Oral Sessions

FRIDAY, APRIL 20

Biochemistry and Molecular Biology

1. ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD PROFESSIONAL NETWORKING EVENT

   Society Events
   FRI. 5:30 PM—SAN DIEGO CONVENTION CENTER, 6A LOBBY
   COCHAIR: C. HEINEN AND T. O’CONNELL

   Invitation only. Graduate and postdoctoral travel awardees meet for a kick-off reception and networking activity geared to practice networking skills and engage with Saturday’s career program presenters.

2. SEBM MENTOR MEET-UP AND CAREER DEVELOPMENT WORKSHOP

   Society Events
   5:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, PRESIDIO
   CHAIRMEN: M. D’ECCLESSIS
3. POSTER/ORAL PRESENTATION PRACTICE & MENTORING SESSIONS

Workshop
SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, PEER MENTOR POD
Career and Professional Development
FASEB Diversity Resources Program will sponsor Presentation Practice & Mentoring Sessions beginning Saturday, April 21, to provide FASEB DREAM poster/oral presentation travel award recipients and other interested EB2018 student/postdoc attendees with an opportunity to practice their presentations and obtain feedback from designated Workshop Mentors/Coaches. If you would like to participate in the poster/oral presentation & mentoring sessions, sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

4. CAREER CORNER SESSIONS WITH DR. ADAMS

Workshop
SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER CORNER
Career and Professional Development
Drop in or sign-up for one-on-one or group sessions for career counseling/career planning sessions with Dr. Howard G. Adams in between his presentations in the EB2018 Career Center. Dr. Adams will be available in the “Career Corner” in the EB2018 Career Center located in Hall D beginning on Saturday, April 21. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

5. ONE-ON-ONE RESUME CRITIQUE/CV, CAREER COUNSELING, ESSAY PERSONAL STATEMENT ASSESSMENTS

Workshop
SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER COUNSELING ROOM
Career and Professional Development
One-on-one sessions for CV/resume critiques, career counseling, and essay/personal statement assessments will begin on Saturday, April 21. If you’re interested in a one-on-one, advance sign up will start on Sunday, April 1. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session to schedule your session.

6. NETWORKING: A REQUIRED LIFE SKILL

Workshop
SAT. 4:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-3
Career and Professional Development
To succeed in today’s competitive world of work, who you know can be as critical as what you know. Successfully networking, to develop contacts, is a required skill. Networking involves 1) making contacts, 2) establishing cordial relationships, and 3) ultimately bonding to mutually support each other and share information. This seminar explores skills and techniques germane to successful networking. During the session, Dr. Howard Adams will cover the following key topics: 1) Dimensions of Networking; 2) Networking to enhance one’s career/professional development; 3) Networking concerns: How? When? Where? Why? 4) Tips for Successful Networking; 5) Do’s and Don’ts of Networking.
4:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA.

7. ELEMENTS OF A CREDIBLE PRESENTATION

Workshop
SAT. 5:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1
Career and Professional Development
5:00 Speaker. E. Rosa-Molinar. The Univ. of Kansas

8. WRAP IT UP! HOW TO SUMMARIZE YOUR RESEARCH POSTER IN 5 MINUTES OR LESS

Workshop
SAT. 5:30 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1
Career and Professional Development
This presentation serves to instruct researchers, primarily trainees, on how to effectively summarize their research in five minutes or less. The information presented mainly focuses on poster presentations but can also be applied to other areas such as informational interviews. Emphasis is placed on key points such as knowing the target audience, knowledge of the research/results, and the ability to convey a clear, concise and accurate message. One highlight of this presentation is the incorporation of technology and how to use it to further enhance and disseminate the information.
6:00 Harnessing Nature's Diversity for Gene Editing and molecular biology tools and novel therapeutics. We are continuing to explore microbial diversity to SHERLOCK, a highly sensitive and specific CRISPR diagnostic "collateral" activity in vitro, which we capitalized on to create transcript imaging and RNA editing. Cas13 also exhibits so-called platform for a range of RNA-modulation applications, including single and multiplex gene knockout, gene activation, and large-scale screening applications. Recently, we discovered and characterized several novel CRISPR systems that target RNA, including the CRISPR-Cas13 family. We recently reported that Cas13 can be reprogrammed using a single RNA guide to cleave target mRNAs in vivo and that a dead variant of Cas13 that retains target specificity and binding activity. dCas13 provides a platform for a range of RNA-modulation applications, including transcript imaging and RNA editing. Cas13 also exhibits so-called "collateral" activity in vitro, which we capitalized on to create SHERLOCK, a highly sensitive and specific CRISPR diagnostic platform. We are continuing to explore microbial diversity to find new enzymes and systems that can be adapted for use as molecular biology tools and novel therapeutics.

11. EB 2018 WELCOME RECEPTION

Society Events

Join fellow attendees for our second, inter-disciplinary meet and mingle. Appreciate the power and energy of the EB Meeting as all career levels come together for fun and networking. Light refreshments will be served. Member-attendees receive one complimentary drink ticket when they sign up for the event during EB Meeting registration. Cash bar also available.

10. EB 2018 TANG PRIZE AWARD LECTURE

Lecture

Sat. 6:00 PM—San Diego Convention Center, Ballroom 20 Award Lectures

Speaker: Feng Zhang. Broad Institute of MIT and Harvard, Cambridge, MA McGovern Institute for Brain Research, Department of Brain and Cognitive Sciences. Department of Biological Engineering, Massachusetts Institute of Technology, Cambridge, MA.

Precision genome editing, the ability to alter specific DNA sequences, is a powerful tool for understanding the molecular circuitry underlying cellular processes. Over the past several years, we and others have harnessed microbial CRISPR-Cas systems for use as platforms for a range of genome manipulations, including single and multiplex gene knockout, gene activation, and large-scale screening applications. Recently, we discovered and characterized several novel CRISPR systems that target RNA, including the CRISPR-Cas13 family. We recently reported that Cas13 can be reprogrammed using a single RNA guide to cleave target mRNAs in vivo and that a dead variant of Cas13 that retains target specificity and binding activity. dCas13 provides a platform for a range of RNA-modulation applications, including transcript imaging and RNA editing. Cas13 also exhibits so-called "collateral" activity in vitro, which we capitalized on to create SHERLOCK, a highly sensitive and specific CRISPR diagnostic platform. We are continuing to explore microbial diversity to find new enzymes and systems that can be adapted for use as molecular biology tools and novel therapeutics.

12. EB SCIENCE OUTREACH ACTIVITY POSTER SESSION

Science Outreach Poster Session

Sat. 7:00 PM—San Diego Convention Center, Sails Pavilion

During the EB Welcome Reception, science outreach programs from around the country will have their activities on display and are certain to spark interest, ideas, networks and great conversation. Authors will be at their boards from 7:00–8:00 PM


OA5 12.5 Addressing Health Disparities in Los Angeles County via a Medical Outreach Program. A. Jalali, B. Varamini. Biola University.

OA6 12.6 Anatomy Explorers: A Pilot Science Outreach Exchange between Bangalore and London. L. Wilson, C. Pym, C. Deshpande, T. Thomas, R. Wingate. King’s College London, United Kingdom.


OA9 12.9 Art of Science Communication &ndash; Engaging Any and All Audiences. H. Alexander. Public Outreach Committee of ASBMB.

OA10 12.10 ArtLab: Exploring the intersection of art and science. K.H. Oliver. Vanderbilt University Medical Center.


OA12 12.12 Bringing Rural Areas Interactive Neuroscience: The BRAIN Initiative at the University of Vermont. R. St. Clair. University of Vermont.

OA13 12.13 Building and Sustaining QCC-MSEIP Outreach Activities to Ensure Underrepresented STEM Student Engagement. N. Gadura. Queensborough Community College.


12.18 Discovery Box Loan Program Provides STEM Engagement Materials to Regional Schools. R.P. Rylaarsdam, K. Tumminello. Benedictine University.


12.23 Get Involved with the ASBMB Public Outreach Committee. D.R. Snowflack. ASBMB.

12.24 Having “PhUn” Learning About Physiology in Nebraska. N.M. Sharma, A. Schiller, E.I. Boesen. University of Nebraska Medical Center.


12.26 How to Change an Outreach Service into a Scholarly Activity? An Important State Infrastructure with Six Cycles of NIH Funding. P.S. Klinkhachorn, A. Klinkhachorn. Virginia University and MetroHealth Hospital.


12.28 Kentucky Chapter of The American Physiological Society’s Involvement in Science Outreach. W.K. Sumanasekera, R. Cooper, L. Winchester, F. Andrade, S. Tyagi, I. Joshua. University of Kentucky College of Pharmacy, University of Kentucky, Western KY University and University of Louisville.

12.29 LEAP into Research: A program to help transfer students get involved in research. K. Cooper, S. Brownell. Arizona State University.


12.34 Outreach in New York City! The ASBMB Student Chapter at Marymount Manhattan College. J. Furnari, K. Mora, A. Aguanno. Marymount Manhattan College and Marymount Manhattan.


12.39 Sample a taste of science. P.K. Bahia. Scientists and Inc.

12.40 Science for Adults. A. Decker. Fleet Science Center.


SATURDAY


OA55 12.55  University of Arizona ASBMB Student Chapter Outreach Activities. C.K. Park, A. Tran, H. Fukuzaki, M. Morrow, E. Wu, B. Reilly. University of AZ.

OA56 12.56  Using Brains to Inspire Minds: A Unique Outreach Collaboration with the Boston Museum of Science. K.J. Babcock, E. Kong, A.C. Zumwalt. Boston University School of Medicine, Museum of Science and Boston. (631.5)


13. EB SCIENTIFIC HIGHLIGHTS

During the EB Welcome Reception, we will highlight 50 of the over 6000 scientific posters to be presented later in the conference. All disciplines will be represented: anatomy, biochemistry and molecular biology, investigative pathology, pharmacology, and physiology. Authors will be present at their boards from 7:00 – 8:00 PM.

Poster

SAT. 7:00 PM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

SH1  Optical Imaging Tools for Elucidating the Roles of Anions in Cellular Signaling. S. Dodani. The University of Texas at Dallas. (124.1)

SH2  Tissue Factor Enhances the Alveolar Epithelial Barrier Integrity During Acute Lung Injury. H. Sucharski, N. Putz, C. Shafer, L. Ware, J. Bastarache. Vanderbilt University. (745.2)

SH3  Reinforcing Potency and Effectiveness of Synthetic Cathinones: Potency Versus Selectivity for DAT. B.M. Gannon, A. Sulima, K.C. Rice, M.H. Baumann, G.T. Collins. The University of Texas Health Science Center at San Antonio, National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism, National Inst, National Institute on Drug Abuse and National Institutes of Health Intramural Research Program. (681.7)

SH4  Structure-Based Drug Design to Overcome Temozolomide Resistance in Glioblastoma (GBM) Through a Dual Inhibition of Mgmt and Base Excision Repair. H. R. Madala, S. R. Punganuru, V. Arutla, K. Srivenugopal. Texas Tech University Health Sciences Center. (281.6)

SH5  CRISPR-Cas9 Knock out of Gravin Variant 1 Impairs In Vitro Angiogenic Sprouting. A. Ali, A. Spagnolia, M. Hull, M. Geffre, P. Blaik, E. Kmiec, B.D. Grove. University of North Dakota School of Medicine and Health Sciences and Helen F. Graham Cancer Center and Research Institute. (518.7)

SH6  Remodeling of Cardiac Energy Metabolism During Heart Failure. L. Kaifhues, K. Bottermann, L. Leitner, U. Flögel, A. Gödecke. Heinrich-Heine University of Düsseldorf, Germany. (903.2)

SH7  New RFP Family Incorporates Alpha-N-Methylations into Ribosomally Encoded Peptide Natural Products. M. Freeman. University of Minnesota. (271.1)


SH11 Examining the Role of Gut Dysbiosis in Neuroinflammation and Hypertension in a Model of Obstructive Sleep Apnea. D. Durgan, B.P. Ganesh, J. Nelson, J. Eskew, N. Ajami, J. Petrosin, R. Bryan. Baylor College of Medicine, The University of Texas Health Science Center and Mercer University. (582.2)


SH16 A Conserved Pain Syndrome Resulting from the Acute Activation of TRPA1 by Chemotherapeutic Drugs. N. Boiko, E. Montano, K.M. Hargreaves, B.A. Eaton, J.D. Stockand. The University of Texas Health Science Center at San Antonio. (750.4)

SH17 Leveraging Mouse Liver Co-Expression Networks and Human Lipid GWAS Data to Identify and Validate Cholesterol Metabolism Genes. B.W. Parks, Z. Li, J. Nguyen, F. Leyva-Jaimes. University of Wisconsin—Madison. (400.1)


SH20 New in Vivo MicroRNA Biotechnology Reveals Specific Roles for the miR-200 Family in Craniofacial Development. M.E. Sweat, W. Yu, S. Eliason, Y.Y. Sweat, H. Cao, L. Hong, B.A. Amendt. University of Iowa, Craniofacial Anomalies Research Center and University of Iowa College of Dentistry. (776.13)

SH21 Metabolic Syndrome and the Role of GLP-1 Receptor Agonists in a Model of Postmenopausal Pcos. E.D. Torres Fernandez, D.G. Romero, L.L. Yanes Cardozo. University of Mississippi Medical Center. (766.2)


SH23 Determining the Effects of E-Cigarette Vapor on Oral Epithelial Cells in a Cultured Cell Model. M. Duggar, H. Swanson, M. Hill-Odom. University of Kentucky and Xavier University of Louisiana. (692.3)

SH24 Expression of SIRPα: Tailess Mutant in Mice Impairs Naïve CD4 T Cell Adhesion to Immobilized ICAM-1 and TCR Induced Proliferation. F.E. Velázquez Planas, A.E. Auto, G. Newton, C. Parkos, F.W. Luscinskas. Brigham and Women's Hospital and University of Michigan. (280.1)

SH25 Use of Systematic Stimulation Mapping and Functional/structural Imaging to Improve Localization of Seizure Onset in Patients with Drug-Resistant Epilepsy. R.C. Blanco Prado, C. Drees, J.A. Thompson. University of Colorado Anschutz Medical Campus. (782.4)

SH26 Ghrelin Directly Stimulates Fatty Acid Oxidation in Skeletal Muscle. E. Kraft, D. Dyck. University of Guelph, Canada. (767.16)

SH27 Quantitative Phosphoproteomic Analysis of Feedback Networks in T Cell Signaling. A. Salomon, J. Belmont, Q. Ji. Brown University. (261.2)


SH29 CXCR3 Regulates CD4 T Cell Cardiotropism and Maladaptive Cardiac Remodeling Through Mechanisms Involving ICAM1-Mediated Adhesion. N. Ngwenyama, A. Salvador, T. Nevers, F. Velázquez, M. Aronovitz, P. Alcaide. Tufts University and Tufts Medical Center. (280.3)


SH33 Personalized Gene Expression Profile Information Predicts Severity of Systemic Sclerosis Despite Heterogeneity of Disease. Z.I. Johnson, T. Medsger, T. Li, C. Feghali-Bostwick, Y. Conley, C.C. Yates. University of Pittsburgh, AccuraScience and Medical University of South Carolina. (414.10)

SH34 Can Daytime Measures of Respiratory Sinus Arrhythmia and Breathing Ability Serve as Biomarkers of OSA? C.M. DeLucia, S. Barreda, J. Vranish, E.F. Bailey. Univ. of Arizona, Univ. of California, Davis and Univ. of Texas at Arlington. (913.4)

SH35 The Effects of Nitric Oxide Synthase Inhibitors on Mitochondrial Respiration in Isolated Mouse Brain Mitochondria. J.A. Sperling, S.S. V. P. Sakamuri, V.N. Sure, M.H. Dholakia, N.R. Peterson, R. Satou, P.V. G. Katakam. Tulane University School of Medicine. (697.9)

SH36 Chemorepulsion as a Novel Therapeutic Concept to Inhibit Pancreatic Cancer Metastasis. B. Niclou, X. Li, A. Zessler, R. Adam, D. Briscoe, D. Bielenberg. Boston Children’s Hospital. (677.12)


SH38 Effect of Metabolic Syndrome and Aging on Coronary Artery Disease Severity and Ca Dysregulation in Coronary Smooth Muscle in Ossabaw Miniature Swine. J.K. Badin, R.S. Bruning, M. Sturek. Indiana University School of Medicine. (770.16)

SH39 CD99L2 as a Major Regulator in Human Transendothelial Migration. N.S. Rutledge, W.A. Muller. Northwestern University. (280.9)

SH40 A Redesigned Pharmacology Series Increases Students’ Satisfaction and Is Associated with Improved Performance in Therapeutics. K. Brandl, S. Schneid, S. Tsunoda, L. Awdishu. Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California and San Diego. (549.4)

SH41 Developmental Differences in the Contribution of PKC Signaling to Chronic Hypoxia-Induced Pulmonary Arterial Tone. S. Yan, J.R. Sheak, N.L. Jernigan, B.R. Walker, T.C. Resta. University of New Mexico Health Sciences Center. (628.5)

Anatomy


Symposium

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
COCHAIRDED: W. BROOKS AND A. WILSON


9:30 Expanding the Educational Potential of the Human Anatomy Laboratory. James Williams. Rush University.

15. DEVELOPMENT AND DISEASE PHYSIOLOGY PLATFORM

Symposium

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIRDED: J. RICHTSMEIER

Developmental Biology/Morphology

10:30 Characterization of the Bent Bone Dysplasia Mouse: Conditional Knock-In of Fgfr2<sup>M391R</sup>. D. Rigueur, A. Merrill. University of Southern California. (776.17)

10:45 15.1 Six2 Regulates Palate Development by Inhibiting Palatal Bone Formation During Development. Y.Y. Sweat, M. Sweat, M. Mansaray, I. Saadi, S. Lachke, A. Butali, B. Sweat. University of Iowa, University of Kansas Medical Center, University of Delaware, College of Dentistry and University of Iowa.


11:15 15.3 Deficiency of Leukocyte-Specific Protein 1 (LSP1) Alleviates Asthma in a Mouse Model. N.P. K. Le, A. Nascimento, D. Schneberger, C.C. Quach, X. Zhang, D. Wojciech, L. Liu, J. Gordon, B. Singh. Western College of Veterinary Medicine, University of Saskatchewan, Canada, College of Medicine and University of Saskatchewan, Canada.

11:30 15.4 The Microtubule Networks in Lung Epithelia Are Severed During <i>Klebsiella Pneumoniae</i> Infections. M.D. Chua, C-H. Liou, A.C. Bogdan, H.T. Law, K-M. Yeh, J-C. Lin, L.K. Siu, J.A. Guttmann. Simon Fraser University, Canada, Tri-Service General Hospital, National Defense Medical Center, Taiwan and National Health Research Institutes, Taiwan.

11:45 15.5 Effects of Chronic Ethanol Intake on High-Fat Diet Induced Metabolic Dysfunction in Mice. C.R. Coker, S.S. Bingaman, A.C. Arnold, Y. Silberman. Pennsylvania State University.

16. THE ART OF NEGOTIATION

Symposium

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIRDED: P. HUSMANN

10:30 Don’t Solve for (x), Solve for (Why). Loren Buchanan. Boston Scientific.

11:00 Money Talks: Navigating Negotiations in Early Career. Samantha Simet. University of Nebraska Medical Center.

11:30 The View from the Other Side: Everything is on the Table. Lawrence Wineski. Morehouse School of Medicine.

17. NOVEL METHODS FOR COMPREHENSIVE COURSE AND COMPETENCY ASSESSMENT

Symposium

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIRDED: D. BREWER-DELUCE

Education

10:30 17.1 Clinically-Oriented Verbal Laboratory Assessments in the Gross Anatomy Pre-Clerkship Medical Curriculum That Are Designed to Assess Multiple Competencies. C.M. Martin. University of Western Ontario, Canada.


11:30 17.3 Course Evaluations—Are We Gaining Insight, or Feeding Egos? Using Novel Evaluations to Uncover Value. D. Brewer-Deluce, A. Palombella, J. Rockarts, B.C. Wainman. Western University, Canada and McMaster University, Canada.

18. CARDIAC REGENERATION: LESSONS FROM NON-MAMMALIAN MODELS HYBRID SYMPOSIUM

Symposium

SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIRDED: P. LAFONTANT

Cardiovascular

1:00 Regenerating a Heart in the Salamander. James Godwin. Mount Desert Island Biological Lab-JAX.

1:30 Polyploidization and Heart Regeneration in Zebrafish. Juan Manuel Gonzalez-Rosa. Cardiovascular Research Center at Massachusetts General Hospital.


SATURDAY


19. DECIPHERING CELL BIOLOGY: THE INTERSECTION OF METABOLISM, FORCE TRANSMISSION, AND THE ACTIN CYTOSKELETON

Symposium
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: K. Demali

Cell Biology
1:00 Mitochondrial Positioning and Subcellular Energetics – A Mutualism that Governs Cell Migration. Alan Howe. University of Vermont.
1:30 Metabolic Regulation of Spindle Assembly and Collective Cancer Invasion. Adam Marcus. Emory University.
2:00 Links Between Cell-cell Adhesion, Mechano-transduction and Metabolism. Kris DeMali. University of Iowa.

20. OUT ON A LIMB: DEVELOPMENT VARIATION DISEASE EVOLUTION

Symposium
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: K. Oberberg

Evolution/Anthropology
Bones/Muscle/Connective Tissue
Developmental Biology/Morphology

1:00 20.1 Role of Hoxc Genes in the Development of the Limb Integumentary Organ (Nail, Claw, or Hoof). M.A. ROS Lasieria, M. Fernández-Guerrero, L. Delisle, N. Yakhishi-Kaminatsi, F. Darbellay, R. Pérez-Gómez, D. Duboule. Instituto de Biomedicina y Biotecnología de Cantabria, Spain and Federal Institute of Technology, Switzerland.
2:00 20.3 Forward Genetics, Cilia, and Limb Development. S. Weatherbee, N. Shylo, D. Xin, K. Christopher. Yale University.

21. EDUCATIONAL RESEARCH STUDENT PLATFORM AWARD SESSION

Award Competition
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: S. Greene

Education
Student and Postdoc award finalists present oral presentations to compete for the Educational Platform Award
1:00 21.1 Effects of Dissection Experience on Medical Student Exam Performance in Gross Anatomy. S.M. Dunham, P.R. Husmann. Indiana University.

1:15 21.2 Do Dissection- and Prosection-Based Laboratories Offer Comparable Learning Experiences? an Exploration of Student Learning in Two Laboratory Cohorts at the University of Guelph. S.C. McWatt, G.S. Newton, L.C. Jadeski. University of Guelph, Canada.
1:30 21.3 The Role of Instructor Accent on Student Learning and Instructor Evaluation in a Digital Learning Environment. C. Vinovskis, L. Lee. University of Colorado Anschutz Medical Campus.
2:00 21.5 Effects of Exam Group Time on Academic Performance. H.B. Houston, C.A. Nichols, A.C. Edmondson. Medical College of Georgia at Augusta University.

22. FRONTIERS IN CARDIOMYOCYTES DEVELOPMENT AND REGENERATION

Symposium
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
COCHAIR: J. Wang and J. Martin

Cardiovascular
Developmental Biology/Morphology
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

3:00 Signaling Pathways Responsible for Cardiac Patterning in the Early Embryo. Deborah Yelon. University of California, San Diego.
3:30 From Tinman to Congenital Heart Disease Gene Discovery. Rolf Bodmer. Sanford Burnham Prebys Medical Discovery Institute.

23. THE ANATOMY OF GENDER

Symposium
(Cosponsored by: AAA’s Committee for Early Career Anatomists)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: Y. Carter

Education
Sex Differences and Women’s Health
Cell Biology

3:00 Teaching Gender Transition Through Anatomy. Derek Harmon. University of California, San Francisco.
4:00 Trans’ Experience of Anatomy: Contributions to Medical School Competencies. Yasmin Carter. University of Massachusetts Medical School.
24. **THE GENETICS AND DEVELOPMENT OF STRUCTURAL BIRTH DEFECTS**

**Symposium**

*(Cosponsored by: Joint Session with Society for Craniofacial Genetics and Developmental Biology)*

**SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9**

**CHAIR**: R. MARCUCIO

**Developmental Biology/Morphology**

**Cell Biology**

3:00 **Fibroblast Growth Factors: Critical Regulators of Osteogenic and Chondrogenic Growth Programs.** David Ornitz. Washington University.

3:30 **The Genetics of Skeletal Dysplasias.** Deborah Krakow. University of California, Los Angeles.

4:00 **24.1 Mechanoresponsive Skeletal Stem Cells Acquire Primitive Neural Crest Identity During Distraction Osteogenesis.** M. Longaker. Stanford University.

25. **ANATOMY EDUCATION PLATFORM 1—ADVANCES IN EDUCATIONAL TECHNOLOGIES**

**Symposium**

**SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8**

**COCHAIR**: L. LEE AND J. SHAFFER

**Education**

3:00 **25.1 Quantifying Two Dimensional (2D) and Three Dimensional (3D) Anatomical Learning Using a Neuroeducational Approach.** S.J. Anderson, H. Jamniczky, O. Krigolson, K. Hecker. University of Calgary, Canada and University of Victoria, Canada.

3:15 **25.2 Cerebral Aneurysmal Coiling in Virtual Reality—An Overview of Novice Skill Development.** O. Zaika, M. Boulton, R. Eagleson, S. de Ribaupierre. Western University, Canada.

Biochemistry and Molecular Biology

27. ASBMB GRADUATE STUDENT AND POSTDOCTORAL FELLOW CAREER DEVELOPMENT EVENT

Society Events
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6D
COCHAIR: C. HEINEN AND T. O’CONNELL

8:30 AM begins required check-in in the lobby area outside of room 6A. Invitation only. Required participation for all Graduate and Postdoctoral Travel Award recipients.

28. ASBMB ANNUAL MEETING ORIENTATION FOR UNDERGRADUATE STUDENTS

Society Events
SAT. 11:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 6C
CHAIR: J. PROVOST

Feeling overwhelmed by all the options? Not sure what sessions to attend? This meeting orientation will help you craft your personal game plan to get the most out of your national meeting experience.

29. ASBMB JUDGES’ ORIENTATION FOR THE UNDERGRADUATE POSTER COMPETITION

Award Competition
SAT. 11:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 6E
CHAIR: K. CORNELY
COCHAIR: K. DICKSON AND P. ORTIZ

Volunteer judges (Undergraduate faculty and PI’s) should report to Room 6E for this orientation/training session. Drop-in’s welcome (Faculty and PI’s only) and must check-in with organizers during this orientation session.

30. ASBMB UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION

Award Competition
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 6B
CHAIR: K. CORNELY
COCHAIR: K. DICKSON AND P. ORTIZ

Advance competitor registration required. Competitor check-in begins at 12:00 PM.

