1}
\textsuperscript{1}Schepens Eye Research Institute, Massachusetts Eye and Ear, Harvard Medical School, Boston, MA, \textsuperscript{2}Faculty of Medicine, University of Oslo, Oslo, Norway

Coffee Break 2:30-3:00 PM

Thursday, October 7
Session 6 – Liver Pathobiology
3:00-5:45 PM
Session Co-Chairs: Vik Meadows, MS, and Chhavi Goel, PhD
Samuel W. French Memorial Keynote Lecture
3:00-3:45 PM
The Many Tiers of Liver Repair: Prometheus Needed Them All
Satdarshan P. Monga, MD
Pittsburgh Liver Research Center, University of Pittsburgh, Pittsburgh, PA

Young Investigator Short Talks
3:45-4:00 PM
LIVER1 - TLR4 Deficiency Alters Platelet-Derived Exosome Release and Increases Mortality in a Model of Liver Regeneration
Nijmeh Alsaadi¹, Hamza Yazdani¹, Matthew D. Neal¹, and Roberto Ivan Mota Alvidrez¹,²,³
¹Department of Surgery, ²McGowan Institute for Regenerative Medicine, ³Vascular Medicine Institute, University of Pittsburgh, Pittsburgh, PA

4:00-4:15 PM
LIVER2 - β-catenin Conditional Knockout Elicits Protection Against Lithocholic Acid-induced Cholestatic Injury in a Murine Model
Chhavi Goel¹, Rong Zhang¹, Pamela Cornuet¹, Xiaochao Ma², and Kari Nejak-Bowen¹,³
¹Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, PA, ²Center for Pharmacogenetics, Department of Pharmaceutical Sciences, University of Pittsburgh School of Pharmacy, Pittsburgh, PA, ³Pittsburgh Liver Research Center, University of Pittsburgh School of Medicine, Pittsburgh, PA

4:15-4:30 PM
LIVER3 - Mitigation of High-Fat Diet-Induced Liver Injury in MS-NASH Mice: Modifications in Proteomic Signature
Isabelle Harber, Dania Zeidan, Shannon McClintock, and Muhammad Nadeem Aslam
Department of Pathology, University of Michigan, Ann Arbor, MI

4:30-4:45 PM
LIVER4 - PDGF Increases Hepatocyte-HMGB1 Synergistically with Stimulation of Heparan Sulfate in vitro and Alters Hepatocyte Exosome Release in TLR4 Deficient Mice
Zeyu Liu¹, Nijmeh Alsaadi¹, Hamza Yazdani¹, Matthew D. Neal¹, and Roberto Ivan Mota Alvidrez¹,²,³
¹Department of Surgery, ²McGowan Institute for Regenerative Medicine, ³Vascular Medicine Institute, University of Pittsburgh, Pittsburgh, PA

4:45-5:00 PM
LIVER5 - Hepatic Autophagy Deficiency Leads to Exosome Overproduction and Pro-inflammatory Response
Gang Liu, Michelle Ma, and Xiao-Ming Yin
Department of Pathology and Laboratory Medicine, Tulane University School of Medicine, New Orleans, LA

5:00-5:15 PM
LIVER6 - Histamine increases Hepatic and Intestinal Mast Cell Activation and Regulates Bile Acid Signaling During PSC
Vik Meadows¹, Debjyoti Kundu¹, Vincent Zhou², Lindsey Kennedy², and Heather Francis²
¹Department of Biochemistry and Molecular Biology, ²Department of Medicine, Indiana University School of Medicine, Indianapolis, IN
5:15-5:30 PM
LIVER7 - Durable Persistence of the Fetal Hepatocyte Phenotype After Liver Cell Transplantation
Anders W. Ohman and Jennifer A. Sanders
Department of Pathology and Laboratory Medicine, Brown University, Division of Pediatric Endocrinology, Rhode Island Hospital, Providence RI

5:30-5:45 PM
LIVER8 - Transcriptional Correlation Analysis of Livers Undergoing Normothermic Machine Perfusion Links Gene Expression Patterns with Graft Functional Metrics
John Santiago¹, Siavash Raigani², Anders Ohman¹, Korkut Uygun³, Heidi Yeh³, and Jennifer A. Sanders¹
¹Department of Pathology and Laboratory Medicine, Brown University, ²Center for Engineering in Medicine and Surgery, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ³Transplant Surgery, Massachusetts General Hospital, Boston, MA

Awards Presentations
William B. Coleman, PhD, ASIP Executive Officer

Closing Remarks
Patricia D’Amore, PhD, ASIP President
Schepens Eye Research Institute/Harvard Medical School