American Society for Investigative Pathology

2017 Annual Meeting

Deciphering the Pathways of Health and Pathology: Informing Biomarker Development, Prevention, Diagnosis, and Treatment of Disease

April 22-26, 2017
Chicago, IL

www.asip.org/2017

#ASIP2017

Everything You Need to Know about the ASIP 2017 Annual Meeting but Were Afraid to Ask *(What is New and/or Different This Year)*

EB2017 App
http://experimentalbiology.org/2017/Program/EB-Mobile-App.aspx

ASIP Petition Commitment to Science
Sign Up!

Registration
McCormick Place Convention Center
Hall F, Registration B

ASIP Meeting Rooms (McCormick Place Convention Center)
- ASIP Meeting Office and Member Networking Lounge
  W181C
- ASIP Scientific Meeting Rooms
  W179B, W180, W181A, W181B

Meet & Speak with the *AJP* Editors at the ASIP Booth (#1535) in the Exhibit Hall
- Sunday, April 23
  12:00 noon – 1:00 PM
- Tuesday, April 25
  10:00 AM – 1100 AM

Saturday morning, April 22
- Trainee Welcome Breakfast
  Foyer W180
  7:30 AM – 8:25 AM
- Highlights: Graduate Student Research in Pathology
  W180
  8:30 AM – 11:30 AM
- Young Scientist Leadership Award Lecture
  W180
  10:35 AM – 10:50 AM

Saturday afternoon, April 22
- Pathobiology Course for Research Scientists: Next-Generation Genomics
  W180
  2:00 PM – 5:00 PM

Saturday evening, April 22
- ASIP Business Meeting and Awards Presentation, W180
  5:00 PM – 6:30 PM
- EB-Wide Reception, Skyline Ballroom
  6:45 PM
- *AJP* Editorial Board Dinner
  By Invitation Only
  Hyatt Regency McCormick Place, Grant Park D
  6:30 PM

Sunday afternoon, April 23
- Presidential Symposium
  W180
  2:00 PM – 5:00 PM
- ASIP Outstanding Investigator Award Lecture
  W180
  4:00 PM – 5:00 PM
- President's Reception
  By Invitation Only
  Hyatt Regency McCormick Place, Burnham B
  6:00 PM – 7:30 PM

Monday morning, April 24
- ASIP Town Hall and Continental Breakfast, W180
  7:00 AM – 8:00 AM
- Cotran Early Career Investigator Award Lecture, W180,
  8:30 AM – 9:30 AM

Monday afternoon, April 24
- Gold-Headed Cane Award Lecture
  W180
  2:00 PM – 3:00 PM

Tuesday evening, April 25
- Club Hepatomania™
  W375C
  5:30 PM – 7:30 PM
- SIG Night
  W375B
  5:30 PM – 7:30 PM

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ASIP 2017 Annual Meeting at Experimental Biology – Chicago, IL

All sessions in McCormick Place Convention Center, unless otherwise noted

Saturday, April 22		Sunday, April 23		Monday, April 24	
AM	PM	AM	PM	AM	PM
Trainee Welcome Breakfast 7:30 AM Foyer W180	**Course:** Pathobiology for Research Scientists: Next-Generation Genomics for the Basic/Translational/Clinical Scientist ***W.B. Coleman*** ***M.E. Sobel*** ***G.J. Tsongalis*** 2:00 PM – W180	**Committee for Career Development & Diversity Workshop and Breakfast:** Developing Your Personal Brand for Career Success ***L. DiPietro,*** ***M. Saint-Geniez*** 7:00 AM – Hyatt Regency McCormick Place, DuSable ABC	**Cell Injury Workshop:** Creating a Scar: The Roles of Inflammation in Tissue Remodeling ***C.C. Yates,*** ***D. Karunakaran*** 2:00 PM – W181A	**ASIP Town Hall Meeting and Breakfast** 7:00 AM – W180	**Symposium:** **Digital Computational Pathology** ***S. Cohen,*** ***J. Tomaszewski*** 2:00 PM – W179B
Highlights: **Graduate Student Research in Pathology** ***T.A. Reaves,*** ***T. Parry*** 8:30 AM – W180	**Symposium:** PAMPs and DAMPs: New Roles in Immunopathogenesis ***Asma Nusrat, A. Neish*** 2:00 PM – W181A	**SCVP Symposium:** New Roles for Inflammation in the Heart ***J. R. Stone*** 8:30 AM – W179B	**MOLECULAR AND CELLULAR BASIS OF DISEASE:** **Presidential Symposium:** Liver Pathobiology: Prevention of Hepatic Disease and Regeneration ***G.K. Michalopoulos*** 2:00 PM –W180	**HCS Symposium:** Imaging Signaling *In Vivo* From Cell Biology to Animal Models ***M. Barroso, D. Rosene*** 8:30 AM – W181A	**MOLECULAR AND CELLULAR BASIS OF DISEASE: ACVP Symposium:** Epigenetics and Cancer ***S. Fossey, R. Johnson*** 2:00 PM – W 181A
ASIP Young Scientist Leadership Award Lecture: A Balancing Act: Role of HNF4α/ß-Catenin Interaction in Hepatobiliary Development and Cholangiocarcinoma Formation ***C. Walesky*** 11:35 AM – W180	**Minisymposium:** Heart Failure-New Insights into its Pathobiology ***F. Sheikh, T. Perry*** 2:00 PM – W179B	**MOLECULAR AND CELLULAR BASIS OF DISEASE:** **Liver Pathobiology Symposium:** Novel Insights into the Mechanisms of Non-Alcoholic Fatty Liver Disease (NAFLD) and Autoimmune Liver Disease ***K. Nejak-Bowen,*** ***S.P.S. Monga, X. Chen*** 8:30 AM – W180	**ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE:** Why Autophagy is Important to the Liver ***X.M. Yin*** 4:00 PM – W180 *(Presented during the Presidential Symposium)*	**Journal of Histochemistry & Cytochemistry Lecture:** Illuminating Biochemical Activity Architecture of the Cell ***S. Hewitt*** 10:30 AM – W181A	**Symposium:** **Blood Vessel Club™:** Endothelial Cell Mechanisms that Regulate Function and Permeability ***P. Alcaide,*** ***J. Homeister*** 2:00 PM – W180
Symposium: Neuropathology of Autonomic Dysfunction ***W. Tourtellotte, J. Otero*** 8:30 AM – W181A	**Minisymposium:** Lung Injury, Regeneration and Repair ***L. DiPietro, C. Farver*** 2:00 PM – W181B	**Symposium:** Biology and Pathobiology of Tissue Barriers ***A. Nusrat, A. Ivanov*** 8:30 AM – W181A	**Minisymposium:** Pathobiology of Infectious Disease ***C. Dehner, M. Schnoor*** 2:00 PM – W179B	**COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE:** Unraveling the Complexity of Drug Resistance in Lung Cancer ***K. Politi*** 8:30 AM – W180	**GOLD-HEADED CANE AWARD LECTURE:** Understanding Vascular Endothelium: A Pilgrim's Progress ***M.A. Gimbrone, Jr.*** 2:00 PM – W180
Breast Cancer Workshop: Ductal Carcinoma *In Situ* - Discerning Aggressive Versus Benign Disease Using Molecular Features ***W.B. Coleman*** 8:30 AM – W179B	**ASIP Membership Business Meeting & Awards Presentation** ***G.K. Michalopoulos*** 5:00 PM – W180	**Minisymposium:** Mechanisms in Cancer ***H. Leman, D. Stairs*** 8:30 AM – W181B	**Minisymposium:** Mechanisms of Neurological Diseases ***J. Otero, W. Tourtellotte*** 2:00 PM – W181B	**MOLECULAR AND CELLULAR BASIS OF DISEASE:** Cancer Chemoprevention and Biomarker Development ***W. Stetler-Stevenson,*** ***K. Gardner*** 8:30 AM – W180	**ASMB Lecture:** Role of Collagen Binding Receptors in Fibrotic Responses ***A. Pozzi*** 2:00 PM – W181B
Minisymposium: Inflammation: Getting from Here to There, and Getting the Job Done ***R. Mitchell, P. Alcaide*** 8:30 AM – W181B	**EB-Wide Reception** 6:45 pm Skyline Ballroom	**XVIIth Annual ASIP/AAA Career Development and Mentoring Program and Lunch:** Developing Your Core Message: An Interactive Session on Crafting an Effective Elevator Speech ***D. Bielenberg, C. Walesky*** 11:45 AM – Hyatt Regency McCormick Place Adler BC	**The Histochemical Society (HCS) Member Awards Presentation, Business Meeting and Reception** 6:00 AM – Hyatt Regency McCormick Place Adler BC	**Minisymposium:** Molecular Basis of Chronic Liver Injury **T. Wu, L. Wang** 8:30 AM – W179B	**Minisymposium:** Matrix Biology: Regenerative Medicine Biology, Signaling, and Stem Cells in Repair ***C. Yates, C. Frevert*** 8:30 PM – W181B
XVIIth Annual Workshop on Graduate Education in Pathology: PhD Workforce ***R. Lorenz, D. Zander*** 11:45 AM – Hyatt Regency McCormick Place, Erie	***AJP* Editorial Board Dinner** ***by invitation only*** 6:30 PM Hyatt Regency McCormick Place, Grant Park D		**President's Reception** ***by invitation only*** 6:00 PM Hyatt Regency McCormick Place, Burnham B	**Minisymposium:** Emerging Themes in Vascular Biology ***T.Kyriakides,*** ***D. Karunakaran*** 8:30 AM – W181B	

Tuesday, April 25		Wednesday, April 26
AM	PM	AM
SIPMeT Symposium: Metabolism and Prevention of Disease ***M. Corsi Romanelli*** 8:30 AM – W181A	**Society of Toxicologic Pathology Symposium:** Challenges in Translation: Cardiovascular Modeling as an Exemplar for *In Vitro to In Vivo* Extrapolation ***E. Galbreath*** 2:00 PM – W181A	**Minisymposium:** Liver Regenerative Medicine ***G. Alpini, J. Sanders*** 8:30 AM – W181B
Stowell Symposium: Trends in Experimental Pathology: Gone with the Wnt: A Classic Tale of Stem Cells, Cancer and More ***S.P.S. Monga, D. Stairs*** 8:30 AM – W180	**Symposium:** Targeting Transcription Regulation in Disease **P. Iannaccone, Q. Yan, *D. Williams*** 2:00 PM – W180	
Symposium: Diseases of the Endoplasmic Reticulum ***J. Lin, F. Urano*** 8:30 AM – W179B	**Minisymposium:** Cell Injury, Autophagy, and DNA Damage ***T. LaBranche, C.C. Yates*** 2:00 PM – W181B	
Minisymposium: Regulation of Epithelial Barrier Integrity and Repair ***J. Waschke, J. Brazil*** 8:30 AM – W181B	**Minisymposium:** Mucosal Inflammation and Epithelial-Leukocyte Interactions ***S. Colgan, S. Keely*** 2:00 PM – W179B	
ASIP Scientific Sleuthing of Human Disease for Undergraduate Students and High School Teachers and Students ***K. Nejak-Bowen, M.B. Furie*** 9:30 AM Hyatt Regency McCormick Place Regency Ballroom DC	**SIG Night** Tuesday, April 25, 2017 5:30 PM – W375B	

Key	
	ASIP Special Lectures
	ASIP Career Development Sessions
	ASIP Scientific Interest Group Poster Discussions
	ASIP Workshop for High School Teachers
	Guest Society Sessions
	Receptions
	Special Course

SIG Night

Tuesday, April 25, 2017

5:30 PM – W375B

ASIP Scientific Interest Group Networking

Poster Discussions:

- Breast Cancer
- Club Hepatomania™ (W375C)
- Der Schadenklub (Cell Injury & Repair)
- Digital and Computational Pathology
- Gene Expression
- Immunohistochemistry & Microscopy
- Inflammation/Immunopathology
- Molecular Diagnostic Pathology
- Neuropathology
- Regenerative Medicine and Stem Cells
- Vascular & Mucosal Pathobiology
- Veterinary and Comparative Pathobiology

ASIP Poster Sessions

Sunday, April 23, 2017

- Breast Cancer
- Immune Responses in Pathology
- Pathobiology of Infectious Disease
- Respiratory Pathophysiology

Monday, April 24, 2017

- Cancer and Modifiable Risk
- Liver Homeostasis, Injury, and Repair
- Molecular Targets, Biomarkers, and Discovery in Neoplasia
- Neuropathology
- Pathobiology of Hepatic Tumors
- Pathobiology of Chronic Liver Injury
- Tumor Metastasis and the Microenvironment

Tuesday, April 25, 2017

- Bioinformatics and Computational Pathology
- Cell Injury, Death, and Survival
- Diabetes, Obesity, and Metabolism in Disease
- Diagnosis and Pathogenesis of Heart Disease
- Environmental and Toxicological Pathology
- Gene Expression
- Immunohistochemistry, Microscopy, and Imaging
- Translational Science
- Vascular Biology

Visit the ASIP Office / Member Networking Lounge

McCormick Place Convention Center W181C

Saturday – Tuesday, 8:00am – 5:00pm

American Society for Investigative Pathology

Oral Sessions

www.asip.org/2017

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Pathology

50. TRAINEE WELCOME BREAKFAST

Special Session

SAT. 7:30 AM—MCCORMICK PLACE CONVENTION CENTER, FOYER W180

51. HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY

Poster Discussion

(*Sponsored by:* ASIP Committee for Career Development & Diversity)

SAT. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W180

CHAIRED: T.A. REAVES AND T. PARRY

8:30 Welcome and Introduction.

Oral Presentations

8:35 Role of Hepatocyte Nuclear Factor 4 Alpha (HNF4α) in Hepatocyte Regeneration. **I. Huck, U. Apte.** University of Kansas Medical Center. **(531.4)**

8:45 The Role of Scleraxis in Intestinal Fibroblasts. **C. Johnson, A. Nillas, T.A. Reaves.** Medical University of SC. **(657.5)**

8:55 High Fat Diet-Induced Biliary Lipoapoptosis, Senescence, Hepatic Steatosis and Fibrosis Are Reduced in Secretin Receptor Knockout ($SR^{-/-}$) Mice. **L.L. Kennedy, N. Wu, J. Venter, F. Meng, H. Francis, T. Zhou, S. Glaser, G. Alpini.** Texas A&M HSC, VA and Baylor S&W. **(328.3)**

Poster Presentations (9:05 AM–9:35 AM)

P2 A Novel Neuroprotective Effect of Osteoactivin in Parkinson's Disease. **K.M. Budge, G. Alam, M. Edler, J. Richardson, F. Safadi.** Kent State University and Northeast Ohio Medical University. **(183.1)**

P4 Comparison of Topical PDGF and Naltrexone on Full-Thickness Diabetic Wound Healing. **M.B. Titunick, J. Cain, I. Zagon, P. McLaughlin.** Penn State College of Medicine. **(981.7)**

P6 Inflammasome Inhibition in Influenza A Virus Infected Juvenile Mice Leads to Improved Survival and Outcomes. **N. Ravindran, C.M. Koch, K.M. Ridge, B.M. Coates.** Northwestern University. **(657.3)**

P8 Solute Carrier Family 2 Member 4 Regulates TRIM24-DDX58 Axis to Promote Head and Neck Cancer Metastasis. **Y. Chang, M. Hsiao.** Academia Sinica, Taiwan. **(808.5)**

P10 Lack of NF-κB-Inducing Kinase (NIK) Results in Eosinophilic Esophagitis (EoE) and Gastric Hyperplasia in Mice: Implications for Noncanonical NF-κB Signaling in Human EoE. **K. Eden, D.K. McDaniel, B. Heid, I.C. Allen.** Virginia Maryland College of Veterinary Medicine. **(469.12)**

P12 Chronic Administration of Nicotine Increases Biliary Damage and Hepatic Fibrosis in Mdr2 Knockout (KO) Mice. **A. O'Brien, L. Ehrlich, C. Hall, T. White, D. Dostal, G. Alpini, S. Glaser.** Central Texas Veterans Foundation, Texas A&M Health Science Center, Baylor Scott & White Health and Central Texas Veterans Health Care System. **(804.9)**

Oral Presentations

9:35 Pro-Inflammatory Monocyte Derived Macrophages Accumulate in Uninjured Aged Murine Livers. **E.C. Stahl, B.N. Brown.** University of Pittsburgh, McGowan Institute for Regenerative Medicine, Cellular and Molecular Pathology Program, Obstetrics, Gynecology and and Reproductive Sciences. **(328.9)**

9:45 CD43 Syalomucin Contributes to Cardiac Inflammation and Fibrosis in Non-Ischemic Heart Failure. **F. Velázquez, A. Salvador, T. Nevers, N. Ngwenyama, M. Aronovitz, R. Blanton, P. Alcaide.** Tufts University and Tufts Medical Center. **(59.2)**

9:55 Investigating the Underlying Mechanisms of Chemosensory Dysfunctions in Alzheimer's Disease Using *Caenorhabditis elegans* with Mutations in Presenilin 1. **M. Parvand, T. Bozorgmehr, C. Rankin.** University of British Columbia, Canada. **(659.9)**

Poster Presentations (10:05 AM–10:35 AM)

P1 *Entamoeba histolytica* Stimulates the Release of the Alarmin Molecule HMGB1 by a PI3 Kinase Dependent Mechanism. **S. Begum, F. Moreau, J. St-Pierre, K. Chadee.** University of Calgary, Canada. **(55.2)**

P3 Sex, Age, and TNF Influence the Gut Microbiota in a Mouse Model of TNBS Colitis. **A.J. Kozik.** Purdue University. **(657.12)**

P5 Effect of Mitoquinone Treatment on Cardiac Function and Pathophysiology in Pressure Overload-Induced Heart Failure. **K. Goh, A.R. Wende, R.N. Soorappan, G. Halade, V. Darley-Usmar, M. Jinno, S.D. Prabhu, L. Zhou.** University of Alabama at Birmingham. **(59.7)**

P7 Pathological Role of Two Chemokines RANTES and MIF in Ischemic Stroke. **Y. Liu, S. Tang, Liou, H. Tu, K. Kang, H. Liou, J. Jeng, W. Fu.** National Taiwan University, Taiwan and National Taiwan University Hospital, Taiwan. **(659.19)**

P9 Desmoglein-2 Intracellular Cleavage and Intestinal Epithelial Barrier Compromise. **M. Yulis, M. Quiros, R. Hilgarth, A. Nusrat.** University of Michigan. **(465.8)**

P11 RGDSK Peptide Functionalized Helical Rosette Nanotubes (RGDSK-HRNs) Block Integrin αvβ3 and inhibit *E. coli* Adherence to Intestinal Porcine

Epithelial 1 Cell Line (IPEC1) *in Vitro*. **N. Le, C. Quach, G. Aulakh, V. Gerdts, H. Fenniri, B. Singh.** Western College of Veterinary Medicine, University of Saskatchewan, Canada, Vaccine and Infectious Disease Organization—International Vaccine Centre (VIDO-InterVac), Canada, Northeastern University, Faculty of Veterinary Medicine and University of Calgary, Canada. **(658.10)**

10:35 **ASIP Young Scientist Leadership Award Lecture:** A Balancing Act: Role of HNF4α/ß-Catenin Interaction in Hepatobiliary Development and Cholangiocarcinoma Formation. **C. Walesky.** Brigham and Women's Hosp./Harvard Med. Sch.

10:50 Concluding Remarks.

52. ASIP YOUNG SCIENTIST LEADERSHIP AWARD LECTURE

Award Lecture

SAT. 10:35 AM—MCCORMICK PLACE CONVENTION CENTER, W180

Liver Pathobiology

Neoplasia

10:35 A Balancing Act: Role of HNF4α/ß-Catenin Interaction in Hepatobiliary Development and Cholangiocarcinoma Formation. **C. Walesky.** Brigham and Women's Hosp./Harvard Med. Sch.

53. NEUROPATHOLOGY OF AUTONOMIC DYSFUNCTION

Symposium

(*Sponsored by:* ASIP Neuropathology Scientific Interest Group)

SAT. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W181A

CHAIRED: W. TOURTELLOTTE AND J. OTERO

Neuropathology

8:30 Autonomic Dysfunction in Neurodegenerative Disorders. **E. Plowey.** Stanford Univ. Sch. of Med.

9:15 Mechanisms of Congenital Hypoventilation. **J.J. Otero.** The Ohio State Univ. College of Med.

10:00 Autonomic Dysfunction in CCHS. **D. Weese-Mayer.** Northwestern Univ. College of Med.

10:45 The Pathobiology of Dysautonomia. **N. Ramirez.** Univ. of Washington.

54. BREAST CANCER WORKSHOP: DUCTAL CARCINOMA *IN SITU*—DISCERNING AGGRESSIVE VERSUS BENIGN DISEASE USING MOLECULAR FEATURES

Workshop

(Supported by unrestricted educational grants from Academic Press-Elsevier and earlier.org—Friends for an Earlier Breast Cancer Test)

(*Sponsored by:* ASIP Breast Cancer Scientific Interest Group)

SAT. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W179B

CHAIRED: W. COLEMAN

Breast Cancer

Neoplasia

8:30 Breast Ductal Carcinoma In Situ—Precursor to Invasive Breast Cancer. **W. Coleman.** Univ. of North Carolina Chapel Hill Sch. of Med.

9:15 Gene Expression Patterns in Breast DCIS Predict Aggressiveness of Disease. **L. Solin.** Albert Einstein Med. Ctr.

10:00 Microrna Expression Signatures Predict Aggressiveness of Breast DCIS. **B. Hannafon.** Univ. of Oklahoma Health Science Ctr.

10:45 The Future of Molecular Testing in Breast DCIS. **G. Tsongalis.** Dartmouth-Hitchcock Med. Ctr.

55. INFLAMMATION: GETTING FROM HERE TO THERE, AND GETTING THE JOB DONE

Minisymposium

SAT. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: R. MITCHELL AND P. ALCAIDE

8:30 **55.1** Differential Activation of Itch vs Pain C-Fibers by Mast Cell Stimulation in Mouse Skin. **D. Jurcakova, F. Ru, X. Dong, B. Undem.** Johns Hopkins and Johns Hopkins School of Medicine.

8:45 **55.2** *Entamoeba histolytica* Stimulates the Release of the Alarmin Molecule HMGB1 by a PI3 Kinase Dependent Mechanism. **S. Begum, F. Moreau, J. St-Pierre, K. Chadee.** University of Calgary, Canada.

9:00 **55.3** Commensal Ro60 Orthologs as Persistent Triggers of Human Lupus. **C.A. Dehner, T. Greiling, X. Chen, S.C. Renfroe, K. Hughes, S. Vieira, W. Ruff, M. Boccitto, S. Sim, X. Chen, C. Kriegel, P. Degnan, A. Goodman, S. Wolin, M.A. Kriegel.** Yale University and Oregon Health & Science University.

9:15 **55.4** A Circadian Zip Code Determines Rhythmic Leukocyte Trafficking to Tissues. **W. He, K. Kraus, D. Druzd, A. de Juan, L. Ince, C. Chen, C. Scheiermann.** Walter-Brendel-Zentrum für Experimentelle Medizin Ludwig-Maximilians-Universität München, Germany.
9:30 **55.5** Sympathetic Nerves Regulate Rhythmic Leukocyte Recruitment to Arteries and Veins. **A. de Juan, D. Druzd, G. Zuchtriegel, K. Kraus, C. Reichel, C. Scheiermann.** LMU, Germany.
9:45 **55.6** STAT3 and MEK Mediate IL6-Induced Increase in Endothelial Permeability. **H. Alsaffar, N. Martino, A. Adam.** Albany Medical College.
10:00 **55.7** Serotonin Receptor Regulation of Eosinophil Transendothelial Migration. **M. Walker, J. Green, R. Ferrie, J. Cook-Mills.** Northwestern University Feinberg School of Medicine.
10:15 **55.8** Force-Induced α4 Integrin-Dependent Monocyte Adhesion Strengthening and F-Actin Remodeling Requires Actomyosin Contractility and Talin-1. **H.M. Ibrahim, S.J. Hyduk, M.I. Cybulsky.** Toronto General Hospital Research Institute, University Health Network, Canada and University of Toronto, Canada.
10:30 **55.9** CD99 Regulates Leukocyte Transendothelial Migration via a Protein Kinase a and Rac1 Dependent Signaling Pathway. **A.M. Gonzalez, W.A. Muller.** Feinberg School of Medicine and Northwestern University.
10:45 **55.10** The Regulatory Role of CD99L2 in Inflammation. **N.S. Rutledge, R.L. Watson, D.P. Sullivan, W.A. Muller.** Northwestern University.