31. ASBMB EXPLORING CAREERS SPEED NETWORKING FOR UNDERGRADUATES

Workshop
SAT. 4:45 PM—SAN DIEGO CONVENTION CENTER, ROOM 6A

Scientists from a variety of career fields will meet with students and share advice about their career paths. All undergraduate student, ASBMB members and biochemistry registrants are welcome and encouraged to attend.
32. **MEET THE MENTOR BREAKFAST**

**Society Events**

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

SAT. 7:30 AM—SAN DIEGO CONVENTION CENTER, ASIP OFFICE CORRIDOR

CHAIR: T. PARRY

33. **NEXTGEN SCIENCE: NEW DISCOVERIES OF GRADUATE STUDENTS AND POST-DOCTORAL FELLOW RISING STARS**

**Poster Discussion**

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

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2

CHAIR: T. REAVES

COCHAIR: E. MEDINA

8:30 Welcome and Introduction.

**Postdoctoral Fellow Oral Presentations.**


8:45 Endothelial Cell IQGAP1 Is Required to Support Efficient Leukocyte Transmigration Both in Vitro and in Vivo. D.P. Sullivan, P.J. Dalal, W.A. Muller. Northwestern University. (280.2)

**Graduate Students Oral Presentations.**

9:35 PRAP1: A Novel Epithelial Secreted Protein. A. Wolfarth, A. Neish. Emory University. (406.8)

9:55 Multiplexed Immuno-Profiling of the Colorectal Carcinoma Microenvironment Using Archival Human Tissue. J. Borowsky, J.A. Nowak, A. da Silva, T. Hamada, T. Morikawa, T.S. Twombly, K. Nosho, R. Nishihara, J.K. Lennerz, M. Giannakis, A.T. Chan, J.A. Meyerhardt, C.S. Fuchs, S. Ogino. Dana-Farber Cancer Institute, Brigham and Women’s Hospital and Harvard Medical School, Dana-Farber Cancer Institute and Harvard Medical School, The University of Tokyo, Japan, Sapporo Medical University School of Medicine, Japan, Massachusetts General Hospital and Harvard Medical School and Yale Cancer Center. (818.4)


**Graduate Students Poster Presentations.**


P5 Inflammatory Mediators and Fibroblasts. L. T. James, T.A. Reaves. Medical University of South Carolina. (414.7)


SATURDAY PATHOLOGY

P11 Structure-Based Drug Design to Overcome Temozolomide Resistance in Glioblastoma (GBM) Through a Dual Inhibition of mGmT and Base Excision Repair. H. R. Madala, S. R. Punganuru, V. Arutla, K. Srivenugopal. Texas Tech University Health Sciences Center. (281.6).


11:20 Concluding Remarks.

34. MOLECULAR AND CELLULAR BASIS OF CANCER SYMPOSIUM: EMT, AN EVER-CHANGING PROCESS OF CANCER PROGRESSION

Symposium
SAT, 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 3
CHAIR: D. STAIRS

Neoplasia
Epithelial and Mucosal Pathobiology

8:30 Liver Microenvironment Regulates Metastasis and Chemoresistance. A. Wells. Univ. of Pittsburgh.

9:05 Kaiso as a Master Regulator of EMT in Breast and Prostate Cancers. C. Yates, Tuskegee Univ.

9:40 NFkB Controls Twist2 in Esophageal Squamous Cancer. D. Stairs, Penn State College of Medicine.

10:15 Selective Autophagy in Mammary Carcinoma Differentiation and Metastasis. J. Debnath. Univ. of California, San Francisco.

10:50 Epithelial-Mesenchymal Plasticity in Carcinoma Metastasis. J. Yang, UCSD.

35. GO WITH THE FLOW: CARDIOVASCULAR BIOLOGY AND PATHOLOGY

Symposium
SAT, 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 4
CHAIR: T. KYRIAKIDES

COCHAIR: D. KARUNAKARAN

Cardiovascular

### 37. **XVIII<sup>th</sup> Annual Workshop on Graduate Education in Pathology: Wellness for Students and Faculty**

**Workshop**

*Supported by the ASIP Education Committee and the Association of Pathology Chairs*

**SAT. 11:45 AM — San Diego Marriott Marquis & Marina, Marina Ballroom Salon G**

**CHAIR: R.N. MITCHELL**

**COCHAIR: B. DUCATMAN**

**Registration Required**

11:50 Lessons Learned from Wellness Programs in Residency and Clinical Fellowships. *Wesley Naritoku*. University of Southern California.


2:35 Q&A

### 38. **Blood Vessel Club™: Inflammation, Survival, and Death in Atherosclerosis**

**Symposium**

**SAT. 2:00 PM — San Diego Convention Center, Room 2**

**CHAIR: J. HOMEISTER**

**COCHAIR: D. KARUNAKARAN**

#### Cardiovascular

**Inflammation/Immunity**

**Metabolism and Metabolic Disease**

2:00 *Inflammation and Human Atherosclerosis*. *James Stone*. Massachusetts General Hospital.


3:30 **RIP Kinases in Cardiometabolic Diseases**. *Denuja Karunakaran* University of Ottawa

4:15 **Regulation of T Cells in Cardiovascular Disease**. *Andrew Lichtman*. Brigham & Women’s Hospital.

### 39. **Breast Cancer and Gene Regulation Workshop: Role of Chromatin Landscape in Cancer Causation and Treatment**

In Conjunction with the Molecular and Cellular Basis of Cancer Program

**Workshop**

**SAT. 2:00 PM — San Diego Convention Center, Room 3**

**CHAIR: D.C. WILLIAMS AND Q. YAN**

#### Breast Cancer

**Gene Expression**

**Chromatin, Epigenomics**

2:00 Transcription-Based Approaches to Identify Regulatory Networks in Cancer. *M. Green*. Univ. of Massachusetts Medical School.

2:30 Chromatin Regulation of p53 in Cancer. *S. Lauberth*. UCSD.

3:00 Long-Range Chromatin Interactions in the Mammalian Genome. *B. Ren*. UCSD.

3:30 Targeting Gene Transcription in Cancer. *W.L. Kraus*. Univ. of Texas Southwestern Medical Ctr.

4:00 **39.1 The PAX-5 Transcript Is Submitted to 3’UTR Editing Which Regulates Its Oncogenic Expression in Cancer Cells**. *G.A. Robichaud, A-P. Beauregard, R. Guerrette, N. Crapoulet, N. Finn, É. St-Hilaire*. Université de Moncton, Canada, Atlantic Cancer Research Institute, Canada and Dr. Léon-Richard Oncology Centre, Canada.


4:45 **39.4 Transcriptomic Hallmarks of Tumor-Stromal Interactions in Brain Metastasis**. *D. Nguyen*. Yale School of Medicine.

### 40. **Mechanisms of Neurological Disease**

**Symposium**

**SAT. 2:00 PM — San Diego Convention Center, Room 4**

**CHAIR: W. TOURTELLOTTE**

**COCHAIR: J. OTERO**

#### Neuroscience

2:00 **40.1 Excessive UBE3A Dosage Impairs Retinoic Acid Signaling and Synaptic Plasticity in Autism Spectrum Disorders**. *R. Hu*. Shanghai Institute of Biochemistry & Cell Biology.

2:30  40.3  Tyrosine Kinase in Ulcerative Colitis Associated Compromised Microglial Functions.  N. Kumar, P. Kumar, J. Mishra. Texas A&M University College of Pharmacy.


3:00  40.5  ELPL1-Dependent SHP1 Phosphatase Regulation and Its Essential Role in Familial Dysautonomia Pathogenesis.  W. Tourtellotte. Cedars-Sinai Medical Center.

3:15  40.6  Determining the Effect of the Wnt/β-catenin Pathway on the Ischemic Blood-Brain Barrier Using Induced Pluripotent Stem Cells.  S. Page, A. Al-Ahmad. Texas Tech University Health Sciences Center.

3:30  40.7  The Functional Role of Arginase 1 and Neutrophil Proteomics in Predicting Ischemic Stroke Outcome.  A.B. Petrone, K. Steele, R. Eisenman. West Virginia University.


4:00  40.9  CHCHD2 Knockout Alters Mitochondrial Metabolism, Increases Sensitivity to Sulfasalazine, and Decreases Proliferation and Invasive Potential of Glioblastoma Cells Expressing EGFRvIII.  J. Lumibao, J-w.E. Chen, B. Harley, H.R. Gaskins. University of California, San Diego and Linkoping University, Sweden.

4:15  40.10  Mechanisms of the IDH1/2 Mutations and Its Association with Contradictory Survival of Glioblastoma Patients Versus AML Patients.  C. Van Noorden. Cancer Center Amsterdam and VUMc, Netherlands.

41.  METABOLISM AND DISEASE: FROM MITOCHONDRIA AND mTOR TO MALIGNANCY

In Conjunction with the Molecular and Cellular Basis of Cancer Program

Symposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 5A

CHAORED: E. WHITLEY

COCHAORED: R.N. MITCHELL

Metabolism and Metabolic Disease

Neoplasia

2:00  41.1  Probiotic Lactobacillus rhamnosus GG Culture Supernatant Improves Energy Expenditure and Glucose Tolerance in High-Fat-High-Fructose Fed Mice Exposed to Chronic Intermittent Hypoxia Through Regulation of Intestinal Microbiota and Bile Acid Homeostasis.  Q. Liu, C. McClain, W. Feng. University of Louisville.

2:15  41.2  Ketones Drive Mitochondrial Uncoupling in Adipose Tissue.  C. Walton, B.T. Bikman. Brigham Young University.

2:45  41.3  Insulin and Ketones Elicit Disparate Effects on Mitochondrial Uncoupling in Adipose Tissue.  B.T. Bikman. Brigham Young University.


3:30  41.6  Glucose Limited Enhance the Cancer Stem Cell Population Through PKM2/AMPK-Dependent Signaling.  Y-C. Yang, M-H. Chien, M. Hsiao. Taipei Medical School, Taiwan, Genomics Research Center and Academia Sinica, Taiwan.


4:00  41.8  Type-I Interferon-Mediated Akt/mTORC2 Signaling Regulates Autophagy and Inflammassome Activation in Mouse Liver Injury/Sepsis Model.  J. Wells, M. Kader, K. Tamama, C. Yates, M. Scott, N. Ismail. University of Pittsburgh School of Medicine and University of Pittsburgh School of Nursing.

Pharmacology

44. TEACHING INSTITUTE: FLIPPING NOT FLOPPING: ACTIVE LEARNING STRATEGIES FOR GRADUATE AND HEALTHCARE PHARMACOLOGY

Symposium
(Sponsored by: ASPET Division for Pharmacology Education (DPE))
SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 14B
CHAIR: A.L. GORMAN
COCHAIR: S. RAHMAN

Education

10:30 Best Practices in Active Learning of Pharmacology. L. Gorman, Univ. of Central Florida Col. of Med.
10:50 Active Learning Techniques in Graduate Education. D. Ponnoth, Long Island Univ. AMS Col. of Pharmacy.
11:10 Training in How Learners Learn. N. Kwiek, Ohio State Univ. Col. of Pharmacy.
11:30 Student and Faculty Perspectives on Active Learning Strategies. K. Brandl, Skaggs Sch. of Pharmacy and Pharmaceutical Sciences.
11:50 Let’s Get Active TBL.
12:50 Panel discussion.

45. ASSESSING PHARMACOLOGY IN INTEGRATED CURRICULA

Symposium
(Sponsored by: ASPET Division for Pharmacology Education (DPE))
SAT. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 14B
CHAIR: R. CARRIER
COCHAIR: J. REUBEN

Education

Career and Professional Development

1:30 Introduction.
1:35 Utilizing Outcomes and Objectives to Improve Student Learning and Exam Development. R. Carrier, West Virginia Sch. of Osteopathic Med.
2:00 Pharmacology Blooms in Assessment. J. Reuben, Texas A & M Univ.
2:50 Impact of Integration on Learner Outcomes. H. Gottlieb, Univ. of the Incarnate Word Feik Sch. of Pharmacy.
3:15 Question Development Session.
3:55 Conclusion.

46. CLINICAL PATHS FOR SOLUBLE EPOXIDE HYDROLASE INHIBITORS

Symposium
(Sponsored by: ASPET Division for Drug Discovery and Development (DDD))
SAT. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 17A
CHAIR: J. IMIG
COCHAIR: B. HAMMOCK

Drug Discovery and Development

Neuroscience

Cardiovascular

Drug Metabolism and Disposition

1:30 Introduction. B. Hammock. Eicosis and Univ. of California Davis.
1:40 Soluble Epoxide Hydrolase Inhibitors as Treatments for Renal Fibrosis and Chronic Kidney Disease. J. Imig. Medical Col. of Wisconsin.
2:05 Soluble Epoxide Hydrolase Inhibitors to Treat Depression and other CNS Related Disorders. K. Hashimoto. Chiba Univ.
2:30 Anti-Nociceptive Mechanisms of Action for Soluble Epoxide Hydrolase Inhibitors. K. Wagner. Univ. of California, Davis.
3:45 Panel discussion.

47. GRADUATE STUDENT—POSTDOCTORAL COLLOQUIUM: TOOLS AND TRICKS FOR SUCCESS IN SCIENCE

Workshop
(Sponsored by: ASPET Mentoring and Career Development Committee)
SAT. 1:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, GRAND BALLROOM 1-3
CHAIR: J. CLARK

Career and Professional Development

Education

3:55 Conclusion.

48. ASPET BUSINESS MEETING AND AWARDS PRESENTATION

Business Meeting
SAT. 4:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16AB

Hear updates on Society activities and initiatives and join us in recognizing excellence in pharmacology as we present the ASPET 2018 Scientific Achievement Awards, Travel Awards, and PhRMA Foundation Awards.
49. REFRESHER COURSE ON GI PHYSIOLOGY: NOT JUST THE GUT ANYMORE
Symposium
Made possible, in part, by APS Strategic Partner ADInstruments
(Sponsored by: APS Education Committee)
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: J.M. SASSER
COCHAIR: E.K. MERRITT

Education
Made possible in part by APS Strategic Partner: ADInstruments
8:00 Strategies to teach GI physiology. D. Speck. Univ. of Kentucky Med. Ctr.
9:00 Intestinal epithelial function. J. Dominguez-Rieg. Univ. of South Florida.
10:00 Strategies for investigating the interaction between the microbiota and the gut brain axis. S. Collins. McMaster Univ. Hlth. Sci. Ctr.
11:00 Immune interactions in the intestinal epithelium. K. Edelblum. Rutgers New Jersey Med. Sch.

50. ETG PRE-MEETING
Symposium
(Sponsored by: Epithelial Transport Group)
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A

Metabolism and Metabolic Disease
Nutrition/Obesity

51. MCS PRESIDENT’S SYMPOSIUM: BIOMEDICAL ENGINEERING APPROACHES FOR STUDYING THE MICROCIRCULATION
Symposium
(Sponsored by: Microcirculatory Society (MCS))
SAT. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 24AB
CHAIR: S. PEIRCE-COTTLER
COCHAIR: G. SCHMID-SCHÖNBEIN

Cardiovascular
9:30 Listening with light: photoacoustic microscopy of the microcirculation in vivo engineering microvasculature for investigation of health and disease. A. Gonzalez. Yale Univ.

10:00 Engineering microvasculature for investigation of health and disease. F. Mac Gabhann. Johns Hopkins Univ.
10:30 Computational systems pharmacology for microvascular disease. S. Hu. Univ. of Virginia.
11:00 A new view for old questions: rediscovering angiogenesis and lymphangiogenesis. W. Murphy. Univ. of Florida.

52. CEREBROMICROVASCULAR MECHANISMS IN COGNITIVE IMPAIRMENT: FROM AGING TO NEURODEGENERATION
Symposium
(Sponsored by: Microcirculatory Society (MCS))
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB
CHAIR: Z. UNGVARI
COCHAIR: V. GALVAN

Cardiovascular
1:00 Cerebromicrovascular dysfunction in Alzheimer’s disease. V. Galvan. Univ. of Texas Hlth. Sci. Ctr., San Antonio.
2:00 Assessing Mitochondrial Respiratory Function in Isolated Mouse Brain Microvessels Using Seahorse Xfe Analyzer: Role of Neuronal Nitric Oxide Synthase. V.N. L. R. Sure, S.S. V. P. Sakamuri, J.A. Sperling, I. Merdzo, W.R. Evans, I. Rutkai, D.W. Busija, P.V. G. Katakam. Tulane University School of Medicine. (577.5)
2:30 Nrf2 Deletion Is Associated with Impaired BK Ca Channel Expression and Function in Rat Cerebral Arterial Muscle Cells. D. Gebremedhin, D.R. Harder, J.H. Lombard. Medical College of Wisconsin. (575.7)
2:45 A.M. Sackheim, N. Villaalba, A. Bonev, M. Nelson, K. Freeman. University of Vermont. (703.4)
53. THE ROLE OF TIEG1 IN DISEASE PROCESSES: FROM BENCH TO BEDSIDE

Symposium
(Sponsored by: American Federation for Medical Research (AFMR))
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 27AB
Chaired: N. Rajamannan
Cochaired: J. Hawse

1:00 The Immune Regulation of TIEG1. Subramaniam Malayannan. Mayo Clinic.
2:00 The Role of TIEG1 in osteoporosis. John Hawes. Mayo Clinic.

54. AVOIDING COMMON PITFALLS IN PRECLINICAL ANIMAL RESEARCH DESIGN

Symposium
(Sponsored by: Animal Care and Experimentation Committee)
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B
Chaired: D. Michele
Cochaired: K. Uray

Science Policy/Public Engagement

1:00 Selecting the appropriate animal model in preclinical research. James Fox. MIT.
1:30 Translational preclinical research: What the FDA wants to know. Valerie Hamilton. Merck Sharp and Dohme Corp.
2:00 Addressing appropriate biological variables in NIH grant applications. Tom Cheever. NIAMS/NIH.

55. SEX AND AGE AS BIOLOGICAL VARIABLES IN PHYSIOLOGY RESEARCH

Workshop
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B
Chaired: G. Yosten
Cochaired: G. Kolar

Science Policy/Public Engagement

Sex Differences and Women's Health

1:00 Incorporating sex as a biological variable. Jane Reckelhoff. Univ. of Mississippi Med. Ctr.
1:30 Incorporating age as a biological variable. Steven Austad. Univ. of Alabama.
2:00 Sex and age in physiology research: The NIH perspective. Christine Marc-Bilkan. NHLBI/NIH.

56. 5TH ANNUAL PHYSIOLOGICAL GENOMICS CONFERENCE

Symposium
(Sponsored by: Physiological Genomics Group)
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A

57. WEH TRAINEE AWARD FINALISTS AND DATA DIURESIS

Award Competition
(Supported by Data Sciences International, Portland Press and the Juan Carlos Romero Fund)
(Supported by: Water and Electrolyte Homeostasis Section)
SAT. 2:15 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB
Hypertension
Salt

Trainee Award Finalists Competition
Sponsored by Portland Press

Chaired: P. Bie and M. Madhur

2:15 The Role of Mitochondrial Oxidative Stress in the Pathophysiology of Preeclampsia. V.R. Vaka, K. McMaster, T. Ibrahim, D. Cornelius, L. Amaral, K. Wallace, B. LaMarca. University of Mississippi Medical Center. (729.7)


Postdoctoral Award Finalists Presentations
Supported by the Juan Carlos Romero Fund

3:30 Three-Dimensional Analysis of Potassium Deprivation-Induced Tubular Remodeling Using Optical Clearing. T. Saritas, V. Puelles, J. McCormick, D. Ellison. Oregon Health & Science University and University Hospital RWTH Aachen, Germany. (844.2)

Mingle with Open Bar
4:00 Targeting the mevalonate pathway and oxidized phosphatidylcholines in asthma: A new role for lipids in airway disease. **Andrew Halayko**. Univ. of Manitoba.

### 59. TRANSFORMATIVE TECHNOLOGIES ENABLING ECOLOGICAL ASSESSMENT OF HUMAN AND WILDLIFE PHYSIOLOGY

**Workshop**

**SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B**

**CHAIR**: **K. Sandberg**

**COCHAIR**: **D. Crossley**

#### Emerging Technologies

- **3:00** Biotelemetry from the laboratory to the field and back. **Michael Axelsson**. Univ. of Gothenburg.
- **3:30** What have human studies using commercial wearable device technology taught us and where can we go from here? **Scott Collier**. Appalachian State Univ.
- **4:00** Walking the tightrope between stability and change: biologging reveals phenological and physiological plasticity in an artic hibernator. **C. Loren Buck**. Northern Arizona Univ.
- **4:30** Helping teens choose 2Snooze: Developing a mobile sleep app for teens. **Tyish Hall Brown**. Howard Univ. Col. of Med.

### 60. COMMUNICATIONS COMMITTEE SYMPOSIUM: SOCIAL MEDIA FOR THE PROFESSIONAL SCIENTIST

**Symposium**

**(Sponsored by: APS Communications Committee)**

**SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C**

**CHAIR**: **B. Goodman**

#### Science Policy/Public Engagement

#### Career and Professional Development

In this 90-minute interactive session organized by the APS Communications Committee, we’ll discuss why social media remains a popular option for researchers who want to connect with colleagues about science and the unique discussions that social platforms enable among the research community. Established and emerging platforms popular with researchers, the use of analytics to measure social impact and best practices of popular scientists on social media will also be addressed.
61. DATA NCARNATION

Award Competition

(Sponsored by: Neural Control and Autonomic Regulation Section)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 22

CHAIR: A.J. MILLER

COCHAIR: Y. JIANG

Neuroscience

3:00 CCL2-CCR2 Signalling in the Hypothalamic Paraventricular Nucleus Elicits Sympathetic-Mediated Blood Pressure Elevations Through Monocyte and Lymphocyte Recruitment. K. Elsafien, W.S. Korim, C.N. May, S.T. Yao. The Florey Institute of Neuroscience and Mental Health, Australia. (735.1)

3:10 Reduced Bone Marrow Adrenergic Receptor Signaling Is Protective Against Weight Gain and High Fat-Induced Hypertension. N. Ahmari, T. Yang, W. Malphurs, C.J. Martyniuk, J. Zubcevic. University of Florida. (918.8)

3:20 Splenic 6-Hydroxydopamine Worsens Renal Inflammation and Injury in a Murine Model of Systemic Lupus Erythematosus. G.S. Pham, B. Osazuwa, O. Thomas, S.S. Vedantam, D.L. Fancher, K.W. Mathis. University of North Texas Health Science Center, Texas Southern University and Texas Christian University. (736.4)

3:30 Dynamic Cerebral Autoregulation Impairment Persists Past Resolution of Symptoms in Collegiate Athletes Following Concussion. J. Frantz, S. Sedaghat, L. Ryan, M. Wainman, S. Lyng, T. Sabo, K. Bell, S. Purkayastha. Southern Methodist University, Northwestern University and The University of Texas Southwestern Medical Center. (920.3)

3:40 Extinction of Blood Pressure and Heart Rate Responses to Conditioned Fear. A.P. Swiercz, J. Park, C.N. Young, P.J. Marvar. The George Washington University and Emory University School of Medicine and Atlanta VA Medical Center. (737.4)


4:00 Hypertensive Actions of Long Chain Fatty Acids Are Paralleled by Toll-Like Receptor 4 Upregulation and Nuclear Factor-KB (NFKB) Activation in the Subfornical Organ. C. Hurr, B.J. Ritchie, H. Simoyan, C.N. Young. George Washington University. (591.2)


4:20 Corticotropin-Releasing Hormone Receptor 2 in the Nucleus of the Solitary Tract Contributes to the Intermittent Hypoxia Induced Hypertension. L. Wang, D. Nguyen, S. Cross, S. Mifflin. University of North Texas Health Science Center. (885.11)

62. EMERGING TOPICS IN MICROVASCULAR RESEARCH

Symposium

(Sponsored by: Microcirculatory Society (MCS))

SAT. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB

CHAIR: P. STAPLETON

COCHAIR: T. SECORD

Cardiovascular

3:30 Probing for the role of fluid mechanical forces in controlling vascular permeability using microfluidic biomimicry. J. Song. The Ohio State Univ.


4:30 Anti-inflammatory-pro-resolving strategies to abrogate a pro-thrombotic blockade. F. Gavins. LSU Health, Shreveport.

4:45 VE-cadherin controls mechanotransduction signaling in embryonic and postnatal lymphatic valves. J. Scallan. Univ. of South Florida.

5:00 Lymphatics in chronic disease: new functions and implications. J. Rutkowski. Texas A&M Col. of Med.


63. MCS POSTER DISCUSSION AND RECEPTION

Symposium

(Sponsored by: Microcirculatory Society (MCS))

SAT. 6:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC

CHAIR: J. TWYNSTRA

COCHAIR: J. SCALLAN AND P. STAPLETON

Cardiovascular
SUNDAY, APRIL 22

Across Societies

64. POSTER/ORAL PRESENTATION PRACTICE & MENTORING SESSIONS

Workshop
Sun. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, Peer Mentor Pod

Career and Professional Development
FASEB Diversity Resources Program will sponsor Presentation Practice & Mentoring Sessions beginning Saturday, April 21, to provide FASEB DREAM poster/oral presentation travel award recipients and other interested EB2018 student/postdoc attendees with an opportunity to practice their presentations and obtain feedback from designated Workshop Mentors/Coaches. If you would like to participate in the poster/oral presentation & mentoring sessions, sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

65. CAREER CORNER SESSIONS WITH DR. ADAMS

Workshop
Sun. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, Career Corner

Career and Professional Development
Drop in or sign-up for one-on-one or group sessions for career counseling/career planning sessions with Dr. Howard G. Adams in between his presentations in the EB2018 Career Center. Dr. Adams will be available in the “Career Corner” in the EB2018 Career Center located in Hall D beginning on Saturday, April 21. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

66. ONE-ON-ONE RESUME CRITIQUE/CV, CAREER COUNSELING, ESSAY PERSONAL STATEMENT ASSESSMENTS

Workshop
Sun. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, Career Counseling Room

Career and Professional Development
Drop in or sign-up for one-on-one sessions for CV/resume critiques, career counseling, and essay/personal statement assessments will begin on Saturday, April 21. If you’re interested in a one-on-one, advance sign up will start on Sunday, April 1. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

67. HOW TO CHOOSE YOUR IDEAL CAREER

Workshop
Sun. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development
Do you want to find a career path that you'll enjoy and find rewarding? Of course! But HOW do you find such a path, especially since there are so many different directions scientists can go with their careers? There are more than FIFTY career options available to biomedical sciences PhD’s. If you’d like to see a list of these career options, while learning about how to select the best option for you, then don’t miss this thought-provoking and interactive workshop! Here you will learn about a logical, step-by-step process for exploring your career options and deciding which will provide the best fit for your own set of skills, values and interests.

9:00 Speaker, B. Lindstaedt. UCSF.