56. ASIP XVIITH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: PHD WORKFORCE

Workshop

(*Sponsored by:* ASIP Education Committee and the Association of Pathology Chairs)

Sat. 11:45 am—Hyatt Regency McCormick Place, Erie

Chaired: R. Lorenz and D. Zander

11:45 Introduction and Background. **R. Lorenz.** Univ. of Alabama at Birmingham Med. Ctr.
12:00 PhDs in Clinical Chemistry and Molecular Diagnostics. **G. Tsongalis.** Dartmouth-Hitchcock Med. Ctr.
12:15 PhDs in Medical Microbiology and Laboratory Immunology. **A. Harrington.** Univ. of Illinois at Chicago.
12:30 PhDs in Histocompatibility and Immunogenetics. **M. Gautreaux.** Wake Forest Sch. of Med.
12:45 Discussion. **D. Zander.** Pennsylvania State College of Med.

57. COURSE: PATHOBIOLOGY FOR RESEARCH SCIENTISTS: NEXT-GENERATION GENOMICS FOR THE BASIC/TRANSLATIONAL/CLINICAL SCIENTIST

Course

(Supported by an unrestricted educational grant from Academic Press-Elsevier)

(*Sponsored by:* ASIP Education Committee)

Sat. 2:00 pm—McCormick Place Convention Center, W180

Chaired: W. Coleman, M.E. Sobel and G. Tsongalis

Molecular Diagnostic Pathology

Neoplasia

2:00 A Primer on Genomics. **K. Kaul.** NorthShore Univ. HealthSystem.
2:45 Applications of Next-Generation Sequencing Technology. **G. Tsongalis.** Dartmouth-Hitchcock Med. Ctr.
3:30 Cancer Genomics. **W. Coleman.** Univ. of North Carolina Chapel Hill Sch. of Med.
4:15 Genomics of Infectious Diseases. **R. Olsen.** Houston Methodist Hosp. System.

58. PAMPS AND DAMPS: NEW ROLES IN IMMUNOPATHOGENESIS

Symposium

Sat. 2:00 pm—McCormick Place Convention Center, W181A

Chaired: A. Nusrat and A. Neish

Immunopathology

Inflammation

2:00 Pathogens, DAMPs and Inflammatory Disease at the Skin Barrier. **G. Nunez.** Univ. of Michigan.
3:00 Pyroptosis Triggers Pore-Induced Intracellular Traps (PITs) that Capture Bacteria and Lead to their Clearance by Efferocytosis. **E. Miao.** Univ. of North Carolina Chapel Hill Sch. of Med.
4:00 Parasite-Induced Inflammasome Activation in Disease Pathogenesis. **K. Chadee.** Univ. of Calgary.

59. HEART FAILURE-NEW INSIGHTS INTO ITS PATHOBIOLOGY

Minisymposium

Sat. 2:00 pm—McCormick Place Convention Center, W179B

Chaired: F. Sheikh and T. Parry

Cardiac Pathobiology

2:00 **59.1** Th1 Effector T Cells Induce TGFβ Mediated Cardiac Fibrosis in Pressure Overload Induced Heart Failure by Adhering to Alpha 4 Integrin and Mediating Fibroblast Transformation. **T. Nevers.** Tufts University.
2:15 **59.2** CD43 Syalomucin Contributes to Cardiac Inflammation and Fibrosis in Non-Ischemic Heart Failure. **F. Velázquez, A. Salvador, T. Nevers, N. Ngwenyama, M. Aronovitz, R. Blanton, P. Alcaide.** Tufts University and Tufts Medical Center.
2:30 **59.3** Resolvin D1 Programs Myocardial Infarction-Induced Cardiorenal Syndrome in Heart Failure Pathology. **G.V. Halade, V. Kain, C.N. Serhan, K.A. Ingle.** The University of Alabama at Bimringham, Brigham and Women's Hospital and Boston.

2:45 **59.4** Overexpression of Prostaglandin E2 EP4 Receptor Improves Cardiac Function After Myocardial Infarction. **T.D. Bryson, X. Gu, L. Zhu, J. Xu, E. Peterson, X. Yang, P. Harding.** Henry Ford Health System and Wayne State University School of Medicine.

3:00 **59.5** Atrogin-1 Transgenic (At1 Tg+) Mice Have Age-Dependent Cardiac Dysfunction with Atrogin-1 Mediated Glucocorticoid Receptor (GR) Expression Down Regulation. **R. Mota, T. Parry, M. Willis.** UNC at Chapel Hill.

3:15 **59.6** Muscle Ring Finger-1 Knockout (Murf1-/-) Mice Are Resistant to LPS-Induced cardiac Dysfunction Due to Decreased NF-κB Activity. **T.L. Parry, D.I. Brown, J. Mwiza, M.S. Willis.** University of North Carolina.

3:30 **59.7** Effect of Mitoquinone Treatment on Cardiac Function and Pathophysiology in Pressure Overload-Induced Heart Failure. **K. Goh, A.R. Wende, R.N. Soorappan, G. Halade, V. Darley-Usmar, M. Jinno, S.D. Prabhu, L. Zhou.** University of Alabama at Birmingham.

3:45 **59.8** Splenectomy-Induced Diastolic Dysfunction with Normal Ejection Fraction. **J.S. Huber, S.A. Ruggiero, N. Romanova, S.L. Blois, K.R. Brunt, J.A. Simpson.** University of Guelph, Canada, University of Guelph, Ontario Veterinary College, Canada and Dalhousie Medicine, Canada.

4:00 **59.9** A Novel Protein Interaction Between the Cardiac Desmosome and COP9 Signalosome Complex Reveals a New Mechanism Underlying Sudden Death. **F. Sheikh, Y. Liang, R. Lyon, J. Pellman, V. Mezzano, Y. Gu, N. Dalton, M. Lee, T. Iwakuma, V. Nigam, K. Peterson.** University of California-San Diego, University of Texas, **M.D.** Anderson Cancer Center and University of Kansas Medical Center.

4:15 **59.10** Stabilization of Dsg2 Binding Enhances Gj Function and Ameliorates Arrhythmia Caused by PG Deficiency. **B.M. Erber, C. Schinner, A. Schlipp, T. Mueller, J. Waschke.** Institute of Anatomy and Cell Biology, Munich, Germany and Julius-von-Sachs Institut, Germany.

60. LUNG INJURY, REGENERATION, AND REPAIR

Minisymposium

SAT. 2:00 PM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: L. DIPIETRO AND C. FARVER

Pulmonary Pathobiology

Cell and Tissue Injury

2:00 **60.1** *Cldn18*$^{-/-}$ Mice Reveal Novel Role for YAP Signaling in Regulation of Distal Lung Epithelial Stem/Progenitor Cell Homeostasis. **Z. Borok, B. Zhou, P. Flodby, D.R. Castillo, J. Luo, F. Yu, A. McConnell, B.A. Varghese, G. Li, P.S. Conti, Y. Liu, M. Sunohara, J.M. Liebler, C. Yang, C.N. Marconett, I.A. Laird-Offringa, P. Minoo, K. Guan, B.R. Stripp, E.D. Crandall.** University of Southern California, University of California San Diego and Cedars-Sinai Medical Center.

2:20 **60.2** YAP1 Stimulates Angiogenesis and Lung Regeneration Through the Angiopoietin-Tie2 Pathway. **A. Mammoto, T. Mammoto.** Medical College of Wisconsin.

2:40 **60.3** Fra-1 Signaling Both in Lung Resident and Myeloid Cells Is Required for Hyperoxia-Induced Bronchopulmonary Dysplasia in Mice. **C.R. Tamatam, N.M. Reddy, H.R. Potteti, I. Elangovan, S.P. Reddy.** University of Illinois at Chicago.

3:00 **60.4** Alveolar Macrophage Heterogeneity as a Driver of Age-Related Responses to Influenza A Infection. **A.C. McQuattie-Pimentel, C. Chen, P. Reyfman, L. Morales-Nebreda, J. Walter, M. Chi, K. Ridge, H. Perlman, G. Budinger, A. Misharin.** Northwestern.

3:20 **60.5** Dlk1 Regulates Type II to Type I Cell Transition During Alveolar Repair Through Inhibition of Notch Signaling. **J. Finn, K. Pajcini, Y. Liu.** UIC.

3:40 **60.6** Breaking Barrier Integrity in Alveolar Epithelial Cells Leads to Modification in the Expression Profile of Tight Junction and Ion Transporter Genes. **A. Dagenais, J. Desjardins, Y. Berthiaume.** Institut de Recherches Cliniques de Montreal, Canada.

4:00 **60.7** Dual Action Effects of Serelaxin on Histopathology and Pathophysiology of Chronic Allergic Airways Disease. **S.G. Royce, K. Patel, M. Lam, J. Bourke, C. Samuel.** Monash University, Australia.

4:20 **60.8** Sphingosine Kinase-1 Inhibitor PF-543 Ameliorates Bronchopulmonary Dysplasia in a Neonatal Murine Model. **A. Harijith, A.W. Ha, D.L. Ebenezer, P. Fu, E. Berdyshev, P. Kanteti, V. Natarajan.** University of Illinois, Chicago and National Jewish Health.

4:40 **60.9** Sphingosine-1-Phosphate as an Angiocrine Mediator in Type II Cell Mediated Alveoli Epithelial Repair Following Lung Injury. **Q. Chen, L. Huang, P. Fu, J. Rehman, A. Malik, V. Natarajan, Y. Liu.** UIC.

61. ASIP AWARDS PRESENTATIONS AND ASIP BUSINESS MEETING

Business Meeting

SAT. 5:00 PM—MCCORMICK PLACE CONVENTION CENTER, W180

CHAIRED: G.K. MICHALOPOULOS

62. EB-WIDE WELCOME RECEPTION

Special Session

SAT. 6:45 PM—MCCORMICK PLACE CONVENTION CENTER, SKYLINE BALLROOM

* ***AJP* EDITORIAL BOARD**
by invitation only
SAT. 6:30 PM—HYATT REGENCY MCCORMICK PLACE, GRANT PARK D

Pathology

174. COMMITTEE FOR CAREER DEVELOPMENT AND DIVERSITY WORKSHOP AND BREAKFAST: DEVELOPING YOUR PERSONAL BRAND FOR CAREER SUCCESS

Workshop

(*Sponsored by:* Sponsored by the ASIP Committee for Career Development and Diversity)

Sun. 7:00 am—Hyatt Regency McCormick Place, Dusable ABC

Chaired: L. DiPietro and M. Saint-Geniez

7:00 Meet and Greet.
7:10 Introduction. **M. Saint-Geniez.** Schepens Eye Res. Inst.
7:15 Parlaying Social Networks to Market Yourself Effortlessly. **M. Willis.** Univ. of North Carolina Chapel Hill Sch. of Med.
7:45 The Nuts and Bolts: CVs, Resume and Biosketches. **M. Tessel.** The Univ. of Chicago.

175. BIOLOGY AND PATHOBIOLOGY OF TISSUE BARRIERS

Symposium

Sun. 8:30 am—McCormick Place Convention Center, W181A

Chaired: A. Nusrat and A. Ivanov

Epithelial and Mucosal Pathobiology

Matrix Pathobiology

8:30 Therapeutic Targeting of the Lateral Border Recycling Compartment to Control Transendothelial Migration. **W. Muller.** Northwestern Univ.
9:15 Metabolism and Epithelial Barrier Function. **S. Colgan.** Univ. of Colorado.
10:00 Super-resolution Analysis of Tight Junction Permeability in Understanding Physiology and Pathophysiology of Renal Epithelial Barrier. **J. Hou.** Washington Univ. Sch. of Med.
10:45 Lung Epithelial Barriers in Health and Disease: Effects of Acute and Chronic Changes in Tight Junction Dynamics. **M. Koval.** Emory Univ. Sch. of Med.

176. MOLECULAR AND CELLULAR BASIS OF DISEASE: LIVER PATHOBIOLOGY SYMPOSIUM: NOVEL INSIGHTS INTO THE MECHANISMS OF NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) AND AUTOIMMUNE LIVER DISEASE

Symposium

(*Sponsored by:* Sponsored by the ASIP Liver Pathobiology Scientific Interest Group)

Sun. 8:30 am—McCormick Place Convention Center, W180

Chaired: K. Nejak-Bowen and S.P. Monga

Liver Pathobiology

Neoplasia

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

8:30 Endoplasmic Reticulum Stress and Unfolded Protein Response in Fatty Liver Disease. **A. Henkel.** Northwestern Univ. Feinberg Sch. of Med.
9:00 Role of Sortilin 1 in the Regulation of Hepatic Lipotoxicity in NAFLD. **T. Li.** Univ. of Kansas Med. Ctr.
9:30 Gut Microbiota and the Development of Liver Disease. **Y-J. Wan.** Univ. of California, Davis Health Systems.
10:00 Inflammation in Cholestatic Liver Disease. **B. Copple.** Michigan State Univ.
10:30 Beta'-Catenin in Cholestasis. **K. Nejak-Bowen.** Univ. of Pittsburgh.
11:00 Non-coding RNAs in Cholestasis. **L. Wang.** Univ. of Connecticut.

177. SCVP SYMPOSIUM: NEW ROLES FOR INFLAMMATION IN THE HEART

Symposium

(*Sponsored by:* ASIP and the Society for Cardiovascular Pathology)

Sun. 8:30 am—McCormick Place Convention Center, W179B

Chaired: J. Stone

Cardiac Pathobiology

Inflammation

8:30 The Role of T Cell Mediated Inflammation in Non-Ischemic Heart Failure. **P. Alcaide.** Tufts Univ. Sch. of Med. Med. Sch.
9:15 Inflammation and Fibrosis in the Aging Heart: A Tale of Two Fibroblasts. **M. Entman.** Baylor College of Med.
10:00 Wound Healing by Macrophages in Ischemic Hearts. **E. Thorp.** Northwestern Univ.
10:45 Splenic Macrophages in Heart Failure. **S. Prabhu.** Univ. of Alabama at Birmingham Sch. of Med.

178. MECHANISMS IN CANCER

Minisymposium

Sun. 8:30 am—McCormick Place Convention Center, W181B

Chaired: H. Lehman and D. Stairs

Neoplasia

8:30 **178.1** Synthesis of a Novel Non-Diuretic, Brain-Penetrating, Ethacrynic Acid Analog and Demonstration of Its Potent Efficacy in Orthotopic Glioblastoma (GBM) Models. **H. Madala, S. Punganuru, S. Kalkunte.** Texas Tech University Health Sciences Center.
8:45 **178.2** *Salmonella typhimurium*-Derived Virulence Protein Overcomes Multidrug Resistance in Tumors. **R. Mercado-Lubo, G. Hang, B.A. McCormick.** University of Massachusetts Medical School.

9:00 **178.3** PTEN Deletion in Pancreatic Cancer Associated Fibroblasts Decreases Hydraulic Permeability Independent of Collagen Fiber Alignment in a 3D Microfluidic Model of the Tumor Stroma. **A. Avendano, J. Chang, C. Ennis, A. Stratton, J.R. Pitarresi, M.C. Ostrowski, J.W. Song.** The Ohio State University, Kenyon College, Lehigh University and University of Pennsylvania.

9:15 **178.4** The Unfolded Protein Response Regulates Pancreatic Neuroendocrine Tumor Growth. **S.A. Oakes, J.Y. Qi, P.C. Moore, R.A. Warren, M. Thamsen, R. Ghosh, M.J. Gliedt, D.J. Maly, B.J. Backes, F.R. Papa.** University of California San Francisco and University of Washington.

9:30 **178.5** Role of PMNs in Inhibition of DNA Repair and Induction of Genomic Instability. **V. Butin-Israeli, L. Mehl, L. Lorraine Mascarenhas, R. Sumagin.** Northwestern University.

9:45 **178.6** The Role of Metastasis-Associated Protein 1 (MTA1) in Breast Cancer Exosome-Mediated Intercellular Communication. **B.N. Hannafon, K. Gaskill, C. Calloway, W. Ding.** University of Oklahoma Health Sciences Center.

10:00 **178.7** Targeting Debris-Stimulated Angiogenesis and Primary Tumor Growth by Resolvin Mediated Clearance. **J. Chang, M. Gilligan, M. Sulciner, S. Huang, M. Kieran, C. Serhan, D. Panigrahy.** Beth Israel Deaconess Medical Center, Institute of Systems Biology, Dana Farber Cancer Institute and Brigham and Women's Hospital.

10:15 **178.8** Knockout of the PHLDA1 Gene in Breast Cancer Cells Reveals Multiple Roles for PHLDA1 in Cancer Phenotypes. **A.M. Zimnicka, T. Sharma, M. Regan, B.J. Merrill, J. Frasor.** University of Illinois at Chicago.

10:30 **178.9** Nicotine Promotes Tumorigenesis in Mammary Tissues of Adolescent Rats. **M. Evinger, E. Caruso, A. Nazir, M. Coyne, K. Nagee, J. Liu.** Stony Brook University.

10:45 **178.10** CDK 7/9 Inhibition Amplifies Mithramycin's Suppression of Ewing Sarcoma Cell Proliferation. **G. Flores, J. Everett, C. Osgood, Z. Madaj, P.J. Grohar.** Van Andel Institute Graduate School and Vanderbilt University School of Medicine.

11:00 **178.11** The Interplay Between p120ctn and EGFR Causes Esophageal Squamous Cell Carcinoma Invasion Through NFκB. **H.L. Lehman, P.A. Welsh, M. Kidacki, J.I. Warrick, D.B. Stairs.** Penn State College of Medicine.

11:15 **178.12** Whole-Exome Sequencing Analyses of Colorectal Cancer with *Fusobacterium nucleatum*. **R. Nishihara, A.T. Chan, J. Mu, M. Giannakis, K. Mima, Z. Qian, S. Bullman, A. Kostic, C. Huttenhower, W. Garrett, E. Giovannucci, M. Meyerson, L. Garraway, C. Fuchus, S. Ogino.** Brigham and Women's Hospital, Massachusetts General Hospital, Broad Institute, Dana-Farber Cancer Institute, Joslin Diabetes Center and Harvard **T.H.** Chan School of Public Health.

179. XVIIth ANNUAL ASIP/AAA CAREER DEVELOPMENT AND MENTORING PROGRAM AND LUNCH: DEVELOPING YOUR CORE MESSAGE: AN INTERACTIVE SESSION ON CRAFTING AN EFFECTIVE ELEVATOR SPEECH

Special Session

Sun. 11:45 am—Hyatt Regency McCormick Place, Adler BC

Chaired: D. Bielenberg and C. Walesky

11:45 Introduction. **D. Bielenberg.** Harvard Med. Sch., Children's Hosp.

11:50 Elevator Pitch Lesson. **K. Mighty.** Northwestern Univ.

12:10 ELEVATOR PITCH EXAMPLES: Three Stages During Her Career (Student/Postdoct, Junior PI, Director of MEEI). **P. D'Amore.** Schepens Eye Res. Inst./Harvard Med. Sch.

12:25 ELEVATOR PITCH EXAMPLES: Three Pitches to Different Audiences (Academic, Industry, Lay-Audience). **C. Parkos.** Univ. of Michigan.

12:40 Logistics for the Interactive Session. **C. Walesky.** Brigham and Women's Hosp./Harvard Med. Sch.

12:45 Participants Craft Their Elevator Pitch on Index Cards.

12:50 Interactive Table Discussion: Elevator Pitches.

1:30 Sum Up. **D. Bielenberg.** Harvard Med. Sch., Children's Hosp.

180. MOLECULAR AND CELLULAR BASIS OF DISEASE: PRESIDENTIAL SYMPOSIUM: LIVER PATHOBIOLOGY: PREVENTION OF HEPATIC DISEASE AND REGENERATION

Symposium

(*Sponsored by:* Sponsored by the ASIP Liver Pathobiology Scientific Interest Group)

Sun. 2:00 pm—McCormick Place Convention Center, W180

Chaired: G. Michalopoulos

Liver Pathobiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

2:00 Coordinated Interactions Between Key Signaling Molecules Lead to Liver Carcinogenesis. **S.P. Monga.** Univ. of Pittsburgh.

3:00 Signaling Pathways Initiating, Terminating or Completely Eliminating Liver Regeneration. **G. Michalopoulos.** Univ. of Pittsburgh.

4:00 **ASIP Outstanding Investigator Award Lecture:** Why Autophagy is Important to the Liver. **X-M. Yin.** Indiana Univ. Sch. of Med.

181. ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE

Award Lecture

Sun. 4:00 pm—McCormick Place Convention Center, W180

Liver Pathobiology

Cell Death

4:00 Why Autophagy is Important to the Liver. **X-M. Yin.** Indiana Univ. Sch. of Med.

182. CELL INJURY WORKSHOP: CREATING A SCAR: THE ROLES OF INFLAMMATION IN TISSUE REMODELING

Workshop

(Supported by an unrestricted educational grant from Academic Press-Elsevier)

(*Sponsored by:* the ASIP Cell Injury Scientific Interest Group)

Sun. 2:00 pm—McCormick Place Convention Center, W181A

Chaired: D. Karunakaran and C. Yates

Cell and Tissue Injury

2:00 Inflammation: A Switch for Fibrotic Healing in Developing Fetal Skin. **T. Wilgus.** The Ohio State Univ.
2:45 Macrophage-Fibroblast Crosstalk in Shaping Fibrotic Responses**. C. Yates**. Univ. of Pittsburgh Sch. of Nursing.
3:30 Pericytes: Roles in the Inter-Relationship Between Inflammation and Fibrosis. **L. Satish.** Univ. of Pittsburgh.
4:15 **182.1** Localization of Scleraxis in Dermal and Keloid Fibroblasts. **C. Johnson, A. Nillas, T.A. Reaves.** Medical University of South Carolina.
4:30 **182.2** The Role of Scleraxis in Neutrophil Activation. **O. Awotunde, A. Nillas, S. Hammad, T.A. Reaves.** University of Maryland Baltimore County, University of SC School of Medicine and Medical University of SC.
4:45 **182.3** Altered Expression of Neuropeptide Receptors in the Bleomycin (Bleo)-Induced Mouse Model of Scleroderma (SSc). **J. Parra II, M. Ibrahim, E. McKinnon, H. Levinson, M.E. Sunday.** Duke University.

183. MECHANISMS OF NEUROLOGICAL DISEASES

Minisymposium

SUN. 2:00 PM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: J. OTERO AND W. TOURTELLOTTE

Neuropathology

Immunopathology

2:00 **183.1** A Novel Neuroprotective Effect of Osteoactivin in Parkinson's Disease. **K.M. Budge, G. Alam, M. Edler, J. Richardson, F. Safadi.** Kent State University and Northeast Ohio Medical University.
2:15 **183.2** Neuroanatomical Analysis of a Conditional Knockin Mutant *PHOX2B* Mouse Model. **J. Liu, C. Czeisler, S. Fair, B. Goksel, M. Goksel, J. Otero.** The Ohio State University.
2:30 **183.3** Assessing Gliogenesis in a Murine Multifactorial Brain Injury Model System. **M.S. Domowicz, N.L. Wadlington, J.G. Henry, K. Diaz, M.J. Munoz, N.B. Schwartz.** University of Chicago.
2:45 **183.4** How the Cytosol-To-Membrane Translocation Kinetics and Signaling of PKCγ Are Dysregulated in the Neurodegenerative Spinocerebellar Ataxia Type14 (SCA14). **N. Aslam, F. Alvi.** BioSystOmics and COMSAT Institute of Information Technology, Pakistan.
3:00 **183.5** The Effect on the Content of Nogo-A in the Damage Area of the Rats Brain with Fasudil After Traumatic Brain Injury. **H. Duan, C. Hao, C. Liu, S. Li, L. Gao, X. Zheng.** The First Clinical College of Shanxi Medical University, People's Republic of China, The First Hospital of Shanxi Medical University, People's Republic of China.
3:30 **183.7** Regulation of Bi-Organellar CHCHD2 in Response to Hypoxia Is Dependent upon EGFR Molecular Subtype in Glioblastoma. **J. Lumibao, E. Chen, B.A. Harley, H.R. Gaskins.** University of Illinois at Urbana-Champaign.

184. PATHOBIOLOGY OF INFECTIOUS DISEASE

Minisymposium

SUN. 2:00 PM—MCCORMICK PLACE CONVENTION CENTER, W179B

Inflammation

Immunopathology

2:00 **184.1** CD2AP Facilitates HCV Production by Targeting NS5A to Lipid Droplets and Regulating Lipid Droplet Biogenesis. **C. Li.** Wuhan Institute of Virology, CAS, People's Republic of China.
2:20 **184.2** *Giardia duodenalis* alters Intestinal Mucin Transcription and Disrupts the Mucus Layer in a Cysteine Protease-Dependent Manner. **C.B. Amat, J. Motta, K. Chadee, A.G. Buret.** University of Calgary, Canada.
2:40 **184.3** Enteroaggregative *Escherichia coli* Delocalized B-Catenin Adherens Junction in Ileum and Colon Enterocytes in an Infection Mouse Model with a Disturbed Microbiota. **N.E. Moran García, C. Lopez-Saucedo, S. Galindo-Gómez, V. Tsutsumi, A. Felipe-Lopez, M. Schnoor, J.P. Nataro, T. Estrada-Garcia.** CINVESTAV-IPN, Mexico and University of Virginia School of Medicine.
3:00 **184.4** Hypercapnia Inhibits Host Defense Against Influenza a Virus by Potentiating Virus-Induced Activation of the PI3K/Akt Pathway. **M. Casalino-Matsuda, F. Gonzalez, M. Chi, A. Nair, K. Gates, S. Budinger, P. Sporn.** Northwestern University.
3:20 **184.5** Aging-Related Changes in Gut Microbiome Mediate Septic Kidney Injury. **J.F. Colbert, J.A. Ford, K.L. Dailey, D.N. Frank, S. Faubel, E.P. Schmidt.** University of Colorado.
4:00 **184.7** Autoantigen-Specific T and B Cell Cross-Reactivity to a Gut Commensal in Antiphospholipid Syndrome. **C.A. Dehner, W. Ruff, S.M. Vieira, A. Goodman, M.A. Kriegel.** Yale University.
4:20 **184.8** The Role of Gut Dysbiosis in Obstructive Sleep Apnea Induced Hypertension. **D. Durgan, B. Ganesh, N. Ajami, J. Petrosino, R. Bryan.** Baylor College of Medicine and Texas Childrens Microbiome Center.