68. GET UP WITH SOMETHING ON YOUR MIND

Workshop
Sun. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Planning for academic/career/personal success is a process—a mode of striving to excel at any and all endeavors one undertakes. It is an ongoing process of planning, reviewing, refining, adjusting and/or changing goals, strategies and tactics to realize planned outcomes—achievement, success, recognition, rewards, power, etc. This seminar is designed to encourage individual responsibility for: 1) taking charge of one’s own success; 2) focusing on being proactive; 3) being open and responsive to change; 4) applying strategies to assess one’s skills, interests, and values on an ongoing basis; and 5) building support systems through effective utilization of mentoring and networking. Key topics: The Success Mind-set, Defining Purpose, Performance Curve, The Personal Audit, Academic/Career/Planning for Academic/Career/Life Success.

9:00 Speaker, H. Adams. H.G. Adams & Assoc., Norfolk, VA.

69. CAREER BUILDING: HOW TO MAXIMIZE ONE’S PARTICIPATION IN A SCIENTIFIC CONFERENCE

Workshop
Sun. 9:30 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development
First impressions count: Are you ready? This interactive workshop will help you to put your best foot forward and make the most of your time at the Experimental Biology meeting. Scientific conferences provide more than an opportunity to learn...
about the latest research in your field, they can help you make connections that will build your career both now and into the future. In this workshop you will learn how to define your goals for a meeting, prepare for the conference, and plan your agenda so that you can maximize your experience both scientifically and professionally. Participants will also develop strategies for identifying and capitalizing on important networking opportunities and for maintaining and nurturing the relationships they establish during a conference. Don’t miss this opportunity to learn how you can accelerate your future at the Experimental Biology meeting!

9:30 Speaker. H. Dillon. The Jackson Laboratory.

70. NEGOTIATION STRATEGIES FOR SCIENTISTS

Workshop
SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development
This session introduces effective methods of negotiating with potential employers. Topics: The basic elements of successful negotiation, contexts of gender and culture, avoiding common pitfalls, leveraging your strengths, handling multiple offers, and closing the deal.

10:00 Speaker. D. Behrens. Univ. of California, Berkeley.

71. UNDERSTANDING FACULTY SEARCH COMMITTEES & FINDING JOB ADS

Workshop
SUN. 11:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1

Career and Professional Development
Are Postdocs Always Essential? What do search committees look for? How do I find academic jobs offered in my field, or within a specific geographical area? Answers to these and other questions presented by Andrew Green, a veteran of the academic job search and numerous search committees.

11:00 Speaker. A. Green. Univ. of California, Berkeley.

72. MAKING MISTAKES WHEN SPEAKING: HOW TO HANDLE THEM

Workshop
SUN. 11:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development
Much attention, time and money are spent on polishing our interview behaviors. But when it comes to the real thing, we frequently find ourselves saying afterwards, “I can’t believe I said that or did this.” Dr. Blumenthal will teach you how to identify “triggers”, antecedents to behaviors that cause us to say things or behave in ways we wish we didn’t. She will teach you how to identify triggers before they happen and increase your chance of demonstrating the right behaviors for winning the job.

11:00 Speaker. J. Blumenthal. Montgomery Col., Rockville, MD and Univ. of Maryland Univ. Col., Adelphi, MD.
76. CREATING EFFECTIVE CV’S, COVER LETTERS, RESEARCH & TEACHING STATEMENTS

Workshop
Sun. 1:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Most of the cuts in the applicant pool are made solely on the basis of your written application materials. Do yours represent you in the strongest possible fashion? How should a cover letter and CV for Stanford differ from one addressed to faculty at San Jose State? And what exactly is a Statement of Teaching Philosophy? Advice will be provided on creating these documents and more for the academic job search.

1:00 Speaker. A. Green. Univ. of California, Berkeley.

77. BUT I HAVE NO SKILLS! EXPLODING MYTHS & EXPLORING CAREER OPTIONS FOR PHDS

Workshop
Sun. 2:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development
Are the skills you developed in graduate training really useful outside of the academic lab? Many PhD candidates and postdocs exploring careers beyond the academy assume—incorrectly—that employers will not find them or their skills attractive. In this session you will have the opportunity to identify skills that you currently possess, and also to find career fields that might be a good fit for these skills.

2:00 Speaker. J. Lombardo. LifeWork Choices.

78. CAREER OPPORTUNITIES IN SCIENCE COMMUNICATIONS

Workshop
Sun. 2:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development
Do you enjoy talking about science more than doing it? Are you the person your labmates ask to edit their manuscripts? Are you a podcast junkie, and wonder how they do it? This career session will explore careers in science communication. In science journalism, institutional communication and multimedia careers, you use your science training to make a living talking about science. If it sounds like a dream come true, then this workshop is for you.

2:00 Speaker. E. Hayden. Univ. of California, Santa Cruz.

79. NETWORKING: A REQUIRED LIFE SKILL

Workshop
Sun. 2:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
To succeed in today’s competitive world of work, who you know can be as critical as what you know. Successfully networking, to develop contacts, is a required skill. Networking involves 1) making contacts, 2) establishing cordial relationships, and 3) ultimately bonding to mutually support each other and share information. This seminar explores skills and techniques germane to successful networking. During the session, Dr. Howard Adams will cover the following key topics: 1) Dimensions of Networking; 2) Networking to enhance one’s career/professional development; 3) Networking concerns: How? When? Where? Why? 4) Tips for Successful Networking; 5) Do’s and Don’ts of Networking.

2:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA.

80. JOB HUNTING IN BIOTECH PART 2: INTERVIEWING FOR SCIENTIST POSITIONS

Workshop
Sun. 3:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development
This seminar is designed to help you improve your interview skills so that you will be better prepared to land a scientist position in the industry. At the end of the seminar, you will be able to:

- Respond effectively to the most common questions asked during industry interviews
- Answer behavior-based questions in an organized manner,
- Begin and end the interview experience with poise and professionalism.

(This is part 2 of a 3-part series. Each seminar can be taken separately, but together they provide comprehensive information about the industry job search process.)

3:00 Speaker. B. Lindstaedt. UCSF

81. MAKING THE GRADE: JOB TALK/CHALK TALK

Workshop
Sun. 3:30 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Participants will learn to plan, structure and deliver an effective job talk. This seminar will key elements of the job talk and finally, how to capture the interest of a diverse (faculty, administrators, students) audience.

3:30 Speaker. D. Behrens. Univ. of California, Berkeley.

82. NAILING THE JOB TALK & INTERVIEW PREP

Workshop
Sun. 4:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development
Going Live: Conference Interviews, On-Campus Interviews, The All-Important Job Talk, and Negotiating the Offer.

4:00 Speaker. A. Green. Univ. of California, Berkeley.
83. THE GENETICS OF ANATOMICAL DEVELOPMENT: NOBEL LESSONS FROM INVERTEBRATES PLENARY

Lecture
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: P. TRAINOR

Developmental Biology/Morphology

8:30 Chair’s introduction.
9:55 Discussion.

84. MORPHOLOGICAL SCIENCES AWARD HYBRID SYMPOSIUM

Symposium
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: K. TAMURA

Developmental Biology/Morphology

Morphological Sciences Award Lecture featuring 2018 Young Investigator Award Recipient, Bhart-Anjan Bhullar

10:30 84.1 The Origin of the Avian Head as told by Transformations in the Fossil Record and Embryonic Development. B-A.S. Bhullar, Yale University.
11:00 84.2 Olfaction at Depth: Cribriform Plate Size Declines with Dive Depth and Duration in Aquatic Arctoids. D.J. Bird, I. Hamid, B. Van Valkenburgh. University of California, Los Angeles.
11:15 84.3 How and Why to Scan All the Vertebrates—Open Access Data as a Transformative Tool. A.P. Summers. University of Washington.
11:45 84.5 New Fossil Discoveries from the Miocene Santa Cruz Formation of Argentina. J.M. G. Perry, N. Toledo. John Hopkins University School of Medicine and Museo de La Plata, Argentina.

85. CELL BIOLOGY AWARD HYBRID SYMPOSIUM

Symposium
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: G. BRAR

Cell Biology

R.R. Bensley Award Lecture in Cell Biology featuring 2018 Young Investigator Award Recipient, Elcin Unal

11:00 85.2 CDC42 Activation by Endothelin Regulates Neural Crest Cell Migration in the Cardiac Outflow Tract. L.B. Ruest, K.R. Fritz, E.P. Jansen. Texas A&M College of Dentistry.
11:30 85.4 Cold-Inducible RNA Binding Protein (CIRP) in Inflammation and Breast Cancer. D.A. Lujan, N. Perrone-Bizzozero, E.J. Beswick, D.F. Kusewitt, R.S. Hartley. University of New Mexico Health Sciences Center.

86. EPITHELIAL DYSFUNCTION IN WOUND HEALING AND STRUCTURAL BIRTH DEFECTS

Symposium
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: I. SAADI

Developmental Biology/Morphology

10:30 86.1 Novel Regulators of Epithelial Migration and Differentiation. M. Dunnwald. University of Iowa.
11:00 86.2 Growing Evidence That Periderm Is Essential for Orofacial and Epidermal Development. B.C. Schutte. Michigan State University.
11:30 86.3 SPECC1L: A Novel Cytoskeletal Regulator of Epithelial Organization in Craniofacial Morphogenesis. I. Saadi. University of Kansas Medical Center.
87. **ANATOMY EDUCATION ROUNDTABLE ON LEARNING ANALYTICS**

**Workshop**

**Sunday, 10:30 AM—San Diego Convention Center, Room 7AB**

**Education**

This will be an interactive session introducing learning analytics and techniques and how it can be leveraged by faculty and program directors in their research projects (for example: quality improvement, compliance and outcomes analysis projects).

Continental breakfast will be provided, based on availability.

S. Toufeeq Ahmed, Vanderbilt University Medical Center

88. **REGENERATION OF THE SPINAL CORD, LIMBS AND MUSCULOSKELETAL SYSTEM**

**Symposium**

**Sunday, 2:00 PM—San Diego Convention Center, Room 11B**

**Chaired: R. Fisher**

**Bones/Muscle/Connective Tissue**

**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

**Neuroscience**

- **2:30 88.2 The Mammalian Blastema and Induced Regeneration in Mice.** K. Muneoka. Texas A&M University.
- **3:00 88.3 Molecular Mechanisms of Spinal Cord Regeneration.** K. Echeverri. University of Minnesota.

89. **ANATOMICAL VARIATION: DOES THE VITRUVIAN MAN EXIST?**

**Symposium**

**Sunday, 2:00 PM—San Diego Convention Center, Room 11A**

**Chaired: J. Dennis**

**Evolution/Anthropology**

- **2:00 89.1 Variation: Anatomical Constant, Clinical Imperative, Educational Dilemma.** D.F. Royer. University of Colorado School of Medicine.
- **2:30 89.2 Iliocapsularis and Long Head of Triceps Brachii Innervation: Not Such “Textbook” Cases.** A. Breckling, M.W. Jonees, C. Ferrigno. University of Illinois at Chicago and Rush University.
- **2:45 89.3 Rare Congenital Anomaly of the Serratus Posterior Superior Muscle.** G. Granite-Cohn, K.S. Lashley. Uniformed Services University of the Health Sciences.

**3:00 89.4 Situs Inversus Totalis in a 96-Year-Old Female Cadaver: Genetic Insights.** M. Jenkins, A. Frolov, Y. Tan, D. Daly, C. Lawson, J. Martin. Saint Louis University School of Medicine.

**3:15 89.5 Correlated Vascular Asymmetries in the Circle of Willis.** J. Cooperman, S. Cooperman, M. Habib. University of Southern California.

90. **HOW TISSUES ARE SHAPED: MULTICELLULAR DYNAMICS DURING DEVELOPMENT**

**Symposium**

**Sunday, 2:00 PM—San Diego Convention Center, Room 9**

**Chaired: A. Czirok**

**Developmental Biology/Morphology**

**Cell Biology**

**Imaging**

- **2:00 Neuronal Regulation of Organogenesis and Regeneration.** Sarah Knox. University of California, San Francisco.
- **2:30 Delineating Mechanisms of Gradient Formation by BMPs in Zebrafish Embryo Development.** David Umulis. Purdue University.
- **3:00** How are Collective Fluid-solid Transitions in Confluent Tissues Created by Cellular Processes? Matthias Merkel. Syracuse University.

91. **PROMISE VS PERFORMANCE IN REALITY TECHNOLOGY**

**Symposium**

**Sunday, 2:00 PM—San Diego Convention Center, Room 8**

**Chaired: J.M. McBride**

**Education**

- **2:00 91.1 Incorporating Technology in Anatomy Education to Align with Educational Outcomes.** J. McBride. Cleveland Clinic Lerner College of Medicine.
- **2:30 91.2 Virtual Unreality—Promise vs. Performance of Technology in Anatomy Education.** B. Wainman, G. Pukas, L. Wolak, E. Zheng, G. Norman. McMaster University, Canada and University of Toronto, Canada.
- **3:00 91.3 Anatomy Educational Advances: From a Third Dimension to a New Frontier—Virtual Reality.** P.G. McMenamin. Monash University, Australia.
92. BIOMECHANICS AND THE EVOLUTION OF HUMAN LOCOMOTION

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: C.V. WARD

Evolution/Anthropology
Vertebrate Paleontology


5:00 92.3 Fossil Evidence for the Evolution of Hominin Locomotion. C.V. Ward. University of Missouri.

93. TRANS-SYNAPTIC TALES: APPLICATIONS OF NEW VIRAL AND GENETIC APPROACHES IN NEURAL CIRCUIT MAPPING

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: X. Xu

Neuroscience
Cell Biology


4:30 93.2 Optogenetic, Tissue Clearing, and Viral Vector Approaches to Understand and Influence Whole-Animal Physiology and Behavior. V. Gradinaru. California Institute of Technology.

5:00 93.3 Viral-genetic Mapping of Neural Circuit Organization of Nociceptive Neurons in the Thalamus. M. Umorin. Texas A&M University College of Dentistry.

94. THE RELEVANCE OF SCALE IN BIOENGINEERING AND IMAGING OF CELLS, TISSUES AND ORGANS

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: L. Opperman and S. Simon

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Imaging
Cell Biology


4:30 94.2 Multiscale Regulation of Mechanosensing in Soft Tissues. R. Kaunas. Texas A&M University.

5:00 94.3 Bio-Inspired Micropattern Modulates Stem Cell Fate and Directs Well-Ordered Tubular Tissue Formation. X. Liu. Texas A&M College of Dentistry.

95. ANATOMY: WHAT IS IT GOOD FOR? UNCOVERING THE HIDDEN IMPACTS OF ANATOMY EDUCATION

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: A. Wilson and M. Lazarus

Education


5:00 95.3 Synergizing Non-technical Skill Development in Medical Education: From Anatomy Classroom to the In-Hospital Patient Setting and Back. C. Wittich. Mayo Clinic.
Biochemistry and Molecular Biology

96. **WAKE-UP! IT’S TRIVIA TIME**

   Society Events
   *(Sponsored by: ASBMB Membership Committee)*
   
   **SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B**
   
   Calling all trivia junkies! Join your colleagues for a daily dose of trivia, music, fun and prizes! It’s a lively way to jump-start your day—the complimentary coffee and nosh also helps. Prize values increase over the course of the meeting, so come back each morning! ASBMB members and biochemistry registrants welcome. Space is limited with first come, first served.

97. **ASBMB BUSINESS MEETING**

   **Business Meeting**
   
   **SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B**

98. **ASBMB OPENING LECTURE: HERBERT TABOR RESEARCH AWARD**

   **Lecture**
   
   **SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B**
   
   8:00 ASBMB Business Meeting and awardee introduction.
   8:20 **98.1** Nutrient Regulation of Signaling and Transcription. **G.W. Hart.** Johns Hopkins University School of Medicine.

99. **FASEB EXCELLENCE IN SCIENCE AWARD**

   **Lecture**
   
   *(Sponsored by: Federation of American Societies for Experimental Biology)*
   
   **SUN. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B**
   
   9:00 Awardee introduction.
   9:05 **99.1** Nonsense-Mediated mRNA Decay and Human Disease: Genome Guardian and Executor. **L.E. Maquat.** University of Rochester Medical Center.

100. **WALTER A. SHAW YOUNG INVESTIGATOR AWARD IN LIPID RESEARCH**

   **Lecture**
   
   *(Sponsored by: Avanti Polar Lipids, Inc.)*
   
   **SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6F**
   
   This award lecture is presented in the session, “Lipid signaling and metabolism,” beginning at 10:00 a.m. Refer to session 103 for details.
   10:00 Awardee introduction.
   10:05 Probing the Structure, Dynamics and Regulation of Lipid Signalling Enzymes and Their Role in Human Disease. **J. Burke.** University of Victoria, Canada. (103.1)

101. **BIOCHEMICAL COMMUNICATION BETWEEN THE MICROBIOME AND THE HOST**

   **Symposium**
   
   **SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6C**
   
   **CHAIR:** L.V. Hooper
   
   10:30 **101.2** Metabolism, the Microbiome, and the Circadian Clock. **L.V. Hooper, Y. Wang, Z. Kuang.** The University of Texas Southwestern Medical Center.
   11:00 **101.3** The Diet-Microbiota-Mucus Layer Axis as a Mediator of Intestinal Health and Disease. **E. Martens.** University of Michigan Medical School.
   11:30 **101.4** The Gut Microbiome Connection to Parkinson’s Disease. **S.K. Mazmanian.** California Institute of Technology.
102. INTRINSICALLY DISORDERED PROTEINS AND THEIR REGULATION AND FUNCTION

 Symposium
 SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6E
 CHAIRED: J. DYSON

10:00 102.1 Alpha-Synuclein Binds to Neuron-Specific Glycans. **E. Rhoades, M. Birol.** University of Pennsylvania.

10:30 102.2 The Role of Disordered Regions in GPCR-G Protein Signaling. **M.M. Babu.** Medical Research Council Laboratory of Molecular Biology, United Kingdom.

11:00 102.3 Disordered Regions as Regulators of Phase Transitions in Multivalent Proteins. **R.V. Pappu.** Washington University in St. Louis.

11:30 102.4 How Do Intrinsically Disordered Viral Proteins Hijack the Cell? **H.J. Dyson.** Scripps Research Institute.

103. LIPID SIGNALING AND METABOLISM

 Symposium
 SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6F
 CHAIRED: M. WAKELAM

10:00 Walter A. Shaw Young Investigator Award in Lipid Research awardee introduction.

10:05 103.1 Probing the Structure, Dynamics and Regulation of Lipid Signalling Enzymes and Their Role in Human Disease. **J. Burke.** University of Victoria, Canada.

10:30 103.2 A Golgi Lipid Signaling Pathway That Controls Neural Stem Cell Polarity in the Developing Neocortex. **V. Bankaitis, Z. Xie.** Texas A&M Health Science Center.

11:00 103.3 Fatty Acid Compartmentalization. **R. Coleman.** University of North Carolina.

11:30 103.4 Endosomal Lipids in Trafficking and Signaling. **J. Gruenberg.** University of Geneva, Switzerland.

12:00 103.5 Using Lipidomics Pathway Analysis to Identify Potential Therapeutic Targets. **M. Wakelam, A. Nguyen, Q. Zhang.** Babraham Institute, United Kingdom.

104. NOVEL ENZYMEOLOGY

 Symposium
 SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6D
 CHAIRED: R.T. RAINES

10:00 104.1 Ribonuclease: From \( K_{\text{cat}}/K_m \) to the Clinic. **R. Raines.** Massachusetts Institute of Technology.

10:30 104.2 How Do Enzymes Evolve? **D.S. Tawfik.** Weizmann Institute of Science, Israel.

11:00 104.3 Citrullination Inhibits Serpin Activity. **P.R. Thompson.** University of Massachusetts Medical School.

11:30 104.4 Connecting Chemistry to Biology to Understand Why O-GlcNAc Transferase Is Essential. **S. Walker.** Harvard Medical School.

105. RNA FORM AND FUNCTION

 Symposium
 (Sponsored by: ASBMB Minority Affairs Committee)
 SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 1AB


10:30 105.2 How to Balance the Many Roles of tRNAs During the Creation of New Genetic Codes. **A. Ellington, A. Maranhao, K. Baldridge, D. Tack, R. Thyer, L. Contreras.** The University of Texas at Austin.

11:00 105.3 Bridging the Gap Between RNA Editing and Modification: A 10-Year Solution to a 25-Year Problem. **J.D. Alfonso.** The Ohio State University.

11:30 105.4 Functional Characterization and Design of Regulator RNAs Using Novel High-Throughput Tools. **L.M. Contreras, K. Haning, A.N. Leistra.** The University of Texas at Austin.
106. STRATEGICALLY BUILDING YOUR CV AT EVERY CAREER STAGE

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)
SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6A
CHAIR: M. PAYNE

With the diverse career options available for scientists as well as the rapid increase in the use of online profiles, it is important to not only gain appropriate skills and experience in support of career development, but also to present a professional profile to the public and/or prospective employers that helps promote specific career objectives. In this session, speakers from both academia and industry will present strategies that students, trainees, faculty, and industrial scientists can use to ensure that their experiences are leading to the career path that they desire and that they are marketing themselves in the best possible manner to achieve their career goals. Presentations will be followed by a discussion panel.

10:00 Chair’s introduction.
10:05 Career visualization and execution. N. Blake. UT Health San Antonio.
10:45 An unplanned career: from research to regulation. R. To. Bayer HealthCare.
11:05 Panel discussion.

107. SYNTHETIC BIOLOGY

Symposium
SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 14A
CHAIR: P. STAMBUCK

10:00 Playing with the molecules of life. Peter Schultz. Scripps.
11:40 General discussion.

108. CREST (CONNECTING RESEARCHERS, EDUCATORS AND STUDENTS) CONVERSATIONS

Society Events
(Supported by National Science Foundation)
SUN. 12:15 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
CHAIR: T. HERMAN

This event is located in the ASBMB Lounge, across from the ASBMB exhibit booth, #1316. CREST research teams will meet with Herbert Tabor Research Award lecturer, Gerald Hart and colleagues, to present protein models that will be used to aid in-depth discussions.

109. ASBMB MEET THE SPEAKERS

Society Events
SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Visit the ASBMB Lounge, across from ASBMB Booth #1316, to meet the morning the presenters and continue the scientific discussion—a GREAT networking opportunity for all. Also visit the daily posters while you’re in the exhibit hall.

110. ASBMB ADVOCACY TOWN HALL MEETING

Society Events
(Sponsored by: ASBMB Public Affairs Advisory Committee)
SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 6A

Join ASBMB’s Public Affairs Advisory Committee (PAAC) for a town hall forum open to all EB registrants to address the impact of the current and future political climate on the life science research enterprise.

Doors will open at 12:20 p.m. and boxed lunches will be provided to the first 75 event participants, first come, first served.
111. SEBM SPECIAL TOPICS IN SCIENCE, STUDENT-ORGANIZED SYMPOSIUM

Symposium

Sun. 1:00 PM—San Diego Convention Center, Room 14A

Chaired: D. Boothman

Featuring presentations by:

- I. Verma, Salk Inst.,
- K. Lamia, Scripps,
- P. Mischel, UCSD

112. ASBMB MEET THE SPEAKERS

Society Events

Sun. 1:30 PM—San Diego Convention Center, Exhibit Halls A-D

Visit the ASBMB Lounge, across from ASBMB Booth #1316, to meet the morning presenters and continue the scientific discussion—a GREAT networking opportunity for all. Also visit the daily posters while you’re in the exhibit hall.

113. ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION

Lecture

(Sponsored by: ASBMB Education and Professional Development Committee)

Sun. 2:30 PM—San Diego Convention Center, Room 6C

Undergraduate Student Research Poster Competition award winners and Honor Society inductees will be announced/presented during this lecture.

2:30 Awardee introduction.
2:35 113.1 Promoting Hypothesis-Driven Thinking in the Undergraduate Biochemistry Lab. P.A. Craig, Rochester Institute of Technology.

114. ADVANCED BIOPHYSICAL AND BIOCHEMICAL APPROACHES TO MEMBRANE DYNAMICS (I)

Symposium

Sun. 2:30 PM—San Diego Convention Center, Room 31B

Chaired: C. Schlieker


2:45 Nano-Scale Size Holes in ER Sheets Provide an Alternative to Tubules for Highly-Curved Membranes. S. Bahmanyar, L. Schroeder, A. Barentine, S. Schweighofer, D. Baddeley, J. Bewersdorf. Yale University and Yale School of Medicine. (542.7)

3:00 Biomechanical Control of Lysosomal Secretion via the VAMP7 Hub: A Tug-of-War Mechanism Between VARP and LRRK1. T. Galli, G. Wang, S. Nola, S. Bovio, M. Coppey-Moisan, F. Lafont. Institut National de la Santé et de la Recherche Médicale (INSERM) U894, Institute of, France, Institut Pasteur de Lille, National Center for Scientific Research UMR 8204-INSERM U1019, Centre H, France, Metropolitan, National Center for Scientific Research UMR7592 and Institut Jacques Monod, France. (542.10)


115. ADVANCES IN MITOCHONDRIAL BIOCHEMISTRY

Symposium

Sun. 2:30 PM—San Diego Convention Center, Room 31A

Chaired: E.L. Seifert


2:45 Cytoplasmic PFK-2 Activity Affects Mitochondrial PDK4 Levels in the Heart. M.F. Newhardt, M. Kinter, K.M. Humphries. Oklahoma Medical Research Foundation. (536.9)
116. CANCER SIGNALING

Symposium

SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E

2:30 The Aggressive Nature of Prostate Cancer of African Americans Is Correlated with Massive Down-Regulation of Many Immunoregulatory Genes of Microenvironment. F. Rahmatpanah, X. Zl, A. Sawyers, A. Agrawal, M. Lilly, M. McClelland, D. Mercola. University of California, Irvine and Medical University of South Carolina. (804.60)


3:00 A Genome-Wide CRISPR-Cas9 Screen Identifies Importin-β11 as a Required Factor for β-Catenin Signaling in Colon Cancer. M. Mis, Z. Steinhart, S. Angers. University of Toronto, Canada. (804.11)


3:30 Regulatory Mechanisms Controlling the Subcellular Localization and Activity of the RhoA GEF Net1 in Breast Cancer. J.A. Frost, Y. Zuo, A. Ulu. The University of Texas Health Science Center at Houston. (533.53)

117. GLYCOPOLYMER PROBES

Symposium

SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D

CHAIR: J. KRAMER


3:00 Probing the Role of Peptidoglycan Metabolism in Helicobacter pylori Helical Shape. J.A. Taylor, B.P. Bratton, K.E. DeMeester, H. Liang, H.M. Jacobs, E. Kuru, Y.V. Brun, M.S. VanNieuwenhze, W. Voller, J.W. Shaevitz, C.L. Grimes, N.R. Salama. University of Washington, Princeton University, University of Delaware, Indiana University, Newcastle University, United Kingdom and Fred Hutchinson Cancer Research Center. (673.27)


118. HERBERT TABOR YOUNG INVESTIGATOR AWARD SYMPOSIUM

(Sponsored by: Journal of Biological Chemistry)

SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31C

CHAIR: G. Demartino


119. MOTION IS LOTION: NEW ROLES OF MOTION IN ENZYME FUNCTION

Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30C
CHAIR: J. HARDY

2:30 The Structure and Mechanism of a Viral Genome Packaging Motor. J.A. Hayes, B.J. Hilbert, N.P. Stone, C.M. Duffy, B. Sankaran, B.A. Kelch. University of Massachusetts Medical School and Lawrence Berkeley National Laboratory. (792.18)

2:45 Small Compounds Modulating Bi-Directional Allostery in Protein Kinases: A New Grip with an Old Trick. R.M. Biondi, J.O. Schulze, E. Süß, L. Pietsch, K. Busschots, G. Saladino, F.L. Gervasio, M. Raab, M. Sanhaji, K. Strebhardt. IBioBA-CONICET—Partner Institute of the Max Planck Society, Argentina, Frankfurt University Hospital, Germany and University College London, United Kingdom. (797.2)

3:00 Investigating Carrier Domain Positioning During Catalytic Turnover in Pyruvate Carboxylase. J. Hakala, M. St. Maurice. Marquette University. (526.39)


3:30 Evolution of Caspase Allostery and Enzyme Specificity. C. Clark, R. Grinshpon, M.E. Thomas III, L. Yao, S. Shrestha. The University of Texas at Arlington and North Carolina State University. (528.10)

120. PLANT BIOACTIVE NATURAL PRODUCTS: DISCOVERY, ENGINEERING AND APPLICATIONS

Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30B
CHAIR: L. HICKS

2:30 120.1 Natural Product Bioactive Peptide Discovery Using Pepsavi-Ms. L. Hicks. University of North Carolina at Chapel Hill.

2:45 Mitochondria-Targeting Peptide from Hibiscus sabdariffa. S. Loo, A. Kam, J.P. Tam. Nanyang Technological University, Singapore. (530.10)

3:00 Investigating Gibberellin Phytohormone Biosynthesis by Plant-Associated Bacteria. R.J. Peters. Iowa State University. (533.67)

3:15 Type III Polyketide Synthase Involved in Tropone and Granatane Alkaloid Biosynthesis. N. Kim, J.C. D’Auria. Texas Tech University. (537.3)

3:30 Montmorency Tart Cherry Anthocyanins: Dose-Dependent Antioxidant Activity Against Cholesterol Oxidation. I.G. Medina Meza, M.D. Schweiss, C. Barnaba. Michigan State University and University of Michigan. (656.30)

121. RNA RECOGNITION AND REGULATION

Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30A
CHAIR: A.E. HARGROVE


2:45 Enzymatic Site-Specific Labeling of RNA for Affinity Isolation of RNA-Protein Complexes. K.N. Busby, N.K. Devaraj. University of California and San Diego. (790.2)

3:00 Multiple Mechanisms Driving Alternative Polyadenylation of Cyclin D1 (CcnD1) Pre-mRNA Processing. C.P. Masamha, E.Wagner. Butler University and The University of Texas Medical Branch. (650.12)


122. CAN WE TARGET AGING?

Symposium

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 14A

CHAIR: N. BARZILAI

Aging

3:00  Does targeting senescent cells target aging? Judith Campisi. Albert Einstein Col. of Med.


3:50  Title tba. Ana Marie Cuervo. Albert Einstein Col. of Med.

4:15  General discussion.

123. ADVANCED BIOPHYSICAL AND BIOCHEMICAL APPROACHES TO MEMBRANE DYNAMICS (II)

Symposium

SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31B

CHAIR: J. XIAO

4:00  mTOR-Dependent Selective Translation Rapidly Expands Lysosome Biogenesis, Volume and Retention Capacity During Phagocyte Activation. R. Botelho, V. Hipolito, K. Tandoc, I. Topisirovic. Ryerson University, Canada and McGill University, Canada. (542.6)

4:15  Effects of the Cell Cycle on Vacuole Size in S. cerevisiae Yeast. J.C. Sims. San Francisco State University. (542.9)

4:30  Deciphering Trapp Complex Function in Yeast. A. Joiner, C. Fromme. Cornell University. (542.17)


5:00  123.1 Spatial Organization of RNA Polymerase in E. coli Cells. J. Xiao. John Hopkins University School of Medicine.

124. CHEMICAL BIOLOGY

Symposium

SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31A

CHAIR: B. DICKINSON

4:00  Anaerobic 4-Hydroxyproline Metabolism by a Widespread Microbial Glycyyl Radical Enzyme. Y.Y. Huang, L. Backman, B. Gold, R.T. Raines, C.L. Drennan, E.P. Balskus. Harvard University and Massachusetts Institute of Technology. (534.16)


4:30  Expanding the Druggable Proteome: Ligand and Target Discovery by Fragment-Based Screening in Cells. C.G. Parker. Scripps Research Institute. (530.19)

4:45  124.1 Optical Imaging Tools for Elucidating the Roles of Anions in Cellular Signaling. S. Dodani. The University of Texas at Dallas.

5:00  124.2 Chemical Approaches to Probe Signaling by Dynamic Proteome Lipidation. B. Dickinson. University of Chicago.

125. EMERGING PERSPECTIVES ON METABOLISM AND CELL FATE DECISIONS

Symposium

SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E

CHAIR: E. TAYLOR

4:00  125.1 Loss of Mitochondrial Pyruvate Carrier Activity Short Circuits Hepatocellular Tumorigenesis. E. Taylor. University of Iowa.

4:15  Fine-Tuning of Hepatocyte Calcium Signaling and Liver Regeneration by the Mitochondrial Calcium Uniporter. A. Noronha Antony, M. Katona, E. Uskevicciute, J.W. Elrod, G. Hajnóczky, J.B. Hoek. Thomas Jefferson University, Lewis Katz School of Medicine and Temple University. (536.10)

4:30  Unconventional Pathways of Nitrogen Metabolism in Lung Cancer. J. Kim. The University of Texas Southwestern Medical Center. (811.9)


5:00  Targeting Glycolytic Metabolism in Cancer. S. Telang, J. Trent, J. Chesney, A. Mojesky. University of Louisville. (811.6)
126. MOLECULAR CHAPERONES AND PROTEASE SYSTEMS

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIR: A.L. LUCIUS

4:00 Proteasomal ATPases Hard at Work: The Inner Workings of a Protein Destruction Machine. A.M. Snoberger, D.M. Smith. West Virginia University. (526.42)

4:15 Dual Function of the Trigger Factor Chaperone in Nascent Protein Folding. C. Kaiser, K. Liu, K. Maciuba. Johns Hopkins University. (793.1)

4:30 Molecular Chaperones Disperse Pab1 Hydrogel More Quickly Than Misfolded Aggregates. H. Yoo, E. Pilipenko, D.A. Drummond. University of Chicago. (793.16)

4:45 Dysregulation of Human Mitochondrial ClpP Protease Activity by Acyldepsipeptide Analogs Leads to Apoptotic Cell Death. W.A. Houry. University of Toronto, Canada. (653.3)

5:00 126.1 Molecular Mechanisms of Enzyme Catalyzed Protein Unfolding and Translocation by Class 1 AAA+ Motors. A.L. Lucius. University of Alabama at Birmingham.

127. PHYSIOLOGICAL REGULATION BY CELL SIGNALING

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30C
CHAIR: R. BERDEAUX

4:00 127.1 Promotion of Muscle Satellite Cell Proliferation by cAMP-Induced Transcription. R. Berdeaux, D. Akhmedov. McGovern Medical School at The University of Texas Health Science Center.


4:30 The Function of WNK1/OSR1 in Cell Migration and Angiogenesis. A. Jaykumar, S. Earnest, K. McGlynn, S. Gallolu Kankanamalage, S. Stippec, G. Pearson, M. Cobb. The University of Texas Southwestern Medical Center and Georgetown University. (533.49)

4:45 FOXA2 Promotes Prostate Cancer Bone Colonization. Z.M. Connelly, S. Yang, A.W. Orr, X. Yu. Louisiana State University Health Sciences Center—Shreveport. (804.15)

5:00 Passing on Signals to Compass: A Novel Intramolecular Interactions in PAS Kinase Controls the Stem Cell Fate via Regulating Compass Protein Complexes. C.K. Kikani, X. Wu, J. Rutter. University of Utah and Fred Hutchinson Cancer Institute. (533.56)

128. READING, WRITING AND ERASING EPIGENETIC MARKS

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30B
CHAIR: C. CHATTERJEE

4:00 Histone Chaperone Nap1 Facilitates Histone Dynamics in the Nucleosome. T-H. Lee, J. Lee. Pennsylvania State University. (523.3)

4:15 Stoichiometry of Multi-Protein Complexes Containing Rtt109, Vps75, and Histone H3-H4. S. D’Arcy, N. Akhavantabib, D. Krzizike. The University of Texas at Dallas and Fox Chase Cancer Center. (524.13)

4:30 Revealing Chromatin State Organization on the Single-Molecule Scale. B. Fierz. École Polytechnique Fédérale de Lausanne, Switzerland. (523.4)

4:45 Biochemical Characterization of the Set1 H3k4 Methyltransferase Complexes. J. Kim. Korea Advanced Institute of Science and Technology, Republic of Korea. (524.8)

5:00 128.1 Chemical Tools to Investigate Gene Regulation by Histone Sumoylation. C. Chatterjee. University of Washington.

129. STRUCTURE AND MECHANISMS REGULATING RNA FUNCTION

Symposium
SUN. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30A
CHAIR: R. SPITALE

4:00 Probing RNA Structure and Dynamics in the HIV-1 5′UTR Using Ensemble and Single Molecule Approaches. K. Musier-Forsyth, B. Brigham, J. Kitzrow, J-P.C. Reyes, J. Munro. The Ohio State University and Tufts University School of Medicine. (650.4)

4:15 Role of RNA Binding Protein RBM15 in m6A RNA Methylation During Megakaryocytic Differentiation. N. Ayala-Lopez, R. Ross, S. Halene, P. Limbach, D.S. Krause. Yale University and University of Cincinnati. (790.9)

4:30 Different Classes of RNA Require Distinct Mx67 Paralogs for Processing and Nucleocytoplasmic Export in Trypanosomes. S. Obado, B. Chait, M. Field, M. Rout. The Rockefeller University and University of Dundee, United Kingdom. (789.8)


5:00 129.1 Chemo-Transcriptomic Methods to Measure RNA Structure Inside Living Cells. R. Spitale. University of California, Irvine.
130. BMB PROFESSIONAL DEVELOPMENT: ADVANCING SUCCESSFUL CAREERS

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)

Sun. 4:15 PM—San Diego Convention Center, Room 31C
Chair: R. Booth


4:30 Effects of a Data Analysis Intensive Course on Student Critical Thinking Skills, Confidence, and Post-Graduation Success. K.K. Resendes. Westminster College. (663.3)

4:45 Graduate Student Professional Development and a Cure-Style Course and Peer-Reviewed Student Publications. J. Baumgartner, J. Lee, M.L. Kuhn. San Francisco State University. (535.28)

5:00 130.1 Predictors of Success on the MCAT for Post-Baccalaureate Pre-Medicine Students. Y. Dobrydneva, L. Schwartz. George Washington University School of Medicine and Health Sciences.

131. ORGANIZING A SUCCESSFUL ASBMB STUDENT CHAPTER

Workshop
(Sponsored by: ASBMB Student Chapters Committee)

Sun. 5:30 PM—San Diego Convention Center, Room 31C

Learn about the ASBMB Student Chapters program and how to maintain an active chapter. Network with existing faculty advisers and student members as they share their chapter activities.

132. THE ART OF THE 3D CELL CULTURE, FROM ORGANOID TO ORGANS-ON-A-CHIP

Workshop
(Sponsored by: ASBMB Education and Professional Development Committee)

Sun. 5:30 PM—San Diego Convention Center, Room 31B
Chair: R. Booth

Co-Chaired: T. Kwok and S. Leclerc

When 3D cell culture is properly done the cells behave in a manner that allows their organization and function as in vivo. In this workshop participants will become familiar with the concepts used to place cells in an environment appropriate for their needs and for the study of interest, from simple contexts with one cell type, to complex tissue organization, with multiple cellular compartments. They will participate in interactive observations/analyses of cells in 3D culture and build platforms for organs-on-a-chip from kits. Upon completing the workshop, participants will understand why there can be many cell culture models depending on the scientific queries and technical capabilities, with materials ranging from sophisticated polymers to paper; and they will be better prepared to choose a model convenient for their needs.

133. CRYOEM AND CRYO-ET: STEP-BY-STEP

Workshop
(Sun. 5:30 PM—San Diego Convention Center, Room 31A
Chair: A. Leschziner and E. Villa

The “resolution revolution” has propelled Cryo-electron microscopy (cryoEM) and single-particle approaches as the structural technique of choice for tackling many biological problems. Similarly, technical advances are enabling cryo-electron tomography (Cryo-ET) to provide previously unachievable, high-resolution views of the cell interior. The two techniques are ushering a new era in structural biology, both at the molecular and cellular level. In this workshop, the advances that have made the revolution possible will be briefly introduced, and the workflow in each technique will be explained, step-by-step, using real data.

134. STORYTELLING AND THE ART OF GIVING A GOOD PRESENTATION

Workshop
(Sponsored by: ASBMB Public Outreach Committee)

Sun. 5:30 PM—San Diego Convention Center, Room 6B

Storytelling is an essential component of communication, used by everyone from journalists to comedians to musicians to bring esoteric subjects to broad audiences. Mastering this skill requires not only topical knowledge but also creative flexibility and dexterity with language. This interactive session presented by the ASBMB Public Outreach Committee will lead participants through hands-on storytelling training, based on one of the modules from ASBMB’s training course, “The Art of Science Communication.”

135. STRATEGICALLY BUILDING YOUR CV AT EVERY CAREER STAGE

Workshop
(Sponsored by: ASBMB Education and Professional Development Committee)

Sun. 5:30 PM—San Diego Convention Center, Room 6A
Chair: R. Booth

Join in this hands-on workshop where attendees can discuss past or future experiences and how they link to a specific career path along with the best tools for marketing themselves. Workshop participants will be divided into groups based on their interests and career level and session speakers will facilitate the discussions within each group. While all career stages can benefit from this workshop, students, post-docs and early-career scientists are urged to attend. Your next job could depend on it.
136. YOUR DATA, MAGNIFIED: SUCCESS IN SCIENTIFIC PUBLISHING

Workshop
SUN. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E
CHAIRMED: K. SAKABE

Are you confident your data will stand the test of time?

Are you writing in a clear and compelling manner to engage readers?

Are you reaching the audience you and your research deserve?

Join us for this 90-minute workshop to get tips on collecting and presenting data, editing text for clarity and reach, and sharing your work. JBC wants to help you achieve your publication goals as part of our mission to bring enduring research to the scientific community.

137. ASBMB ANNUAL MEETING NETWORKING RECEPTION

Society Events
SUN. 7:00 PM—SAN DIEGO CONVENTION CENTER, FOYER OUTSIDE OF ROOMS 30A-E.

Join us so we may thank you for being an ASBMB member or share with you the benefits of joining the Society! Meet and mingle with members of the ASBMB leadership, including Natalie Ahn, ASBMB President, Gerald Hart, ASBMB President-elect, and editorial board members from JBC, JLR and MCP, the Society’s three journals. Enjoy light refreshments while exploring research posters from recipients of the ASBMB Graduate Student Travel Awards, sponsored by the ASBMB Minority Affairs Committee. ASBMB Members and Biochemistry registrants welcome.
Pathology

138. COMMITTEE FOR CAREER DEVELOPMENT AND DIVERSITY WORKSHOP AND BREAKFAST: MENTOR/MENTEE RELATIONSHIP: A TWO-WAY STREET

Workshop
(Sponsored by: the ASIP Committee for Career Development and Diversity)
SUN. 7:00 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM SALON F
CHAIR: M. PREZIOSI
COCHAIR: V. CONTRERAS-SHANNON

Career and Professional Development
Workshops & Events
Registration Required

7:00 Introduction of the Mentor/Sponsor/Mentee Dynamics by the Moderator. C. Yates. Univ. of Pittsburgh School of Nursing.

7:15 10-minute Panel Discussions: Panelists will introduce themselves followed by Q&A session. Diane Bielenberg, PhD (MENTEE), Patricia D’Amore, PhD (MENTOR), Traci Parry, PhD (MENTEE), Monte Willis, MD, PhD, MBA (MENTOR), Morgan Preziosi, PhD (MENTEE), Satdarshan (Paul) Singh Monga, MD (MENTOR). Harvard Med. Sch., Children’s Hospital, Schepens Eye Research Institute, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. of Pittsburgh School of Medicine, Univ. of Pittsburgh School of Medicine.

7:45 Concluding Remarks by the Moderator. Cecelia Yates, PhD. Univ. of Pittsburgh School of Nursing.

139. PATHOBIOLOGY COURSE FOR RESEARCH SCIENTISTS: INFECTIOUS PATHOGENS AND CANCER

In Conjunction with the Molecular and Cellular Basis of Cancer Program

Symposium
(Sponsored by: the ASIP Education Committee)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2
CHAIR: W. COLEMAN
COCHAIR: D. BIELENBERG

Bacteria, Parasitology, Microbiome, Antibiotics
Neoplasia
Cancer and Therapy

8:30 Role of Myd88 in Helicobacter Infection-Driven Gastric Carcinogenesis. M. Obonyo. UCSD.

9:15 Human Papillomavirus in Oropharyngeal Cancer. K. Gold. UCSD.

10:00 Viral Mechanisms in Primary Liver Cancer. S. Monga. Univ. of Pittsburgh.


140. LIVER PATHOBIOLOGY WORKSHOP: HEPATOBILIARY DISEASE

Workshop
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 3
CHAIR: K. NEJAK-BOWEN

Liver Pathobiology
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
Cell and Tissue Injury

8:30 Adiponectin-FGF15/19 Signaling in Alcoholic Fatty Liver Disease. M. You. Northeast Ohio Medical Univ.

9:00 Neuroendocrine Regulation of Biliary Damage and Liver Fibrosis. G. Alpini. Texas A&M Health Science Ctr.


11:00 Endogenous Mechanisms Limiting Liver Fibrosis. C. Gandhi. Cincinnati Children’s Hospital Medical Ctr.

141. VAMP SYMPOSIUM: INFLAMMATION, IMMUNOPATHOLOGY, AND MUCOSAL DISEASE MECHANISMS

Symposium
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 4
CHAIR: A. NUSRAT
COCHAIR: F.W. LUSCINSKAS

Epithelial and Mucosal Pathobiology

Immuneology

8:30 Monocyte Subsets in Cancer Metastasis. C. Hedrick. La Jolla Inst. for Allergy and Immunology.


10:30 Annexin A1 Paradigm in Resolving Inflammation and Promote Repair. **M. Perretti.** Queen Mary Univ. of London.

11:10 The Unfolded Protein Response Regulator, ATF6, Promotes Mesodermal Differentiation. **Heike Kroeger.** University of California, San Diego.

142. **ASMB LECTURE**

In Conjunction with the Minisymposium: The Matrix Reloaded: Mediators of Deposition and Remodeling

**Lecture**

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 5A**

**Matrix Pathobiology**

**Workshops & Events**

8:30 Engineering the Extracellular Matrix: Tools and Technologies for Disease Modeling. **A. Engler.** UCSD.

143. **THE MATRIX RELOADED: MEDIATORS OF DEPOSITION AND REMODELING**

**Symposium**

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 5A**

**CHAIR: T. KYRIAKIDES**

**CO-CHAIR: Z. JOHNSON**

**Matrix Pathobiology**

9:30 143.1 Disturbed Blood Flow Induces Arterial Stiffening Through Thrombospondin-1. **S. Kumar, H. Jo, L.P. Brewster.** Emory University and Georgia Institute of Technology and Emory University.

9:45 143.2 Biological Function of TIMP-2 Is Regulated by the Composition of the Tissue Microenvironment. **D. Peeney, W. Stetler-Stevenson.** National Cancer Institute and National Institutes of Health.


10:15 143.4 Telomerase Expression in Myeloid Cells Is Essential for Pulmonary Fibrosis. **T. Liu, F. Gonzalez De Los Santos, Y. Zhao, Z. Wu, S.H. Phan.** University of Michigan Medical School.

10:30 143.5 Semi-Synthetic Glycosaminoglycan Ethers Decrease Receptors for Advanced Glycation End-Products and Increase AXL Receptor in the Lung from Secondhand Smoke Treated Mice. **A. Ostergar, K. Egbert, C. Clark, P. Hall, T. Davis, K.M. Hirschi, J.A. Arroyo, P.R. Reynolds.** Brigham Young University.

10:45 143.6 Fibrinolytic Activity of Cysteine Cathepsins and Role of Fibrin as a Reservoir to Sustain Proteolysis. **S.A. Douglas, S.E. LaMothe, T.S. Singleton, R. Averett, M.O. Platt.** Georgia Institute of Technology and University of Georgia.

144. **MEET AND GREET THE ASIP EXECUTIVE OFFICER, WILLIAM COLEMAN, PHD**

**Society Events**

**SUN. 11:30 AM—SAN DIEGO CONVENTION CENTER, ASIP LOUNGE**

**Workshops & Events**

145. **XVIII TH ANNUAL ASIP/AAA CAREER DEVELOPMENT AND MENTORING PROGRAM AND LUNCH: THE IDP: HIGHWAY TO SUCCESS**

**Society Events**

(Sponsored by: the ASIP Committee for Career Development and Diversity and the American Association of Anatomists)

**SUN. 11:45 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM SALON F**

**CHAIR: A. DUNCAN**

**CO-CHAIR: N. RUTLEDGE**

**Career and Professional Development**

**Workshops & Events**

**Registration Required**

11:45 Introduction to the Individual Development Plan. **A. Duncan, Nakisha Rutledge.** Univ. of Pittsburgh, Northwestern University.

12:00 How to Write, Revise and Adapt Your Most Effective IDP. **E. Bearer.** Univ. of New Mexico Health Science Ctr.

12:30 Testimonials: Senior Trainees Share Personal Experiences with their IDP. **N. Rutledge, Z. Johnson, C. Walesky.** Northwestern Univ., Univ. of Pittsburgh, Brigham and Women’s Hosp./Harvard Med. Sch.

1:00 Interactive Table Sessions (Attendees will rotate through tables hosted by mentors who will help attendees write their first IDP or edit/improve an existing IDP)

1:40 Wrap-Up. **Andrew Duncan.** Univ. of Pittsburgh.
146. THE HISTOCHEMICAL SOCIETY (HCS)
JOURNAL OF HISTOCHEMISTRY AND
CYTOCHEMISTRY MEET THE EDITOR

Society Events

Sun. 12:00 PM—San Diego Convention Center, Exhibit Hall, Booth 320

Workshops & Events

1:00 PM-2:00 PM Meet and great Martha Furie

146A. MEET AND GREET THE ASIP AJP
EDITOR-IN-CHIEF, MARTHA FURIE, PHD

Society Events

Sun. 1:00PM-2:00PM San Diego Convention Center, ASIP Lounge

Workshops & Events

147. MOLECULAR AND CELLULAR BASIS
OF CANCER SYMPOSIUM: CELLULAR
ADAPTIVE RESPONSE IN TISSUE
INJURY, TUMORIGENESIS, AND CANCER
PROGRESSION

Symposium

Sun. 2:00 PM—San Diego Convention Center, Room 2
Chair: W-X. Ding
Cochair: L. Wang

Cancer and Therapy

Cell and Tissue Injury

Immunopathology

2:00 Role of p62 in NASH-Mediated Liver and Pancreatic Tumorigenesis. M. Karin, UCSD.
2:30 Autophagy and mTOR in Liver Tumorigenesis. W. Ding, Univ. of Kansas Medical Ctr.
3:00 Role of SHP2/PTPN11 in Liver Metabolism and Tumorigenesis. G. Feng, UCSD.
3:30 Mitochondria Metabolic Reprogramming in Hepatic Apoptosis and Injury. L. Wang, Univ. of Connecticut.
4:00 ER Stress in Pancreatitis. A. Lugea, UCLA.
4:30 Mitochondrial Stress in Drug-Induced Liver Injury. N. Kaplowitz, USC School of Medicine.

148. PRESIDENTIAL SYMPOSIUM: INFLAMMATION
KNOWS NO BORDERS

Symposium

Sun. 2:00 PM—San Diego Convention Center, Room 3
Chair: D. Remick

Inflammation/Immunity

2:00 Host/pathogen Interactions in the Nematode C. elegans. E. Troemel, UCSD.
3:00 Mild Traumatic Brain Injury Augments Innate Immunity. D. Remick, Boston Univ. School of Medicine.

149. ASIP ROUS-WHIPPLE AWARD LECTURE

In Conjunction with the Presidential Symposium: Inflammation Knows No Borders

Lecture

Sun. 4:00 PM—San Diego Convention Center, Room 3

Award Lectures

Inflammation/Immunity

4:00 Decoding Novel Resolution Mediators and Mechanisms in Infectious Inflammation and Tissue Regeneration. C. Serhan, Brigham & Women’s Hospital.

150. MOLECULAR BASIS OF CHRONIC LIVER INJURY

Symposium

Sun. 2:00 PM—San Diego Convention Center, Room 4
Chair: M.L. Tomasi
Cochair: T. Pradhan-Sunnd

Liver Pathobiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Cell and Tissue Injury

2:30 150.3 Janus Kinase 3 Modulates the Tolerogenic Immunology of Liver Through Kupffer Cells. N. Kumar, J.K. Das, J. Mishra. Texas A&M University College of Pharmacy.


3:15 150.6 Hepatocyte-Specific Depletion of Augmenter of Liver Regeneration (ALR) Protein Alters miRNA Signature Linked to Lipid Homeostasis Leading to Excessive Steatosis. S. Kumar, R. Rani, R. Karns, B.K. Sharma, C.R. Gandhi. Cincinnati Children’s Hospital Medical Center.


3:45 150.8 A-Kinase Anchoring Protein Phosphorylation as a Therapeutic Target for Alcohol Liver Injury. K. Ramani, M.L. Tomasi, J. Berlind, N. Mavila, Z. Sun. Cedars-Sinai Medical Center and Johns Hopkins University School of Medicine.

4:00 150.9 Glycine/Sarcosine Ratio as Novel Biomarker for Alcohol-Induced Liver Fibrosis Under Sumoylation Control. M.L. Tomasi, C. Cossu, K. Ramani, A. Floris. Cedars-Sinai Medical Center.