* **ASIP PRESIDENT'S RECEPTION**
by invitation only
SUN. 6:00 PM—HYATT RECENCY MCCORMICK PLACE, BURNHAM B

Pathology

322. ASIP TOWN HALL MEETING AND BREAKFAST

Special Session

Mon. 7:00 am—McCormick Place Convention Center, W180

Chaired: L. McFadden

Join us for breakfast on Monday, April 24, 2017 from 7:00 am until 8:00 am to discuss present and future ASIP benefits, opportunities available to our members to become more involved in the Society, and ideas for the future. The ASIP Town Hall Meeting is a chance for you to meet with ASIPs Director of Membership, Membership Committee Chair, and other ASIP Leadership and to express your thoughts, ideas, and opinions. Is there a member benefit you would like for us to offer? Are you interested in working more closely with the ASIP Leadership? Why not share your comments and suggestions over a cup of coffee. Make plans now to join the discussion...Registration is NOT required!

323. HCS SYMPOSIUM: IMAGING SIGNALING IN VIVO !! FROM CELL BIOLOGY TO ANIMAL MODELS

Symposium

(*Sponsored by:* Sponsored by the ASIP Immunohistochemistry & Microscopy Scientific Interest Group and The Histochemical Society)

Mon. 8:30 am—McCormick Place Convention Center, W181A

Chaired: M.M. Barroso and D. Rosene

Imaging, Immunohistochemistry and Microscopy

8:30 Imaging Molecular Dynamics *In Vivo*. **K. Anderson.** The Francis Crick Inst.

9:10 Mechanisms of Membrane Remodeling in Live Animals by Intravital Microscopy. **R. Weigert.** NIH.

9:50 Live Dynamic Optical Imaging of Reproductive and Developmental Events in Mouse Models. **I. Larina.** Baylor College of Med.

324. JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY LECTURE

Lecture

(*Sponsored by:* Sponsored by The Histochemical Society)

Mon. 10:30 am—McCormick Place Convention Center, W181A

Chaired: S. Hewitt

Imaging, Immunohistochemistry and Microscopy

10:30 Illuminating Biochemical Activity Architecture of the Cell. **J. Zhang.** UCSD.

325. MOLECULAR AND CELLULAR BASIS OF DISEASE: CANCER CHEMOPREVENTION AND BIOMARKER DEVELOPMENT

Symposium

Mon. 8:30 am—McCormick Place Convention Center, W180

Chaired: W. Stetler-Stevenson and K. Gardner

Neoplasia

Pulmonary Pathobiology

8:30 **Cotran Early Career Investigator Award Lecture:** Unraveling the Complexity of Drug Resistance in Lung Cancer. **K. Politi.** Yale Univ. Sch. of Med.

9:30 Exploring Molecular Linkages to Modifiable Risk in Breast Cancer. **K. Gardner.** NIH.

10:10 Chemoprevention of Colitis/Pancreatitis-Induced Carcinogenesis via Targeting Soluble Epoxide Hyrdolase and Aldokeno-Reductase 1B10 (AKR1B10). **G-Y. Yang.** Northwestern Univ. Feinberg Sch. of Med.

10:50 The Genomic Landscape of Breast Cancer in Women of African Ancestry. **O. Olopade.** The Univ. of Chicago Med.

326. COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE

Award Lecture

Mon. 8:30 am—McCormick Place Convention Center, W180

Neoplasia

Pulmonary Pathobiology

8:30 Unraveling the Complexity of Drug Resistance in Lung Cancer. **K. Politi.** Yale Univ. Sch. of Med.

327. EMERGING THEMES IN VASCULAR BIOLOGY

Minisymposium

Mon. 8:30 am—McCormick Place Convention Center, W181B

Chaired: T. Kyriakides and D. Karunakaran

Vascular Biology

Immunopathology

8:30 **327.1** Fluid Shear Stress Induces Upregulation of COX-2 and PGI2 Release in Endothelial Cells via a Pathway Involving PECAM-1, PI3K, FAK, and p38. **J. Tarbell, S. Russel-Puleri, L. Cancel, N. dela Paz, D. Adams, M. Chattopadhyay, E. Ebong, W. Orr, J. Frangos.** The City College of New York, La Jolla Bioengineering Institute, James **J. P**eters Veteran Affairs Medical Center, Northeastern University and Louisiana State University.

8:50 **327.2** Therapeutically Inhibiting Macrophage Necroptosis Reduces Inflammation-Driven Atherosclerosis and Promotes Plaque Stability. **D. Karunakaran, M. Geoffrion, R. Lee, L. Wei, W. Gan, L. Perisic, L. Maegdefessel, U. Hedin, S. Sad, L. Guo, F. Kolodgie, T. Ruddy, R. Virmani, K. Rayner.** University of Ottawa Heart Institute, Canada, Ionis Pharmaceuticals, Karolinska Institute, Sweden, University of Ottawa, Canada and CVPath Institute.

9:10 **327.3** The CXCR3-LFA1-ICAM1 Axis Regulates T Cell Cardiotropism and Maladaptive Cardiac Remodeling in Heart Failure. **A. Salvador, T. Nevers, F. Velazquez, M. Aronovitz, P. Alcaide.** Tufts University, Universidad de Granada, Spain and Tufts Medical Center.

9:30 **327.4** Combinatorial Extracellular Matrix Microenvironments for Probing Endothelial Differentiation of Human Pluripotent Stem Cells. **L. Hou, J.J. Kim, M.J. Wanjare, B. Patlolla, J. Coller, V. Natu, T. Hastie, N.F. Huang.** Stanford University and Veterans Affairs Palo Alto Health Care System.

9:50 **327.5** Mesenchymal Stem Cell Exosome Treatment Restores Lung Architecture and Ameliorates Pulmonary Hypertension Associated with Bronchopulmonary Dysplasia. **G.R. Willis, A. Fernandez-Gonzalez, S.H. Vitali, X. Liu, S.A. Mitsialis, S. Kourembanas.** Boston Children's Hospital—Harvard Medical School.

10:10 **327.6** Cytochrome P450 4A14 and Vascular Restenosis. **X. Zhang, S. Ye, Y. Guan.** Dalian Medical University, People's Republic of China, Shenzhen University Health Science Center, People's Republic of China.

10:30 **327.7** Enhanced Recognition and Internalisation of Microvesicles by Lung-Marginated, Ly-6C^{HIGH} Monocytes During Endotoxaemia. **Y. Tan, K.P. O'Dea, S. Soni, S. Shah, B.V. Patel, M. Takata.** Imperial College London and Chelsea and Westminster Hospital, United Kingdom.

10:50 **183.6** Deficiency of AMP-Activated Protein Kinase Alpha 1 Promotes Vulnerability of Atherosclerotic Plaques at Brachiocephalic Arteries. **Y. Ding, M. Zhang, P. Song, M. Zou.** Georgia State University and OUHSC.

328. MOLECULAR BASIS OF CHRONIC LIVER INJURY

Minisymposium

Mon. 8:30 am—McCormick Place Convention Center, W179B

Chaired: T. Wu and L. Wang

Liver Pathobiology

Inflammation

8:30 **328.1** Maternal Obesity Programs Offspring Gut Microbiome and Liver Disease in a Sexually Dimorphic Manner. **U.D. Wankhade, Y. Zhong, P. Kang, S.V. Chintapalli, A. Andres, K.M. Thakali, K. Shankar.** UAMS and Arkansas Children Nutrition Center.

8:45 **328.2** Increased Fibrosis and Ductular Reaction in Liver of Offspring Exposed to Maternal High Fat Diet. **M.D. Thompson, M.J. Cismowski, L.K. Rogers, D.R. Brigstock.** Nationwide Children's Hospital.

9:00 **328.3** High Fat Diet-Induced Biliary Lipoapoptosis, Senescence, Hepatic Steatosis and Fibrosis Are Reduced in Secretin Receptor Knockout ($SR^{-/-}$) Mice. **L.L. Kennedy, N. Wu, J. Venter, F. Meng, H. Francis, T. Zhou, S. Glaser, G. Alpini.** Texas A&M HSC, VA and Baylor S&W.

9:15 **328.4** A Novel Hepatocyte SHP/CCL2 Axis Controls Liver Inflammation in NAFL to NASH Transition. **N.S. Magee.** University of Kansas Medical Center.

9:30 **328.5** Activating β-Catenin Mutations and PI3KCA Synergize to Promote Lipogenic Liver Tumors in Mice. **j. Tao, n. Zhan, s. Singh, x. Chen, p. Monga.** University of Pittsburgh Medical Center and University of California San Francisco.

9:45 **328.6** lncRNAH19/ZEB1/EpCAM Regulatory Axis in Cholestatic Liver Fibrosis. **Y. Song, C. Liu, L. Wang.** University of Connecticut.

10:00 **328.7** Hepatic Fibrosis Is Independent of the Effects of Endotoxin (Lipopolysaccharide) on Hepatic Stellate Cells. **C.R. Gandhi.** Cincinnati Children's Hospital Medical Center.

10:30 **328.8** Smoothened Deficiency Accelerates Fas-Induced Liver Injury. **W. Chen, Y. Wang, C. Han, J. Zhang, K. Song, H. Kwon, L. Yao, T. Wu.** Tulane University School of Medicine, Tongji Medical School, People's Republic of China.

10:45 **328.9** Pro-Inflammatory Monocyte Derived Macrophages Accumulate in Uninjured Aged Murine Livers. **E.C. Stahl, B.N. Brown.** University of Pittsburgh, McGowan Institute for Regenerative Medicine, Cellular and Molecular Pathology Program, Obstetrics, Gynecology and and Reproductive Sciences.

11:00 **328.10** Blocking the CCL2-CCR2 Axis Using CCL2 Neutralizing Antibody Is an Effective Therapy for Hepatocellular Cancer in a Mouse Model. **K. Teng, J. Han, J. Yu, K. Ghoshal.** The Ohio State University.

329. BLOOD VESSEL CLUB™: ENDOTHELIAL CELL MECHANISMS THAT REGULATE FUNCTION AND PERMEABILITY

Symposium

Mon. 2:00 pm—McCormick Place Convention Center, W180

Chaired: P. Alcaide and J. Homeister

Vascular Biology

2:00 **Gold-Headed Cane Award Lecture:** Understanding Vascular Endothelium: A Pilgrim's Progress. **M. Gimbrone.** Brigham & Women's Hosp., Harvard Med. Sch.

3:00 ROCK and Endothelial Function. **J. Liao.** Univ. of Chicago.

3:30 Rho GTPase Regulation of Adherens Junction Dynamics and Endothelial Permeability. **A. Malik.** Univ. of Illinois College of Med. at Chicago.

4:00 TNF Receptor Signaling in Monocyte Recuitment. **T. Mayadas.** Brigham & Women's Hosp.

4:30 Endothelial Cell Signaling that Regulates Transendothelial Migration. **W. Muller.** Northwestern Univ.

330. GOLD-HEADED CANE AWARD LECTURE

Award Lecture

Mon. 2:00 pm—McCormick Place Convention Center, W180

Vascular Biology

2:00 Understanding Vascular Endothelium: A Pilgrim's Progress. **M. Gimbrone.** Brigham & Women's Hosp., Harvard Med. Sch.

331. DIGITAL COMPUTATIONAL PATHOLOGY

Symposium

(Supported by an unrestricted educational grant from Renishaw)

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

Mon. 2:00 pm—McCormick Place Convention Center, W179B

Chaired: S. Cohen and J. Tomaszewski

Imaging, Immunohistochemistry and Microscopy

Digital and Computational Pathology

2:00 Analytical WSI Quantitation & Machine Learning. **J. Tomaszewski.** Univ. at Buffalo Sch. of Med.

2:45 MUSE and Other New Fluorescence Modalities. **R. Levenson.** University of California at Davis Med.Ctr.

3:30 Non-Optical Imaging Based on Physical Probes. **S. Cohen.** Rutgers-NJMS, Univ of Pennsylvania, Jefferson Univ, and Northwestern Univ.

4:15 *In Vivo* Imaging; Confocal and Beyond. **M. Rajadhyaksha.** Jacobs Sch. of Med. and BioMed. Sciences.

332. MOLECULAR AND CELLULAR BASIS OF DISEASE: ACVP SYMPOSIUM: EPIGENETICS AND CANCER

Symposium

(*Sponsored by:* Sponsored by the ASIP Veterinary and Comparative Pathology Scientific Interest Group and the American College of Veterinary Pathologists)

Mon. 2:00 pm—McCormick Place Convention Center, W181A

Chaired: S. Fossey and R. Johnson

Neoplasia

2:00 Linking DNA Methylation to Androgen Signaling and Prostate Proliferative Growth. **C. Vezina.** Univ. of Wisconsin Sch. of Med. and Public Health.

2:35 Therapeutic Targeting of MLL Degradation Pathways in MLL-rearranged Leukemia. **K. Liang.** Northwestern Univ. Feinberg Sch. of Med.

3:10 Epigenomics—Impact for Translational Sciences. **A. Vitobello.** Novartis Pharma AG, Werk Klybeck.

3:45 DNMT and HDAC Inhibitors Globally Induce Cryptic TSSs Encoded In Long Terminal Repeats. **C. Plass.** German Cancer Res. Ctr. (DKFZ)

4:20 Epigenetics Mechanisms in Development and Disease. **R. Meehan.** Edinburgh Univ.

333. REGENERATIVE MEDICINE: THE ROLE OF MATRIX, SIGNALING, AND STEM CELLS IN REPAIR

Minisymposium

(*Sponsored by:* ASIP and the American Society for Matrix Biology)

Mon. 2:00 pm—McCormick Place Convention Center, W181B

Chaired: C. Yates and C. Frevert

Matrix Pathobiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

2:00 **ASMB Lecture:** Role of Collagen Binding Receptors in Fibrotic Responses. **Ambra Pozzi.** Vanderbilt Univ. Sch. of Med.

3:00 **333.1** Development of a Biodegradable Retinal Cell Graft for the Treatment of Retinal Degenerative Blindness. **K.N. Gibson-Corley, K.S. Worthington, J.R. Thompson, E. Kaalberg, C. Jiao, R.F. Mullins, E.M. Stone, E.H. Sohn, B.A. Tucker.** Roy J. & Lucille **A. C**arver College of Medicine and University of Iowa.

3:15 **333.2** Electrospun Nanofibers as Scaffolds for Wound Healing. **C.C. Nwachukwu, G.P. Einstein, O.L. Tulp.** USAT Montserrat, Montserrat.

3:30 **333.3** Multipotent Stromal Cell and Fibroblast Co-Transplantation Alter Wound Microenvironment to Normalize Aged-Deficient Wound Healing. **B. Lantonio, M. Rosano, B. Brown, A. Wells, C.C. Yates.** University of Pittsburgh.

3:45 **333.4** Mesenchymal Stromal Cell Growth and Glycocalyx Morphology Are Regulated by Media Glucose Levels and Hypoxia. **S. Khan, M. Florian, L. Davila, D. Courtman.** Ottawa Hospital Research Institute, Canada and The Ottawa Hospital, Canada.

4:00 **333.5** Unraveling TNFalpha-Stimulated Gene 6 (TSG-6) Function in Switching Stemness and Biological Properties of Mesenchymal Stem Cells. **B. Romano, L. Petti, C. Mascaraque, D. Lucchetti, A. Sgambato, S. Danese, S. Vetrano.** Humanitas Research Institute, Italy, University of Milan, Italy, Catholic University of Rome,, Italy and Humanitas University, Italy.

Pathology

462. DISEASES OF THE ENDOPLASMIC RETICULUM

Symposium

TUE. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W179B

CHAIRED: J. LIN AND F. URANO

Neuropathology

Cell and Tissue Injury

8:30 ER Stress in Human Photoreceptor Diseases. **J. Lin.** UCSD.
9:05 Podocyte ER Stress and Podocytopathies. **Y. (Maggie) Chen.** Washington Univ. Sch. of Med.
9:30 Insulin Gene Mutations. **L. Philipson.** The Univ. of Chicago.
10:05 Wolfram Syndrome, A Prototype of ER Stress-Mediated Beta Cell Death and Neurodegeneration. **F. Urano.** Washington Univ. Sch. of Med.
10:35 Progranulin: Connecting ER Stress and Lysosomal Protein Degradation in the Pathogenesis of Neurodegenerative Disease. **A. Kao.** UCSF.
11:00 ER Stress in the Inner Ear. **M. Lesperance, Jochen Schacht.** Univ. of Michigan, Univ. of Michigan.

463. SIPMET SYMPOSIUM: METABOLISM AND PREVENTION OF DISEASE

Symposium

(*Sponsored by:* Sponsored by ASIP and the Società Italiana di Patologia e Medicina Traslazionale /Italian Society of Pathology and Translational Medicine)

TUE. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W181A

CHAIRED: M. CORSI ROMANELLI

Cardiac Pathobiology

8:30 Intestinal Microbiota: A NewEffective Actor Usually Unconsidered for the Prevention of Cancer. **V. Castronovo.** Univ. de Liege.
9:30 Heart Failure: Inflammasome, Necrosome and Signalosome. **M. Willis.** Univ. of North Carolina at Chapel Hill.
10:30 Epicardial Fat: From Biomolecular Aspects to Clinical Practice. **M. Corsi Romanelli.** Univ. of Milan.

464. STOWELL SYMPOSIUM: TRENDS IN EXPERIMENTAL PATHOLOGY: GONE WITH THE WNT: A CLASSIC TALE OF STEM CELLS, CANCER AND MORE

Symposium

(Supported by an unrestricted educational grant from The Robert E. Stowell Endowment Fund)

TUE. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W180

CHAIRED: S.P. MONGA AND D. STAIRS

Immunopathology

Neoplasia

8:30 Wnt Signaling in Mensenchymal Stem Cells. **T-C. He.** The Univ. of Chicago Med. Ctr.
9:00 Enabling Developmental Competency to Pluripotent Stem Cells by Epigeneticaly Redirecting the Response to Wnt Signaling. **B. Merrill.** Univ. of Illinois at Chicago.
9:30 Control of T cell Development by Tcf-1 and ’-Catenin. **F. Gounari.** Univ. of Chicago.
10:00 Role of APC Defects and Beta-Catenin/TCF Dysregulation in Colon Cancer. **E. Fearon.** Univ. of Michigan.
10:30 The Effects of P120ctn on B-Catenin and Wnt Signaling In Head & Neck and Esophageal Squamous Cancers. **D. Stairs.** Penn State College of Med.
11:00 Wnt Signaling in Skeletal Disease. **B. Williams.** Van Andel Res. Inst.

465. REGULATION OF EPITHELIAL BARRIER INTEGRITY AND REPAIR

Minisymposium

TUE. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: J. WASCHKE AND J. BRAZIL

Immunopathology

Epithelial and Mucosal Pathobiology

8:30 **465.1** Different Signaling Patterns Contribute to Loss of Keratinocyte Cohesion Dependent on Autoantibody Profile in Pemphigus. **E. Walter, D. Egu, F. Vielmuth, L. Rotkopf, V. Spindler, J. Waschke.** Ludwig-Maximilians-Universität, Germany.
8:45 **465.2** Intestinal Mucosa Pro-Repair Properties of Macrophage Derived IL-10 Are Mediated by CREB Triggered Epithelial WISP-1 Signaling. **M. Quiros, H. Nishio, P.A. Neumann, G. Leoni, V. Garcia-Hernandez, D. Siuda, M. Feng, G. Bernal, R. Hilgarth, H. Williams, J.C. Brazil, P.H. Dedhia, J. Spence, C.A. Parkos, T.L. Denning, A. Nusrat.** University of Michigan, Universität München, Germany, Institute for Cardiovascular Prevention, Germany, Emory University and Georgia State University.
9:00 **465.3** Adducin Regulates Migration and Invasion of Normal Lung Epithelial Cells and Lung Cancer Cells. **S. Lechuga, P.H. Amin, A.I. Ivanov.** Virginia Commonwealth University.
9:15 **465.4** Desmoglein 2 Regulates the Intestinal Epithelial Barrier via p38 Mitogen-Activated Protein Kinase. **H. Ungewiß.** Institute of Anatomy and Cell Biology and LMU Munich, Germany.

9:30 **465.5** Glial Cell-Line Derived Neurotrophic Factor Attenuates Inflammation-Induced Breakdown of Intestinal Epithelial Barrier Function by Stabilization of Dsg2-Dependent Intercellular Adhesion. **M. Meir, N. Burkard, S. Flemming, C. Germer, J. Waschke, N. Schlegel.** University Hospital Würzburg, Germany, University of Michigan and Ludwig-Maximilians-Universität München, Germany.

9:45 **465.6** Synergistic Effects of Platelet Activating Factor and TNF-α in Promoting Intestinal Epithelial Migration and Mucosal Wound Repair. **D. Siuda, M. Quirós, M. O´Leary, J. Brazil, B. Hinrichs, A. Neish, C. Parkos, A. Nusrat.** University of Michigan and Emory University.

10:00 **465.7** Neutrophil Microparticles Deliver Active Myeloperoxidase to Injured Mucosa to Inhibit Epithelial Wound Healing. **R. Sumagin, A. Finkielsztein, T. Slater, L. Lorraine Mascarenhas, L. Mehl, V. Butin-Israeli.** Northwestern University.

10:15 **465.8** Desmoglein-2 Intracellular Cleavage and Intestinal Epithelial Barrier Compromise. **M. Yulis, M. Quiros, R. Hilgarth, A. Nusrat.** University of Michigan.

10:30 **465.9** I tryptophan Metabolite Activation of the Aryl Hydrocarbon Receptor in Intestinal Epithelia Promotes Mucosal Healing. **J.M. Lanis, E. Alexeev, S. Colgan.** University of Colorado- Anschutz Medical Campus.

10:45 **465.10** Desmoglein 2 Regulates Pancreatic Cancer Cell Migration Through Modulation of cAMP Levels. **J. Zeiler, L. Sachs, V. Spindler.** Ludwig-Maximilians-Universität München, Germany.

11:00 **465.11** Hypoxia Inducible Factor (HIF)-1 Accelerates Epithelial Wound Healing Through Integrin Regulation. **B.J. Goggins, K. Minahan, N. Outteridge, D. Knight, J. Horvat, S. Keely.** University of Newcastle, Australia and Hunter Medical Research Institute, Australia.

11:15 **465.12** Loss of Keratins Mimics p38MAPK-Mediated Pathogenic Effects of Autoantibodies in Pemphigus. **F. Vielmuth, E. Walter, F. Loschke, T.M. Magin, V. Spindler, J. Waschke.** Ludwig-Maximilians-Universität München, Germany and Leipzig University, Germany.

466. SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR UNDERGRADUATE STUDENTS AND HIGH SCHOOL TEACHERS AND STUDENTS

Special Session

(*Sponsored by:* Sponsored by the ASIP Education Committee)

Tue. 9:30 am—Hyatt Regency McCormick Place, Regency Ballroom CD

Chaired: K. Nejak-Bowen and M. Furie

Pulmonary Pathobiology

Immunopathology

Neoplasia

9:30 Check In.

10:00 Welcome and Introductions. **K. Nejak-Bowen.** Univ. of Pittsburgh.

10:20 Menacing Microbes: Emerging Infectious Diseases. **M. Furie.** Stony Brook Univ.

11:20 Smoking-Related Lung Disease in 3D: Not Your Standard Lecture. **D. Zander.** Pennsylvania State College of Med.

12:15 Stem Cells: A Case of Dr. Jekyll and Mr. Hyde. **S.P. Monga.** Univ. of Pittsburgh.

1:15 Tour the Exhibits at the McCormick Place Convention Center.

467. SOCIETY OF TOXICOLOGIC PATHOLOGY SYMPOSIUM: CHALLENGES IN TRANSLATION: CARDIOVASCULAR MODELING AS AN EXEMPLAR FOR *IN VITRO* TO *IN VIVO* EXTRAPOLATION

Symposium

(*Sponsored by:* ASIP Environmental and Toxicologic Scientific Interest Group and the Society of Toxicologic Pathology)

Tue. 2:00 pm—McCormick Place Convention Center, W181A

Chaired: E. Galbreath

Cardiac Pathobiology

Environmental and Toxicologic Pathology

2:00 Regulatory Genetic Variation Associated with Human Diseases. **G. Gintant.** AbbVie.