3:00 151.3 Role of Farnesoid X Receptor Activation in Counteracting Tumor-Promoting Functions of Cancer-Associated Fibroblasts in Breast Cancers. I. Barone, V. Vircillo, C. Giordano, R. Tarallo, A. Rinaldi, G. Bruno, B. Gyorffy, D. Bonofiglio, S. Andò, S. Catalano. University of Calabria, Italy, University of Salerno, Italy and Semmelweis University, Hungary.


4:15 151.6 C/EBPα Is Crucial Determinant of Epithelial Homeostasis by Preventing Epithelial-to-Mesenchymal Transition. P. Coffer, A-R. Lourenco, C. Frederiks, D. Seinstra, A. Margarido, G. Roukens, J. van Rheenen. University Medical Center Utrecht, Netherlands and Netherlands Cancer Institute, Netherlands.

4:40 Q+A.

152. THE HCS BUSINESS MEETING, AWARDS PRESENTATIONS, AND RECEPTION

Society Events

**SUN. 6:00 PM—OFF-SITE LOCATION, HORTON GRAND HOTEL,**
311 ISLAND AVENUE, SAN DIEGO, CA 92101

Workshops & Events

2:00 Introduction

2:10 151.1 Correlation of Securin and Ki67 in Invasive Breast Carcinoma. I.M. Talaat, R.A. Hamoudi, N.M. Soliman, N.Y. Oweiss, A.M. Omar. College of Medicine, University of Sharjah, United Arab Emirates, Faculty of Medicine and Alexandria University, Egypt.

2:35 151.2 Anticancer and Pro-Apoptotic Effects of Triphala Extract in Human Breast Cancer MCF-7 Cells. M.S. Murthy. MS Junior College, India.
153. **JOHN J. ABEL AWARD IN PHARMACOLOGY LECTURE**

**Lecture**

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A**

**Award Lectures**

The John J. Abel Award in Pharmacology, named after the founder of ASPET, was established in 1946 to stimulate fundamental research in pharmacology and experimental therapeutics by young investigators.

8:30 Introduction.
8:35 Molecular Control of G Protein Signaling. K. Martemyanov. The Scripps Research Inst.

154. **ASPET PRESIDENTIAL SYMPOSUM: DEADLY LIAISONS: SQUEEZING THE LIFE OUT OF CANCER**

**Symposium**

**SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A**

**CHAIRRED: J. SCHUETZ**

**COCHAIRRED: M-A. BJORNSTI**

**Cancer and Therapy**

9:30 Introduction.


11:50 Conclusion.

155. **NANCY ZAHNISER MEMORIAL SYMPOSUM: THE DOPAMINE TRANSPORTER IN HEALTH AND DISEASE**

**Symposium**

(Sponsored by: ASPET Division for Neuropharmacology (NEU))

**SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16B**

**CHAIRRED: L. DAWS**

**COCHAIRRED: H. KHOSHOBEI**

**Neuroscience**

**Metabolism and Metabolic Disease**

**Behavioral Pharmacology**

Dr. Zahniser pioneered research elaborating our understanding of how dopamine and glutamate contribute to individual differences in cocaine-induced brain plasticity and addiction-like behavior, and how dopamine transporters are rapidly regulated. Her findings underscore the overall importance of dopamine transporters in contributing to enhanced vulnerability to cocaine addiction and relapse. Dr. Zahniser was strongly committed to mentoring young scientists, and to ASPET. In tribute of her many accomplishments, this symposium captures the most recent advances in understanding dopamine transporter function and regulation, and its important role in health, disease, and addiction. Importantly, this symposium highlights novel targets for treating dopamine-linked pathologies.

9:30 Introduction.
9:32 Dopamine Transporters and Psychostimulant Action: Lessons from Nancy. S. Amara. NIMH.

9:57 Dopamine Transporters: Linking Obesity to Diabetes to Psychiatric Disorders. A. Galli. Univ. of Alabama-Birmingham.


10:27 An Unsuspected Role for Organic Cation Transporter 3 in the Actions of Amphetamine. F.P. Mayer, A.W. Owens, S. Boehm, U. Gether, W. Koek, L.C. Daws, H.H. Sitte. Institute of Pharmacology, Medical University of Vienna, Austria, The University of Texas Health Science Center at San Antonio, University of Copenhagen and Panum Institute, Denmark. (820.8)

10:37 DATS Not All: Organic Cation Transporters in the Actions of Psychoactive Drugs. L. Daws. Univ. of Texas Health Science Ctr. at San Antonio.


11:17 Moving from Neuronal Transporter Structures to Clinically Relevant Therapeutics for Neurodegenerative Disorders. U. Gether. Univ. of Copenhagen.

11:37 General Discussion and Questions.

11:57 Conclusion.

156. **RAY FULLER LECTURE AND SYMPOSUM: STATE-OF-THE-ART ON REGENERATIVE PHARMACOLOGY: THE FUTURE IS NOW**

**Symposium**

(Sponsored by: ASPET Division for Translational and Clinical Pharmacology (TCP))

**SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 17A**

**CHAIRRED: G. CHRIST**

**COCHAIRRED: K. MARRA**

**Translational and Clinical Pharmacology**

**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

**Cardiovascular**

**Emerging Technologies**

9:30 Presentation of the Ray Fuller Award to Dr. George Christ.
10:10 Keratin Biomaterials as an Implantable Device, As Well As a Platform for Cell and Drug Delivery for Tissue Repair and Regeneration. **L. Burnett.** Keranetics LLC.

10:45 Stem Cell Engraftment through Enhanced Vascular Integration with Functionalized Biomaterials. **K. Healy.** Univ. of California, Berkeley.

11:20 Therapeutic Angiogenic Materials for Tissue Repair and Regeneration. **T. Segura.** Univ. of California, Los Angeles.

11:55 Q&A.

157. **HUMANIZED IN VITRO AND IN VIVO MODELS IN DRUG DISCOVERY AND DEVELOPMENT**

**Symposium**

**(Sponsored by: ASPET Division for Drug Metabolism and Disposition (DMDD))**

**SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15B**

**CHAIR: X. Ding**

**COCHAIR: A. Sawant-Basak**

**Drug Metabolism and Disposition**

**Emerging Technologies**

**Metabolism and Metabolic Disease**

**Drug Discovery and Development**

9:30 **Introduction.** **A. Sawant-Basak.** Pfizer Inc.

9:35 Capturing Liver Function In Vitro: Micro-engineered Biomimetic Liver Platforms for Drug Metabolism and Inter-organ Interactions. **S.S. Bale.** Draper Laboratories.

10:03 Quantitative DMPK Applications of Microphysiological Systems. **M. Cirit.** MIT—Translational Ctr. of Tissue Chip Technologies.

10:31 Human Liver Chimeric Mice to Predict Human Drug Metabolism and Toxicity: The Chances and Challenges. **K.D. Bissig.** Baylor Col. of Med.


11:27 Industrial Perspectives of Microphysiological Systems in Drug Discovery and Development. **P. Bajaj.** Takeda Pharmaceuticals.

11:55 **Summary. X. Ding.** Univ. of Arizona.

158. **PLACENTAL XENOBIOTIC METABOLISM AND TRANSPORT**

**Symposium**

**(Sponsored by: ASPET Division for Toxicology (TOX))**

**SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15A**

**CHAIR: Q. Mao**

**COCHAIR: L. Aleksunes**

**Toxicology**

**Metabolism and Metabolic Disease**

**Drug Discovery and Development**

**Drug Metabolism and Disposition**

9:30 **Introduction.**

9:34 Placental Metabolism of Drugs and Impacts on Fetal Exposure. **M. Ahmed.** Univ. of Texas—Medical Branch, Galveston.

10:04 Placental Transporter Regulation and Environmental Toxicant Interactions. **L. Aleksunes.** Rutgers Univ.

10:34 Fetal Exposure to Drugs: Role of Placental Transporters. **Q. Mao.** Univ. of Washington.

11:04 PBPK Modeling and Simulation to Predict Fetal Exposure to Drugs and Xenobiotics. **M. De Sousa Mendes.** Simcyp.

11:34 Effects of Cannabinoids on Trophoblast Cell Growth and Syncytialization. **N.K. Neradugomma, Q. Mao.** University of Washington. (692.4)

11:46 Translocation of Engineered Nanomaterials from the Maternal Lungs to the Fetal Compartment After Instillation. **P. Stapleton, J. D’Errico, S. Fournier, Rutgers University.** (830.5)

11:58 **Conclusion.**

159. **ASPET DAILY DATABLITZ**

**Poster Discussion**

**SUN. 1:00 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**ASPET POSTER DISCUSSION AREA BOOTH 820**

**CHAIR: C.A. Paronis**

Experience the daily ASPET datablitz, a rapid-fire oral presentation of research in the ASPET poster discussion lounge in the poster hall. These brief snippets of research are an introduction to their full presentations that will take place at their poster boards afterwards. You won’t want to miss this fast-paced overview of the most exciting science of the day.

1:00 Dopamine Transporter Activation Reduces Kv2.1 Activation Potential and Cluster Size. **J. Lebowitz, J.A. Pino Reyes, K. Divita, C. Henckel, M. Lin, G.E. Torres, H. Khoshbouei.** University of Florida College of Medicine. (553.5)

1:10 The Role of Distal Helix 5 as a Determinant of GPCR-G Protein Coupling Selectivity. N. Okashah, Q. Wan, A. Inoue, N. Lambert. Augusta University and Tohoku University, Japan. (555.2)

1:15 Inhibitor of Soluble Epoxide Hydrolase Attenuates Decline in Learning and Memory of Diabetic Rats. S.K. Goswami, N. Minaz, R. Razdan, B.D. Hammock. Drexel University, Al-Ameen College of Pharmacy, India and University of California. (559.1)

1:20 Characterization of a Novel Inhibitor of Soluble Epoxide Hydrolase and Role in Ocular Neovascularization. B. Park, S. P. B. Sardar Pasha, Y. Si, S.O. Meroueh, S-Y. Seo, T.W. Corson. Indiana University School of Medicine and Gachon University, Republic of Korea. (561.1)

1:25 Break.


1:35 Physical Organization of Heme Oxygenase 1, NADPH Cytochrome P450 Reductase, and the Cytochromes P450 in the Endoplasmic Reticulum. J.P. Connick, W.L. Backes. Louisiana State University Health Sciences Center—New Orleans. (564.6)

1:40 Role of Glutathione-S-Transferases in the Metabolism of the Anti-Cancer Agent and Aromatase Inhibitor, Exemestane. I.L. Teslenko, G. Chen, Z. Xia, P. Lazarus. Washington State University. (566.10)

1:45 Mitochondrial DNA Activates NLRP3 Inflammasome and Contributes to Endothelial Dysfunction and Inflammation in Type 1 Diabetic Mice. C.A. Pereira, N.d. S. Ferreira, C.Z. Zanotto, D. Carlos, R. Tostes. University of Sao Paulo, Brazil. (569.5)

1:50 The Antithrombotic Effects of 12-LOX Derived Metabolites of DPA, ω-6. A. Chen, J. Yeung, A. Szatkowski, M. Jackson, J. Watson, C. Freedman, A. Das, T. Holman, M. Holinstat. University of Michigan, University of Illinois at Urbana—Champaign, University of California and Santa Cruz. (571.5)

1:55 Discussion.

160. GOODMAN AND GILMAN AWARD IN RECEPTOR PHARMACOLOGY LECTURE

Lecture
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A

Award Lectures
The Louis S. Goodman and Alfred Gilman Award in Receptor Pharmacology was established in 1980 to recognize and stimulate outstanding research in pharmacology of biological receptors, leading to a better understanding of the mechanisms of biological processes and providing the basis for the discovery of drugs useful in the treatment of diseases.

2:30 Introduction.


161. ADHESION GPCRS AS NEUROTHERAPEUTIC TARGETS

Symposium
(Sponsored by: ASPET Division for Molecular Pharmacology (MP))
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A
CHAIR: G. TALL
COCHAIR: X. PIAO

Molecular Pharmacology
Cancer and Therapy
Cardiovascular
Neuroscience

3:30 GPR56 Regulation of Glial Cell Development. X. Piao. Harvard Univ.


4:20 BAI Regulation of Synaptic Function and Involvement in Neurological Disease. R. Hall. Emory Univ.

4:40 New Probe Compounds to Investigate Adhesion GPCR Activation Mechanisms. G. Tall. Univ. of Michigan.


162. EPIGENETICS IN DRUG DISCOVERY

Symposium
(Sponsored by: ASPET Division for Drug Discovery and Development (DDD))
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 15B
CHAIR: V. VAKA
COCHAIR: J.J. JILEK

Drug Discovery and Development
Cancer and Therapy
Gene Expression
Neuroscience
5:35 Targeting of the Histone 3 Lysine 9 Methyltransferase Pathway in KRAS-Induced Cell Growth and Pancreatic Cancer. G. Lomberk, G. Urrutia, M. Colon Caraballo, A. Salmonson, M. Missfeldt, A. Mathison, S. Tsai, N.V. Adsay, D. Evans, J. Iovanna, R. Urrutia. Medical College of Wisconsin and Institut National de la Santé et de la Recherche Médicale (INSERM), France. (826.11)

5:48 Crosstalk Between PTBP1 and miR-101/AGO2 on Targeting MCL1—a Novel Post-Transcriptional Mechanism for MCL1 Expression. J. Cui, W.J. Placzek. The University of Alabama at Birmingham. (826.4)

163. PRO-PSYCHOTIC EFFECTS OF DRUGS OF ABUSE

Symposium
(Sponsored by: ASPET Division for Behavioral Pharmacology (BEH))
Sun. 3:30 PM—San Diego Convention Center, Room 16B
Chaired: M.D. Berquist
Co-Chaired: M. Wood

Behavioral Pharmacology

Neuroscience

Drug Discovery and Development

4:00 Becoming Unglued: Glutamate Dysfunction and Psychosis. B. Moghaddam. Oregon Health & Sciences Univ.
4:30 A Trip Down the Rabbit Hole: Hallucinogens and Psychosis. S. Powell. Univ. of California, San Diego.
5:00 Reefer Madness: Insights from Cannabinoid-Induced Psychosis. P. Skosnik. Yale Univ.
5:30 There’s a Cat in the Colony Room: Modeling Psychosis in Rodents. M. Berquist. Univ. of Arkansas for Medical Sciences.

164. THE MICROBIOME AND CANCER

Symposium
(Sponsored by: ASPET Division for Cancer Pharmacology (DCP))
Sun. 3:30 PM—San Diego Convention Center, Room 15A
Chaired: M-A. Bjornsti
Co-Chaired: H. Jeong

Cancer and Therapy

Microbiome

Inflammation/Immunity

Metabolism and Metabolic Disease

3:30 Introduction.
3:35 The Role of the Microbiota in Public Health. R. Knight. Univ. of California, San Diego.

4:10 Postnatal Microbial Strategies Inhibit Cancer Later in Life. S. Eardman. MIT.
5:55 Conclusion.

165. UPDATE ON THE GASEOUS SIGNALING MOLECULES NO, H2S, AND CO

Symposium
(Sponsored by: ASPET Division for Cardiovascular Pharmacology (OVP))
Sun. 3:30 PM—San Diego Convention Center, Room 17A
Chaired: A. Papapetropoulos
Co-Chaired: N.S. Bryan

Cardiovascular Nutrition/Obesity

Molecular Pharmacology

4:05 Hydrogen Sulfide Therapy in Heart Failure. D. Lefer. Louisiana State Univ.
4:30 Regulation of Carotid Body Activity by the Heme Oxygensase/CO Pathway. N. Prabhakar. Univ. of Chicago.
5:20 Dietary Nitrate Improves Cardiovascular Health in Humans. A. Ahluwalia. Queen Mary Univ. of London.
5:45 Delayed Therapy with a Hydrogen Sulfide Donor, JK1, Protects Against Pressure Overload-Induced Heart Failure. Z. Li, J. Kang, M. Xian, D.J. Lefer. Louisiana State University Health Sciences Center—New Orleans and Washington State University. (698.1)
5:55 Concluding Remarks—Future Directions.

166. ASPET STUDENT/POSTDOC POSTER COMPETITION

Award Competition
Sun. 6:30 PM—San Diego Convention Center, Room 20BC

Undergraduates, graduate and post-baccalaureate students, and postdoctoral scientists present their posters in this annual competition. Join us to view the top student/postdoc posters.
Physiology

167. 2018 MENTORING SYMPOSIUM: RECOGNIZING AND RESPONDING TO IMPLICIT BIAS IN SCIENCE I

Symposium
(Sponsored by: APS Women in Physiology Committee)
SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: D. AL ALAM
COCHAIR: K. WALLACE AND D.H. HO

Diversity in Science
Career and Professional Development
7:00 Implicit and explicit bias in science and science education. Charlotte Tate. San Francisco State Univ.
7:30 General discussion.

168. DO IT AGAIN: HOW TO ACHIEVE RIGOROUSLY REPRODUCIBLE RESEARCH I

Symposium
(Sponsored by: Trainee Advisory Committee)
SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: R. DOWNEY
COCHAIR: I. OBI

Career and Professional Development
7:00 Data management and storage for rigor and reproducibility. Shai Silberberg. NINDS/NIH.

169. HALLMARKS OF GROUND RULES FOR PRODUCTIVE COLLABORATIONS IN SCIENCE. DEVISING AND ESTABLISHING COLLABORATIONS

Symposium
(Sponsored by: APS Careers in Physiology Committee)
SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: J. BRANDAUER
COCHAIR: B. BECKER

Career and Professional Development
7:00 Defining and establishing collaborations. S. Watts. Michigan State Univ.
7:20 Defining and establishing collaborations. C. Northcott. Pfizer, Inc.
7:40 Panel discussion.

170. ISCHEMIC AND HYPOXIC CONDITIONING: POTENTIAL FOR PROTECTION OF VITAL ORGANS

Symposium
(Sponsored by: Integrative Physiology Symposium Series)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: C.A. RICKARDS
COCHAIR: J.D. SPRICK

Cardiovascular
8:30 Intermittent, normobaric hypoxia training exerts robust cerebroprotection against ischemic injury. Robert Mallet. Univ. of North Texas Hlth. Sci. Ctr.
9:00 Prolonged global ischemia and consequences of resuscitation to the heart and brain. Demitri Yanniopoulos. Univ. of Minnesota.

171. TOO HOT TO HANDLE: CONTROVERSIES IN EXERTIONAL HEAT STROKE PREVENTION AND TREATMENT

Symposium
(Sponsored by: Environmental and Exercise Physiology Section)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: O. LAITANO
COCHAIR: M.A. KING

Cardiovascular
172. **INFLAMMATION AND SODIUM REABSORPTION**

Symposium  
(*Sponsored by: Water and Electrolyte Homeostasis Section*)  
**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 27AB**  
**CHAIR:** D. LEE  
**COCHAIR:** A.V. PAI

Salt  
**Inflammation/Immunity**  
**Ion Channels and Transporters**

8:30 Regulation of epithelial sodium channel in salt-sensitive hypertension via inflammation-induced reactive oxygen species production. **Tengis Pavlov.** Henry Ford Hospital.  
8:50 Getting inflamed with the sodium chloride cotransporter. **Robert Hoover, Jr.** Emory University.  
9:10 Na+/H+ exchanger regulatory factor in age-dependent salt-sensitive hypertension and renal inflammation. **Syed Khundmiri.** Howard University.  
9:30 The role of CD8+ T cells in the pathogenesis of salt-sensitive hypertension. **Shengyu Mu.** University of Arkansas for Medical Sciences.

173. **BUILDING EPITHELIAL ORGANS IN VITRO TO STUDY PHYSIOLOGY AND PATHOGENESIS OF DISEASE**

Symposium  
(*Sponsored by: Epithelial Transport Group*)  
**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A**  
**CHAIR:** R. NØRREGAARD

**Emerging Technologies**  
**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

**Metabolism and Metabolic Disease**

8:30 Engineering human organs on a chip. **Donald Ingber.** Wyss Inst. for Biologically Inspired Engineer., Harvard Med. Sch.  
9:00 Making mini-human intestine in a dish from intestinal biopsies. **Mark Donowitz.** Johns Hopkins Medical School.  
9:30 Using kidney organoids to study cystogenesis in ADPKD. **Owen Woodward.** University of Maryland School of Medicine.

174. **OF MICE AND MEN: WHAT HAVE WE REALLY LEARNED ABOUT THE REGULATION OF CORONARY VASCULAR FUNCTION IN HEALTH AND DISEASE?**

Symposium  
(*Sponsored by: Cardiovascular Section*)  
**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC**  
**CHAIR:** S. PHILLIPS  
**COCHAIR:** A. GOODWILL

**Cardiovascular**

8:50 Mechanisms of coronary flow control in swine models of health and disease. **Adam Goodwill.** Indiana University School of Medicine.  
9:10 Age-related coronary microvascular dysfunction in murine models. **Amanda LeBlanc.** University of Louisville School of Medicine.  
9:30 Multi-scale modeling of supply-demand matching in myocardial oxygen delivery. **Dan Beard.** University of Michigan.

175. **ADDRESSING HIGHER LEVELS OF BLOOM’S TAXONOMY IN THE TEACHING AND LEARNING OF PHYSIOLOGY**

Symposium  
(*Sponsored by: Teaching of Physiology Section*)  
**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28B**  
**CHAIR:** H. CLEMENTS-JEWERY  
**COCHAIR:** M. HOPPER

**Education**  
**Career and Professional Development**

8:30 Fostering higher-order cognitive skills in the teaching and learning of physiology. **Janet Casagrand.** Univ. of Colorado, Boulder.  
8:52 Using Bloom’s Taxonomy to monitor assessment changes after flipping a course. **Lara DeRuisseau.** LeMoyne Col.  
9:14 Addressing higher levels of Bloom’s Taxonomy: Does student performance match perception? **Mari Hopper.** Univ. of Indiana, Evansville.  
9:36 Using the Phys-MAPS to understand changes in students’ ability to apply core physiology concepts. **Katharine Semsar.** Univ. of Colorado, Boulder
176. MAINTENANCE AND REMODELING OF THE NEUROMUSCULAR JUNCTION IN HEALTH AND DISEASE

Symposium  
(Sponsored by: Muscle Biology Group)  
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 22  
CHAIR: V. LUBICIC  
Metabolism and Metabolic Disease  
Neuroscience  
9:30  Activity-induced plasticity of the NMJ. Michael Deschenes. College of William and Mary.

177. NCAR YOUNG INVESTIGATOR AWARDS

Featured Topic  
(Sponsored by: Neural Control and Autonomic Regulation Section)  
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 26AB  
CHAIR: D.J. MORAES  
COCHAIR: M. POGLITSCH  
Neuroscience  
8:30  Brainstem Pre-Sympathetic Neuron Controls Oscillatory Breathing in Heart Failure. R. Del Rio, D.C. Andrade, C. Toledo, H.S. Diaz, C. Lucero, A. Arce-Alvarez. P. Universidad Católica de Chile, Chile. (885.13)  
8:50  Sim1-PVN Neurons in ADAM17 Mediated Neurogenic Hypertension. S. Mukerjee, T. Bastings, A. Zsombok, E. Lazartigues. Louisiana State University Health Sciences Center and Tulane University. (885.5)  
9:00  Role of AT1 Receptor-Mediated ADAM17 Signaling in Glutamatergic Neurons in Neurogenic Hypertension. J. Xu, E. Lazartigues. Louisiana State University Health Sciences Center and Tulane University. (885.4)  
9:15  Kir4.1 Is Involved in Bradykinin-Induced Inhibition of NCC and Natriuresis. P. Wu, Z-X. Gao, D-D. Zhang, C-P. Vio, R. Gu, W-H. Wang. New York Medical College, Harbin Medical University, People’s Republic of China and Pontificia Universidad Católica de Chile, Chile. (619.7)  
9:30  Intrarenal Bradykinin (BK) Is Decreased in Mice with Prorenin Receptor (PRR) Deficiency in the Collecting Duct. B. Visniauskas, J. Mourain, J.R. Chagas, M.C. Prieto. Tulane University and Universidade Federal de Sao Paulo, Brazil. (619.4)  
9:45  Renal Olfactory Receptor 1393 Contributes to the Progression of Diabetes. B.D. Shepard, H. Koepsell, J.L. Pluznick. Georgetown University, University of Würzburg, Germany and Johns Hopkins University School of Medicine. (720.3)  
10:15  Deep Proteomic Quantification of Inner Medullary Collecting Duct Protein Phosphorylation: Response to Vasopressin. V. Deshpande, C-L. Chou, M. Knepper. National Heart, Lung, and Blood Institute and National Institutes of Health. (619.9)

178. RENAL SECTION YOUNG INVESTIGATOR AWARD FEATURED TOPIC: NOVEL ROLES FOR RENAL GPCRS

Featured Topic  
(Sponsored by: Renal Section)  
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28A  
CHAIR: J. PLUZNICK  
COCHAIR: M. CAPLAN  
8:30  Orphan GPCRs and Renal Physiology. Jennifer Pluznick. Johns Hopkins School of Medicine.  
9:30  Intrarenal Bradykinin (BK) Is Decreased in Mice with Prorenin Receptor (PRR) Deficiency in the Collecting Duct. B. Visniauskas, J. Mourain, J.R. Chagas, M.C. Prieto. Tulane University and Universidade Federal de Sao Paulo, Brazil. (619.4)  
10:00  Renal Olfactory Receptor 1393 Contributes to the Progression of Diabetes. B.D. Shepard, H. Koepsell, J.L. Pluznick. Georgetown University, University of Würzburg, Germany and Johns Hopkins University School of Medicine. (720.3)  
10:15  Genetic Deletion of P2Y2 Receptor Suppresses Lithium-Induced Medullary Collecting Duct Remodeling in Mice. B.K. Kishore, J. Peti-Peterdi, T. Liu, A. Riquer-Brison, N.G. Carlson, Y. Zhang. University of Utah and VA Medical Center and University of Southern California. (621.4)
179. **ROLE OF THE MICROBIOME IN CARDIOVASCULAR DISEASE**

**Featured Topic**

(Supported by Journal of Clinical Science)

(Sponsored by: Cardiovascular Section)

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 24AB**

**CHAIRED: E. BUYS**

**Cardiovascular**


8:45 Examining the Role of Gut Dysbiosis in Neuroinflammation and Hypertension in a Model of Obstructive Sleep Apnea. D. Durgan, B.P. Ganesh, J. Nelson, J. Eskew, N. Ajami, J. Petrosino, R. Bryan. Baylor College of Medicine. The University of Texas Health Science Center and Mercer University. (582.2)


180. **PHYSIOLOGICAL GENOMICS TRAINEE HIGHLIGHTS**

**Featured Topic**

(Sponsored by: Physiological Genomics Group)

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28DE**

8:30 Transcriptomic Profiling of Mitochondrial Dysfunction Induced Apoptosis in Accelerated Cardiovascular Disease. F. Xu, F. Guan, A. Halim, L. Ho, K. Lim, T. Lu. Brookline High School, Brigham and Women’s Hospital and Harvard Medical School, University of Rochester and Massachusetts General Hospital and Harvard Medical School. (585.1)


9:00 Long Non-Coding RNAs Are Transcriptional Regulators of Contractile Protein-Coding Genes in Skeletal Muscle. J.D. Resnick, C.A. Gilbert, A.J. Lowrey, M.C. Callier, C.E. Pandorf. Mercer University and Mercer University School of Medicine. (753.1)


9:45 The Molecular Mechanisms of Chronic Kidney Disease Induced Hyperphosphatemia in Cerebral Microvasculature. J. Xu, C-P. Chung, P-T. Lee, L. Ho, K. Lim, T. Lu. Harvard College, Harvard University, Taipei Veterans General Hospital, Taiwan, Kaohsiung Veterans General Hospital, Taiwan, Brigham and Women’s Hospital and Harvard Medical School and Massachussetts General Hospital and Harvard Medical School. (586.9)

181. **TRANSLATIONAL PHYSIOLOGY SHOWCASE: BENCH TO BEDSIDE AND IN BETWEEN**

**Featured Topic**

(Sponsored by: Translational Physiology Interest Group)

**SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B**

**CHAIRED: C. YOUNG**

**Cardiovascular**

8:30 Profiling Mitochondrial Quality Control in Human Myotubes Derived from Severely Obese Non-Diabetic and Type 2 Diabetic Patients. A. Gunderson, S. Park, G. Dubis, J. Houmard, K. Zou. University of Massachusetts Boston and East Carolina University. (879.1)


9:00 Effects of Roux-En-Y Gastric Bypass Surgery on Mitochondrial Quality Control Proteins in Human Myotubes Derived from Severely Obese Humans. B.N. Kugler, P.N. Gona, S.N. Saunders, S. Park, G. Dubis, J.A. Houmard, K. Zou. University of Massachusetts Boston and East Carolina University. (879.4)

9:06 Roundtable discussion.