3:00 Predicting the Patient-Specific Cardiovascular Risk of Anti-Cancer Agents using hiPSC. **P. Burridge.** Northwestern Univ.

4:00 Integrated Strategies for Clinical Cardiovascular Risk Assessment in Nonclinical Studies. **B. Berridge.** GlaxoSmithKline.

468. TARGETING TRANSCRIPTION REGULATION IN DISEASE

Symposium

(*Sponsored by:* Sponsored by the Gene Expression Scientific Interest Group)

Tue. 2:00 pm—McCormick Place Convention Center, W180

Chaired: P. Iannaccone, Q. Yan and D. Williams

Gene Expression

2:00 *Mitochondrial* Gene Expression in Disease. **G. Shadel.** Yale Sch. of Med.

2:30 **468.1** Histone Demethylase KDM5B Is Critical for PI3K-AKT-mTOR Signaling and Stemness of Melanoma. **Q. Yan, S. Zhang, K. Meeth, G. Micevic, M. Bosenberg**. Yale School of Medicine.

2:45 lncRNA Regulation of Gene Expression in Fate Specification and Disease. **J. Kohtz.** Northwestern Univ.

3:15 **468.2** Epigenetic Re-Programming of Breast Cancer by Pharmacological Targeting of C-Terminal Binding Protein. **J.S. Byun, K.L. Gardner**. NIH.

3:30 Regulatory Genetic Variation Associated with Human Diseases. **M. Nobrega.** The Univ. of Chicago.

4:00 **468.3** Dna Methylation, Hydroxymethylation and Formylation in Human Frontal Cortex of Autistic and Schizophrenic Subjects. **M. Trivedi, R. Deth, Y. Zhang, H. Abdolmaleky**. Nova Southeastern University, Northeastern University and Boston University.

4:15 Exploring the Methyl-Cytosine Binding Domain Family as Potential Therapeutic Targets. **D. Williams.** Univ. of North Carolina.

469. MUCOSAL INFLAMMATION AND EPITHELIAL-LEUKOCYTE INTERACTIONS

Minisymposium

TUE. 2:00 PM—MCCORMICK PLACE CONVENTION CENTER, W179B

CHAIRED: S.P. COLGAN AND S. KEELY

Epithelial and Mucosal Pathobiology

Immunopathology

Inflammation

2:15 **469.2** Novel Role of Lewis a Glycans in Regulating Neutrophil Trafficking. **J.C. Brazil, R. Sumagin, G. Lee, N.A. Louis, R.D. Cummings, C.A. Parkos.** University of Michigan, Northwestern University, University of Ottawa, Canada, Emory University and Beth Israel Deaconess Medical Center.

2:30 **469.3** Gut Microbial Metabolites Establish a Gradient of Extracellular Protons, Which Mediate Microbiota-Stimulated Intestinal Repair via Proton-Sensing G-Protein Coupled-Receptors. **M. Alam, H. Wu, J. Matthews, B. Saeedi, R. Jones, A.S. Neish.** Emory University School of Medicine.

2:45 **469.4** Selective Intestinal Epithelial Loss of Junctional Adhesion Molecule-A Results in Enhanced Intestinal Permeability and Increased Susceptibility to Colitis. **S. Flemming, A. Luissint, A. Nusrat, C.A. Parkos.** University of Michigan Medical School.

3:00 **469.5** The Influence of ENPP1 Expression in Mucosal Tissues. **V. Curtis, R. Wang, K. Battista, J.S. Lee, S. Colgan.** University of Colorado Anschutz Medical Campus.

3:15 **469.6** CD47 Regulates CDd11b-Dependent Neutrophil Transepithelial Migration During Intestinal Inflammation. **V. Azcutia, A. Luissint, S. Flemming, M. Quiros, A. Nusrat, F.W. Luscinskas, C.A. Parkos.** University of Michigan and Brigham and Women's Hospital and Harvard Medical School.

3:30 **469.7** Tylvalosin Induces Apoptosis of Porcine Neutrophils and Macrophages, Efferocytosis by Porcine Macrophages and Modulation of Lipid Mediators of Inflammation *in Vitro*: A New Class of Anti-Microbial with Anti-Inflammatory and Pro-Resolution. **R. Moges, D. Desmonts de Lamache, G.P. Muench, E.M. Abbott, A.G. Buret.** University of Calgary, Canada and ECO Animal Health London, United Kingdom.

3:45 **469.8** Increased Intestinal Permeability Secondary to Junctional Adhesion Molecule-A Deficiency Results in Impaired Macrophage-Dependent Neutrophil Recruitment in a Zymosan Peritonitis Model. **A. Luissint, H.C. Williams, W. Kim, R.S. Hilgarth, M. O'Leary, S. Flemming, M. Reed, T.L. Denning, A. Nusrat, C.A. Parkos.** University of Michigan, Emory University School of Medicine, Kyung Hee University, Republic of Korea, and Institute for Biomedical Sciences.

4:00 **469.9** Microbiota-Derived Tryptophan Metabolites Provide a Novel Pathway for Regulation of Mucosal Barrier Function. **E.E. Alexeev, J.M. Lanis, D.J. Kao, K.D. Battista, C.J. Kelly, E.L. Campbell, D.J. Kominsky, S.P. Colgan.** University of Colorado, Anschutz Medical Campus and Montana State University.

4:15 **469.10** Neutrophils Induce Pro-Angiogenic T Cells with a Regulatory Phenotype in Pregnancy. **S. Nadkarni, J. Smith, A. Sferruzzi-Perri, M. Kishore, C. Mauro, D. Williams, F. Marelli-Berg, M. Perretti.** Queen Mary, University of London, United Kingdom, Cambridge University, United Kingdom and University College London, United Kingdom.

4:30 **469.11** Intestinal P-Glycoprotein Exports Endogenous Cannabinoids at the Epithelial Surface to Prevent Inflammation and Maintain Homeostasis. **R.L. Szabady, R.J. Mrsny, B.A. McCormick.** UMass Medical School and University of Bath, United Kingdom.

4:45 **469.12** Lack of NF-κB-Inducing Kinase (NIK) Results in Eosinophilic Esophagitis (EoE) and Gastric Hyperplasia in Mice: Implications for Noncanonical NF-κB Signaling in Human EoE. **K. Eden, D.K. McDaniel, B. Heid, I.C. Allen.** Virginia Maryland College of Veterinary Medicine.

470. CELL INJURY, AUTOPHAGY, AND DNA DAMAGE

Minisymposium

TUE. 2:00 PM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: T. LABRANCHE AND C. YATES

Cell and Tissue Injury

Cell Death

2:00 **470.1** Autophagy Regulates Hepatocellular Senescence. **N. Huda, B. Khambu, X. Chen, X. Yin.** Indiana University School of Medicine.

2:20 **470.2** Neuregulin-1β Induces Erbb3-Dependent Proliferation and Survival of Normal Human Cardiac Ventricular Fibroblasts. **C.L. Galindo, A. Kirabo, M. Gupte, S. Ryzhov, D.B. Sawyer.** Vanderbilt University Medical Center and Maine Medical Research Center.

2:40 **470.3** The Nrf2 Transcription Factor Promotes Efferocytosis by Activating Phosphatidyl Serine Receptor Tim-4 Signaling During Oxidant-Induced Lung Injury Repair. **N.M. Reddy, C.R. Tamatam, S.P. Reddy.** University of Illinois at Chicago.

3:00 **470.4** Palmitate Increases Ubiquitination in H4IIE and Primary Rat Hepatocytes. **C.M. Stewart, A.L. Estrada, P.Y. Kim, D. Wang, Y. Wei, M. Pagliassotti.** Colorado State University and Grambling State University.

3:20 **470.5** Function of TGF-β Regulated NcRNAas in Cardiac Hypertrophy. **X. Yang.** Beijing Institute of Biotechnology, People's Republic of China.

3:40 **470.6** Quantitative Real Time PCR (qRT-PCR) Evaluation of Pig Mitochondrial DNA Damage. **J.L. Barr, T.W. Thomas, R.S. Gibson, M.A. Dubick, P.D. Bowman.** US Army Institute of Surgical Research.

4:00 **470.7** Diesel Exhaust Particle Exposure Compromises Macrophage Mitochondrial Physiology. **J. Gibbs, B. Dallon, J. Lewis, J.S. Tessem, P.R. Reynolds, B.T. Bikman.** Brigham Young University and Brigham Young University.

4:20 **470.8** Initial Autophagic Protection Switches to Disruption of Autophagic Flux by Lysosomal Instability During Cadmium Stress Accrual in Renal NRK-52E Cells. **F. Thevenod, W. Lee, M.P. Santoyo-Sánchez, S. Probst, E. Kerek, E.J. Prenner.** University of Witten/Herdecke, Germany and University of Calgary, Canada.

4:40 **470.9** Pyruvate Dehydrogenase Kinase 4 Deficiency Induces Hepatic Apoptosis by Activating NF-κB/TNFα Signaling. **J. Wu, J. Choiniere, M. Lin, L. Wang.** University of Connecticut, Wenzhou Medical University, People's Republic of China, Veterans Affairs Connecticut Healthcare System and Yale University.

471. CLUB HEPATOMANIA™ (LIVER PATHOBIOLOGY) SCIENTIFIC INTEREST GROUP NETWORKING SESSION

Special Session

(*Sponsored by:* ASIP Liver Pathobiology Scientific Interest Group)

Tue. 5:30 pm—McCormick Place Convention Center, Skyline Ballroom W375C

Liver Pathobiology

Neoplasia

472. SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

Tue. 5:30 pm—McCormick Place Convention Center, W375B

P1 Adjuvant Statin Therapy Efficacy Is Dictated by Tumor Dormancy and Statin Lipophilicity in *ex Vivo* and *in Vivo* Models of Metastatic Breast Cancer. **C.H. Beckwitt, A.M. Clark, K. Warita, Z.N. Oltvai, A. Wells.** University of Pittsburgh and Tottori University, Japan. **(807.13)**

P2 3,4,2,4 Tetrahydroxychalcone (Butein) Inhibition of TNFα-Induced CCL2 Release in Triple Negative Breast Cancer Cells. **A.C. Horton, D.F. Bauer, K.F. Soliman.** Florida A&M University. **(809.1)**

P3 MiR-105/93-3p Promotes Metastasis, Chemoresistance and Stemness in TNBC and Circulating miR-105/93-3p Act as Predictive Biomarker for TNBC Chemoresistance. **H. Li, P. Lu.** National Cheng Kung University, Taiwan. **(809.2)**

P4 Apigenin Modulation of Whole Transcriptome Patterns of TNFα-Induced Changes in Triple Negative Breast Cancer Cells, MDA-MB-231. **D. Bauer, E. Mazzio, K.F. Soliman.** Florida A&M University. **(809.3)**

P5 Quercetin Inhibition of TNFα-Induced CCL28 Release from Human Triple Negative Breast Cancer (MDA-MB-468) Cells. **T.F. Buchanan, D. Bauer, K.F. Soliman.** Florida A&M University. **(809.4)**

P6 Exploring Molecular and Morphological Relationships Between Obesity and Ctbp in Breast Cancer. **S. Park, T. Yan, L. Crawford, D. Li, A. Jones, A. Caban, S. Gil-Hernandez, M. Kabbout, D. Yi, S. Ambs, V. Periwal, J. Byun, K. Gardner.** NCI, NIMHD and NIDDK. **(806.6)**

P7 Glutamine Transporter Expression Profiling in Murine Breast Cancer Reveals Therapeutic Targets for Triple Negative Breast Cancer. **C. Kron, B. Bode.** Northern Illinois University. **(809.6)**

P8 Enlarged Endosomes and Altered Transferrin Recycling in Breast Cancer Cells. **K.E. Tubbesing, A. Malhotra, A. Rudkouskaya, M. Barroso.** Albany Medical College. **(809.11)**

P9 Knockout of the PHLDA1 Gene in Breast Cancer Cells Reveals Multiple Roles for PHLDA1 in Cancer Phenotypes. **A.M. Zimnicka, T. Sharma, M. Regan, B.J. Merrill, J. Frasor.** University of Illinois at Chicago. **(178.8)**

P10 Hypoxia Stimulates an Increase of Neuropeptide Y Y1 and Y5 Receptor Expression in Human Breast Cancer Cells. **P.J. Medeiros, J. Uniacke.** University of Guelph, Canada. **(809.12)**

P11 Exploring the Relationship Between Kaiso and C-Terminal Binding Protein in Breast Cancer in Women of African Ancestry. **A.B. Caban-Ureña, A. Jones, J. Shin, S. Park, S. Gil-Hernández, T. Yan, M. Kabbout, G. Liang, J. Byun, K. Gardner.** National Institute on Minority Health and Health Disparities and National Cancer Institute. **(809.9)**

P12 C-Terminal Binding Protein and Snail: Understanding the Roles of Metabolic Imbalance and EMT in Breast Cancer Disparities. **A. Jones, A. Caban-Ureña, S. Park, S. Gil-Hernández, J. Shin, T. Yan, M. Kabbout, G. Liang, J. Byun, K. Gardner.** National Institute on Minority Health and Health Disparities and National Cancer Institute. **(806.5)**

P13 Alcohol Abuse Promotes Breast Cancer Development and Progression via StarD10 Phosphorylation. **A. Floris, C. Cossu, Y. Spissu, M. Tomasi.** Cedars-Sinai Medical Center. **(806.2)**

P14 Uncoupling Effects of ERα on LKB1/AMPK Signaling Induced by Adiponectin in Breast Cancer Cells. **L. Mauro, G.D. Naimo, L. Gelsomino, E. Spina, M.L. Panno, S. Andò.** University of Calabria, Italy. **(809.14)**

P15 Induction of Paclitaxel Resistance in Human Breast Cancer Cell by JNK/SAPK-Inhibitory Kinase Through MAPK14/RELA/PTGS2 Signaling. **T. Lai.** Genomics Research Center and Academia Sinica, Taiwan. **(809.10)**

P16 Mangenese Superoxide Dismutase (MnSOD) Promotes Stem-Like Cell Phenotypes in Breast Cancer. **C. He, P. Hart, K. Fricano, M. Vargas, K. Thieraud, A. Luelsdorf de Abreu, M. Bonini** University of Illinois at Chicago. **(809.15)**

P17 The Role of Metastasis-Associated Protein 1 (MTA1) in Breast Cancer Exosome-Mediated Intercellular Communication. **B.N. Hannafon, K. Gaskill, C. Calloway, W. Ding.** University of Oklahoma Health Sciences Center. **(178.6)**

P18 Three-Dimensional Histochemistry and Imaging of Extracellular Matrix-Rich Human Tissues. **C.J. Van Noorden.** Academic Medical Center, Netherlands. **(980.5)**

P19 Pulsed-Wave Doppler Blood Flow Through the Pulmonary Trunk as a Valuable Method to Determine Cardiac Output Following Myocardial Infarction. **M.J. Platt, J.S. Huber, K.R. Brunt, J.A. Simpson.** University of Guelph, Canada and Dalhousie Medicine, Canada. **(977.1)**

P20 Autonomic Nervous Tone During Histopathological

Diagnosis of Oral Squamous Cell Carcinoma in Virtual Images. **E.A. Mondragon.** Universidad Militar "Nueva Granada", Colombia and Universidad de la Sabana, Colombia. **(983.4)**

P21 Quantitative Image Analysis of Traumatic Brain Injury Induced Aspiration Pneumonia Treatment. **C.C. Howell, G.E. Sandusky.** Indiana University-Purdue University Indianapolis. **(983.1)**

P22 The Role of IQGAP1 in Transendothelial Migration: From in Vitro Identification to in Vivo Validation. **D.P. Sullivan, P.J. Dalal, W.A. Muller.** Northwestern University. **(978.16)**

P23 Surface Area May Be a More Useful Risk Factor for Cerebral Aneurysm Rupture Than Maximum Diameter. **S. Fukuda, Y. Shimogona.** Kyoto Medical Center, Japan and Tohoku University, Japan. **(659.17)**

P24 Aberrant Histone Turnover in Alzheimer's Disease. **J.A. Dowell, M.A. Gitcho, J.M. Denu.** Wisconsin Institutes for Discovery, Delaware State University and University of Wisconsin. **(659.10)**

P25 An Integrated Study of Gene Expression Profile Uncovers Similarity Between Embryogenesis, Bone Development, Wound Healing, and Prostate Cancer. **T.S. Rayburn, A. Mukherjee, W.A. Byrd, J. Jones.** Troy University. **(980.2)**

P26 Identification of Key Transcription Factor Target Interactions That Regulate Prostate Cancer Metastasis. **N. Sharma, K.L. Pellegrini, F.O. Giuste, V. Ouellet, D. Trudel, A. Mes-Masson, F. Saad, A.O. Osunkoya, J. Petros, C.S. Moreno.** Emory University and University of Montreal, Canada. **(980.3)**

P27 Inhibition of HDAC, Especially HDAC3, Prevents Diabetic Cardiomyopathy in OVE26 Mice via Epigenetic Inhibition of ERK1/2-DUSP5 Pathway. **Z. Xu, L. Cai.** The First Hospital of Jilin University, People's Republic of China, Kosair Children Hospital Research Institute and University of Louisville. **(977.4)**

P28 Epigenetic Regulation of *Stab2* Expression in DBA Mice in Determining Atherosclerosis Susceptibility. **S. Dong, Y. Kayashima, N. Maeda.** UNC-Chapel Hill. **(979.4)**

P29 The Nrf2 Transcription Factor Promotes Efferocytosis by Activating Phosphatidyl Serine Receptor Tim-4 Signaling During Oxidant-Induced Lung Injury Repair. **N.M. Reddy, C.R. Tamatam, S.P. Reddy.** University of Illinois at Chicago. **(470.3)**

P30 Function of TGF-β Regulated NcRNAas in Cardiac Hypertrophy. **X. Yang.** Beijing Institute of Biotechnology, People's Republic of China. **(470.5)**

P31 Withdrawn. **(979.1)**

P32 lncRNAH19/ZEB1/EpCAM Regulatory Axis in Cholestatic Liver Fibrosis. **Y. Song, C. Liu, L. Wang.** University of Connecticut. **(328.6)**

P33 Bromodomain and Extraterminal (BET) Proteins Regulate Hepatocyte Proliferation in Hepatocyte-Driven Liver Regeneration. **J.O. Russell, S. Ko, D. Shin, S.P. Monga.** University of Pittsburgh. **(531.7)**

P34 Epigenetic Re-Programming of Breast Cancer by Pharmacological Targeting of C-Terminal Binding Protein. **J.S. Byun, K.L. Gardner.** NIH. **(468.2)**

P35 miR-16 Mediated *MYB* Gene Silencing Induces Fetal Hemoglobin Expression. **C.R. Pounds, M. Takezaki, B. Li, C. Ward, N. Lopez, B.S. Pace.** Medical College of Georgia at Augusta University. **(979.6)**

P36 Expression of Matricellular Protein CCN1 in the Tumor Stroma Is Required for Melanoma Metastasis. **A. Leask, L. Postovit, K. Quensel, J. Hutchenreuther.** Western University, Canada and University of Alberta, Canada. **(808.3)**

P37 Heparan Sulfate Proteoglycans Mediate Renal Carcinoma Metastasis. **H. Qazi, Z-D. Shi, J.W. Song, L.M. Cancel, L.L. Munn, J.M. Tarbell.** The City College of The City University of New York, Sloan-Kettering, The Ohio State University and Massachusetts General Hospital. **(808.6)**

P38 Assessing the Effects of TIMP2 Knockout on Lung Cancer Cell Lines Cultured in 3D. **D. Peeney.** NCI. **(808.4)**

P39 Solute Carrier Family 2 Member 4 Regulates TRIM24-DDX58 Axis to Promote Head and Neck Cancer Metastasis. **Y. Chang, M. Hsiao.** Academia Sinica, Taiwan. **(808.5)**

P40 Withdrawn. **(976.2)**

P41 Localization of Scleraxis in Dermal and Keloid Fibroblasts. **C. Johnson, A. Nillas, T.A. Reaves.** Medical University of South Carolina. **(182.1)**

P42 Adducin Regulates Migration and Invasion of Normal Lung Epithelial Cells and Lung Cancer Cells. **S. Lechuga, P.H. Amin, A.I. Ivanov.** Virginia Commonwealth University. **(465.3)**

P43 The Role of Scleraxis in Neutrophil Activation. **O. Awotunde, A. Nillas, S. Hammad, T.A. Reaves.** University of Maryland Baltimore County, University of SC School of Medicine and Medical University of SC. **(182.2)**

P44 Thymosin Beta 4 Influences Hedgehog Signaling by Interacting with Smo-Gli2 in Hepatic Stellate Cells. **J. Kim, Y. Jung.** Pusan National University, Republic of Korea. **(804.13)**

P45 The Assessment of Clinically Relevant Extracellular Matrix Markers in a Bleomycin-Induced Mouse Model of Lung Fibrosis. **A. Young, P. Nath, D. Leeming, M. Karsdal, S. Brockbank, D. Rider, S. Cruwys.** Discovery, Charles River, United Kingdom, Nordic Biosciences, Denmark and Grunenthal, Germany. **(656.18)**

P46 A Role of IL-21 in Pulmonary Fibroblast Activation. **R. Sathiaseelan, C. Huang, L.K. Senavirathna, L. Liu.** Oklahoma State University. **(656.15)**

P47 Phospholipase D Regulates GSK3β mediated Epithelial to Mesenchymal Transition and Akt Mediated Cell Death Leading to Pulmonary Fibrosis. **V. Suryadevara, T.J. Royston, V. Natarajan.** University of Illinois. **(656.2)**

P48 Multipotent Stromal Cell and Fibroblast Co-Transplantation Alter Wound Microenvironment to Normalize Aged-Deficient Wound Healing. **B. Lantonio, M. Rosano, B. Brown, A. Wells, C.C. Yates.** University of Pittsburgh. **(333.3)**

P49 Cytoprotective Chaperone Proteins Are Novel Anti-Inflammatory Targets in Sickle Cell Disease. **C. Anea, S. Kumar, I. Lee, J. Brittain.** Augusta University. **(981.3)**

P50 ATF3 Protects LPS-Induced Acute Pancreatic Inflammation via Modulating NFκB-Mediated iNOS Production in Mice. **Y. Chen, Y. Tseng, C. Liu, H.**

Lin, C. Cheng, P. Lai. Tzu Chi University, Taiwan, Buddhist Tzu Chi General Hospital, Taiwan and Taipei Medical University, Taiwan. **(657.2)**

P51 Pro-Inflammatory and Anti-Inflammatory Cytokine Expression in *Tnf* $^{-/-}$ and WT Mice with Chronic Colitis. **T.M. Smith, A. Kozik, C.H. Nakatsu, Y.L. Jones-Hall.** Purdue University. **(657.4)**

P52 Paradoxical Effects of PGC-1 Isoforms on Retinal Pigment Epithelium: Implication for Neovascular Retinal Diseases. **M. Saint-Geniez, Q. Charles, M. Rosales, A. Khadka, J. Iacovelli.** Harvard Medical School, Schepens Eye Research Institute-Massachusetts Eye and Ear Infirmary and Boston University. **(976.11)**

P53 Effects of High Fat Diet on 4-NQO-Induced Changes in a Variety of Tissues in a Mouse Model of Oral Cancer. **J. Goral, A. Meyer, L. Pitstick, M. Pytynia, R. Schmelter, F. Syed, A. Barakat, D. Oswald, A. Gladding, J. Pescatore, J.M. Green, M.J. Ciancio, B. Jham.** Midwestern University. **(806.3)**

P54 The Unfolded Protein Response Regulates Pancreatic Neuroendocrine Tumor Growth. **S.A. Oakes, J.Y. Qi, P.C. Moore, R.A. Warren, M. Thamsen, R. Ghosh, M.J. Gliedt, D.J. Maly, B.J. Backes, F.R. Papa.** University of California San Francisco and University of Washington. **(178.4)**

P55 How the Cytosol-To-Membrane Translocation Kinetics and Signaling of PKCγ Are Dysregulated in the Neurodegenerative Spinocerebellar Ataxia Type14 (SCA14). **N. Aslam, F. Alvi.** BioSystOmics and COMSAT Institute of Information Technology, Pakistan. **(183.4)**

P56 Model Systems to Study the Pathogenesis of Zika Virus-Mediated Eye Disease. **L.E. Martinez, D. Contreras, M.K. Jones, V. Gangalapudi, J. Tang, S. Wang, V. Arumugaswami.** Cedars-Sinai Medical Center. **(658.12)**

P57 Automated Fluorescent Miscroscopic Image Analysis of PTBP1 Expression in Glioma. **B. Goksel, E. Goceri, B. Elder, V. Puduvalli, M. Gurcan, J.J. Otero.** The Ohio State University. **(980.1)**