Sex and cardiometabolic disease from a translational perspective.

9:14 Sex Differences in Renal Inflammation and Injury in High Fat Diet Induced Hypertension in Dahl Salt Sensitive Rats. R. Fernandes, H. Garver, J.J. Harkema, J.J. Galligan, G.D. Fink, H. Xu. Michigan State University. (850.5)


9:38 Inflammatory Reproductive White Adipose Tissue Characterizes the Obese Preeclamptic-Like BPH Mouse Prior to Pregnancy. K. Olson, D. Reijnders-Most, N. Douglas, L.M. Redman, J.L. Sones. Louisiana State University School of Veterinary Medicine, Columbia University Medical Center and Pennington Biomedical Research Center. (882.13)


9:50 Roundtable discussion.

182. REDOX BIOLOGY: A UNIFYING THEME IN THE ETIOLOGY OF HUMAN DISEASES

Symposium
(Sponsored by: Society for Redox Biology and Medicine (SFRBM))

SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28DE

Chaired: A. Case
Cochaired: C. Kevil

Inflammation/Immunity

1:30 Chair’s Introduction.
1:35 The NADPH oxidase NOX4 in endothelial function. Katrin Schröder. Goethe-University—Germany.
2:00 Reductive Stress Promotes Heart Failure in Mouse and Human. R. Namakkal Soorappan. The University of Alabama at Birmingham. (771.2)

2:15 Renal Hv1: A critical component of reactive oxygen species production outside the immune system? Paul O’Connor. Medical College of Georgia / Augusta University.

2:40 Ketone Salts Inhibit Production of Superoxide Anions During Normobaric and Hyperbaric Hyperoxia in Rat Solitary Complex Neurons. C. Hinojo, G. Carlone, D. D’agostino, J. Dean. University of South Florida. (771.9)

2:55 Concluding remarks.

183. ENAC PROTEINS AS MECHANOSENSORS IN ENDOTHELIAL AND VASCULAR SMOOTH MUSCLE CELLS

Symposium
(Sponsored by: Renal Section)

SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A

Chaired: H. Drummond
Cochaired: Z. Ashley

Cardiovascular


1:50 Mechanotransduction in renal VSMCs is mediated by coupling of ENaC and TRP signaling. Heather Drummond. University of Mississippi Medical Center.


2:30 Shear force sensing of ENaC in endothelial cells requires N-glycans and the extracellular matrix. Martin Fronius. University of Otago.

184. SEX DIFFERENCES IN CENTRAL CIRCUITS

Symposium
(Sponsored by: CNS Section)

SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB

Chaired: K. Browning
Cochaired: R. Wainford

Neuroscience


2:00 Sex based differences following early adverse life events. Beverly Greenwood-Van Meerweld. University of Oklahoma.

185. ORGANOIDs: MODELLING CELL PHYSIOLOGY AND DISEASE IN 3D

Symposium
(Sponsored by: Cell and Molecular Physiology Section)
SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: N.A. BRADBURY
COCHAIR: N. AMEEN

Cardiovascular
Inflammation/Immunity
Neuroscience

1:40 Human pancreatic organoids as a model for cancer. David Tuveson. Cold Spring Harbor Laboratory.

186. AMERICAN JOURNAL OF PHYSIOLOGY HEART AND CIRCULATORY PHYSIOLOGY EDITORS SYMPOSIUM

Symposium
(Sponsored by: Cardiovascular Section)
SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: I.H. ZUCKER
COCHAIR: M. LINDSEY

1:30 Disease modeling using hiPSC-derived differentiated cells: A platform for integrative physiology. Ivor Benjamin. Medical College of Wisconsin.
1:50 Gender difference in the development of cardiac amyloidosis. Ronglih Liao. Harvard Medical School.
2:10 The nervous heart: Insights into autonomic-mediated arrhythmias. Crystal Ripplinger. University of California at Davis.

187. APS PRESIDENT’S SYMPOSIUM SERIES I. EXOSOMES: THE NEW FRONTIER. CELL BIOLOGY OF EXOSOMES

Symposium
President’s Symposium Series
SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: L. O’DRISCOLL

1:30 Cellular regulation of exosome and other extracellular vesicles production and release. Clotilde Théry. INSERM U932
2:00 Characterization and analysis of exosomes/extracellular vesicles. Jennifer Jones. NCI, NIH.
2:30 Exosomes and intracellular signaling. Riccardo Alessandro. Univ. of Palermo.

188. NON-CANONICAL FUNCTIONS OF THE LUNG IN IMMUNITY AND HEMOSTASIS

Symposium
(Sponsored by: Respiration Section)
SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 27AB
CHAIR: W.M. KUEBLER
COCHAIR: J.K. JUSS

Inflammation/Immunity

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

1:30 Platelet biogenesis in the lung. Mark Looney. UCSF School of Medicine.
2:00 The lung as a source and effector site for factor XII. Malgorzata Wygrecka. University of Giessen.
189. FROM GENE TO FUNCTION OF COMPLEX TRAITS: ANALYSIS OF GENES IDENTIFIED IN HUMAN GWAS AND ANIMAL MODELS

**Featured Topic**

*(Sponsored by: Physiological Genomics Group)*

**SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B**

**CHAIR:** L. SOLBERG WOODS

1:30 Learning About An Old Dog's New Tricks: The Role Of Glyoxalase 1 In Regulating Behavior And Gabaergic Signaling And How We Stumbled Across It. **Abraham Palmer.** University Of California San Diego.

2:00 The IMPC: A Global Scientific Infrastructure for Understanding the Role of Genes in Complex Traits. **V. Muñoz-Fuentes, T.F. Meehan, K. C.K. Lloyd, A-M. Mallon, D. Smedley, H. Parkinson.** European Bioinformatics Institute, United Kingdom, University of California, Davis, Medical Research Council Harwell, United Kingdom and Queen Mary University of London, United Kingdom. (754.1)

2:15 Characterization of Coding and Noncoding Variants for **GNAI2 Polymorphic Variance Associates with the Salt-Excretion via Na**\(^{+}\)/H\(^{+}\) Exchange in the Highly Ammonia Tolerant Hagfish (Eptatretus Stouitii). **A.M. Clifford, M.P. Wilkie, S.L. Edwards, A. Weinrauch, G.G. Goss.** University of Alberta, Canada, Wilfrid Laurier University, Canada and Appalachian State University. (602.5)

2:45 Evolutionarily-Conserved Mechanisms of Nutrient Acquisition in the Primordial Vertebrate, the Pacific Hagfish. **A. Weinrauch, C. Glover, T. Blewett, A. Clifford, G. Goss.** University of Alberta, Canada and Athabasca University, Canada. (602.6)

190. COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION TRAINEE-DRIVEN FEATURED TOPIC

**Featured Topic**

*(Sponsored by: Comparative and Evolutionary Physiology Section)*

**SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C**

**CHAIR:** D. CROSSLEY

1:30 Active NH\(^{+}\) Excretion via Na\(^{+}\)/H\(^{+}\) Exchange in the Highly Ammonia Tolerant Hagfish (Eptatretus Stouitii). **A.M. Clifford, M.P. Wilkie, S.L. Edwards, A. Weinrauch, G.G. Goss.** University of Alberta, Canada, Wilfrid Laurier University, Canada and Appalachian State University. (602.5)

2:45 Evolutionarily-Conserved Mechanisms of Nutrient Acquisition in the Primordial Vertebrate, the Pacific Hagfish. **A. Weinrauch, C. Glover, T. Blewett, A. Clifford, G. Goss.** University of Alberta, Canada and Athabasca University, Canada. (602.6)

2:00 Crude Oil Impairs Heart Cell Function in the Mahi-Mahi (Coryphaena hippurus). **R.M. Heuer, H.A. Shiels, G.L. J. Galli, G.K. Cox, J.D. Stieglitz, D.D. Benetti, M. Grosell, D.A. Crossley II.** University of Miami, University of Manchester, United Kingdom and University of North Texas. (602.11)


2:30 Incomplete Caspase Signaling During Hibernation in the Golden-Mantled Ground Squirrel, Spermophilus lateralis. **M.D. Treat, F. van Breukelen.** University of Nevada, Las Vegas. (602.2)

2:45 Noradrenergic Tuning, Not Simple Rate Effects, Produces Temperature-Sensitivity of the Respiratory Network in Bullfrogs. **M. Vallejo, J.M. Santin, L.K. Hartzler.** Wright State University and University of Missouri. (602.1)

191. EXPLORING NOVEL MECHANISMS TO IMPROVE EXERCISE TOLERANCE IN HEALTH AND DISEASE

**Featured Topic**

*(Sponsored by: Environmental and Exercise Physiology Section)*

**SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B**

**CHAIR:** R. HARRIS

**COCHAIR:** J. BARNES

**Cardiovascular**

1:30 Mechanism and consequences of O\(_2\) supply limitations in heart failure. **Markus Amann.** University of Utah.

2:00 Central Cardiac Determinants of the Speed-Duration Relationship in Heart Failure Rats. **J.C. Craig, T.D. Colburn, J.T. Caldwell, D.M. Hirai, A. Tabuchi, J.H. Merino, C.J. Ade, D.C. Poole, T.I. Musch.** Kansas State University. (853.15)

2:15 Inorganic Nitrate Supplementation Improves Exercise Tolerance and Calf Vascular Function in Patients with Peripheral Artery Disease. **J. Bock, D. Treichler, K. Ueda, W. Hughes, D. Casey.** University of Iowa. (853.2)


2:45 Acute Sildenafil Treatment Improves Exercise Capacity in Patients with Cystic Fibrosis. **V. Gonzalez, N. Siegler, R. Crandall, K.T. Mckie, C. Forseen, P. Rodriguez-Miguelez, M. Tucker, R.A. Harris.** Medical College of Georgia and Augusta University. (853.5)
192. CELL PLASTICITY AND REPAIR AND DISEASE MECHANISMS IN THE STOMACH, LIVER AND INTESTINE

Featured Topic

(Sponsored by: GI and Liver Physiology Section)

Cosponsored by: AJP—Gastrointestinal and Liver Physiology

**SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC**

**CHAIRED: A.E. ZEMPER**

**Microbiome**

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

**Cancer and Therapy**

1:30 Intestinal stem cells in tissue repair. **Melissa Wong.** Oregon Health Science University.


2:30 Microvillus Inclusion Formation in Myosin VB Knockout Mice Occurs Through Apical Bulk Endocytosis and Requires Syndapin 2. **A.C. Engevik, J. Faust, M. Tyska, J.R. Goldenring.** Vanderbilt University School of Medicine and Vanderbilt University. (612.4)

2:45 Deletion of Claudin-7 Disrupts Epithelial Cell Self-Renewal in Mouse Colon. **T. Xing, L. J. Benderman, S. Sabu, Y. Chen.** Brody School of Medicine, East Carolina University and East Carolina University. (612.1)

3:00 Effect of EGFR on Calcium Mobilization and Epithelial Repair in Gastric Organoids. **K. Engevik, E. Aihara, A. Matthis, M. Montrose.** University of Cincinnati. (612.3)

3:15 Determining the Mechanism by Which PRDM16 Maintains the Adult Small Intestinal Epithelium. **R. Stine, P. Seale.** University of Pennsylvania. (612.5)

193. INNATE AND ADAPTIVE IMMUNITY IN CARDIOVASCULAR PHYSIOLOGY

Featured Topic

(Sponsored by: Cardiovascular Section)

**SUN. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB**

**CHAIRED: M. MADHUR**

**COCHAIRED: D. CORNELIUS**

**Cardiovascular**

1:30 Macrophage phenotypic modulation in coronary artery disease. **Cornelia Weyand.** Stanford University.

194. EPIGENETIC MEMORY OF ENVIRONMENTAL EXPOSURE: A PHYSIOLOGICAL PERSPECTIVE

Symposium

(Sponsored by: Environmental and Exercise Physiology Section)

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B**

**CHAIR: A. MURASHOV**

**COCHAIR: T.L. CLANTON**

3:35 Molecular Mechanisms of Epigenetic Regulation. **Scott B. Rothbart.** Van Andel Res. Inst., Grand Rapids, MI.

3:53 Ancestral paternal nutrition and modulation of cancer risk and phenotype. **Sonia de Assis.** Georgetown University Medical Center.

4:10 Mechanisms underlying the nutritional programming of cardio-metabolic health. **Susan Ozanne.** University of Cambridge.

4:30 Mechanisms underlying developmental programming of thrifty phenotype. **Alexander Murashov.** East Carolina University.

**A Crucial Role for Interleukin-18/IL-18R Signalling Axis in the Development of Renal Inflammation and Elevated Blood Pressure in 1 Kidney/DOCA/Salt-Induced Hypertension.** J.M. Thomas, Y. H. Ling, S. Murali Krishnan, D. Ferens, S. Masters, B. Kemp-Harper, A. Mansell, C. Sobey, A. Vinh, G. Drummond. La Trobe University, Australia, Monash University, Australia, Walter and Eliza Hall Institute of Medical Research, Australia and Hudson Institute of Medical Research, Australia. (718.15)


195. INTERSECTION OF CENTRAL PAIN AND REWARD CIRCUITRY IN CNS DISORDERS

Symposium

(Sponsored by: CNS Section)

SUN. 3:30 PM—SUN. 4:45 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: S. EDWARDS

COCHAIR: M. ROBERTO


4:00 Role of the opioid system in the reward pathway in pain-induced negative affect. Jose Moron-Concepcion. Washington University in St Louis.


196. JOHN FORTE GIL PLENARY SESSION

Featured Topic

(Sponsored by: GI and Liver Physiology Section)

(Cosponsored by: AJP—Gastrointestinal and Liver Physiology)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28DE
CHAIR: J. UNO

COCHAIR: M. FREY


3:45 Enteroigial Adenosine A2b Receptor Signaling Contributes to Local Cytokine Production and Delays Functional Recovery Following Acute Inflammation in the Mouse Colon. V. Grubisic, H.K. Eltzschig, B.D. Gulbransen. Michigan State University, Dell Medical School and The University of Texas at Austin. (871.8)

4:00 Gene Expression Analysis of the Effect of Microbial Tryptophan Metabolites on T-Cell Differentiation. C. Cheng, S. Steinmeyer, A. Jayaraman, R. Alainz. Texas A&M University. (613.2)


4:30 Hypoxia Inducible Factor (HIF)-1 Accelerates Epithelial Wound Healing Through Regulation of Integrin-α5β1. B. Goggins, K. Minahan, A. Mathe, G. Liu, M. Walker, J. Horvat, D. Knight, S. Keely. University of Newcastle and Hunter Medical Research Institute, Australia. (761.4)

4:45 Fish-Oils Protect Against Hepatic Inflammation Following LPS Stimulation. M.L. Schaller, D.R. Kamm, M.P. Harris, K.A. Witt, K.E. Sandoval, J.S. Wooten. Southern Illinois University Edwardsville. (760.8)

197. PSYCHOLOGICAL STRESS DISORDERS: NOVEL CONCEPTS AND MECHANISMS

Featured Topic

(Sponsored by: Neural Control and Autonomic Regulation Section)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: R. SABHARWAL

COCHAIR: A.K. JOHNSON

Neuroscience


4:00 Activation of Angiotensin Type 2 Receptor (AT2R) Contributes to Fear Memory. Z. Yu, A.P. Swiercz, L. Hopkins, E.G. Krause, P.J. Marvar. George Washington University and University of Florida. (737.11)

4:15 Differences in Excitatory and Inhibitory Balance Within the Paraventricular Nucleus Reflects Response Variability to Acute Stress. M.M. Knuepfer, H. Zheng, N.B. Hoffman-Schepers, N.M. Sharma, K.P. Patel. St. Louis University School of Medicine and University of Nebraska Medical Center. (737.9)

4:30 T Cell Inhibition During Pregnancy Prevents Post-Partum Anxiety-Like Behavior in Rats with a History of Severe Preeclampsia/HELLP Syndrome. K. Wallace, T. Bowles, S-K. Spencer, C. Bean. University of Mississippi Medical Center. (737.6)


198. COMMUNICATION AND MISCOMMUNICATION IN LUNG INJURY AND REPAIR

Featured Topic

(Sponsored by: Respiration Section)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: M. KOVAL

COCHAIR: K. BIRUKOV

Inflammation/Immunity

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

3:30 Vascular niche modulates lung regeneration and Fibrosis. Bi-Sen Ding. Weil Cornell Medical College.
Modulation of Myeloid Cell Recruitment and Activation by Alveolar Epithelial Type 2 Cells Drives Early Inflammation in a Murine Model of Mutant Surfactant Protein-C Pulmonary Fibrosis. A. Venosa, Y. Tomer, M. Kopp, S. Jamil, M.F. Beer. University of Pennsylvania. (746.4)


Dark microglia and pathological remodeling of neuronal circuits. Marie-Ève Tremblay. Université Laval.

Inflammation Differentially Impacts Phrenic Long-Term Facilitation (PLTF) in Rats with Motor Neuron Death Induced by Intrapleural CTB-Saporin Injections. N.L. Nichols, M.A. Tanner. University of Missouri. (625.17)

Is Regulation of Microglial Functions by T3 Dependent on the Micro-Environment?: Insights from the Brainstem Respiratory Control Network of Newborn Mice. J-P. Rousseau, K. Kitazono, Y. Yoshioka, M. Noda, R. Kinkead. Université Laval, Canada and Kyushu University, Japan. (625.16)


Confessions of a long-term extra-marital affair with bicarbire. Paul Quinton. UCSD.
203. **KALEY AWARD FEATURED TOPIC: CEREBRAL VASCULAR DYSFUNCTION AND IMPAIRED COGNITIVE FUNCTION**

**Featured Topic**

*(Sponsored by: Cardiovascular Section)*

*(Co-sponsored by: Microcirculatory Society)*

**Sun. 3:30 PM—San Diego Convention Center, Room 22**

**Chair:** R. Roman

**Co-chair:** Z. Ungvari


4:00 Elevated Aortic Stiffness Is Associated with Weaker Executive Function in Individuals with Lower Cognitive Reserve via Reductions in Frontal Cerebrovascular Reserve. L.E. DuBose, D.J. Moser, L.L. Boles Ponto, G.L. Pierce. University of Iowa. (711.3)


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204. **APS DAVID BRUCE UNDERGRADUATE POSTER SESSION**

**Poster Discussion**

*(Sponsored by: APS Education Committee)*

**Sun. 4:00 PM—San Diego Convention Center, Sails Pavilion**

The APS David Bruce Undergraduate Poster Session is a special poster session held during Experimental Biology for physiology undergraduates. This session is held in addition to the regularly programmed scientific session in which all researchers participate.

Graduate departments and programs will also be on site to talk to students about various opportunities at their institutions.

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205. **WEH NEW INVESTIGATOR AWARD LECTURE**

**Lecture**

*(Sponsored by: Water and Electrolyte Homeostasis Section)*

**Sun. 4:30 PM—San Diego Convention Center, Room 23ABC**

4:30 WEH New Investigator Award Lecture. M. Madhur. Vanderbilt Univ.

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206. **PHYSIOLOGY IN PERSPECTIVE: THE WALTER B. CANNON MEMORIAL AWARD LECTURE**

**Lecture**

*(Supported by Sucampo AG)*

**APS**

**Sun. 5:30 PM—San Diego Convention Center, Room 20A**

5:30 The roles of Ca²⁺ and ATP in pancreatic physiology and pathophysiology. Ole Petersen. Cardiff University.
207. NIH F AWARDS: NAVIGATING NIH PROGRAMS TO ADVANCE YOUR CAREER

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 31A

Career and Professional Development

This presentation will focus on the NIH’s Ruth L. Kirschstein National Research Service Awards (NRSA). The NRSA research training fellowship (F) awards are targeted to individuals with or seeking research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the F awards discussed will be the F30, NRSA Individual Predoctoral MD/PhD or Other Dual-Doctoral Degree Fellowship Award, the F31 NRSA Individual Predoctoral Fellowship, the F31 NRSA Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research Award, the F32 NRSA Individual Postdoctoral Fellowship Award, and the NRSA Individual Senior Fellowship Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for pre- and postdoctoral fellows and senior investigators.

9:00 Speaker. M. Matthews. NIH.

208. POSTER/ORAL PRESENTATION PRACTICE & MENTORING SESSIONS

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, PEER MENTOR POD

Career and Professional Development

FASEB Diversity Resources Program will sponsor Presentation Practice & Mentoring Sessions beginning Saturday, April 21, to provide FASEB DREAM poster/oral presentation travel award recipients and other interested EB2018 student/postdoc attendees with an opportunity to practice their presentations and obtain feedback from designated Workshop Mentors/Coaches. If you would like to participate in the poster/oral presentation & mentoring sessions, sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

209. CAREER CORNER SESSIONS WITH DR. ADAMS

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER CORNER

Career and Professional Development

Drop in or sign-up for one-on-one or group sessions for career counseling/career planning sessions with Dr. Howard G. Adams in between his presentations in the EB2018 Career Center. Dr. Adams will be available in the “Career Corner” in the EB2018 Career Center located in Hall D beginning on Saturday, April 21. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

210. ONE-ON-ONE RESUME CRITIQUE/CV, CAREER COUNSELING, ESSAY PERSONAL STATEMENT ASSESSMENTS

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER COUNSELING ROOM

Career and Professional Development

One-on-one sessions for CV/resume critiques, career counseling, and essay/personal statement assessments will begin on Saturday, April 21. If you’re interested in a one-on-one, advance sign up will start on Sunday, April 1. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

211. DEVELOPING YOUR CORE MESSAGE STATEMENT/“ELEVATOR SPEECH”

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, CRC-1

Career and Professional Development

You can talk about yourself as a professional scientist with confidence, clarity, and comfort as you advance your career. Your core message statement is a brief spoken statement (30-second mini-abstract) about you that lets people know who you are as a professional, what you do well, and what you expect to contribute. It is a well-prepared answer to the question, “Tell me a little bit about yourself.” A positive core message statement helps open doors for connection, collaboration, and employment. This seminar will provide guidance in a safe place to develop and practice your statement.

9:00 Speaker. J. Lombardo. LifeWork Choices.
212. GOAL SETTING, PRIORITIZING, TIME MANAGEMENT

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development

Most students have dreams and aspirations regarding academic, career and life ambitions. However, too often many fall short of realizing their dreams for lack of established goals and prioritized action steps. So they are left with questions such as these: 1) what am I going to do with the rest of my life? 2) What are my academic/career goals and objectives? and 3) How do I use my time wisely to get from where I am now to where I want to be in the future?

This seminar is designed to answer these questions in the context of goal setting, prioritizing, time, and stress management. Key topics: Decoding the Goals Setting Process, Prioritizing to Determine what is Important, Translating Goals into Time Based Action Steps, Time Management and Avoiding Procrastination, Handling Stress and Anxiety.

9:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA.

213. NETWORKING AND GETTING YOUR FOOT IN THE DOOR

Workshop
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-3

Career and Professional Development

9:00 Speaker. J. Sterling. KGI, Claremont, CA.

214. CAREER OPPORTUNITIES IN SCIENCE COMMUNICATIONS

Workshop
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-3

Career and Professional Development

Do you enjoy talking about science more than doing it? Are you the person your labmates ask to edit their manuscripts? Are you a podcast junkie, and wonder how they do it? This career session will explore careers in science communication. In science journalism, institutional communication and multimedia careers, you use your science training to make a living talking about science. If it sounds like a dream come true, then this workshop is for you.

10:00 Speaker. E. Hayden. Univ. of California, Santa Cruz.

215. JOB HUNTING IN BIOTECH PART 3: COMPENSATION NEGOTIATION FOR SCIENTIST POSITIONS

Workshop
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1

Career and Professional Development

So you’ve landed a job offer for an industry scientist position! Now, how do you know if the compensation package is competitive, and how do you ask for more? In this seminar you will learn how to:

• Separate out the typical components of an industry job offer letter, so you know what to ask for
• Determine if an offer is competitive and when to ask for more
• Ask for additional compensation in a way that represents your interests while maintaining positive relationships.

(This is part 3 of a 3-part series. Each seminar can be taken separately, but together they provide comprehensive information about the industry job search process.)

10:30 Speaker. B. Lindstaedt. UCSF.

216. IDENTIFYING YOUR OPTIONS USING MYIPD + LINKEDIN

Workshop
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development

This presentation is designed to provide you with strategies and resources for beginning to think about what kinds of professional options outside of academia might be a good match for your skills and interests, and how to gain access to additional information about those career possibilities that will help clarify which options warrant further interest and investigation.

10:30 Speaker. A. Green. Univ. of California, Berkeley.

217. CONSTRUCTING YOUR ELEVATOR PITCH WORKSHOP (PRESENTED BY ASBMB OUTREACH COMMITTEE)

Workshop
MON. 12:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development

This interactive workshop will guide you through the process of creating and delivering an effective statement. Presenters will discuss real-life approaches to communication that work (and don’t work) and offer plenty of opportunities for practice and feedback. The skills you’ll gain are not just valuable for communicating with the lay public but with other academics, government officials and potential employers as well.

12:00 Speaker. ASBMB Outreach Committee.
218. JOB HUNTING IN BIOTECH PART 1: FINDING & APPLYING FOR SCIENTIST POSITIONS

Workshop
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1

Career and Professional Development
In this seminar, you will learn how to prepare resumes and cover letters so you will be ready to search for research jobs in the biotech/pharma industry. Then, you will learn how to find and connect with scientists working at companies. Finally, you will learn how to execute job search strategies necessary for success on the biotech/pharma job market. After this seminar you will understand how to conduct the four job hunting techniques that comprise a comprehensive job search in the biotech industry.

(This is part 1 of a 3-part series. Each seminar can be taken separately, but together they provide comprehensive information about the industry job search process.)

1:00 Speaker. B. Lindstaedt. UCSF.

219. BUILDING YOUR JOB SEARCH SKILLS: NETWORKING & INFORMATION INTERVIEWS

Workshop
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development
You’ve begun to identify some potential new career paths, but how do you build on these sparks of interest, learn more about the day-to-day content of a given field, and find individuals working in that career who can answer your questions and help you build a network in your emergent profession. This presentation will discuss how to utilize LinkedIn, professional associations, and other networking opportunities to increase your knowledge base and create opportunities for informational interviews.

1:00 Speaker. A. Green. Univ. of California, Berkeley.

220. SUCCESSFUL BEHAVIORS FOR WINNING AN INTERVIEW

Workshop
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-3

Career and Professional Development
Eye contacts, arriving on time—these are given behaviors for any interview of any type and everyone knows them. The successful behaviors for winning an interview are those that categorize you as a high risk or low risk for the next recruitment step.

In this seminar, you will learn what behaviors are important to exhibit on an interview, and how employers evaluate these behaviors to determine whether or not you are a low risk and move you on to the next recruitment step, or a high risk and don’t.

1:00 Speaker. J. Blumenthal. Montgomery Col., Rockville, MD and Univ. of Maryland Univ. Col., Adelphi, MD.

221. NIH K AWARDS: NAVIGATING NIH PROGRAMS TO ADVANCE YOUR CAREER

Workshop
MON. 11:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-3

Career and Professional Development
This presentation will focus on the NIH’s Career Development Awards (K) including the most recent K99/00 Pathways to Independence Award (for postdoctoral scientists) and other K awards targeted to individuals with research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the K awards discussed will be the K01 Mentored Research Scientist Development Award, the K02 Independent Scientist Award, the K22 Career Transition Award, the K08 Mentored Clinical Scientist Development Award, the K23 Mentored Patient Oriented Career Development Award, the K24 Mid-Career patient Oriented Career Award, and K25 Mentored Quantitative Scientist Career Development Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for beginning investigators.

1:30 Speaker. M. Matthews. NIH.

222. MAKING THE CASE FOR GRADUATE SCHOOL

Workshop
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2

Career and Professional Development
Advanced degree level training has emerged as a key requirement for garnering positions of leadership in academia, government, and industry and for careers in today’s workplace. Beyond this, an advanced degree signals scholarship, maturity, and the capacity to do rigorous work; all attributes that can provide an edge in the workplace. This seminar explores graduate education in the context of: 1) a career enhancement strategy; 2) graduate study opportunities/options; 3) how-to negotiate the graduate school admission and financial aid process, and 4) placing graduate studies in one’s overall academic/career/life plans. Key topics: Making the Case for Graduate School, The Application/Admissions Process, funding for Graduate Work, and Putting the Pieces Together for a Smart Application.

2:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA.

223. JOB SEARCH IN ACADEMIA & INDUSTRY

Workshop
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1

Career and Professional Development
Are you on the market for both academic and industry jobs, but aren’t sure where to start? Learn strategies for successfully navigating the two-track job search. Topics: Organizing your search, timelines/logistics, researching employer organizations, presenting your qualifications and evaluating job offers.

2:30 Speaker. D. Behrens. Univ. of California, Berkeley.
224. CAREER OPPORTUNITIES IN SCIENCE COMMUNICATIONS

Workshop
Mon. 2:30 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Do you enjoy talking about science more than doing it? Are you the person your labmates ask to edit their manuscripts? Are you a podcast junkie, and wonder how they do it? This career session will explore careers in science communication. In science journalism, institutional communication and multimedia careers, you use your science training to make a living talking about science. If it sounds like a dream come true, then this workshop is for you.

2:30 Speaker. E. Hayden. Univ. of California, Santa Cruz.

225. TEN WAYS TO GET LUCKY IN THE JOB SEARCH

Workshop
Mon. 3:30 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development
Although it is important to have a plan for your career progression, it is just as important to take advantage of unexpected events along the way. This seminar will suggest specific ways to foster chance occurrences that may influence your job search. We will examine ten practical suggestions to prepare you to make happenstance work positively for you.


226. JOB HUNTING IN BIOTECH PART 2: INTERVIEWING FOR SCIENTIST POSITIONS

Workshop
Mon. 4:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development
This seminar is designed to help you improve your interview skills so that you will be better prepared to land a scientist position in industry. At the end of the seminar, you will be able to:

• Respond effectively to the most common questions asked during industry interviews,
• Answer behavior-based questions in an organized manner,
• Begin and end the interview experience with poise and professionalism.

(This is part 2 of a 3-part series. Each seminar can be taken separately, but together they provide comprehensive information about the industry job search process.)

4:00 Speaker. B. Lindstaedt. UCSF.

227. MAKING THE GRADE: JOB TALK/CHALK TALK

Workshop
Mon. 4:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Participants will learn to plan, structure and deliver an effective job talk. This seminar will key elements of the job talk and finally, how to capture the interest of a diverse (faculty, administrators, students) audience.

4:00 Speaker. D. Behrens. Univ. of California, Berkeley.

228. ATTITUDE & BEHAVIORS: HOW ARE YOU PERCEIVED?

Workshop
Mon. 4:30 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development
Every person carries within them thoughts, feelings, and emotions that influence the way we are perceived by others, and the way we behave. This interaction (perceptions of others and our behavior) is so very complex, and happens so quickly, that perceptions are not necessarily at a conscious level and therefore opinions about you can be formed before you even have a chance to make any corrections to your attitude or behavior. This is a serious consequence during the job search, and a consequence we want to do without. Dr. Blumenthal will teach you how to present yourself in your resume, on the interview, and subsequent follow ups, including the job offer. She will teach you what goes on behind the scenes regarding attitudes and behaviors so that you have more leverage on your side. The end result is a positive consequence increasing the likelihood of job interviews and a job offer.

4:30 Speaker. J. Blumenthal. Montgomery Col., Rockville, MD and Univ. of Maryland Univ. Col., Adelphi, MD.
229. STEM CELLS IN HUMAN DEVELOPMENT AND DISEASE

Lecture
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: M. DUNNWALD

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Cell Biology
8:35 229.1 Organ Regeneration and Anti-Aging Strategies.
J.C. Izpisua Belmonte, Salk Institute for Biological Studies.
9:15 Human Pluripotent Stem Cells to Model and Treat Neurological Disorders. L. Studer, Memorial Sloan Kettering Cancer Center

230. BIOENGINEERED AND BIOLOGICAL SCAFFOLDS: WHAT’S NEW?

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: B.J. RONGISH

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

10:30 230.1 Functionalizing Protein-Based Materials with Biomolecules. S. Bondos, D. Howell, S-P. Tsai, K. Bayless. Texas A&M Health Science Center.
11:00 Building Tissues One Leaf at a Time. Tanja Dominko, Worcester Polytechnic Institute.
11:30 230.2 Biological Scaffolds That Mimic Function and Structure of Basement Membranes. R.C. Ogle, Old Dominion University.

231. REALISTIC AND TESTABLE MODELS IN COMPARATIVE ANATOMY: CREATIVE USES OF 3D/4D IMAGING TECHNIQUES

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: M. OSBORN AND D.G.G. HOMBERGER

Imaging
10:30 231.1 Applications of Non-Destructive 3D Data Acquisition and Processing for Biomechanical Computation, Soft Tissue Visualization, and 4D Real-Life Animation. D.G. Homberger, Louisiana State University.
11:00 231.2 Three-Dimensional Reconstruction for Study of the Functional Design of the Avian Lung. J.N. Maina, University of Johannesburg, South Africa.

232. DEVELOPMENTAL BIOLOGY AWARD HYBRID SYMPOSIUM

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: M. BARNIA

Developmental Biology/Morphology
H.W. Mossman Award Lecture in Developmental Biology featuring 2018 Young Investigator Award Recipient, Maksim Plikus
10:30 232.1 Anatomical and Functional Landscapes of Hair Regeneration Across the Body. M. Plikus, Q. Wang, J.W. Oh, Q. Nie, University of California, Irvine and Kyungpook National University, Republic of Korea.
11:00 232.2 Examining the Correlation Between Cellular and Gross Morphological Changes in the Developing Mouse Skull. S.G. E. Jarvis, J.E. Lee, G.M. Kelly, K.E. Willmore, Western University, Canada.
11:30 232.4 Complete Regeneration of a Camera-Type Eye in the Research Organism Pomacea canaliculata. A. Accorsi, E. Ross, M. McClain, S. McKinney, A. Sánchez Alvarado, Stowers Institute for Medical Research.
11:45 232.5 Depletion of Cranial Suture Stem Cells by Pharmacological Exposures May Precipitate Premature Suture Fusion. E. Durham, R.N. Howie, A. LaRue, J. Cray. Medical University of South Carolina.

233. ANATOMY EDUCATION PLATFORM 2—CLINICAL ANATOMICAL EDUCATION

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: N. LACHMAN AND C. RAMNANAN

Education
10:30 Are Clerks Ready for Clerkship? Third Year Medical Students’ Anatomical Science Knowledge vs. Clerkship Director Expectations. M.E. Norris, K.A. Rogers, C.M. Martin. Western University, Canada. (504.11)
10:45 233.1 Essential Anatomy for Residency: Implications for Medical Student Education. M. Hankin, I. Niculescu, J. Martindale, A. Aschmetat, A. Mertens, E. Soltero, P. Emmanuel. Oregon Health & Science University, Oakland University William Beaumont Hospital and University of Virginia School of Medicine.
11:00 233.2 Effect of Anatomical Radiology Team-Based Learning on Student Ability to Recognize Imaging Findings Critical to Medical Practice. S. Williams, X.L. Pereira-Reyes, M.C. Weidenhaft, M.L. Korndorffer. Tulane University School of Medicine

11:30  233.3 Enhancing Anatomy Education Through Student-Led Team Dynamics Initiatives. C. Sanky, R. Fallar, M. Cruz, J.S. Reidenberg, J.T. Laitman. Icahn School of Medicine at Mount Sinai and Bentley University.


234. SPECIMEN QUALITY DRIVES REPRODUCIBILITY

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: D.L. ROSENE

Guest session sponsored by The Histochemical Society
Emerging Technologies
Genomics, Proteomics
Imaging, Immunohistochemistry and Microscopy

Neuroscience
2:00  Long-term Cryopreservation and Batch Processing for Quantitative Histochemistry. D. Rosene. Boston University School of Medicine.
3:00  The Biophysics of Freezing Tissue. A. Hubbel. University of Minnesota.

235. SEX DIFFERENCES IN STRUCTURE AND FUNCTION OF THE CARDIOVASCULAR SYSTEM

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: V. MILLER

Cardiovascular
2:00  235.1 Sex Differences in Sympathetic Control of Vascular Tone: Influences of Aging. N. Charkoudian. US Army Research Institute of Environmental Medicine.
3:00  235.3 Sex Differences in Remodeling of the Failing Heart. G. Kararigas. Charite University Hospital, Germany.

236. USING STEM CELLS TO UNDERSTAND AND TREAT DISEASE

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: B. ALLMAN

Cell Biology
2:00 pm Dynamics of Skeletal Muscle Stem Cells during Tissue Repair and Maintenance. A. Sacco. Sanford Burnham Prebys Medical Discovery Institute
2:30 pm A. Bratt-Leal. The Scripps Research Institute

237. FASCIA, WHAT IS IT GOOD FOR? ABSOLUTELY EVERYTHING: RESEARCH, EDUCATIONAL, AND CLINICAL PERSPECTIVES

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8
COCHAIR: K. CASSIDY AND R.L. PRATT

Education
2:00  237.1 Clinical Aspects and Cellular Mechanisms of Fascia, Their Interactions, and Importance in Medicine. T. Findley. Rutgers New Jersey Medical School.
2:45  237.2 Educational Avenues to Promote Fascia Dialog in Medical Curricula. R. Pratt. Michigan State University.
3:10  237.3 Myofascial Pathologies, Their Treatment, and the Importance of Patient Education. K. Schabacker.

238. DO YOU HAVE AN ANATOMICALLY-CORRECT MODEL FOR YOUR RESEARCH?

Symposium
MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: B. SINGH

Cell Biology
Developmental Biology/Morphology

Imaging
4:00  238.1 Comparative Neuroanatomy in Health and Disease: One Size Does Not Fit All. C. Zeiss. Yale University.
4:30  238.2 Bovine Model to Study Ovarian Function and Oocyte Competence in Women During Perimenopausal Period. J. Singh. University of Saskatchewan, Canada.
5:00  238.3 The Porcine Lung in Biomedical Research. D. Meyerholz. University of Iowa Carver College of Medicine.
239. INSIDE JAWS: TOOTH PATTERNING, ADAPTATION AND REGENERATION

Symposium

MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: T. FRANZ-ODENDAAL

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

4:00 239.1 Rebooting the Zahnreihen: Analysis of the Jaw-wide Patterning Cues in the Adult Gecko Dentition. J. Richman. University of British Columbia
4:30 239.2 Shark EvoDevOmics: Linking Teeth and Taste Buds to the Evolution of Tooth Regeneration. G. Fraser. University of Sheffield
5:00 239.3 Evolvability of Tooth Location in Teleost Fishes. D. Stock. University of Colorado

240. LET’S MAKE AN ORGAN—STEM CELLS, CRISPR, ORGANOIDS

Symposium

MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: J. YOST

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

4:00 240.1 Consider the Lung as a Sensory Organ. X. Sun. University of California, San Diego
4:30 240.2 Regulation of Pancreatic Islet Cell Fates. L. Sussel. University of Colorado
5:00 240.3 Postnatal Organogenesis by Transdifferentiation. H. Willenbring. University of California, San Francisco

241. TEACHING HISTOLOGY IN AN INTEGRATED CURRICULUM: APPROACHES, STUDENT OUTCOMES AND LESSONS LEARNED

Symposium

MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8
COCHAIR: K. PINDER AND J. EASTWOOD

Education

4:00 241.1 Medical Student Learning Experiences in Organ System Course Sessions using a Histology and Embryology Team-taught Integrated Format. S. Attardi. Oakland University William Beaumont School of Medicine. J. Venuti. Oakland University William Beaumont School of Medicine
4:30 241.2 A Tale of Two Approaches: Results from Integrating Medical Histology and Pathology. K. Pinder. The University of British Columbia. J. Eastwood. Burrell College of Osteopathic Medicine
5:00 241.3 Integrated Gross Anatomy and Histology (GRISTO): Benefits and Challenges for Students and Faculty Integrating Anatomical Sciences within a Traditional Curriculum Structure. N. Swailes, D.S. Hoffmann. The University of Iowa Roy J. and Lucille A. Carver College of Medicine and College of Dentistry.

242. AAA MEMBERS MEETING

Business Meeting

MON. 5:45 PM—SAN DIEGO CONVENTION CENTER, ROOM 8

All AAA Members are encouraged to attend.
243. WAKE-UP! IT’S TRIVIA TIME

Soceities Events
(Sponsored by: ASBMB Membership Committee)
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Workshops & Events
Calling all trivia junkies! Join your colleagues for a daily dose of trivia, music, fun and prizes! It’s a lively way to jump-start your day—the complimentary coffee and nosh also helps! Prize values increase over the course of the meeting, so come back each morning for more challenges! ASBMB members and biochemistry registrants welcome. Space is limited with first come, first served.

244. AVANTI AWARD IN LIPIDS

Lecture
(Sponsored by: Avanti Polar Lipids, Inc.)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Award Lectures
Lipids and Membranes
8:00 Awardee introduction.

245. MILDRED COHN AWARD IN BIOLOGICAL CHEMISTRY

Lecture
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Award Lectures
8:30 Awardee introduction.
8:30 245.1 The Origin Recognition Complex: Where It All Begins. L. Joshua-Tor, A. Tocilj, K. On, Z. Yuan, J. Sun, H. Li, B. Stillman. Cold Spring Harbor Laboratory, Howard Hughes Medical Institute and Brookhaven National Laboratory.

246. EARL AND THRESSA STADTMAN YOUNG SCHOLAR AWARD

Lecture
MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Award Lectures
9:00 Awardee introduction.
9:00 246.1 Visualizing Translation by Ensemble cryoEM. A. Korostelev. University of Massachusetts Medical School.

247. ADAPTING PROTEOSTASIS TO AMELIORATE NEURODEGENERATIVE DISEASES

Symposium
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6C
CHAIR: J.W. KELLY

Neuroscience
10:00 247.1 Targeting Protein-Protein Interactions in Chaperone Complexes to Normalize Proteostasis. J.E. Gestwicki. University of California, San Francisco.
10:30 247.2 Adapting the Chemistry and/or Biology of Proteostasis to Ameliorate Protein Aggregation Diseases. J.W. Kelly. Scripps Research Institute.

248. COMMUNICATING SCIENTIFIC IDEAS TO NOVICE AUDIENCES

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6A
CHAIR: R. BOOTH

Education
Have you ever been the expert in the room trying to explain your scientific ideas or findings and your audience just does not get your message or gets the wrong message? Whether in a symposium, group meeting, classroom, or interview, effectively telling your scientific story to others is vitally important to a successful career. This session brings together speakers from diverse backgrounds to discuss communicating science effectively to non-expert groups. Even experienced communicators will benefit from the cross-disciplinary interactions in this session.

10:00 Chair’s introduction.
10:05 Using Molecular Visualization with the Public – Making a Picture = 1000 Words. P. Craig. Rochester Inst. of Tech.
11:05 Panel discussion.
249. GLYCOBIOLOGY AND FUNCTIONAL GLYCOMICS

Symposium
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6D
CHAIR: L.C. HSIEH-WILSON

Glycobiology, glycomics, carbohydrates
10:00 249.1 Precisely Heterogeneous—The Making of N-Glycoproteins. M. Aebi. ETH Zürich, Switzerland.
11:00 249.3 Cracking the Glycocode: Finding the Signal in the Noise. L.K. Mahal. New York University.

250. NEW INSIGHTS INTO THE LINKS BETWEEN METABOLISM AND DISEASE

Symposium
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6F
CHAIR: L.C. CANTLEY

Metabolism and Metabolic Disease
Award Lectures
Features the Bert and Natalie Vallee Award in BioMedical Sciences (2017) lecture, presented by R.M. Evans.
10:00 Bert and Natalie Vallee Award in BioMedical Sciences (2017) awardee introduction.
10:05 250.1 Corralling Pancreatic Cancer Through Epigenetic Reprogramming. R.M. Evans, C. Antal, M. Truitt, G. Liang, M. Sherman, P. O’Dwyer, J. Drebin, M. Downes, D. Tuveson. The Salk Institute for Biological Studies, Perelman School of Medicine, University of Pennsylvania, Memorial Sloan Kettering Cancer Center, Cold Spring Harbor Laboratory and Howard Hughes Medical Institute.
10:35 250.2 Metabolism, Inflammation, and Tumor Progression. M.C. Simon. Perelman School of Medicine and University of Pennsylvania.
11:05 250.3 The Role of Altered Metabolic States in Cancer and Other Human Diseases. R.J. DeBerardinis. The University of Texas Southwestern Medical Center.

251. REGENERATIVE MEDICINE

Symposium
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 14A
CHAIR: J. KANG

11:15 Regeneration of Synovial Joints in Zebrafish. Gage Crump. USC.
11:40 General discussion.

252. RNA IN HUMAN DISEASE

Symposium
(Sponsored by: ASBMB Minority Affairs Committee)
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 1AB

RNA
Chromatin, Epigenomics
10:00 252.1 Understanding and Targeting Spliceosomal Gene Mutations in Cancer. O.I. Abdel-Wahab. Memorial Sloan Kettering Cancer Center.
10:30 252.2 RNA and RNP Structures that Contribute to Viral Pathogenesis. B.S. Tolbert. Case Western Reserve University.
11:00 252.3 Context-Dependent and Disease-Specific Diversity in Stress Granules Formed from Pre-Existing Protein Interactions. G.W. Yeo, S. Markmiller, S. Soitanieh, K.L. Server, R. Mak, W. Jin, M.Y. Fang, E-C. Luo, F. Krach, D. Yang, A. Sen, A. Fulzele, J.M. Wozniak, D.J. Gonzalez, M.W. Kannel, F-B. Gao, E.J. Bennett, E. Lécuyer. University of California, San Diego, Institut de Recherches Cliniques de Montréal, Canada, National University of Singapore, Singapore, University of Massachusetts Medical School, Biogen and Université de Montréal, Canada.

253. SYSTEMS BIOLOGY AND PROTEOMICS

Symposium
MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6E
CHAIR: I.M. CRISTEA

Genomics, Proteomics
Cell Signaling in Disease
254. ASBMB MEET THE SPEAKERS

Society Events
MON. 12:30 PM—SAN DIEGO CONVENTION CENTER,
EXHIBIT HALLS A-D
Career and Professional Development
Workshops & Events
Visit the ASBMB Lounge, across from ASBMB Booth #1316, to meet the morning presenters and continue the scientific discussion—a GREAT networking opportunity for all. Also visit the daily posters while you’re in the exhibit hall.

255. ASBMB MEET THE SPEAKERS

Society Events
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER,
EXHIBIT HALLS A-D
Career and Professional Development
Workshops & Events
Visit the ASBMB Lounge (Exhibit Hall across from ASBMB Booth #1316) to meet the morning presenters and continue the scientific discussion—a GREAT networking opportunity for all. Also visit the daily posters while you’re in the exhibit hall.

256. CHROMATIN REGULATION OF GENE EXPRESSION

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30A
CHAIR: V.M. WEAKE
Chromatin, Epigenomics
Toxicology
3:30 Aging Photoreceptors: Light, Stress and Transcription. V.M. Weake. Purdue University.

257. EMERGING ANTIBIOTICS FROM NATURE

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30B
CHAIR: T. WENCEWICZ
Chemical Biology
Microbiome
2:30 Ni(II) Uptake by Yersiniabactin, a Metallophore Produced by Uropathogenic E. coli. A.E. Robinson, J.E. Lowe, E-I. Koh, J.P. Henderson. Washington University School of Medicine in St. Louis. (669.21)

258. NEW FRONTIERS IN SUBSTRATE METABOLISM

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30C
CHAIR: L. KAZAK
Metabolism and Metabolic Disease
2:30 Mechanism of Obesity Suppression by Adipose Tissue Creatine Energetics. L. Kazak, G.Z. Lu, B.M. Spiegelman. McGill University, Canada and Dana-Farber Cancer Institute. (536.2)
2:45 Mogat1 Is a Fasting-Induced PPAR α Target Gene That Plays a Role in Coordinating the Hepatic Response to Food Deprivation. A.J. Lutkewitte, K.S. McCommins, K.T. Chambers, M.J. Graham, A.M. Hall, B.N. Finck. Washington University School of Medicine in St. Louis and Ionis Pharmaceuticals Inc. (812.14)
3:15 mTOR Signaling in Adipose Tissue Influences Systemic Lipid Metabolism. L.M. Paolella, C. Tran, K. Chellappa, S. Mukherjee, J.G. Davis, A. Wilson, E. Edouard, S. Shewale, D.J. Rader, J.A. Baur. University of Pennsylvania. (536.8)
259. PLANT METABOLISM AND PHOTOSYNTHESIS
Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIR: J.C. CAMERON

Plant Biochemistry
Metabolism and Metabolic Disease
3:15 Investigating the Interaction Between MED5 and CDK8 in Arabidopsis. X. Mao, V.M. Weake, C.S. Chapple. Purdue University. (648.14)
3:30 Increasing Seed Iron Content by Gene Manipulation in Arabidopsis. Z. Ghalamkari, T.J. Buckhout. Humboldt Universität zu Berlin, Germany. (542.4)

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E
CHAIR: J.E. KIM

Protein Folding, Aggregation
Structural Biology/Biophysics
2:45 Non-Native Structure Present in the Unfolded Ensemble May Initiate Aggregation of ALS Variants of Superoxide Dismutase (SOD1). N. Cohen, O. Bilsel, C.R. Matthews. University of Massachusetts Medical School. (792.16)
3:00 Initially Disordered, Reflectin Assembly Tunably and Reversibly Drives Biophotonic Color. R. Levenson, C. Bracken, C. Sharma, J. Santos, C. Arata, D.E. Morse. University of California and Santa Barbara. (795.7)

261. PROTEOMICS AND LIPIDOMICS: METHODS AND APPLICATIONS FOR HUMAN DISEASE
Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31A
CHAIR: A. NITA-LAZAR

Lipids and Membranes
Genomics, Proteomics
3:00 Mass Spectrometry of Single Mammalian Cells Quantifies Proteome Heterogeneity During Cell Differentiation. E. Levy, B. Budnik, N. Slavov. Northeastern University and Harvard University. (802.9)

262. REDOX ENZYMES
Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31C
CHAIR: K. JOHNSON-WINTERS

Catalysis, Enzyme Mechanisms
Chemical Biology
Determining the Active Site Base and Order of Substrate Addition Within F420-Dependent Glucose-6-Phosphate Using Steady-State and Pre Steady-State Kinetics and Isotope Effects Methods. K. Johnson-Winters, M. Oyugi, L. Davis, G. Bashiri, E.N. Baker. The University of Texas at Arlington and University of Auckland, New Zealand. (655.30)
Dissecting the Molecular Basis of a Phenylketonuria-Causing Mutation in Phenylalanine Hydroxylase. C.A. Khan, S.P. Meisburger, N. Ando, P.F. Fitzpatrick. The University of Texas Health Science Center and Princeton University. (528.1)

263. ALICE AND C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31B
CHAIR: E.A. WINZELER

Award Lectures

2:30 Awardee introduction.
3:00 1+1=1: targeting endosymbiosis for antimalarial drug discovery. E. Yeh. Stanford Univ.
4:15 General discussion.

264. ENVIRONMENTAL HEALTH, BIOMARKERS AND PRECISION MEDICINE

Symposium
MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 14A
COCHAIR: B. SLIKKER AND S. CORMIER

3:00 Precision Prevention. Kenneth Ramos. Univ. of Arizona.
4:15 General discussion.