P58 PSEN1 as an Adjunct for Diagnosis of Human Myocarditis. **P.J. Hanson, E.L. Jang, H. Rai, A.Y. Chang, A.Y. Mo, B.M. McManus, M.A. Seidman.** University of British Columbia, Canada and Providence Health Care, Canada. **(977.2)**

P59 Fibrinogen Alpha Is the Precursor Protein of Cardiac Valve Amyloidosis. **K. Miura, H. Katoh, T. Tsuchida.** Hamamatsu University School of Medi, Japan and Kosai Hospital, Japan. **(977.7)**

P60 Use of Anchored Multiplex PCR Enrichment for Detection of Gene Fusions in Solid Tumors by Next Generation Sequencing. **D.C. Green, S.J. Deharvengt, F.B. de Abreu, H.B. Steinmetz, J.D. Peterson, G.J. Tsongalis.** Dartmouth Hitchcock Medical Center, Dartmouth Hitchcock Medical Center and Norris Cotton Cancer Center and Geisel School of Medicine. **(807.20)**

P61 Molecular Diagnostic Techniques Used to Confirm an Unusual Case of BAPoma. **A. Atkinson, K. Linos, S. Yan, G. Tsongalis, J. Lefferts.** Dartmouth-Hitchcock Medical Center. **(807.17)**

P62 Integrin β6: Lost in Translation from Mouse to Human as a Target for Hepatic Fibrosis. **C. Saravanan, Y. Song, P. Wu, W. Hu, F. Bian, A. Heidt, K. Mansfield.** Novartis Institutes for Biomedical Research Institutes (NIBR), NIBR, People's Republic of China, and The Genomics Institute of the Novartis Research Foundation. **(804.10)**

P63 Kinesiological Benefits of Botulinum Toxin Type A Combined with Exercise on the Functional Recovery After Spinal Cord Injury. **Y. Jin, S. Park, Y. Hong.** Graduate School of Inje University, Republic of Korea, Inje University, Republic of Korea. **(981.2)**

P64 Dna Methylation, Hydroxymethylation and Formylation in Human Frontal Cortex of Autistic and Schizophrenic Subjects. **R. Deth, Y. Zhang, H. Abdolmaleky, M. Trivedi.** Nova Southeastern University, Northeastern University and Boston University. **(468.3)**

P65 Cyclin A2 Loss Impairs Hippocampal Development. **M. Goksel, P. Gygli, J. Chang, B. Goksel, H.N. Gokozan, R. Nelson, C. Czeisler, J.J. Otero.** The Ohio State University. **(659.2)**

P66 Visualization of Neuronal Connectivity in NPARM PHOX2b Mutants with a Modified PACT Protocol. **S.R. Fair.** The Ohio State University. **(659.3)**

P67 A Novel Neuroprotective Effect of Osteoactivin in Parkinson's Disease. **K.M. Budge, G. Alam, M. Edler, J. Richardson, F. Safadi.** Kent State University and Northeast Ohio Medical University. **(183.1)**

P68 Regulator of G-Protein Signaling 6 (RGS6) Expression in Human Substantia Nigra Pars Compacta (SNc) and Loss in Parkinson's Disease (PD). **Z. Luo, K.E. Ahlers, J. Yang, B. Chakravarti, H.E. Stevens, N.S. Narayanan, R.A. Fisher.** The University of Iowa. **(659.23)**

P69 Investigating the Underlying Mechanisms of Chemosensory Dysfunctions in Alzheimer's Disease Using *Caenorhabditis elegans* with Mutations in Presenilin 1. **M. Parvand, T. Bozorgmehr, C. Rankin.** University of British Columbia, Canada. **(659.9)**

P70 Caffeine May Affect Apoptosis and Autophagy Activity to Promote Dopaminergic Cells Survival Under the Rotenone Induced Parkinson Disease Model. **C. Luo, Y. Huang, B. Huang, T. Lu, Y. Fu.** Department of Biomedical Science and Environmental Biology, Kaohsiung Medial University, Taiwan, Department of Biomedical Science and Environmental Biology, Kaohsiung Medical University, Taiwan, Renal Division, Brigham and Women's Hospital, Harvard Medical School, Department of Biomedical Science and Environmental Biology, Center for Infectious Disease and Cancer Research and Kaohsiung Medical University, Taiwan. **(659.8)**

P71 Assessing Gliogenesis in a Murine Multifactorial Brain Injury Model System. **M.S. Domowicz, N.L. Wadlington, J.G. Henry, K. Diaz, M.J. Munoz, N.B. Schwartz.** University of Chicago. **(183.3)**

P72 High Fat Diet Increases Cognitive Decline and Neuroinflammation in a Model of Orexin Loss. **C.M. Duffy, J.P. Nixon, T.A. Butterick.** Minneapolis Veterans Affairs Health Care System, University of Minnesota, Minnesota's Discovery, Research, and Innovation Economy, Brain Conditions and Minnesota Obesity Center. **(659.12)**

P73 APOE Genotype Influences Glial Activity in MS. **Z. Langston, M. Lahey, A. Affaneh, E. Cudaback.** DePaul University. **(659.15)**

P74 The Effect on the Content of Nogo-A in the Damage Area of the Rats Brain with Fasudil After Traumatic Brain

Injury. **H. Duan, C. Hao, C. Liu, S. Li, L. Gao, X. Zheng.** The First Clinical College of Shanxi Medical University, People's Republic of China, The First Hospital of Shanxi Medical University, People's Republic of China. **(183.5)**

P75 Modeling the Ischemic Neurovascular Unit in a Dish Using Patient-Specific Induced Pluripotent Stem Cells. **S. Page.** TTUHSC. **(659.20)**

P76 Animating External Magnetic Guidance of Intrathecally Delivered Gold-Coated Nanoparticles to Treat Intramedullary Spinal Tumors. **A. Orland, K. Brennan, L. Lebowicz, C. Wellman, A. Mehta.** University of Illinois at Chicago. **(659.21)**

P77 Development of a Silver Methenamine Masson Trichrome (SMMT) Stain for Use in Sheep Kidneys. **M. Smith, K. Wyatt, J. Weng, A.S. Davis.** College of Veterinary Medicine and Kansas State University. **(983.2)**

P78 Spectral Domain Optical Coherence Tomography Correlates Retinal Thinning to Retinal Vascular Development in an in Vivo Mouse Model of Retinopathy of Prematurity. **O.J. Mezu-Ndubuisi, L.K. Taylor, J.A. Schoephoerster.** University of Wisconsin. **(978.2)**

P79 Cathepsin K Cleavage of SDF-1α Inhibits Its Chemotactic Activity Toward Glioblastoma Stem-Like Cells in Their Niches. **V. Hira, U. Verbovšek, B. Breznik, H. Kakar, J. Wormer, B. Van der Swaan, S. Mehta, T. Lah, C. Van Noorden.** Academic Medical Center, Netherlands, Barrow Neurological Institute and National Institute of Biology, Slovenia. **(808.2)**

P80 Enteroaggregative *Escherichia coli* Delocalized B-Catenin Adherens Junction in Ileum and Colon Enterocytes in an Infection Mouse Model with a Disturbed Microbiota. **N.E. Moran García, C. Lopez-Saucedo, S. Galindo-Gómez, V. Tsutsumi, A. Felipe-Lopez, M. Schnoor, J.P. Nataro, T. Estrada-Garcia.** CINVESTAV-IPN, Mexico and University of Virginia School of Medicine. **(184.3)**

P81 Internalization and Trafficking of PD-L1 in MDAMB231 Breast Cancer Cells. **A. Rudkouskaya, M. Barroso.** Albany Medical College. **(809.7)**

P82 Sex Dependent Role of Activating Transcription Factor 3 (ATF3) Expression in Modulating the Asthmatic Phenotype in an Acute Mouse Model of Airway Neutrophilia. **A. Spinelli, N. Fuentes Ortiz, M. Nicoleau, U. Sinha, C.R. Caruso, S. DiAngelo, Z. Chroneos, P. Silveyra** Penn State College of Medicine and MS Hershey Medical Center. **(656.9)**

P83 STAT3 and MEK Mediate IL6-Induced Increase in Endothelial Permeability. **H. Alsaffar, N. Martino, A. Adam.** Albany Medical College. **(55.6)**

P84 Atrogin-1 Transgenic (At1 Tg+) Mice Have Age-Dependent Cardiac Dysfunction with Atrogin-1 Mediated Glucocorticoid Receptor (GR) Expression Down Regulation. **R. Mota, T. Parry, M. Willis.** UNC at Chapel Hill. **(59.5)**

P85 Effect of Mitoquinone Treatment on Cardiac Function and Pathophysiology in Pressure Overload-Induced Heart Failure. **K. Goh, A.R. Wende, R.N. Soorappan, G. Halade, V. Darley-Usmar, M. Jinno, S.D. Prabhu, L. Zhou.** University of Alabama at Birmingham. **(59.7)**

P86 Neuroanatomical Analysis of a Conditional Knockin Mutant *PHOX2B* Mouse Model. **J. Liu, C. Czeisler, S. Fair, B. Goksel, M. Goksel, J. Otero.** The Ohio State University. **(183.2)**

P87 Pyruvate Dehydrogenase Kinase 4 Deficiency Induces Hepatic Apoptosis by Activating NF-κB/TNFα Signaling. **J. Wu, J. Choiniere, M. Lin, L. Wang.** University of Connecticut, Wenzhou Medical University, People's Republic of China, Veterans Affairs Connecticut Healthcare System and Yale University. **(470.9)**

P88 Gut Microbial Metabolites Establish a Gradient of Extracellular Protons, Which Mediate Microbiota-Stimulated Intestinal Repair via Proton-Sensing G-Protein Coupled-Receptors. **M. Alam, H. Wu, J. Matthews, B. Saeedi, R. Jones, A.S. Neish.** Emory University School of Medicine. **(469.3)**

P89 CD47 Regulates CDd11b-Dependent Neutrophil Transepithelial Migration During Intestinal Inflammation. **V. Azcutia, A. Luissint, S. Flemming, M. Quiros, A. Nusrat, F.W. Luscinskas, C.A. Parkos.** University of Michigan and Brigham and Women's Hospital and Harvard Medical School. **(469.6)**

P90 *Entamoeba histolytica* Stimulates the Release of the Alarmin Molecule HMGB1 by a PI3 Kinase Dependent Mechanism. **S. Begum, F. Moreau, J. St-Pierre, K. Chadee.** University of Calgary, Canada. **(55.2)**

P91 Hypoxia Inducible Factor (HIF)-1 Accelerates Epithelial Wound Healing Through Integrin Regulation. **B.J. Goggins, K. Minahan, N. Outteridge, D. Knight, J. Horvat, S. Keely.** University of Newcastle, Australia and Hunter Medical Research Institute, Australia. **(465.11)**

P92 I tryptophan Metabolite Activation of the Aryl Hydrocarbon Receptor in Intestinal Epithelia Promotes Mucosal Healing. **J.M. Lanis, E. Alexeev, S. Colgan.** University of Colorado- Anschutz Medical Campus. **(465.9)**

P93 *Giardia duodenalis* alters Intestinal Mucin Transcription and Disrupts the Mucus Layer in a Cysteine Protease-Dependent Manner. **C.B. Amat, J. Motta, K. Chadee, A.G. Buret.** University of Calgary, Canada. **(184.2)**

P94 Glial Cell-Line Derived Neurotrophic Factor Attenuates Inflammation-Induced Breakdown of Intestinal Epithelial Barrier Function by Stabilization of Dsg2-Dependent Intercellular Adhesion. **M. Meir, N. Burkard, S. Flemming, C. Germer, J. Waschke, N. Schlegel.** University Hospital Würzburg, Germany, University of Michigan and Ludwig-Maximilians-Universität München, Germany. **(465.5)**

P95 Intestinal Mucosa Pro-Repair Properties of Macrophage Derived IL-10 Are Mediated by CREB Triggered Epithelial WISP-1 Signaling. **M. Quiros, H. Nishio, P.A. Neumann, G. Leoni, V. Garcia-Hernandez, D. Siuda, M. Feng, G. Bernal, R. Hilgarth, H. Williams, J.C. Brazil, P.H. Dedhia, J. Spence, C.A. Parkos, T.L. Denning, A. Nusrat.** University of Michigan, Universität München, Germany, Institute for Cardiovascular Prevention, Germany, Emory University and Georgia State University. **(465.2)**

P96 Role of PMNs in Inhibition of DNA Repair and Induction of Genomic Instability. **V. Butin-Israeli,**

L. Mehl, L. Lorraine Mascarenhas, R. Sumagin. Northwestern University. **(178.5)**

P97 A Circadian Zip Code Determines Rhythmic Leukocyte Trafficking to Tissues. **W. He, K. Kraus, D. Druzd, A. de Juan, L. Ince, C. Chen, C. Scheiermann.** Walter-Brendel-Zentrum für Experimentelle Medizin Ludwig-Maximilians-Universität München, Germany. **(55.4)**

P98 Force-Induced α4 Integrin-Dependent Monocyte Adhesion Strengthening and F-Actin Remodeling Requires Actomyosin Contractility and Talin-1. **H.M. Ibrahim, S.J. Hyduk, M.I. Cybulsky.** Toronto General Hospital Research Institute, University Health Network, Canada and University of Toronto, Canada. **(55.8)**

P99 Neutrophils Induce Pro-Angiogenic T Cells with a Regulatory Phenotype in Pregnancy. **S. Nadkarni, J. Smith, A. Sferruzzi-Perri, M. Kishore, C. Mauro, D. Williams, F. Marelli-Berg, M. Perretti.** Queen Mary, University of London, United Kingdom, Cambridge University, United Kingdom and University College London, United Kingdom. **(469.10)**

P100 The CXCR3-LFA1-ICAM1 Axis Regulates T Cell Cardiotropism and Maladaptive Cardiac Remodeling in Heart Failure. **A. Salvador, T. Nevers, F. Velazquez, M. Aronovitz, P. Alcaide.** Tufts University, Universidad de Granada, Spain and Tufts Medical Center. **(327.3)**

P101 Histamine Causes Endothelial Barrier Disruption via Ca^{2+}-Mediated RhoA Activation and Enhanced Force Generation at Intercellular Junctions. **L. Rotkopf, D. Kugelmann, E. Walter, M. Radeva, J. Waschke.** Ludwig-Maximilians-Universität München, Germany. **(978.1)**

P102 CD43 Syalomucin Contributes to Cardiac Inflammation and Fibrosis in Non-Ischemic Heart Failure. **F. Velázquez, A. Salvador, T. Nevers, N. Ngwenyama, M. Aronovitz, R. Blanton, P. Alcaide.** Tufts University and Tufts Medical Center. **(59.2)**

P103 PAD4 Deficiency Limits Kidney Dysregulation in a Murine Model of Shock/Sepsis. **B. Biron Girard, Y. Chen, C. Chung, J.B. Reichner, A. Ayala.** Brown University/ Rhode Island Hospital and Rhode Island Hospital. **(657.16)**

P104 Small Peptide Antagonists Derived Based on in Silico Analysis Block CXCL10-CXCR3 Signaling and Function on Cardiac Fibroblasts and Cardiomyocytes. **L. Espinoza Ornelas, B.J. Lantonio, J. Jaynes, R. Bodnar, M.S. Willis, C.C. Yates.** University of Pittsburgh, Tuskegee University and University of North Carolina at Chapel Hill. **(984.1)**

P105 Identifying Key Domains in Endothelial IQGAP1 Critical for Leukocyte Transmigration. **P. Dalal, D. Sullivan, W. Muller.** Northwestern University. **(657.10)**

P106 Reliable CD4 and CD8 T Cell Marker Immunohistochemistry on Formalin-Fixed and Histochoice-Fixed Paraffin Embedded Mouse Spleen. **K.N. Bradshaw, J. Weng-Race, J.M. Ward, J.E. Rehg, J.A. Kovacs, A.S. Davis** **K**ansas State University, Global VetPathology, St. Jude Children's Research Hospital and National Institutes of Health Clinical Center. **(979.5)**

P107 Detection of Phenotypic Differences in Alveolar Macrophages Using Ionized Calcium-Binding Adapter Molecule 1 Marker. **D.K. Meyerholz, C.M. Hogan, R.M. Glanz, J.A. Goeken, M.R. Leidinger, G.K. Ofori-Amanfo, L. McQuillen, K.M. Donovan, S.C. Harwani, H.A. Flaherty.** University of Iowa Carver College of Medicine, University of Southern California and Iowa State University. **(656.20)**

P108 Sex, Age, and TNF Influence the Gut Microbiota in a Mouse Model of TNBS Colitis. **A.J. Kozik.** Purdue University. **(657.12)**

P109 Lack of NF-κB-Inducing Kinase (NIK) Results in Eosinophilic Esophagitis (EoE) and Gastric Hyperplasia in Mice: Implications for Noncanonical NF-κB Signaling in Human EoE. **K. Eden, D.K. McDaniel, B. Heid, I.C. Allen.** Virginia Maryland College of Veterinary Medicine. **(469.12)**

P110 Reverse Transcriptase Real Time PCR Detection of Rift Valley Fever Virus RNA in Formalin-Fixed, Paraffin-Embedded Tissues. **D. Upreti, W.C. Wilson, J.A. Richt, A.S. Davis, J.D. Trujillo.** Kansas State University, USDA and ARS. **(658.5)**

P111 Evaluation of Fluorescence Microsphere Immunoassay for Antibody Detection to Rift Valley Fever Nucleocapsid Protein and Glycoproteins. **I. Ragan, B. Faburay, D.S. McVey, J.A. Richt, A.S. Davis, R.R. Rowland, W.C. Wilson.** Kansas State University and USDA ARS. **(658.4)**

P112 Immuno-Modulating and Anti-Viral Properties of Tulathromycin in Porcine Reproductive and Respiratory Syndrome. **D.J. Desmonts de Lamache, R.D. Moges, R. Yates, N. McKenna, D.W. Morck, A.G. Buret** **U**niversity of Calgary, Canada. **(984.6)**

P113 Molecular Analysis of the Blood-Tumor Barrier in Brain Metastasis from Breast Cancer. **L. Lyle, R. Duchnowska, P. Lockman, C. Adkins, A. Shareef, E. Sechrest, E. Hua, D. Liewehr, S. Steinberg, W. Kloc, N. Nayyar, P. Brastianos, S. Patricia, B. Gril.** National Cancer Institue, Purdue University, Military Institute of Medicine, Poland, West Virginia University, Copernicus Hospital Gdansk, Poland and Harvard Medical School. **(808.1)**

P114 RGDSK Peptide Functionalized Helical Rosette Nanotubes (RGDSK-HRNs) Block Integrin $\alpha v\beta 3$ and inhibit *E. coli* Adherence to Intestinal Porcine Epithelial 1 Cell Line (IPEC1) *in Vitro*. **N. Le, C. Quach, G. Aulakh, V. Gerdts, H. Fenniri, B. Singh.** Western College of Veterinary Medicine, University of Saskatchewan, Canada, Vaccine and Infectious Disease Organization—International Vaccine Centre (VIDO-InterVac), Canada, Northeastern University, Faculty of Veterinary Medicine and University of Calgary, Canada. **(658.10)**

P115 Developing an in Vivo Model of Reinke's Edema. **A. Durkes, P. Sivasankar.** Purdue University. **(656.22)**

P116 Investigative Analysis of the Waste Impact in the Environmental by Necropsies in Rescued Sea Turtles (*Chelonia mydas*) in Ubatuba, São Paulo State, Brazil. **J. Duarte, T.C. Hipolito, A.C. Tasaka, V.C. Hyodo, E. Mergulhao.** UNIP, Brazil. **(982.8)**

P117 SREBP-1c Increases the Hepatic Inflammatory Response in Dairy Cows with Fatty Liver Through ROS-Mediated NF-κB Pathway. **X. Li, G. Liu.** Jilin University, People's Republic of China. **(804.4)**

P118 Characterization of Immunodeficient Mouse Models. **J. McClellan, R. Macasocal, T. Hare, M. Horn.** Envigo. **(807.14)**

P119 Investigating the Potential Role of North American Animals as Hosts for Zika Virus. **I. Ragan, E. Blizzard, R. Bowen.** Kansas State University and Colorado State University. **(658.3)**

31. LIVER REGENERATIVE MEDICINE

Minisymposium

WED. 8:30 AM—MCCORMICK PLACE CONVENTION CENTER, W181B

CHAIRED: G. ALPINI AND J. SANDERS

Liver Pathobiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

8:30 **531.1** Modeling Cellular Network Dynamics of Liver Homeostatic Renewal. **R. Vadigepalli, D. Cook, B. Ogunnaike.** Thomas Jefferson University and University of Delaware.

8:45 **531.2** Role of Hepatic O-GlcNAcylation on Acetaminophen-Induced Liver Injury. **S. McGreal, B. Bhushan, C. Walesky, M.R. McGill, J.L. Weemhoff, H.J. Jaeschke, Z. Zhang, E. Tan, C. Slawson, N.E. Zachara.** University of Kansas Medical Center and John Hopkins University

9:00 **531.3** Thrombospondin-1 Contributes to Hepatic Pathology and Systemic Complications in the Acetaminophen and Azoxymethane Mouse Models of Acute Liver Failure. **M. McMillin, S. Grant, G. Frampton, G. Alpini, S. DeMorrow.** Central Texas Veterans Health Care System and Texas A&M University Health Science Center.

9:15 **531.4** Role of Hepatocyte Nuclear Factor 4 Alpha (HNF4α) in Hepatocyte Regeneration. **I. Huck, U. Apte.** University of Kansas Medical Center.

9:30 **531.5** Cell-Specific Wnts Regulate Liver Regeneration After Partial Hepatectomy. **M. Preziosi, J.o. Yang, H. Okabe, C. Diegel, B. Williams, S. Monga.** University of Pittsburgh and Van Andel Institute.

9:45 **531.6** Role of MET and EGFR Signaling in Hepatomegaly and Hepatocyte Proliferation Induced by TCPOBOP (1,4-Bis [2-(3,5-Dichloropyridyloxy)] Benzene) in Mice. **B. Bhushan, M.M. Haynes, W.M. Mars, A. Orr, W.C. Bowen, S. Paranjpe, G.K. Michalopoulos.** School of Medicine and University of Pittsburgh.

10:00 **531.7** Bromodomain and Extraterminal (BET) Proteins Regulate Hepatocyte Proliferation in Hepatocyte-Driven Liver Regeneration. **J.O. Russell, S. Ko, D. Shin, S.P. Monga.** University of Pittsburgh.

10:15 **531.8** P53 Regulates Progression of Injury and Liver Regeneration After Acetaminophen Overdose. **P. Borude, B. Bhushan, H. Chavan, J.L. Weemhoff, H. Jaeschke, P. Krishnamurthy, U. Apte.** University of Kansas Medical Center.

10:30 **531.9** Beta-Catenin Dependent Wnt Signaling Promotes Hepatocyte-To-Cholangiocyte Transdifferentiation. **K. Kosar, K. Nejak-Bowen.** University of Pittsburgh School of Medicine.

10:45 **531.10** Phenobarbital Induces ATZ Globule Clearance in a Mouse Model of Alpha-1 Antitrypsin Deficiency. **A.W. Bell, J. Stoops, M. Oertel, G.K. Michalopoulos.** University of Pittsburgh.

11:00 **531.11** Proliferation of Transplanted Hepatocytes Drives Efficient Repopulation in Juvenile Host Rat Livers. **P. Stock, M. Hempel, M. Hsu, B. Christ.** University of Leipzig, Germany.

11:15 **531.12** Rat Liver Repopulation by Transplanted Late Gestation Fetal Hepatocytes. **J. Sanders, J. Boylan, H. Francois-Vaughan, P.M. Thomas, J. Sikora, N. Abshiru, P. Gruppuso, N. Kelleher.** Brown University, Rhode Island Hospital & Alpert Medical School of Brown University and Feinberg School of Medicine Northwestern University.

American Society for Investigative Pathology

Poster Sessions

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Pathology

656. RESPIRATORY PATHOPHYSIOLOGY

Poster

Sun. 9:00 AM—McCormick Place Convention Center, Hall F

Pulmonary Pathobiology

Presentation time: 11:45 AM–1:45 PM

A1 **656.1** Abrogation of RAGE Signaling Using Semi-Synthetic Glycosaminoglycan Ethers (SAGEs) Ameliorates Inflammation in Mice Exposed to Secondhand Tobacco Smoke. **K.M. Hirschi, J.B. Lewis, P.D. Hall, T.J. Wright, K.M. Egbert, K.C. Ogden, S.M. Nelson, J.C. Clark, D.C. Milner, J.A. Arroyo, P.R. Reynolds.** Brigham Young University.

A2 **656.2** Phospholipase D Regulates GSK3β mediated Epithelial to Mesenchymal Transition and Akt Mediated Cell Death Leading to Pulmonary Fibrosis. **V. Suryadevara, T.J. Royston, V. Natarajan.** University of Illinois.

A3 **656.3** Non-Pungent Long Chain Capsaicin-Analogs Arvanil and Olvanil Display Better Anti-Invasive Activity Than Capsaicin in Human Small Cell Lung Cancers. **K.W. Colclough, J. Seidler, A.T. Akers, J.D. Hurley, K.C. Brown, N.A. Nolan, P. Dasgupta.** Marshall University, Joan C. Edwards School of Medicine and Marshall University.

A4 **656.4** Disease Specific Signatures Identified by RNA-Seq of Sorted Lung Cellular Populations. **P.A. Reyfman, L. Morales-Nebreda, J.M. Walter, A. McQuattie-Pimentel, C. Chen, K.R. Anekalla, H. Abdala-Valencia, T.J. Yacoub, M. Antalek, M. Chi, S.F. Chiu, F. Gonzalez, P.J. Homan, S. Soberanes, A. Bharat, M.M. DeCamp, S.M. Bhorade, E.T. Bartom, R.I. Morimoto, W. Balch, J.I. Sznajder, N.S. Chandel, K.M. Ridge, N. Bagheri, L.A. Amaral, G. Budinger, H. Perlman, D. Winter, A.V. Misharin.** Northwestern University and Scripps Research Institute.

A5 **656.5** Loss of Function Mutation in *TIMP2* Gene Accelerates Tumorigenesis and Mortality in Murine Model of Lung Cancer Through EGFR Signaling. **S. Kumar, S. Jensen, D. Peeney, A. Chowdhury, B. Wei, W.G. Stetler-Stevenson.** NCI/NIH.

A6 **656.6** Whole Slide Quantitative Image Analysis Can Demonstrate Bleomycin Induced Dose-Dependent Increases in Fibrotic Areas Within Histologically Stained Rat Lung Tissue. **A. Young, M. McElroy, S. Naylor, M. Anderson, A. Bigley, K. McGregor, L. Sherry.** In Vivo Discovery, Charles River, United Kingdom, and OracleBio, United Kingdom.

A7 **656.7** The Role of Serine Protease in Diaphragm Development. **Y. Hsu, S. Yang, C. Hung, C. Hung, H. Huang, I. Yu, S. Lin.** Graduate Institute of Clinical Laboratory Sciences and Medical Biotechnology, College of Medicine, National Taiwan University, Taiwan, Liver Disease Prevention and Treatment Research Foundation, Taiwan, Graduate Institute of Medical Genomic and Proteomics, College of Medicine, National Taiwan University, Taiwan, Laboratory Animal Center, College of Medicine, National Taiwan University, Taiwan, Department of Laboratory Medicine, National Taiwan University Hospital, National Taiwan University, Taiwan, Center for Genomic Medicine and National Taiwan University, Taiwan.

A8 **656.8** Lysophosphatidic Acid Stimulation of Amphiregulin Shedding Enhanced Paracrine Role of BM $CD11^+$ Cells. **T. Liu, F. Gonzalez De Los Santos, Z. Wu, S.H. Phan.** Univerisity of Michigan.

A9 **656.9** Sex Dependent Role of Activating Transcription Factor 3 (ATF3) Expression in Modulating the Asthmatic Phenotype in an Acute Mouse Model of Airway Neutrophilia. **A. Spinelli, N. Fuentes Ortiz, M. Nicoleau, U. Sinha, C.R. Caruso, S. DiAngelo, Z. Chroneos, P. Silveyra.** Penn State College of Medicine and MS Hershey Medical Center.

A10 **656.10** Effect of Seasonal Alterations of Air Quality Including Asian Sand Dust on Health-Related Quality of Life and Respiratory Symptoms in Korea. **Y. Ishihara, M. Nakao, C. Kim, I. Hyun.** Kurume University, Japan, Hallym UniversitDongtan Sacred Heart Hospital, Republic of Korea.

A11 **656.11** Resolution of Right Ventricular Fibrosis by a Cancer Chemotherapeutic Agent: A Novel Therapy to Treat Pulmonary Arterial Hypertension. **V. Rybka, N.V. Shults, Y.F. Ibrahim, Y. Suzuki.** Georgetown University and Minia University, Egypt.

A12 **656.12** Effect of Aliskiren, a Direct Renin Inhibitor, on Macrophage Accumulation in a Rat Model of Pulmonary Fibrosis Induced by Fat Embolism. **A. Siddiqi, A. Syed, A. Yembur, D. Arif, R. Ponnapureddy, K. Tappeta, A. Fletcher, C. Patel, S. Hamidpour, A. Poisner, A. Molteni.** University of Missouri-Kansas City Medical School, University of Kansas Medical Center.

A13 **656.13** Effect and Regulatory Mechanisms of Low-Density Lipoprotein on the Growth and Migration of A549 Human Lung Cancer Cells. **S. Tsao.** Taipei Medical University, Taiwan.

A14 **656.14** Heparanase Contributes to Idiopathic Pulmonary Fibrosis via Regulation of A20/TNFAIP Expression. **Y. Yang, A. Lara, A. Rutebemberwa, E. Schmidt.** University of Colorado Denver.

A15 **656.15** A Role of IL-21 in Pulmonary Fibroblast Activation. **R. Sathiaseelan, C. Huang, L.K. Senavirathna, L. Liu.** Oklahoma State University.

A16 **656.16** Effect of Losartan on 2 Types of Macrophages in a Chronic Rat Model of Fat Embolism. **D. Arif, F. Khalafi, A. Siddiqi, S. Philips, A. Said, R. Ponnapureddy, K. Tappeta, A. Poisner, S. Hamidpour, A. Molteni.** University of Missouri-Kansas City, University of Kansas Medical Center.

A17 **656.17** Capsaicin Synergizes with Camptothecin to Show Enhanced Apoptotic Activity in Small Cell Lung Cancer. **J.R. Friedman, H.E. Perry, K.C. Brown, A.T. Akers, N.A. Nolan, W.D. Rollyson, Y.C. Chen, K.L. Denning, L.G. Brown, P. Dasgupta.** Joan C. Edwards School of Medicine, Marshall University and Alderson Broaddus University.

A18 **656.18** The Assessment of Clinically Relevant Extracellular Matrix Markers in a Bleomycin-Induced Mouse Model of Lung Fibrosis. **A. Young, P. Nath, D. Leeming, M. Karsdal, S. Brockbank, D. Rider, S. Cruwys.** Discovery, Charles River, United Kingdom, Nordic Biosciences, Denmark and Grunenthal, Germany.

A19 **656.19** Patient and Healthcare System Delay in Pulmonary Tuberculosis Patients, Tabriz, Iran 2012–2014. **M.E. Kalan, H.Y. Sis, V. Kelkar, S.H. Harrison, J. Han.** North Carolina Agricultral and Technical State University and Tuberculosis and Lung Disease Research Center, Iran.

A20 **656.20** Detection of Phenotypic Differences in Alveolar Macrophages Using Ionized Calcium-Binding Adapter Molecule 1 Marker. **D.K. Meyerholz, C.M. Hogan, R.M. Glanz, J.A. Goeken, M.R. Leidinger, G.K. Ofori-Amanfo, L. McQuillen, K.M. Donovan, S.C. Harwani, H.A. Flaherty.** University of Iowa Carver College of Medicine, University of Southern California and Iowa State University.

A21 **656.21** Influenza a Infection Decrease the Population of Tissue Resident Alveolar Macrophages. **F. Gonzalez-Gonzalez, A. McQuattie-Pimentel, S. Soberanes, M. Casalino-Matsuda, M. Chi, R. Piseaux, P. Sporn, S. Budinger.** Northwestern University.

A22 **656.22** Developing an in Vivo Model of Reinke's Edema. **A. Durkes, P. Sivasankar.** Purdue University.

657. IMMUNE RESPONSES IN PATHOLOGY

Poster

Sun. 9:00 **am**—McCormick Place Convention Center, Hall F

Immunopathology

Inflammation

Presentation time: 11:45 **am**–1:45 **pm**

A23 **657.1** Activity Transcription Factor 3 Suppressed LPS-Induced Adipocyte Inflammation in Experimental Sepsis. **Y. Wang, C. Cheng, P. Lai.** National Chung Hsing University, Taiwan, Buddhist Tzu Chi General Hospital, Taiwan and Buddhist Tzu Chi General Hospital, Taiwan.

A24 **657.2** ATF3 Protects LPS-Induced Acute Pancreatic Inflammation via Modulating NFκB-Mediated iNOS Production in Mice. **Y. Chen, Y. Tseng, C. Liu, H. Lin, C. Cheng, P. Lai.** Tzu Chi University, Taiwan, Buddhist Tzu Chi General Hospital, Taiwan and Taipei Medical University, Taiwan.

A25 **657.3** Inflammasome Inhibition in Influenza A Virus Infected Juvenile Mice Leads to Improved Survival and Outcomes. **N. Ravindran, C.M. Koch, K.M. Ridge, B.M. Coates.** Northwestern University.

A26 **657.4** Pro-Inflammatory and Anti-Inflammatory Cytokine Expression in *Tnf* $^{-/-}$ and WT Mice with Chronic Colitis. **T.M. Smith, A. Kozik, C.H. Nakatsu, Y.L. Jones-Hall.** Purdue University.

A27 **657.5** The Role of Scleraxis in Intestinal Fibroblasts. **C. Johnson, A. Nillas, T.A. Reaves.** Medical University of SC.

A28 **657.6** Involvement of RAGE Signaling and Inflammatory Cytokine Elaboration Following *in Vitro* Exposure to Electronic Cigarette Liquid. **K.M. Hirschi, J.B. Lewis, A.S. Ostergar, P.D. Hall, D.S. Broberg, J.A. Arroyo, P.R. Reynolds.** Brigham Young University.

A29 **657.7** The Effect of Plumbagin on Proinflammatory Cytokines Expression in LPS-Activated BV-2 Microglia Cells. **S.S. Messeha, N.O. Zarmouh, M.G. Kolta, K.F. Soliman.** Florida A&M University.

A30 **657.8** Comparative Analysis of Inflammatory Cytokines and Growth Factors in Young and Old Aged Normal Individuals. **S. Rodrigues, A. Walborn, D. Hoppensteadt, J. Fareed, M. Rondina.** Loyola University Chicago and University of Utah.

A31 **657.9** Tissue-Specific Expression Patterns of Tau and Ubiquitin Proteins Coordinated with *Yersinia pestis* Pathogenesis in a Non-Human Primate Model. **C. Moyler, N. Chakraborty, A. Gautam, R. Hammamieh, M. Jett.** The Geneva Foundation and U.S. Army Center for Environmental Health Research.

A32 **657.10** Identifying Key Domains in Endothelial IQGAP1 Critical for Leukocyte Transmigration. **P. Dalal, D. Sullivan, W. Muller.** Northwestern University.

A33 **657.11** Immunoproteomic Identification of Bovine Pericardial Heart Valve Antigens. **K.Y. Gates, A. Dalgliesh, L. Griffiths.** Mayo Clinic.

A34 **657.12** Sex, Age, and TNF Influence the Gut Microbiota in a Mouse Model of TNBS Colitis. **A.J. Kozik.** Purdue University.

A35 **657.13** Effect of Probiotic *Pediococcus pentosaceus* on Intestinal Permeability and Occludin Protein Distribution in a Murine Model of Colitis. **L. Torres-Aguilar, L. Rodriguez-Fragoso, F. Garcia-Vazquez, J. Reyes-Esparza.** Universidad Autonoma del Estado de Morelos, Mexico and Instituto Nacional de Pediatria, Mexico.

A36 **657.14** Increased Urinary IL-6 and Mucosal COX-2 Expression in Patients with Idiopathic Detrusor Overactivity. **H. Liu, H. Kuo.** Tzu Chi Hospitial, Taiwan.

A37 **657.15** Inflammation Response of Phage-Based Films on Titanium Surface *in Vitro.* **Y. Sun, B. Feng.** Southwest Jiaotong University, People's Republic of China.

A38 **657.16** PAD4 Deficiency Limits Kidney Dysregulation in a Murine Model of Shock/Sepsis. **B. Biron Girard, Y. Chen, C. Chung, J.B. Reichner, A. Ayala.** Brown University/Rhode Island Hospital and Rhode Island Hospital.

A39 **657.17** A Study Protocol for the Comparative Study of Biological and Metabolism Bio-Marker Between Healthy Population and Patients with Acne Vulgaris. **K. Kim, I. Ha, E. Kim.** College of Korean Medicine, Kyung Hee University, Republic of Korea, Korean Medicine Clinical Trial Center, Kyung Hee University Korean Medicine Hospital, Republic of Korea.

A40 **657.18** Gas6 Reduces Cellular Respiration and Increases Reactive Oxygen Species in Immortalized Human First Trimester Trophoblast Cells. **C.A. Mejia, M.B. Appiah, J.B. Lewis, B.T. Bikman, J.M. Hansen, P.R. Reynolds, J.A. Arroyo.** Brigham Young University.

A41 **657.19** Profiling of Inflammatory Biomarkers in Synovial Fluid from Patients Undergoing Primary Total Joint Arthroplasty. **E. Finkler, C. Wanderling, C. Thorson, K. Galicia, S. Statz, J. Fareed, W. Hopkinson.** Loyola University ChicagoSSOM

A42 **657.20** Splenic Natural Killer Cell Phenotypes Are Heritable and Correlate with Lifespan. **S.A. Bumgardner, Y. Zhou, Z. Jiang, E.J. Coe, R. Pazdro.** University of Georgia.

A43 **657.21** Silica-Triggered Multi-Organ Autoimmune Gene Expression in Lupus-Prone Mice Is Ablated by Docosahexaenoic Acid Consumption. **M.A. Bates, K.N. Gilley, D.N. Jackson-Humbles, J.R. Harkema, A. Holian, J.J. Pestka.** Michigan State University and University of Montana.

A44 **469.1** A Novel Murine Model of Primary Sclerosing Cholangitis Associated Inflammatory Bowel Disease. **K.D. Battista, C.T. Shearn, E.E. Alexeev, L.E. Glover, D.R. Petersen, S.P. Colgan, B.P. Fennimore.** University of Colorado.

658. PATHOBIOLOGY OF INFECTIOUS DISEASE

Poster

Sun. 9:00 **am**—McCormick Place Convention Center, Hall F

Inflammation

Immunopathology

Presentation time: 11:45 **am**–1:45 **pm**

A48 **184.6** Production of TLRs Triggered Pro-Inflammatory Cytokines Through Calcium Dependent and Independent Pathways in HaCaT Cells. **E. Kim, I. Ha, K. Kim.** Kyunghee University Korean Medicine Hospital, Republic of Korea, College of Korean Medicine, Kyunghee University, Republic of Korea.

A49 **658.1** West-Nile Virus Replicon Particles Infect 293T Cells Expressing Dendritic Cell-Specific Intercellular Adhesion Molecule-3-Grabbing Non-Integrin Related. **N. Leonard, N. Crowson, A. Madigan, M. Schmitz, E. Alcala, O. Martinez.** Winona State University.

A50 **658.2** Addition of Retinoic Acid-Inducible Gene 1 to Enhance Ebola Virus-Like Particle Vaccine. **E.O. Oredola, E. Pottebaum, M. Zell, O. Martinez.** Winona State University.

A51 **658.3** Investigating the Potential Role of North American Animals as Hosts for Zika Virus. **I. Ragan, E. Blizzard, R. Bowen.** Kansas State University and Colorado State University.

A52 **658.4** Evaluation of Fluorescence Microsphere Immunoassay for Antibody Detection to Rift Valley Fever Nucleocapsid Protein and Glycoproteins. **I. Ragan, B. Faburay, D.S. McVey, J.A. Richt, A.S. Davis, R.R. Rowland, W.C. Wilson.** Kansas State University and USDA ARS.

A53 **658.5** Reverse Transcriptase Real Time PCR Detection of Rift Valley Fever Virus RNA in Formalin-Fixed, Paraffin-Embedded Tissues. **D. Upreti, W.C. Wilson, J.A. Richt, A.S. Davis, J.D. Trujillo.** Kansas State University, USDA and ARS.

A54 **658.6** Co-Infection with *Giardia duodenalis* Protects the Host Against Enteropathogenic *Escherichia coli* via $NLRP_3$ Inflammasome-Dependent Anti-Microbial Peptide Production. **A. Manko, J. Motta, J. Cotton, A. Oyeyemi, B. Vallance, P. Beck, J. Wallace, A. Buret.** University of Calgary, Canada and University of British Columbia, Canada.

A55 **658.7** Effects of Acute Sepsis on Renal Structure and Sympathetic Innervation in Mice. **T. Alkhateeb, T.R. Ozment, G.A. Youngberg, M.E. Howell, C.A. Stuart, J.B. Price, T.C. Jones, D.L. Williams, T.E. Blair, D.B. Hoover.** East Tennessee State University.

A56 **658.8** Gelsolin, but Not Mucin, Inhibits *P. aeruginosa* Swimming Motility in Vitro. **A.B. Husak, S.A. Busch, J. Robarge, J.L. Bankers-Fulbright.** Augsburg College.

A57 **658.9** Method Development for the Micromolar Analysis of Pyocyanin (PYO) in Blood and Urine via Mass Spectrometry (MS). **T.P. Mawhinney, D.L. Chance, J.K. Waters, V.V. Mossine.** University of Missouri.

A58 **658.10** RGDSK Peptide Functionalized Helical Rosette Nanotubes (RGDSK-HRNs) Block Integrin $\alpha v\beta 3$ and inhibit *E. coli* Adherence to Intestinal Porcine Epithelial 1 Cell Line (IPEC1) *in Vitro.* **N. Le, C. Quach, G. Aulakh, V. Gerdts, H. Fenniri, B. Singh.** Western College of Veterinary Medicine, University of Saskatchewan, Canada, Vaccine and Infectious Disease Organization—International Vaccine Centre (VIDO—InterVac), Canada, Northeastern University, Faculty of Veterinary Medicine and University of Calgary, Canada.

A59 **658.11** Development of an *in Vitro* Bladder Epithelial Cell Culture System. **S. Kim.** Washington University in St Louis.

A60 **658.12** Model Systems to Study the Pathogenesis of Zika Virus-Mediated Eye Disease. **L.E. Martinez, D. Contreras, M.K. Jones, V. Gangalapudi, J. Tang, S. Wang, V. Arumugaswami.** Cedars-Sinai Medical Center.

A61 **658.13** Transcriptomic and Proteomic Analysis to Delineate the Mechanism of Antibiofilm Activity of 3-Furancarboxaldehyde on Group A Streptococcus. **S. Karutha Pandian, G. Ashwinkumar Subramenium.** Alagappa University, India.

A62 **658.14** Inhibition of Biofilm and Virulence of *Candida albicans* by a Marine Bacterial Isolate from Palk Bay. **G. Ashwinkumar Subramenium, T.K. Swetha, S. Karutha Pandian.** Alagappa University, India.

659. NEUROPATHOLOGY

Poster

SUN. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Neuropathology

Presentation time: 11:45 AM–1:45 PM

A63 **659.1** Floating Microelectrode Arrays Chronically Implanted Into the Feline Peripheral Nerve Elicit a Characteristic Tissue Response. **C.L. Kolarcik, K. Puglisi, A. Lesniak, A.J. Demetris, L.E. Fisher, R.A. Gaunt.** University of Pittsburgh.

A64 **659.2** Cyclin A2 Loss Impairs Hippocampal Development. **M. Goksel, P. Gygli, J. Chang, B. Goksel, H.N. Gokozan, R. Nelson, C. Czeisler, J.J. Otero.** The Ohio State University.

A65 **659.3** Visualization of Neuronal Connectivity in NPARM PHOX2b Mutants with a Modified PACT Protocol. **S.R. Fair.** The Ohio State University.

A66 **659.4** 1,2,3,4,6 Penta-O-Galloyl-β-D-Glucose Attenuates LPS/IFNγ-Induced MCP-5 and Pro-MMP-9 Cytokines Release in BV-2 Microglia Cells by Inhibiting NFκB and MAPK signaling Proteins. **P.F. Mendonca, E.F. Taka, D.F. Bauer, K.F. Soliman.** Florida A&M University.

A67 **659.5** Naturally, Occurring Neurotrophic Factor from *Mu Bie Zi* (*Momordica cochinchinensis*) Seeds. **E.A. Mazzio, B. Georges, K.F. Soliman.** Florida A&M University.

A68 **659.6** Alzheimer's Disease: Prevention, Symptoms and Treatment. **L. DiCarlo, G.P. Einstein, O.L. Tulp.** USAT Montserrat, Montserrat.

A69 **659.7** Ablation of Mitochondria Fusion Protein Mfn2 Causes an Oxidative Stress Response and Eventual Neuronal Death in the Hippocampus and Cortex. **S. Jiang, X. Wang, P. Nandy, C. Wang, S. Torres, S.L. Siedlak, X. Zhu.** Case Western Reserve University.

A70 **659.8** Caffeine May Affect Apoptosis and Autophagy Activity to Promote Dopaminergic Cells Survival Under the Rotenone Induced Parkinson Disease Model. **C. Luo, Y. Huang, B. Huang, T. Lu, Y. Fu.** Department of Biomedical Science and Environmental Biology, Kaohsiung Medial University, Taiwan, Department of Biomedical Science and Environmental Biology, Kaohsiung Medical University, Taiwan, Renal Division, Brigham and Women's Hospital, Harvard Medical School, Department of Biomedical Science and Environmental Biology, Center for Infectious Disease and Cancer Research and Kaohsiung Medical University, Taiwan.

A71 **659.9** Investigating the Underlying Mechanisms of Chemosensory Dysfunctions in Alzheimer's Disease Using *Caenorhabditis elegans* with Mutations in Presenilin 1. **M. Parvand, T. Bozorgmehr, C. Rankin.** University of British Columbia, Canada.

A72 **659.10** Aberrant Histone Turnover in Alzheimer's Disease. **J.A. Dowell, M.A. Gitcho, J.M. Denu.** Wisconsin Institutes for Discovery, Delaware State University and University of Wisconsin.

A73 **659.11** The Effect of Cardiolipin on Microglial Activation and Microglia-Mediated Neuronal Death. **C. Pointer, A. Klegeris.** University of British Columbia Okanagan, Canada.

A74 **659.12** High Fat Diet Increases Cognitive Decline and Neuroinflammation in a Model of Orexin Loss. **C.M. Duffy, J.P. Nixon, T.A. Butterick.** Minneapolis Veterans Affairs Health Care System, University of Minnesota, Minnesota's Discovery, Research, and Innovation Economy, Brain Conditions and Minnesota Obesity Center.

A75 **659.13** Innate Immunity and Alzheimer's Disease. **A. Affaneh, M. Lahey, Z. Langston, E. Cudaback.** DePaul University.

A76 **659.14** *APOE* Genotype-Dependent Differential Influences on MS. **M. Lahey, Z. Langston, A. Affaneh, E. Cudaback.** DePaul University.

A77 **659.15** APOE Genotype Influences Glial Activity in MS. **Z. Langston, M. Lahey, A. Affaneh, E. Cudaback.** DePaul University.

A78 **659.16** Better Targeting, Better Efficiency of Adeno-Associated Virus Gene Transfer in the Central Nervous System for Expression of Retromer Proteins. **D.D. Porter, K.L. Jackson, R.D. Dayton, R.L. Klein.** King University, LSU Health Shreveport and LSU Health Science—Shreveport.

A79 **659.17** Surface Area May Be a More Useful Risk Factor for Cerebral Aneurysm Rupture Than Maximum Diameter. **S. Fukuda, Y. Shimogona.** Kyoto Medical Center, Japan and Tohoku University, Japan.

A80 **659.18** Inhibition of Stroke-Induced Injury by Phlebotomy. **Y. Tsai, H. Liou, S. Tang, H. Liou, J. Jeng, W. Fu.** Institute of Pharmacology, College of Medicine, National Taiwan University, Taiwan, Department of Neurology and National Taiwan University Hospital, Taiwan.

A81 **659.19** Pathological Role of Two Chemokines RANTES and MIF in Ischemic Stroke. **Y. Liu, S. Tang, Liou, H. Tu, K. Kang, H. Liou, J. Jeng, W. Fu.** National Taiwan University, Taiwan and National Taiwan University Hospital, Taiwan.

A82 **659.20** Modeling the Ischemic Neurovascular Unit in a Dish Using Patient-Specific Induced Pluripotent Stem Cells. **S. Page.** TTUHSC.

A83 **659.21** Animating External Magnetic Guidance of Intrathecally Delivered Gold-Coated Nanoparticles to Treat Intramedullary Spinal Tumors. **A. Orland, K. Brennan, L. Lebowicz, C. Wellman, A. Mehta.** University of Illinois at Chicago.

A84 **659.22** Evaluation of Immunohistochemical Markers for Application in a Novel Neurofibromatosis-1 Porcine Model. **D.K. Meyerholz, G.K. Ofori-Amanfo, M.R. Leidinger, D. Quelle, B. Darbro, K. Panzer, J.C. Sieren, R. Khanna, C. Rogers, K. White, J. Weimer.** University of Iowa Carver College of Medicine, University of Iowa, University of Arizona, Exemplar Genetics, Sanford Research and University of South Dakota.

A85 **659.23** Regulator of G-Protein Signaling 6 (RGS6) Expression in Human Substantia Nigra Pars Compacta (SNc) and Loss in Parkinson's Disease (PD). **Z. Luo, K.E. Ahlers, J. Yang, B. Chakravarti, H.E. Stevens, N.S. Narayanan, R.A. Fisher.** The University of Iowa.

Pathology

803. LIVER HOMEOSTASIS, INJURY, AND REPAIR

Poster

MON. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Liver Pathobiology

Cell and Tissue Injury

Presentation time: 11:45 AM–1:45 PM

A1 **803.1** Wnt/Beta-Catenin and mTOR Signaling in Liver Pathophysiology. **A.O. Michael, T. Pradhan-Sundd, J. Russell, S.(. Monga.** University of Pittsburgh.

A2 **803.2** Loss of MET in the Absence of EGFR Signaling Leads to Hepatic Failure in the Resting Liver. **A. Tsagianni, W.M. Mars, W. Bowen, M. Haynes, S. Paranjpe, A. Orr, G. Michalopoulos.** University of Pittsburgh School of Medicine.

A3 **803.3** Bile Acid-Mediated Accumulation of Brain Cholesterol Contributes to Hepatic Encephalopathy Due to Acute Liver Failure. **S. DeMorrow, S. Grant, G. Frampton, M. McMillin.** Central Texas Veterans Healthcare System and Texas A&M HSC College of Medicine.

A4 **803.4** The Role of Lipocalin-2 (Lcn2) in Acetaminophen Induced Acute Liver Failure. **C. Paul, N. Gajjar, V. Bhave.** Philadelphia College of Osteopathic Medicine.

A5 **803.5** Transcriptional Response in a Rat Model of Liver Ischemia-Reperfusion Injury. **V. Zabala, P. Thevenot, A. Cohen, P.A. Gruppuso, J.A. Sanders.** Brown University and Ochsner Health System.

A6 **803.6** Lack of β-Catenin in Hepatocytes Impairs Proliferation and Promotes Liver Progenitor Cell-Mediated Repair in Response to the Choline-Deficient Ethionine-Supplemented Diet. **J.O. Russell, H. Okabe, S. Singh, M. Poddar, M. Abrams, K. Nejak-Bowen, S.P. Monga.** University of Pittsburgh and Dicerna Pharmaceuticals.

A7 **803.7** Leukocyte Specific Protein-1 (LSP1) Functions as a Suppressor of Proliferation During Liver Regeneration After Partial Hepatectomy (PHx) and in Primary Hepatocytes. **K. Koral, W. Bowen, M. Haynes, W. Mars, G. Michalopoulos.** University of Pittsburgh.

A8 **803.8** Acceleration of Liver Regeneration by Betaine Supplementation After Partial Hepatectomy. **D.S. Jun, Y.J. Choi, C.W. Ahn, Y.C. Kim.** Seoul National University, Republic of Korea.

804. PATHOBIOLOGY OF CHRONIC LIVER INJURY

Poster

MON. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Liver Pathobiology

Inflammation

Presentation time: 11:45 AM–1:45 PM

A9 **804.1** Up Regulation of Spleen Tyrosine Kinase in Ballooned Hepatocytes with Mallory-Denk Bodies in Alcoholic Liver Disease. **N. Afifiyan, S. Samadzadeh, M. Masouminia, B. Tillman, B.A. French, S.W. French.** Los Angeles Biomedical Research Institute and Harbor-UCLA Medical Center.

A10 **804.2** Role of Na^+-K^+-ATPase in Development of Alcoholic Fatty Liver Disease. **H. Matsumoto, K. Sugimoto, S. Yang.** Osaka University Graduate School of Medicine, Japan.

A11 **804.3** Characterization of Cellular Senescence Mechanisms in Alcoholic Liver Injury. **F. Meng, S.R. Lorenzo, H. Francis, S. Glaser, G. Alpini.** Baylor Scott & White Healthcare, Texas A&M HSC College of Medicine and Central Texas Veteran Healthcare System.

A12 **804.4** SREBP-1c Increases the Hepatic Inflammatory Response in Dairy Cows with Fatty Liver Through ROS-Mediated NF-κB Pathway. **X. Li, G. Liu.** Jilin University, People's Republic of China.

A13 **804.5** Diagnosis of Naturally Occurring Nonalcoholic Fatty Liver Disease (NAFLD) in Obese Rhesus Monkeys Using Dual-Energy CT (DECT) and Histopathology Criteria. **F. Sun, Z. Liang, Z. Yang, C. Tang, Z. Chen, Y. Shen, Z. Yao, M. Wu, Y. Chen, F. Gao, W. Zeng, B.C. Hansen.** Sichuan Primed Shines Bio-tech Co., Ltd, People's Republic of China, Department of Radiology, Ya'an People's Hospital, People's Republic of China, Department of Radiology, West China Hospital, Sichuan University, People's Republic of China, Department of Internal Medicine, Morsani College of Medicine, University of South Florida.

A14 **804.6** Mass Spectrometry Analysis of the Phosphoproteome in an *in Vitro* Lipotoxicity Model. **R. Khachatoorian, W. Cohn, E. Ganapathy, N. Liu, J. Vu, N. Lu, J. Whitelegge, S.W. French.** University of California at Los Angeles.

A15 **804.7** Mice Lacking Liver-Specific β-Catenin Develop Steatohepatitis and Fibrosis After Iron Overload. **M. Preziosi, S. Singh, E. Valore, C. Jung, S. Nagarajan, T. Ganz, S. Monga.** University of Pittsburgh and University of California at Los Angeles.

A16 **804.8** Wnt7b and Wnt10a, Beta-Catenin Independent Signaling Regulates Cholangiocyte Proliferation and Function During Cholestasis. **K. Kosar, K. Nejak-Bowen.** University of Pittsburgh School of Medicine.

A17 **804.9** Chronic Administration of Nicotine Increases Biliary Damage and Hepatic Fibrosis in Mdr2 Knockout (KO) Mice. **A. O'Brien, L. Ehrlich, C. Hall, T. White, D. Dostal, G. Alpini, S. Glaser.** Central Texas Veterans Foundation, Texas A&M Health Science Center, Baylor Scott & White Health and Central Texas Veterans Health Care System.

A18 **804.10** Integrin β6: Lost in Translation from Mouse to Human as a Target for Hepatic Fibrosis. **C. Saravanan, Y. Song, P. Wu, W. Hu, F. Bian, A. Heidt, K. Mansfield.** Novartis Institutes for Biomedical Research Institutes (NIBR), NIBR, People's Republic of China, and The Genomics Institute of the Novartis Research Foundation.

A19 **804.11** YAP/TAX Regulate Hepatic Stellate Cell and Portal Fibroblast Proliferation After Hepatic Ischemia/Reperfusion Injury. **T. Konishi.** University of Cincinnati.

A20 **804.12** The Inhibitory Effects of HJC0416 on Liver Fibrogenesis in Activated Hepatic Stellate Cells. **O. Nunez-Lopez, X. Wang, G. Graham, A. Kandathiparampil, N. Ye, H. Chen, H. Chen, J. Zhou, R.S. Radhakrishnan.** University of Texas Medical Branch and Texas Tech University Health Sciences Center School of Medicine at Amarillo.

A21 **804.13** Thymosin Beta 4 Influences Hedgehog Signaling by Interacting with Smo-Gli2 in Hepatic Stellate Cells. **J. Kim, Y. Jung.** Pusan National University, Republic of Korea.

805. PATHOBIOLOGY OF HEPATIC TUMORS

Poster

Mon. 9:00 AM—McCormick Place Convention Center, Hall F

Liver Pathobiology

Neoplasia

Presentation time: 11:45 AM–1:45 PM

A22 **805.1** Proteomic Analysis of Focal Lesions in a Rat Model of Progenitor Marker-Positive Hepatocellular Carcinoma. **A.O. Michael, N. Ahsan, H. Francois-Vaughan, V. Zabala, S. Post, K.E. Brilliant, A. Salomon, P. Gruppuso, J.A. Sanders.** Brown University, University of Pittsburgh and Rhode Island Hospital.

A23 **805.2** Glypican 3 (GPC3)-CD81 Axis Regulates Spleen Tyrosine Kinase (Syk)-Ezrin Mediated Hippo Pathway via Cross Talking with HGF/c-Met Axis in Hepatocytes and Hepatocellular Carcinoma (HCC). **Y. Xue, W. Bowen, K. Koral, A. Orr, W. Mars, G. Michalopoulos.** University of Pittsburgh.

A24 **805.3** FGF19 Induced Hepatocarcinogenesis in Mice. **J. Tao, S. Singh, X. Chen, p. Monga.** University of Pittsburgh Medical Center and University of California San Francisco.

A25 **805.4** Thyroid Receptor Beta Agonist Reduces Tumor Burden in an Established Murine Model of Human Hepatocellular Cancer. **Q. Min, E. Puliga, A. Columbano, S.S. Monga.** University of Pittsburgh, Renmin Hospital of Wuhan University, People's Republic of China, and University of Cagliari, Italy.

A26 **805.5** Lipocalin 2 Is a Yap-Beta-Catenin Target and a Biomarker of Disease Burden in a Murine Model of Hepatoblastoma. **D.E. Bell, J. Tao, M. Preziosi, T. Pradhan, S.P. Monga.** Children's Hospital of Pittsburgh and University of Pittsburgh.

A27 **805.6** Assessing the Role of Hepatocyte-Specific Wnts in Hepatocellular Carcinoma. **M. Preziosi, S. Monga.** University of Pittsburgh.

A28 **805.7** Understanding the Contribution of Macrophage-Specific Wnts to Hepatic Tumorigenesis and Cancer Progression. **M. Preziosi, S. Monga.** University of Pittsburgh.

806. CANCER AND MODIFIABLE RISK

Poster

Mon. 9:00 AM—McCormick Place Convention Center, Hall F

Neoplasia

Presentation time: 11:45 AM–1:45 PM

A29 **806.1** Analysis of Thermography and Breast Cancer Prevention Among Minority Women and Other Ethnic Groups. **K.M. New, G.P. Einstein, O.L. Tulp.** USAT Montserrat, Montserrat.

A30 **806.2** Alcohol Abuse Promotes Breast Cancer Development and Progression via StarD10 Phosphorylation. **A. Floris, C. Cossu, Y. Spissu, M. Tomasi.** Cedars-Sinai Medical Center.

A31 **806.3** Effects of High Fat Diet on 4-NQO-Induced Changes in a Variety of Tissues in a Mouse Model of Oral Cancer. **J. Goral, A. Meyer, L. Pitstick, M. Pytynia, R. Schmelter, F. Syed, A. Barakat, D. Oswald, A. Gladding, J. Pescatore, J.M. Green, M.J. Ciancio, B. Jham.** Midwestern University.

A32 **806.4** A High Fat Diet Augments 4NQO-Induced Oral Squamous Cell Carcinoma in Mice. **M. Pytynia, A. Meyer, A. Nguyen, J. Goral, J.M. Green, B. Jham, L. Pitstick, M.J. Ciancio.** Midwestern University.

A33 **806.5** C-Terminal Binding Protein and Snail: Understanding the Roles of Metabolic Imbalance and EMT in Breast Cancer Disparities. **A. Jones, A. Caban-Ureña, S. Park, S. Gil-Hernández, J. Shin, T. Yan, M. Kabbout, G. Liang, J. Byun, K. Gardner.** National Institute on Minority Health and Health Disparities and National Cancer Institute.

A34 **806.6** Exploring Molecular and Morphological Relationships Between Obesity and Ctbp in Breast Cancer. **S. Park, T. Yan, L. Crawford, D. Li, A. Jones, A. Caban, S. Gil-Hernandez, M. Kabbout, D. Yi, S. Ambs, V. Periwal, J. Byun, K. Gardner.** NCI, NIMHD and NIDDK.

A35 **806.7** Ketogenic Therapies on Cancer Cachexia in a Mouse Model of Metastatic Cancer. **A.P. Koutnik, A.M. Poff, N.P. Ward, J. DeBlasi, D.P. D'Agostino.** USF.

807. MOLECULAR TARGETS, BIOMARKERS, AND DISCOVERY IN NEOPLASIA

Poster

Mon. 9:00 AM—McCormick Place Convention Center, Hall F

Neoplasia

Presentation time: 11:45 AM–1:45 PM

A49 **807.1** Nuclear Trafficking of ABCB1-Daunorubicin Vesicles Initiated by Sphingomyelinase Reverts Multidrug Resistance in Chinese Hamster Fibroblasts. **W. Lee, R.N. Kolesnick.** Witten/Herdecke University, Germany and Memorial Sloan-Kettering Cancer Center.

A50 **807.2** African Americans with Pancreatic Ductal Adenocarcinoma Exhibit Gender Differences in Kaiso Expression. **A. Mukherjee, J. Jones, C. Yates.** Troy University and Tuskegee University.

A51 **807.3** In Vitro Anticancer Efficacy of a Polyphenol Combination of Curcumin, Quercetin, Green Tea Extract and Resveratrol in Human Cervical Cancer HeLa Cells. **M. Roomi, M. Rath, A. Niedzwiecki.** Dr Rath Research Institute.

A52 **807.4** Oncogenic Activity of MAN2A1-FER Fusion in Liver Cancer and Other Human Malignancies. **J. Luo, Z. Chen, S. Monga, G. Michalopoulos, Y.P. Yu.** University of Pittsburgh.

A53 **807.5** Anti-Proliferative Properties of Methanolic Extracts of *Annona muricata* in Colon, Lung and Skin Cancer Cell Lines. **J.F. Robles, K. Muñoz, N. Rivera, E. Suarez.** University of Puerto Rico, Puerto Rico.

A54 **807.6** Aspirin Attenuates Melanoma Tumor Growth via PGF2α-SOX-2 Dependent Pathways. **A. Thyagarajan-Sahu, R.P. Sahu.** Wright State University.

A55 **807.7** Intrinsic Reactivation of Human Endogenous Retroviruses in the Osteosarcoma. **S. Koks, G. Koks, X. Ho, K. Maasalu, A. Märtson.** University of Tartu, Estonia.

A56 **807.8** Substituted Chalcones and Flavones as Human Monoamine Oxidase a (hMAO-A) Inhibitors with Prostate Cancer Antiproliferative Effects. **N.O. Zarmouh, M. Gangapuram, S. Eyunni, F. Elshami, K.K. Redda, S.S. Messeha, K.F. Soliman.** Florida A&M University.

A57 **807.9** Cervical Cancer and HPV: Dilemmas and Resolution via Biomarkers. **D. Markovic, D. Markovic.** Global Academy for Women's Health, Inc.

A58 **807.10** Inhibition of CHOP Chemotherapy-Stimulated Hematological Tumor Growth with Resolvins. **D. Fernandes, M. Gilligan, M. Kieran, S. Huang, C. Serhan, D. Panigrahy.** Beth Israel Deaconess Medical Center, Dana-Farber Cancer Institute, Institute of Systems Biology and Brigham and Women's Hospital.

A59 **807.11** Absence of Class a Scavenger Receptor Distinguishes a Phenotype of Tumor Associated Macrophages in Classic Hodgkin's Lymphoma. **Y. Yuan, E. Holthoff, J. Post, J. James, G.R. Post, S.R. Post.** University of Arkansas for Medical Sciences.

A60 **807.12** Inhibition of Aggressive Natural Killer Cell Leukemia Cell Functions by Inhibitors of the Mevalonate Pathway and Its Products. **W. Carlson, P. Pradhan, T. Steele.** Des Moines University—College of Osteopathic Medicine.

A61 **807.13** Adjuvant Statin Therapy Efficacy Is Dictated by Tumor Dormancy and Statin Lipophilicity in *ex Vivo* and *in Vivo* Models of Metastatic Breast Cancer. **C.H. Beckwitt, A.M. Clark, K. Warita, Z.N. Oltvai, A. Wells.** University of Pittsburgh and Tottori University, Japan.

A62 **807.14** Characterization of Immunodeficient Mouse Models. **J. McClellan, R. Macasocal, T. Hare, M. Horn.** Envigo.

A63 **807.15** Optimization of Schwann Cell Differentiation from Porcine Stem Cells. **D. Schomberg, D. Shanmuganayagam.** University of Wisconsin-Madison.

A64 **807.16** Neuropilin Expression in Podocytes: The Implications for SEMA3 Anti-Cancer Therapy. **E.N. Nzikoba, A. Zessler, X. Li, D. Briscoe, R.M. Adam, V. Schumacher, D.R. Bielenberg.** Tufts University and Boston Children's Hospital.

A65 **807.17** Molecular Diagnostic Techniques Used to Confirm an Unusual Case of BAPoma. **A. Atkinson, K. Linos, S. Yan, G. Tsongalis, J. Lefferts.** Dartmouth-Hitchcock Medical Center.

A66 **807.18** HLA-DR Positive Acute Promyelocytic Leukemia (APL). **A.S. Mendoza, X. Qing, M. Dungo, J. Lasky, E. Panosyan, J. Cai.** Harbor-UCLA Medical Center and Terasaki Research Institute.

A67 **807.19** Hemophagocytic Lymphohistiocytosis in a Patient with Legionella Infection and Bone Marrow Monotypic Plasma Cells in the Setting of Chronic Lymphocytic Leukemia. **L. Nguyen, A. Ebaee, L. Pham, H. Ghani, S.W. French, X. Qing.** Harbor-UCLA Medical Center.

A68 **807.20** Use of Anchored Multiplex PCR Enrichment for Detection of Gene Fusions in Solid Tumors by Next Generation Sequencing. **D.C. Green, S.J. Deharvengt, F.B. de Abreu, H.B. Steinmetz, J.D. Peterson, G.J. Tsongalis.** Dartmouth Hitchcock Medical Center, Dartmouth Hitchcock Medical Center and Norris Cotton Cancer Center and Geisel School of Medicine.

808. TUMOR METASTASIS AND THE MICROENVIRONMENT

Poster

MON. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Neoplasia

Tumor Microenvironment and Metastasis

Presentation time: 11:45 AM–1:45 PM

A69 **808.1** Molecular Analysis of the Blood-Tumor Barrier in Brain Metastasis from Breast Cancer. **L. Lyle, R. Duchnowska, P. Lockman, C. Adkins, A. Shareef, E. Sechrest, E. Hua, D. Liewehr, S. Steinberg, W. Kloc, N. Nayyar, P. Brastianos, S. Patricia, B. Gril.** National Cancer Institue, Purdue University, Military Institute of Medicine, Poland, West Virginia University, Copernicus Hospital Gdansk, Poland and Harvard Medical School.

A70 **808.2** Cathepsin K Cleavage of SDF-1α Inhibits Its Chemotactic Activity Toward Glioblastoma Stem-Like Cells in Their Niches. **V. Hira, U. Verbovšek, B. Breznik, H. Kakar, J. Wormer, B. Van der Swaan, S. Mehta, T. Lah, C. Van Noorden.** Academic Medical Center, Netherlands, Barrow Neurological Institute and National Institute of Biology, Slovenia.

A71 **808.3** Expression of Matricellular Protein CCN1 in the Tumor Stroma Is Required for Melanoma Metastasis. **A. Leask, L. Postovit, K. Quensel, J. Hutchenreuther.** Western University, Canada and University of Alberta, Canada.

A72 **808.4** Assessing the Effects of TIMP2 Knockout on Lung Cancer Cell Lines Cultured in 3D. **D. Peeney.** NCI.

A73 **808.5** Solute Carrier Family 2 Member 4 Regulates TRIM24-DDX58 Axis to Promote Head and Neck Cancer Metastasis. **Y. Chang, M. Hsiao.** Academia Sinica, Taiwan.

A74 **808.6** Heparan Sulfate Proteoglycans Mediate Renal Carcinoma Metastasis. **H. Qazi, Z-D. Shi, J.W. Song, L.M. Cancel, L.L. Munn, J.M. Tarbell.** The City College of The City University of New York, Sloan-Kettering, The Ohio State University and Massachusetts General Hospital.

809. BREAST CANCER

Poster

MON. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Breast Cancer

Neoplasia

Presentation time: 11:45 AM–1:45 PM

A75 **809.1** 3,4,2,4 Tetrahydroxychalcone (Butein) Inhibition of TNFα-Induced CCL2 Release in Triple Negative Breast Cancer Cells. **A.C. Horton, D.F. Bauer, K.F. Soliman.** Florida A&M University.

A76 **809.2** MiR-105/93-3p Promotes Metastasis, Chemoresistance and Stemness in TNBC and Circulating miR-105/93-3p Act as Predictive Biomarker for TNBC Chemoresistance. **H. Li, P. Lu.** National Cheng Kung University, Taiwan.

A77 **809.3** Apigenin Modulation of Whole Transcriptome Patterns of TNFα-Induced Changes in Triple Negative Breast Cancer Cells, MDA-MB-231. **D. Bauer, E. Mazzio, K.F. Soliman.** Florida A&M University.

A78 **809.4** Quercetin Inhibition of TNFα-Induced CCL28 Release from Human Triple Negative Breast Cancer (MDA-MB-468) Cells. **T.F. Buchanan, D. Bauer, K.F. Soliman.** Florida A&M University.

A79 **809.5** Gradient Irradiation Enhances Cell Killing Efficiency via Bystander Effects in MCF-7 Cells. **L. Zuo, T. Zhou.** Ohio State University.

A80 **809.6** Glutamine Transporter Expression Profiling in Murine Breast Cancer Reveals Therapeutic Targets for Triple Negative Breast Cancer. **C. Kron, B. Bode.** Northern Illinois University.

A81 **809.7** Internalization and Trafficking of PD-L1 in MDAMB231 Breast Cancer Cells. **A. Rudkouskaya, M. Barroso.** Albany Medical College.

A82 **809.8** Autophagy and Glutamine Synthetase Induction Sustain ALL Blast Resistance to L-Asparaginase in Human Bone Marrow Mesenchymal Stromal Cells. **M. Chiu, D. Bardelli, G. Taurino, E. Dander, M.G. Bianchi, P. Mirandola, C. Carubbi, G. D'Amico, C. Rizzari, O. Bussolati.** University of Parma, Italy, University of Milano-Bicocca, Italy, San Gerardo Hospital and University of Milano-Bicocca, Italy.

A83 **809.9** Exploring the Relationship Between Kaiso and C-Terminal Binding Protein in Breast Cancer in Women of African Ancestry. **A.B. Caban-Ureña, A. Jones, J. Shin, S. Park, S. Gil-Hernández, T. Yan, M. Kabbout, G. Liang, J. Byun, K. Gardner.** National Institute on Minority Health and Health Disparities and National Cancer Institute.

A84 **809.10** Induction of Paclitaxel Resistance in Human Breast Cancer Cell by JNK/SAPK-Inhibitory Kinase Through MAPK14/RELA/PTGS2 Signaling. **T. Lai.** Genomics Research Center and Academia Sinica, Taiwan.

A85 **809.11** Enlarged Endosomes and Altered Transferrin Recycling in Breast Cancer Cells. **K.E. Tubbesing, A. Malhotra, A. Rudkouskaya, M. Barroso.** Albany Medical College.

A86 **809.12** Hypoxia Stimulates an Increase of Neuropeptide Y Y1 and Y5 Receptor Expression in Human Breast Cancer Cells. **P.J. Medeiros, J. Uniacke.** University of Guelph, Canada.

A87 **809.13** Fatty Acid Desaturation and Triglyceride Accumulation Protects Breast Cancer Cells Against Fatostatin Induced Apoptosis. **V. Brovkovych, J.M. Danes, I.T. Sakallioglu, G. Atilla-Gokcumen, J. Frasor.** University of Illinois at Chicago and University at Buffalo.

A88 **809.14** Uncoupling Effects of ERα on LKB1/AMPK Signaling Induced by Adiponectin in Breast Cancer Cells. **L. Mauro, G.D. Naimo, L. Gelsomino, E. Spina, M.L. Panno, S. Andò.** University of Calabria, Italy.

A89 **809.15** Mangenese Superoxide Dismutase (MnSOD) Promotes Stem-Like Cell Phenotypes in Breast Cancer. **C. He, P. Hart, K. Fricano, M. Vargas, K. Thieraud, A. Luelsdorf de Abreu, M. Bonini.** University of Illinois at Chicago.

A90 **809.16** MED28 Regulates Proinflammatory Cytokine-Induced Epithelial–mesenchymal Transition and Invasion in Human Breast Cancer Cells. **N. Hsieh, C. Huang, C. Li, Y. Weng, M. Lee.** China Medical University, Taiwan and Chang Jung Christian University, Taiwan.

Pathology

976. DIABETES, OBESITY, AND METABOLISM IN DISEASE

Poster

TUE. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Presentation time: 11:45 AM–1:45 PM

A1 **976.1** Purine Metabolism and Barrier Formation in Intestinal Epithelial Cells. **J. Lee, S.P. Colgan.** University of Colorado Anschutz Medical Campus.

A2 **976.2** Withdrawn.

A3 **976.3** Exposure to Oxidized Tyrosine Products Induced Glycometabolism Disorder Involving Thyroid Hormones Resistance in C57BL/6 Mice. **Y. Ding, Z. Li, Y. Ran, Y. Shi, G. Le.** Food Nutrition and Functional Factors Research Center, People's Republic of China, The Laboratory of Food Nutrition and Functional Factors, People's Republic of China.

A4 **976.4** Histopathological Dissection of Three Different Osteoporosis Animal Models Including Ovariectomy Female, *F*VIII Knockout and *Akr1A1* Knockout Mice. **W. Lin, R. Chang, Y. Liu, C. Chen.** Department of Life Sciences and National Chung Hsing University, Taiwan.

A5 **976.5** Withdrawn.

A6 **976.6** SGI-1252, a TGF-Beta Inhibitor, Protects Against Diet-Induced Obesity and Insulin Resistance in Mice. **B. Dallon, B.T. Bikman.**

A7 **976.7** Left Ventricular Diastolic Dysfunction in a Model of Obesity Induced by a High Carbohydrate Diet. **P.R. Alves, F. Hasimoto, K. Kitawara, F. Fransciqueti, A. Ferron, S. Bazan, D. Campos, A. Ferreira, C. Corrêa.** Botucatu Medical School, Brazil.

A8 **976.8** Incidence of Obesity Among Employees in a Nigerian University. **O.C. Emiloju, S.N. Chinedu, F.N. Iheagwam, M. Onuoha.** Department of Biological Sciences, College of Science and Technology, Covenant University, Nigeria, Department of Biological Sciences, College of Science and Technology, Covenant University, Nigeria, Covenant University Medical Centre and Covenant University, Nigeria.

A9 **976.9** Insulin Alters Brain Lipid Profile and Mitochondrial Function. **S. Carr, A. Trumbull, B. Hutchinson, B. Dallon, M. Harrison, H. Gray, J. Gibbs, D. Eskildsen, J. Kudlacek, B. Heldt, C. Clayton, J.J. Wisco, B.T. Bikman.** Brigham Young University.

A10 **976.10** Sex Differences in Placental Mitochondrial Function Associated with Ozone-Induced Fetal Growth Restriction. **C.N. Miller, K.S. Lavrich, D. Freeborn, P.R. Kodavanti, U. Kodavanti, J.A. Dye.** US Environmental Protection Agency and University of North Carolina at Chapel Hill.

A11 **976.11** Paradoxical Effects of PGC-1 Isoforms on Retinal Pigment Epithelium: Implication for Neovascular Retinal Diseases. **M. Saint-Geniez, Q. Charles, M. Rosales, A. Khadka, J. Iacovelli.** Harvard Medical School, Schepens Eye Research Institute-Massachusetts Eye and Ear Infirmary and Boston University.

A12 **976.12** Expression of Glucose Transporter Proteins (GLUTs) in Human Placental Tissue After Normal vs. Diabetic Pregnancy. **D. Szukiewicz, P.J. Stanirowski, M. Pyzlak, N. Abdalla, W. Sawicki, K. Cendrowski.** Dept. Gen & Exp. Pathology with Centre for Preclinical Research and Technology (CePT), Poland and Medical University of Warsaw, Poland.

977. DIAGNOSIS AND PATHOGENESIS OF HEART DISEASE

Poster

TUE. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Cardiac Pathobiology

Presentation time: 11:45 AM–1:45 PM

A13 **977.1** Pulsed-Wave Doppler Blood Flow Through the Pulmonary Trunk as a Valuable Method to Determine Cardiac Output Following Myocardial Infarction. **M.J. Platt, J.S. Huber, K.R. Brunt, J.A. Simpson.** University of Guelph, Canada and Dalhousie Medicine, Canada.

A14 **977.2** PSEN1 as an Adjunct for Diagnosis of Human Myocarditis. **P.J. Hanson, E.L. Jang, H. Rai, A.Y. Chang, A.Y. Mo, B.M. McManus, M.A. Seidman.** University of British Columbia, Canada and Providence Health Care, Canada.

A15 **977.3** The p53-Specific Inhibitor Pifithrin-α Prevents Diabetic Cardiomyopathy by Attenuating the Early-Stage Apoptosis and Improving Late-Stage Defects in Glycolysis and Angiogenesis. **J. Gu, L. Cai.** University of Louisville, Kosair Children Hospital Research Institute, University of Louisville.

A16 **977.4** Inhibition of HDAC, Especially HDAC3, Prevents Diabetic Cardiomyopathy in OVE26 Mice via Epigenetic Inhibition of ERK1/2-DUSP5 Pathway. **Z. Xu, L. Cai.** The First Hospital of Jilin University, People's Republic of China, Kosair Children Hospital Research Institute and University of Louisville.

A17 **977.5** Aliskiren Does Not Protect the Heart from the Acute Histopathological Effects of Fat Embolism When It Protects the Lungs. **R. Ponnapureddy, A. Poisner, A. Fletcher, C. Patel, K. Tappeta, A. Fotouhi, A. Molteni.** University of Missouri—Kansas City and University of Kansas Medical Center.

A18 **977.6** Blood Plasma Concentration and Activity of Pancreatic Lipase, Pancreatic Trypsin, MMP-9, and Elastase in Congestive Heart Failure. **V. Courelli, A. Courelli, E. Stimson, A. Modestino, P. Mills, G. Schmid-Schoenbein.** University of California San Diego.

A19 **977.7** Fibrinogen Alpha Is the Precursor Protein of Cardiac Valve Amyloidosis. **K. Miura, H. Katoh, T. Tsuchida.** Hamamatsu University School of Medi, Japan and Kosai Hospital, Japan.

A20 **977.8** Dipeptidyl Peptidase-4 (DPP-4) Inhibition with Linagliptin Reduces the Induction of Proinflammatory/ Profibrotic TRAF3IP2 in the Hearts of Female Mice Fed a Western Diet. **A. Aroor, H. Kandikattu, J. Habibi, M. Garro, T. Klein, J.R. Sowers, A.J. Valente, V. DeMarco, C. Bysani.** University of Missouri, Harry S Truman Memorial Veterans Hospital, Boehringer Ingelheim Pharma, Germany and University of Texas Health Science Center.

A21 **977.9** Naturally Occurring Mechanisms for the Resolution of Pulmonary Vascular and Right Ventricular Remodeling. **N.V. Shults, Y. Suzuki.** Georgetown University.
A22 **977.10** The Role of Cystathionine Gamma Lyase and Endothelial Nitric Oxide Synthase for Cardiovascular Homeostasis. **M. Al Shaarani, J. Green, J. Traylor, M. Bhuiyan, A. Orr, C.G. Kevil.** LSU Health Sciences Center.
A23 **977.11** ErbB Receptors Signaling Promote Endothelial Phenotype of Human Left Ventricular Epicardial Highly Proliferative Cells. **S. Ryzhov, M.P. Robich, R. Rath, D.J. Roberts, R. Quinn, R.S. Kramer, D.B. Sawyer.** Maine Medical Center and University of California.
A24 **977.12** Phosphorylation of Plakoglobin at S665 Is Essential for Positive Adhesiotropy in Cardiomyocytes. **C. Schinner, F. Vielmuth, M. Radeva, A. Schmidt, A. Imhof, J. Waschke.** Ludwig-Maximilians-Universität München, Germany.

978. VASCULAR BIOLOGY

Poster

Tue. 9:00 **am**—McCormick Place Convention Center, Hall F

Vascular Biology

Presentation time: 11:45 **am**–1:45 **pm**

A25 **978.1** Histamine Causes Endothelial Barrier Disruption via Ca^{2+}-Mediated RhoA Activation and Enhanced Force Generation at Intercellular Junctions. **L. Rotkopf, D. Kugelmann, E. Walter, M. Radeva, J. Waschke.** Ludwig-Maximilians-Universität München, Germany.
A26 **978.2** Spectral Domain Optical Coherence Tomography Correlates Retinal Thinning to Retinal Vascular Development in an in Vivo Mouse Model of Retinopathy of Prematurity. **O.J. Mezu-Ndubuisi, L.K. Taylor, J.A. Schoephoerster.** University of Wisconsin.
A27 **978.3** Conversion of Human Induced Pluripotent Stem Cells Into Cardiac Progenitor Cells for Heart Repair. **W. Xuan, A. Ali, M. Ashraf.** University of Illinois at Chicago.
A28 **978.4** Identification and Characterization of Novel Hemostatic Biomarkers of Adverse Clinical Events in Patients with Continuous Flow Left Ventricular Assist Device Implants. **N. McClane, W. Jeske, J.M. Walenga, V. Escalante, E. Coglianese, D. Hoppensteadt, J. Schwartz, M. Bakhos.** Loyola University Chicago and SSOM.
A29 **978.5** Mechanism of Lysyl Oxidase-Like 2 Regulation in Vasculature. **H. Wang, J. Steppan, S. Jandu, S. Melucci, L. Santhanam.** Johns Hopkins University.
A30 **978.6** ENaC-a Mediates the Protective Effect of the TNF-Derived TIP Peptide in Pneumolysin-Induced Capillary Barrier Dysfunction. **I. Czikora, S. Sridhar, A. Alli, A. Verin, T. Chakraborty, D. Fulton, D.C. Eaton, R. Lucas.** Augusta University, University of Florida College of Medicine, Justus-Liebig University, Germany and Emory University.
A31 **978.7** An Experimental Model of Restoration of Renal Blood Flow in Murine 2-Kidney 1-Clip Hypertension. **J.P. Grande, M. Osman, S. Kashyap, Z. Hu.** Mayo Clinic.
A32 **978.8** Vascular Endothelial Cell Responses to Increased Hydrostatic Pressure. **K. Chung, E. Patterson, A. Lawendy, D. Fraser, G. Cepinskas.** Lawson Health Research Institute, Canada and University of Western Ontario, Canada.
A33 **978.9** Overexpression of MCPIP1 Attenuates IL-6-Induced Vascular Smooth Muscle Cell Migration by Suppressing IL-6-Stimulated $STAT_3$ Signaling. **Y. Chang.** A.T. Still University.
A34 **978.10** Comparison Between Anti-β2 Glycoprotein I Antibody and Anti-Phosphatidylserine/Prothrombin Antibody Pro-Thrombotic Effects on Peripheral Blood Monocytes and Endothelial Cells. **A. Cifù, M. Fabris, C. Pistis, R. Domenis, S. Quaglia, F. Curcio.** University of Udine, Italy.
A35 **978.11** Sepsis-Associated Elastase and Proteinase 3 Induce Endothelial Permeability. **E.K. Patterson, G.K. Cepinskas, K. Inoue, D.D. Fraser.** Lawson Health Research Institute, Canada and Western University, Canada.
A36 **978.12** TNFalpha and IL-1beta Synergically Decrease VEGFR2 and Increase VEGFR1 Protein Expression in Endothelial Cells. **X. Yan, E. Managlia, I.G. De Plaen.** Lurie Children's Hospital of Chicago.
A37 **978.13** Restoring Hemostasis Following Injury Using Polyphosphate-Coated Silica Nanoparticles. **D. Kudela.** University of California at Santa Barbara.
A38 **978.14** Withdrawn.
A39 **978.15** Extrinsic and Common Coagulation Pathway Profiling in TJA Patients. **C. Wanderling, J. Liles, E. Finkler, S. Statz, P. Caarlsgard, W. Hopkinson, D. Hoppensteadt, J. Fareed.** Loyola University Chicago- SSOM.
A40 **978.16** The Role of IQGAP1 in Transendothelial Migration: From in Vitro Identification to in Vivo Validation. **D.P. Sullivan, P.J. Dalal, W.A. Muller.** Northwestern University.
A41 **978.17** Activation of AXL Receptor via Gas6 Induces Preeclampsia in Rats. **T.M. Dunaway, J.B. Lewis, K.M. Hirschi, C.A. Mejia, J.F. Mejia, P.D. Hall, P.R. Reynolds, J.A. Arroyo.** Brigham Young University.
A42 **978.18** Inhibition of the receptor for advanced glycation end-Products (RAGE) Protects from Secondhand Smoke (SHS) Induced Intrauterine Growth Restriction (IUGR) in Mice. **J.B. Lewis, C.A. Mejia, C. Jordan, T.D. Monson, J.S. Bodine, T.M. Dunaway, K.M. Egbert, T.J. Wright, K.C. Ogden, D.S. Broberg, P.D. Hall, S.M. Nelson, K.M. Hirschi, P.R. Reynolds, J.A. Arroyo.** Brigham Young University.

979. GENE EXPRESSION

Poster

Tue. 9:00 **am**—McCormick Place Convention Center, Hall F

Gene Expression

Presentation time: 11:45 **am**–1:45 **pm**

A49 **979.1** Withdrawn.
A50 **979.2** The Effects of Virally-Induced Maternal Inflammation on the Methylation Patterns of Skeletal Muscle in Offspring. **E.K. Hogan, J.E. Beever, A.C. Dilger.** University of Illinois.
A51 **979.3** A Novel BET Family Bromodomain Inhibitor NHWD-870 Represents a Promising Therapeutic Agent for a Broad Spectrum of Cancers. **M. Yin, N. Wang, Q. Yan.** Yale School of Medicine, Ningbo Wenda Pharma, People's Republic of China.
A52 **979.4** Epigenetic Regulation of *Stab2* Expression in DBA Mice in Determining Atherosclerosis Susceptibility. **S. Dong, Y. Kayashima, N. Maeda.** UNC-Chapel Hill.
A53 **979.5** Reliable CD4 and CD8 T Cell Marker Immunohistochemistry on Formalin-Fixed and Histochoice-Fixed Paraffin Embedded Mouse Spleen. **K.N. Bradshaw, J. Weng-Race, J.M. Ward, J.E. Rehg, J.A. Kovacs, A.S. Davis.** Kansas State University, Global VetPathology, St. Jude Children's Research Hospital and National Institutes of Health Clinical Center.

A54 **979.6** miR-16 Mediated *MYB* Gene Silencing Induces Fetal Hemoglobin Expression. **C.R. Pounds, M. Takezaki, B. Li, C. Ward, N. Lopez, B.S. Pace.** Medical College of Georgia at Augusta University.

A55 **979.7** Gene Expression Profile During the Repair Process in a Rat Calvarial Bone Critical Size Defect. **J.L. Clifford, R. Yang, P.D. Bowman, J.A. Bynum, J.C. Wenke, R. Hammamieh.** US Army Center for Environmental Health Research and US Army Institute of Surgical Research.

A56 **979.8** Revealing Age-Associated Genetic Alterations in Mouse Oocytes by Single-Cell Exome Sequencing. **T. Lee, Y. Qian, J. Liao, X. Zeng, K. Tsui, T. Li, W. Chan.** The Chinese University of Hong Kong, Hong Kong.

980. BIOINFORMATICS AND COMPUTATIONAL PATHOLOGY

Poster

Tue. 9:00 AM—McCormick Place Convention Center, Hall F

Digital and Computational Pathology

Imaging, Immunohistochemistry and Microscopy

Presentation time: 11:45 AM–1:45 PM

A57 **980.1** Automated Fluorescent Miscroscopic Image Analysis of PTBP1 Expression in Glioma. **B. Goksel, E. Goceri, B. Elder, V. Puduvalli, M. Gurcan, J.J. Otero.** The Ohio State University.

A58 **980.2** An Integrated Study of Gene Expression Profile Uncovers Similarity Between Embryogenesis, Bone Development, Wound Healing, and Prostate Cancer. **T.S. Rayburn, A. Mukherjee, W.A. Byrd, J. Jones.** Troy University.

A59 **980.3** Identification of Key Transcription Factor Target Interactions That Regulate Prostate Cancer Metastasis. **N. Sharma, K.L. Pellegrini, F.O. Giuste, V. Ouellet, D. Trudel, A. Mes-Masson, F. Saad, A.O. Osunkoya, J. Petros, C.S. Moreno.** Emory University and University of Montreal, Canada.

A60 **980.4** Targeted RNA Sequencing of FFPE Prostate Biopsies and Matched Prostatectomies. **N.V. Sharma, K.L. Pellegrini, A.O. Osunkoya, T. Gillespie, J. Petros, E. Huang, M.G. Sanda, C.S. Moreno.** Emory University.

A61 **980.5** Three-Dimensional Histochemistry and Imaging of Extracellular Matrix-Rich Human Tissues. **C.J. Van Noorden.** Academic Medical Center, Netherlands.

981. CELL INJURY, DEATH, AND SURVIVAL

Poster

Tue. 9:00 AM—McCormick Place Convention Center, Hall F

Cell and Tissue Injury

Immunopathology

Presentation time: 11:45 AM–1:45 PM

A62 **981.1** Beneficial Effect of Exogenously Applied Melatonin on Wound Healing in Skin Injured Animal Model. **J. Choi, J. Won, Y. Hong.** Inje University, Republic of Korea.

A63 **981.2** Kinesiological Benefits of Botulinum Toxin Type A Combined with Exercise on the Functional Recovery After Spinal Cord Injury. **Y. Jin, S. Park, Y. Hong.** Graduate School of Inje University, Republic of Korea, Inje University, Republic of Korea.

A64 **981.3** Cytoprotective Chaperone Proteins Are Novel Anti-Inflammatory Targets in Sickle Cell Disease. **C. Anea, S. Kumar, I. Lee, J. Brittain.** Augusta University.

A65 **981.4** Inactivation of the Glyoxalase Anti-Glycation System in Porcine Brain Post-Cardiac Arrest and Its Preservation by Pyruvate. **G.F. Scott, B.H. Cherry, A. Williams, M. Ryou, A. Nguyen, R.T. Mallet.** UNTHSC.

A66 **981.5** The Immunomodulatory Properties of Adipose Mesenchymal Stem Cell-Derived Exosomes Are Induced by Inflammatory Cytokines. **R. Domenis, S. Quaglia, A. Cifù, C. Pistis, M. Fabris, M. Moretti, A. Vicario, K. Niazi, F. Curcio.** Univeristy of Udine, Italy, VivaBioCell, Italy and NantBioScience.

A67 **981.6** Scientometric Analysis of Publications on Three-Dimensional Bioprinting. **E. Sohn, E. Sohn.** Korea Institute of Science and Technology Information, Republic of Korea, Kangwon National University, Republic of Korea.

A68 **981.7** Comparison of Topical PDGF and Naltrexone on Full-Thickness Diabetic Wound Healing. **M.B. Titunick, J. Cain, I. Zagon, P. McLaughlin.** Penn State College of Medicine.

982. ENVIRONMENTAL AND TOXICOLOGICAL PATHOLOGY

Poster

Tue. 9:00 AM—McCormick Place Convention Center, Hall F

Environmental and Toxicologic Pathology

Presentation time: 11:45 AM–1:45 PM

A69 **982.1** Induction of Transformation by Freshly Fractured Silica in JB6 and BEAS-2B Cells. **M. Ding, T. Barber, J. Aldinger1, L. Bowman, T. Meighan, J. Zhao.** NIOSH/CDC, School of Medicine, Ningbo University, People's Republic of China.

A70 **982.2** Arsenic Exposure Promotes Aggressive Breast Cancer Phenotype. **A. Luelsdorf.** UIC.

A71 **982.3** Biosafety Assessment of Petroleum Ether Oil of *Ricinus communis* C in Wistar Rats. **A.C. Adenike, A.F. Adeniyi, A.A. Adeniyi.** Federal University of Technology, Akure, Nigeria, Federal College of Agriculture, Akure, Nigeria, Rufus Giwa Polythecnic and Owo, Nigeria.

A72 **982.4** The Impact of Early Detection of Mental Illness in Jails and Prisons. **B.I. Ekwe, G.P. Einstein, O.L. Tulp.** USAT Montserrat, Montserrat.

A73 **982.5** Ethnic Variations in Mercury Exposure from Seafood Consumption and the Risk of Kawasaki Disease in Young Children. **M.A. Portman, D. Yeter, H.-C. Kuo.** Seattle Childrens Research Institute and Kaohsiung Chang Gung Memorial Hospital, Taiwan.

A74 **982.6** Protective Role of Metallothioneins in Human Endothethial Cells in Acute Response to High Dose Cadmium Chloride. **Y. Zhang, T.T. Kucynda, G. Marsboom, A. Kajdacsy-Balla.** University of Illinois Hospital & Health Sciences System and University of Illinois College of Medicine.

A75 **982.7** Mode of the Inhibition of Venom Collagenase by Actinonin. **J.A. Price, J. Sun.** OSU-COM.

A76 **982.8** Investigative Analysis of the Waste Impact in the Environmental by Necropsies in Rescued Sea Turtles (*Chelonia mydas*) in Ubatuba, São Paulo State, Brazil. **J. Duarte, T.C. Hipolito, A.C. Tasaka, V.C. Hyodo, E. Mergulhao.** UNIP, Brazil.

983. IMMUNOHISTOCHEMISTRY, MICROSCOPY, AND IMAGING

Poster

TUE. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Imaging, Immunohistochemistry and Microscopy

Presentation time: 11:45 AM–1:45 PM

A77 **983.1** Quantitative Image Analysis of Traumatic Brain Injury Induced Aspiration Pneumonia Treatment. **C.C. Howell, G.E. Sandusky.** Indiana University-Purdue University Indianapolis.

A78 **983.2** Development of a Silver Methenamine Masson Trichrome (SMMT) Stain for Use in Sheep Kidneys. **M. Smith, K. Wyatt, J. Weng, A.S. Davis.** College of Veterinary Medicine and Kansas State University.

A79 **983.3** Validated Antibody Database (VAD): A Database of Antibodies Curated from Publications. **H. Xie.** Labome/Synatom Research.

A80 **983.4** Autonomic Nervous Tone During Histopathological Diagnosis of Oral Squamous Cell Carcinoma in Virtual Images. **E.A. Mondragon.** Universidad Militar “Nueva Granada”, Colombia and Universidad de la Sabana, Colombia.

984. TRANSLATIONAL SCIENCE

Poster

TUE. 9:00 AM—MCCORMICK PLACE CONVENTION CENTER, HALL F

Presentation time: 11:45 AM–1:45 PM

A81 **984.1** Small Peptide Antagonists Derived Based on in Silico Analysis Block CXCL10-CXCR3 Signaling and Function on Cardiac Fibroblasts and Cardiomyocytes. **L. Espinoza Ornelas, B.J. Lantonio, J. Jaynes, R. Bodnar, M.S. Willis, C.C. Yates.** University of Pittsburgh, Tuskegee University and University of North Carolina at Chapel Hill.

A82 **984.2** A Novel Gene Therapy in Hemophilia a Mouse Model by Using Lipid-Coated Fe_3o_4 Nanoparticles. **Y. Chen, T. Tsai, P. Lai, C. Chen.** National Chung Hsing University, Taiwan.

A83 **984.3** Nitro Blue Tetrazolium (NBT) Staining as an Assessment of Thermal Penetration. **J.H. Fugett; II, H. Bennett, J. Shrout, J. Coad.** West Virginia University.

A84 **984.4** Latest Reference Genome Rat Strain-Specific Variants Provide New Insight Into Human Diseases. **M. Tutaj, J.R. Smith, J.L. De Pons, S.J. Laulederkind, M.A. Tutaj, G. Hayman, S. Wang, V. Petri, M.R. Dwinell, M.E. Shimoyama.** Medical College of Wisconsin.

A85 **984.5** High-Precision Pharmacokinetic Measurements in Anesthetized and Awake Behaving Animals. **P.A. Vieira, N. Arroyo, C. Shin, K. Ploense, K. Plaxco, T. Kippin.** California State University and University of California.

A86 **984.6** Immuno-Modulating and Anti-Viral Properties of Tulathromycin in Porcine Reproductive and Respiratory Syndrome. **D.J. Desmonts de Lamache, R.D. Moges, R. Yates, N. McKenna, D.W. Morck, A.G. Buret.** University of Calgary, Canada.

A87 **984.7** Circulating Concentrations of Gdf8, But Not Gdf11, Are Heritable When Evaluated by Lc-Ms/ms. **S.A. Bumgardner, R. Pazdro.** University of Georgia.

ASIP 2018 Annual Meeting at Experimental Biology – San Diego, CA
April 21-25, 2018

Preliminary Program

Saturday, April 21		Sunday, April 22		Monday, April 23		Tuesday, April 24	
AM	PM	AM	PM	AM	PM	AM	PM
Highlights: Graduate Student Research in Pathology	Pathobiology for Basic Scientists	VAMP	Cellular Adaptive Response and its Role in Tissue Injury, Tumorigenesis and Cancer Progression	HCS Symposium	The Bridge Between Liver Injury and Regeneration	SCVP Symposium	What's the Big Deal about Big Data: Mining Molecular Epidemiology for Insights into Pathogenesis
EMT, An Ever-Changing Process of Cancer	Blood Vessel Club™	Liver Pathobiology Workshop: Hepatobiliary Disease	President's Symposium	Cell Injury Workshop: Tumor-Associated Parallels with Fibrosis	Neuropathology Symposium	ACVP Symposium	SIPMet Symposium
	Breast Cancer Workshop						

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