265. BMB EDUCATION: ACTIVE LEARNING

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)
MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31C
CHAIR: M. PAYNE

Education
Career and Professional Development
4:00 Using an Innovative Approach to Teach Students How to Communicate About Scientific Topics to Non-Scientists. M.A. Rowland-Goldsmith, M. Bisoffi. Chapman University. (663.17)

4:30 Increasing Active Learning in the Biochemistry Classroom: Using Group Quizzes to Stimulate Discussion. L.J. Moore. Monmouth College. (663.9)

4:45 When Active Learning Fails: How Faculty Beliefs Inform Their Teaching and Influence Student Outcomes. S.M. Lo. University of California and San Diego. (663.1)


266. DNA REPLICATION INITIATION, PROGRESSION AND TERMINATION

Symposium
MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30B
CHAIR: D. SMITH

DNA Replication and Repair
4:00 A Novel Role of the Human Cst Complex in Regulating the DNA Damage Response. J.A. Stewart, S.M. Ackerson. University of South Carolina. (522.9)

4:15 The Highly Conserved Proteins Nucleolin and Sub1 Play Critical Roles in Regulating G4 DNA-Induced Genome Instability. N. Kim. The University of Texas Health Science Center at Houston. (522.2)

4:30 646.1 Multisubunit Multiactive Site DNA Polymerase Complexes with Coordinated Activities. M.A. Trakselis, M. Cranford, A.M. Chu. Baylor University.


5:00 Molecular Insights into Replication-Associated Genome Instabilities Caused by CST Deficiency. W. Chai. Washington State University. (522.7)

267. GLYCOMMUNITY

Symposium
MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30C
CHAIR: C.L. LEIMKUHLER-GRIMES

Glycobiology, glycomics, carbohydrates
4:00 Molecular and Structural Recognition of Listeria Cell-Wall Glyco- polysomers by Bacteriophage-Encoded SH3b Domains. Y. Shen, I. Kalograiai, A. Prunotto, M. Dunne, E. Sumrall, F.J. Cañada, M. Loessner. ETH Zürich, Switzerland, Centro de Investigaciones Biológicas, Spain and Faculdade de Medicina Universidade de Lisboa, Switzerland. (544.10)
269. MOLECULAR TOOLS TO STUDY CELL SIGNALING

Symposium

MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E

CHAIRED: M. TANTAMA

Chemical Biology

Cell Signaling, Signal Transduction

4:00 Revealing Subcellular Redox Dynamics with Multiplex Imaging of Compartment-Specific Redox Probes. M. Tantama, J. Norley, S. Radhakrishnan, M. Rajendran. Purdue University. (533.97)


4:30 Temporal Control of Growth Factor-Mediated Signaling Pathways During Cell Differentiation and Xenopus Embryonic Development. P. Mondal, V.V. Krishnamurthy, J. Khamo, S. Sharum, K. Zhang. University of Illinois at Urbana—Champaign. (533.18)


270. OBESITY, METABOLISM AND IMMUNE CELLS IN CANCER

Symposium

MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31A

CHAIRED: L. MAKOWSKI

Metabolism and Metabolic Disease

4:00 CD4+ T Cells Regulate Liver Injury in Obesity-Related Nonalcoholic Fatty Liver Disease. A. Kennedy, C. Pacheco, M.K. Washington, A. Hasty. Vanderbilt University, Seattle Children’s Hospital and Vanderbilt University Medical Center. (670.11)


4:45 Biosynthesis of Acyl-Coas Sustains Prostate Cancer Progression. H. Cai, Y. Ma. University of Georgia. (811.1)

271. STRANGE MICROBIAL TRANSFORMATIONS

Symposium
MON. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30A
CHAIR: M.R. SEYEDSAYAMDOST

Chemical Biology
Translational and Clinical Pharmacology

4:00 Biosynthesis of Nonproteinogenic Amino Acids Oxyvinylglycines. B. Li, J.B. Patteson, Z.D. Dunn. University of North Carolina at Chapel Hill. (796.4)

4:15 Evidence for Control of Metabolite Flux Through a Bacterial Heme Biosynthetic Pathway. A.I. Celis, J. Choby, E. Skaar, J. DuBois. Montana State University and Vanderbilt University Medical Center. (527.14)


272. MOLECULAR VISUALIZATION

Workshop
(Sponsored by: ASBMB Education and Professional Development Committee)
MON. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 6A
CHAIR: M. PAYNE

Career and Professional Development
Workshops & Events

This workshop will present to scientists of all levels the practical knowledge for how to communicate molecular structure/function using low-cost, but powerful methods. Techniques for using molecular visualization software to effectively convey structural features will be demonstrated. Included will be a sample of virtual reality technology that has been shown to enhance understanding of molecular structures.

273. OPTOGENETICS AND MOLECULAR SENSORS: TOOLS AND APPLICATIONS

Workshop
MON. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31B
CHAIR: K. HAHN AND M. LIN

Workshops & Events

274. SUPPORTED LIPID MEMBRANES AND NANODISCS

Workshop
MON. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIR: S. SUGAR AND L.K. TAMM

Lipids and Membranes
Workshops & Events

This workshop will introduce attendants to the preparation and use of supported membranes and nanodiscs in research of membrane proteins, lipids, and interactions between them. Two leaders of the field will give broad overviews and practical advice on the use of these relatively new and surging fields of membrane research. Ample time will be allowed for discussion of these techniques with attendants, who will be encouraged to also share their experiences with these systems.

275. TRANSFORMING SCIENCE RESEARCH INTO SCIENCE OUTREACH

Workshop
(Sponsored by: ASBMB Public Outreach Committee)
MON. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 6B
CHAIR: A. BARRAL

Public Engagement / Science Policy
Career and Professional Development
Workshops & Events

Members of the Public Outreach Committee and other invited speakers will showcase examples of how to turn scientific research projects into outreach activities aimed at diverse audiences. These will include demos and curricular models appropriate for K–12 students; translating detailed research work into policy-relevant summaries; and additional audience-specific outreach. Presenters will discuss the importance of outreach and its impact on various societal issues.
Pathology

276. ASIP TOWN HALL MEETING AND BREAKFAST

Society Events
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 5A
CHAIR: A. NUSRAT
COCHAIR: D. REMICK AND W. COLEMAN

Workshops & Events

277. HCS SYMPOSIUM: IMAGING BIOMETALS IN DISEASE

Symposium
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2
CHAIR: M. BARROSO

Environmental and Toxicologic Pathology
(Sponsored by the ASIP Immunohistochemistry & Microscopy Scientific Interest Group and the Histochemical Society)

8:30 Three-dimensional Primary Enteroids as an Experimental System to Study Copper Homeostasis in Intestine. S. Lutsenko. Johns Hopkins Univ.
9:50 Heme Trafficking from the Ground-Up. I. Hamza. Univ. of Maryland.

278. JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY LECTURE

Lecture
(Sponsored by: the ASIP Immunohistochemistry & Microscopy Scientific Interest Group and the Histochemical Society)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2
CHAIR: S. HEWITT

Imaging, Immunohistochemistry and Microscopy
Cell Signaling in Disease

10:30 Targeting FcRn to Modulate IgG Dynamics. E. Ward. Texas A&M Health Science Ctr.

279. CELL INJURY WORKSHOP: TUMOR-ASSOCIATED PARALLELS WITH FIBROSIS

Workshop
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 3
CHAIR: A. WELLS

Cell and Tissue Injury
Neoplasia
Cancer and Therapy

8:30 Tumors: The Wounds that Won’t Stop Healing. A. Wells. Univ. of Pittsburgh.
10:30 An Evolutionarily Conserved Pathway for Epithelial Repair. B. Andersen. UCI.

280. MOLECULAR MECHANISMS OF LEUKOCYTE TRAFFICKING

Symposium
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 4
CHAIR: P. ALCAIDE
COCHAIR: D. SULLIVAN

Immunopathology
Inflammation/Immunity
Vascular Biology

8:30 280.1 Expression of SIRPα Tailless Mutant in Mice Impairs Naïve CD4+ T Cell Adhesion to Immobilized ICAM-1 and Tcr Induced Proliferation. F.E. Velázquez Planas, A.E. Autio, G. Newton, C. Parkos, F.W. Luscinskas. Brigham and Women’s Hospital and University of Michigan.
9:00 280.3 CXCR3 Regulates CD4+ T Cell Cardiotropism and Maladaptive Cardiac Remodeling Through Mechanisms Involving ICAM1-Mediated Adhesion. N. Ngwenyama, A. Salvador, T. Nevers, F. Velázquez, M. Aronovitz, P. Alcaide. Tufts University and Tufts Medical Center.


10:00 280.7 Exploring the Role of Calmodulin and Calcium Signaling in Leukocyte Transmigration. P.J. Dalal, D.P. Sullivan, W.A. Muller. Northwestern University Feinberg School of Medicine.


10:30 280.9 CD99L2 as a Major Regulator in Human Transendothelial Migration. N.S. Rutledge, W.A. Muller. Northwestern University.


281. HITTING THE BULLSEYE: TARGETS AND THERAPIES IN CARCINOGENESIS

In Conjunction with the Molecular and Cellular Basis of Cancer Program

Symposium

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 5A

CHAIR: S. KUMAR

COCHAIR: K. SOLIMAN

Neoplasia

Cancer and Therapy


9:15 281.4 STAT3 Signaling Mediates FAK Inhibitor Response and Resistance in Pancreatic Cancer. H. Jiang, B.L. Knolhoff, V. Krisnawan, D. DeNardo. Washington University in St. Louis.


9:45 281.6 Structure-Based Drug Design to Overcome Temozolomide Resistance in Glioblastoma (GBM) Through a Dual Inhibition of mGmT and Base Excision Repair. H.R. Madala, S.R. Punganuru, V. Arutla, K. Srivenugopala. Texas Tech University Health Sciences Center.

10:00 281.7 Whole Transcriptomic Evaluation of SK-MEL-3 Melanoma Cells in Response to Histone Deacetylase Inhibitor Trichostatin A. E.A. Mazzio, K.F. Soliman. Florida A&M University.


11:00 281.10 Reduced RON Expression, DM1 Resistance and MRP1 Upregulation Contributes to Resistance in Colon Cancer Cells Against Anti-Ron Antibody-Drug Conjugate Ztig4-DM1. S.R. Suthe, H-P. Yao, M-h. Wang. Texas Tech University Health Sciences Center and Zhejiang University School of Medicine, People’s Republic of China.


282. MEET AND GREET THE ASIP AJP EDITOR-IN-CHIEF, MARTHA FURIE, PHD

Society Events

MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, ASIP LOUNGE

Workshops & Events

283. MEET AND GREET THE ASIP EXECUTIVE OFFICER, WILLIAM COLEMAN, PHD

Society Events

MON. 11:30 AM—SAN DIEGO CONVENTION CENTER, ASIP LOUNGE

Workshops & Events
284. THE BRIDGE BETWEEN LIVER INJURY AND REGENERATION

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 2
CHAIR: U. Apte

Liver Pathobiology
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
Cell and Tissue Injury
2:00 Liver Injury and Regeneration: Two Sides of the Same Coin. **U. Apte.** Univ. of Kansas Medical Ctr.
2:30 Role of Coagulation System in Liver Injury and Regeneration. **J. Luyendyk.** Michigan State Univ.
3:00 Mechanisms of Liver Regeneration. **G. Michalopoulos.** Univ. of Pittsburgh.
3:30 Mechanisms of Injury and Regeneration in Fibrotic Livers. **T. Kisseleva.** UCSD.
4:00 The Role of the HDC/Histamine/HR Axis during Biliary Regeneration & Liver Repair. **H. Francis.** Texas A&M Health Science Ctr.
4:30 Injury-Regeneration Dynamics in NASH. **A. Feldstein.** UCSD.

285. CONTRIBUTIONS OF INFLAMMATION AND GliOSIS TO NEUROLOGICAL DYSFUNCTION

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 3
CHAIR: C. Kolarzik
COCHAIR: J. Otero

Neuroscience
Inflammation/Immunity
2:00 Placental Pathology and Brain Inflammation. **M. Parast.** UCSD.
2:45 Astrocyte Regulation of Autonomic Function. **J. Otero.** The Ohio State University.
3:30 Blood Brain Barrier and Inflammation/Gliosis. **R. Daneman.** UCSD.

286. BIOLOGY AND PATHOBIOLOGY OF EPITHELIAL BARRIERS

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 4
CHAIR: A. Ivanov
COCHAIR: S. Colgan

Epithelial and Mucosal Pathobiology
Immunopathology
Microbiome
Neoplasia
2:00 286.1 Hypoxanthine as a Checkpoint Metabolite in Epithelial Energy Modulation and Barrier Function. **J.S. Lee, R. Wang, E. Alexeev, J. Lanis, S. Colgan.** University of Colorado Anschutz Medical Campus.
2:30 286.3 DSG2 Regulates Intestinal Epithelial Cell Adhesion and Barrier Function via EGFR. **H. Ungewi, N. Schlegel, J. Waschke.** Ludwig-Maximilian University of Munich, Institute of Anatomy and Cell Biology, Germany and Julius-Maximilians-University, Germany.
2:45 286.4 Inhibition of Protein Translation Initiation and Disruption of the Intestinal Epithelial Barrier in Mucosal Inflammation. **N.G. Naydenov, F. Al-Sharief, A.I. Ivanov.** Cleveland Clinic Foundation and Virginia Commonwealth University.
3:00 286.5 Intestinal Epithelial Barrier Maturation by Enteric Glial Cells Is Glial Cell Line-Derived Neurotrophic Factor (GDNF)-Dependent. **F. Kannapin, M. Meir, N. Burkard, S. Flemming, C-T. Germer, M. Diefenbacher, J. Waschke, N. Schlegel.** University of Wuerzburg, Germany and University of Munich, Germany.
3:15 286.6 Role of Differential Phosphorylation of Jam-A in Regulating Epithelial Barrier Function. **S. Fan, C. Weight, R. Hilgarth, A. Nusrat, C. Parkos.** Department of Pathology, University of Michigan, Division of Infection and Immunity and University College London, United Kingdom.
3:30 286.7 Desmoglein Binding Properties Are Regulated by Plakophilins. **F. Vielmuth, M. Fuchs, M. Foresti, R. Keil, M. Hatzfield, V. Spindler, J. Waschke.** Walter and Eliza Hall Institute of Medical Research, Germany and Martin Luther University Halie-Wittenberg, Germany.
4:00 286.9 Relevance of Keratin Alterations and Desmoglein 3 Internalization in the Autoimmune Skin Disease Pemphigus vulgaris. E. Schrögl, M.Y. Radeva, F. Vielmuth, C. Schinner, J. Waschke, V. Spindler. Walter and Eliza Hall Institute of Medical Research, Germany and University of Basel, Switzerland.


287. MECHANISMS OF INJURY, INFLAMMATION, AND REPAIR IN THE FAILING HEART

Symposium

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 5A
CHAIR: J. HOMEISTER
COCHAIR: T. PARRY

Cardiac Pathobiology
Cell and Tissue Injury
Inflammation/Immunity


2:20 287.2 Muscle-Specific Regulation of Right Ventricular Transcriptional Responses to Chronic Hypoxia Induced Heart Failure by the Muscle Ring Finger-1 (MuRF1) Ubiquitin Ligase in Vivo. M.S. Willis, R.H. Oakley, T.L. Parry, J.A. Cicidowski, M.J. Campen. University of North Carolina, National Institute of Environmental Health Sciences, National Institutes of Health and University of New Mexico.

2:40 287.3 Gut Microbiota Depletion Preserves Heart Function, Suppresses Cardiac Fibrosis and Hypertrophy in a Non-Ischemic Heart Failure Mouse Model. F.J. Carrillo-Salinas, N. Ngwenyama, M. Aronovitz, P. Alcaide. Tufts University and Tufts Medical Center.

3:00 287.4 Inhibition of Fpr2 Impaired Leukocyte Get-In Signal and Triggers Non-Resolving Inflammation in Heart Failure. V. Kain, G.M. Wright, G.V. Halade. UAB.


3:40 287.6 Deficiency of miR-1954 Promotes Cardiac Remodeling. S. Gupta, V. Chisson. Texas A&M University.


4:20 287.8 Regulation of Cardiomyocyte Cohesion and Gap Junctions via Desmosomal Adhesion. C. Schinner, B.M. Erber, J. Waschke. Walter and Eliza Hall Institute of Medical Research, Germany.

288. ASIP BUSINESS MEETING, AWARDS PRESENTATION, AND MARK E. SOBEL RECEPTION

Society Events
MON. 5:15 PM—SAN DIEGO CONVENTION CENTER, ROOM 2 & ASIP OFFICE CORRIDOR

Workshops & Events
289. OTTO KRAYER AWARD IN PHARMACOLOGY LECTURE

Lecture
8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A

Award Lectures
The Otto Krayer Award in Pharmacology commemorates the enduring legacy of Otto Krayer’s personal qualities: his ethical behavior, his commitment to teaching, his high standards of scientific scholarship, publication and editorship, his promotion of interdisciplinary research to reveal the actions of drugs or other chemicals, and his guidance and support of younger scientists. The purpose of the award is to recognize an individual whose character and career contributions to pharmacology are in accord with those exemplified by Otto Krayer.

8:30 Introduction.
8:35 Active Site Structures and Catalytic Mechanisms of Drug Metabolizing Cytochrome P450s. P. Hollenberg. Univ. of Michigan.

290. SURMOUNTING THE INSURMOUNTABLE: OBSTACLES IN DRUG DISCOVERY AND DEVELOPMENT—REAL WORLD CASE STUDIES

Symposium
(Sponsored by: ASPET Council BIG IDEAS Initiative)
9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A
CHAIR: K. HE
COCHAIR: P.F. HOLLENBERG

Drug Discovery and Development
Education
Metabolism and Metabolic Disease

9:35 Challenges and Solutions in the Approval of Austedo, the First Deuterium-Substituted Small Molecule. M. Bradbury. Prana Biotech.
10:10 Discovery and Development Challenges of Dasatinib for the Treatment of Chronic Myelogenous Leukemia and Beyond. F. Lee. Angex Pharmaceutical Inc.
10:45 Modeling and Simulation that Resulted in the Progression of Evolucumab. S. Doshi. Amgen.
11:55 Conclusion. P. Hollenberg. Univ. of Michigan.

291. G PROTEINS AND G PROTEIN COUPLED RECEPTORS IN CANCER

Symposium
(Sponsored by: ASPET Division for Molecular Pharmacology (MP))
9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16B
CHAIR: J.S. GUTKIND
COCHAIR: P.A. INSEL

Molecular Pharmacology
Cancer and Therapy
Inflammation/Immunity

10:00 G Protein Regulation of Glioblastoma Stem Cells. J. Heller Brown. Univ. of California, San Diego.

292. RNA BINDING PROTEINS IN CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: ASPET Division for Cardiovascular Pharmacology (CVP))
9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15A
CHAIR: M. TRANTER
COCHAIR: E.J. TARLING

Cardiovascular
RNA
Gene Expression

9:30 The Role of Tristetraprolin (TTP) in Regulating Cardiac Iron Homeostasis and Metabolism. H. Ardehali. Northwestern Univ.
9:54 Cardiac-specific Deletion of the RNA Binding Protein HuR Protects Against Pathological Cardiac Hypertrophy. M. Tranter. Univ. of Cincinnati.
293. THE BRIGHT AND DARK SIDE OF NRF2 FOR TISSUE PROTECTION

**Symposium**
*(Sponsored by: ASPET Division for Toxicology (TOX))*

**9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15B**

**CHAIR:** Q.M. Chen

**Toxicology**

**Cancer and Therapy**

**Inflammation/Immunity**

**Metabolism and Metabolic Disease**

**9:30** Introduction. Q. Chen, Univ. of Arizona.

**9:35** Canonical and Non-canonical Pathways of Nrf2 Activation. D. Zhang, Univ. of Arizona.

**10:05** Nrf2 as a Therapeutic Target for Treatment of Neurodegenerative Diseases. J. Johnson, Univ. of Wisconsin.

**10:35** Keap 1 Independent Mechanism of Nrf2 Protection Against Liver Injury. T. Kessler, Univ. of Pittsburgh.

**11:05** The Interplay of MicroRNAs and Nrf2 Inducers in Diabetic Complications. L. Cai, Univ. of Louisville.


**11:50** Q&A.

**11:55** Conclusion.

294. TRANSPORTERS AT THE BLOOD-CNS BARRIERS

**Symposium**
*(Sponsored by: ASPET Division for Drug Metabolism and Disposition (DMDD))*

**9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 17A**

**CHAIR:** J. Wang

**COCHAIR:** P. Ronaldson

**Drug Metabolism and Disposition**

**Cancer and Therapy**

**Metabolism and Metabolic Disease**

**9:30** Quantifying Drug Transport at the Blood-Brain Barrier and the Role of Uptake and Efflux Transporters. M. Hammarlund-Udenaes, Uppsala Univ.

**10:00** Targeting Blood-Brain Barrier Transporters for CNS Drug Delivery: Role of Transforming Growth Factor-Beta Signaling. P. Ronaldson, Univ. of Arizona.

**10:30** Influence of Peptide Transporter 2 (PEPT2) on the Brain Disposition/Dynamics of Peptides and Peptide-Like Drugs. D. Smith, Univ. of Michigan.

**11:00** Molecular Pathways of Organic Cation and Anion Transport at the Blood-CSF Barrier. J. Wang, Univ. of Washington.


**11:45** Panel discussion.


1:20 Determining the Effects of E-Cigarette Vapor on Oral Epithelial Cells in a Cultured Cell Model. M. Duggar, H. Swanson, M. Hill-Odom. University of Kentucky and Xavier University of Louisiana. (692.3)

1:25 Break.

1:30 The Synergistic Effect of Dopamine and Norepinephrine Transporter Inhibition on Cognitive Enhancement. M.M. Pantoni, S.G. Anagnostaras. University of California and San Diego. (688.1)


1:40 Alpha-2C Adrenergic Receptor Promotes the Malignant Phenotype of Colon Cancer Cells. R. Njeim, A. Eid. American University of Beirut, Lebanon. (695.5)

1:45 Aspirin Protects Heart Against Ischemia-Reperfusion Injury via LKB1-Sestrn2-AMPK Signaling Cascade. S. Lu. University of Mississippi Medical Center. (698.9)

1:50 Differential Sphingosine-1-Phosphate Receptor 1 Expression in Male and Female Murine Heart and Brain Following Acute Ischemia and Reperfusion. S. Shi. University of Arizona College of Medicine – Phoenix. (697.11)

1:55 Discussion.

296. P.B. DEWS LIFETIME ACHIEVEMENT AWARD FOR RESEARCH IN BEHAVIORAL PHARMACOLOGY LECTURE

Lecture

(Sponsored by: ASPET Division for Behavioral Pharmacology (BEH))

2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A

Behavioral Pharmacology

Award Lectures

The P.B. Dews Award for Research in Behavioral Pharmacology recognizes outstanding lifetime achievements in research, teaching, and professional service in the field of behavioral pharmacology and to honor Dr. Peter Dews for his seminal contributions to the development of behavioral pharmacology as a discipline.


297. BRINGING BASIC SCIENCES INTO CLINICAL EDUCATION

Symposium

(Sponsored by: ASPET Division for Pharmacology Education (DPE))

3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 15A

CHAIR: R. Theobald

COCHAIR: K. Karpa

Education

3:00 Introduction and Clinical Pharmacology Elective for 4th Year Medical Students. R. Theobald. A. T. Still Univ. of Health Sciences.

3:30 Moving Across the Chasm: From Drug Facts to Clinical. K. Karpa. Penn State Univ.

4:00 Revitalizing Pharmacology in the UK Medical Curriculum. S. Maxwell. Edinburgh Medical Sch. Univ. of Edinburgh.

4:30 Integrating All the Medical Sciences into the Clinical Years of Medical Education. S. Grap. Penn State Univ.

5:00 Workshop for Creation of Clinical Pharmacology Activities. Conclusion.

298. LOOKING TO THE FUTURE OF BEHAVIORAL PHARMACOLOGY

Symposium

(Sponsored by: ASPET Division for Behavioral Pharmacology (BEH))

3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A

CHAIR: R.I. Desai

COCHAIR: E. Jutkiewicz

Behavioral Pharmacology


4:05 Neuroinflammatory Targets to Promote Stress Resilience. S. Wood. Univ. of South Carolina Sch. of Med.

4:30 Radiation-induced Deficits in Sustained Attention and Memory. C. Davis. Johns Hopkins Univ. Sch. of Med.


5:45 Summary and Discussion. M. Nader. Wake Forest Sch. of Med.
299. DIVISION FOR CANCER PHARMACOLOGY—YOUNG INVESTIGATORS SYMPOSIUM

Symposium
(Sponsored by: ASPET Division for Cancer Pharmacology (DCP))
3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 15B
CHAIR: J. YALOWICH
COCHAIR: C. CANMAN

Cancer and Therapy

3:30 Introduction.


5:35 Tumor Suppressor Alpha-Arrestin ARRD3 Controls GPCR Signaling and Breast Cancer Chemoresistance. W. A. Pan, A. Arakaki, J. Trejo. Department of Pharmacology, School of Medicine, University of California and San Diego. (566.14)

5:55 Conclusion.

300. DIVISION FOR NEUROPHARMACOLOGY POSTDOCTORAL SCIENTIST AWARD FINALISTS

Symposium
(Sponsored by: ASPET Division for Neuropharmacology (NEU))
3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16B
CHAIR: J. TRAYNOR
COCHAIR: S. TSIRKA

Neuroscience


3:45 Regulation of Serum- and Glucocorticoid-Inducible Kinase Phosphorylation and Catalytic Activity in Ventral Tegmental Area by Chronic Drugs of Abuse. V. Gomes, A. Gupta, R. Sanchez, L. Devi. Icahn School of Medicine at Mount Sinai. (829.9)

4:00 Sex Differences in Antinociceptive Tolerance Development to δ9-THC and CP55,940 in Wild-Type and Desensitization-Resistant S426A/S430A Mice. A.N. Henderson-Redmond, D.E. Sepulveda, E.L. Ferguson, A.M. Kline, C.M. Nealon, D.J. Morgan. Michigan State University. (680.8)

4:15 Identification of Small Molecule Ligands Targeting GPR83, a G-Protein Coupled Receptor Activated by the Abundant Neuropeptide PEN. L.M. Lueptow, I. Gomes, A. Gupta, R. Sanchez, L. Devi. Icahn School of Medicine at Mount Sinai. (824.4)

4:30 Efficacy of Negative Allosteric Modulators of mGlu 2 and mGlu 3 in a Rodent Model of Major Depressive Disorder. M.E. Joffe, C.I. Santiago, J.L. Engers, C.W. Lindsley, P.J. Conn. Vanderbilt. (554.4)


5:00 Analysis of Antinociception Produced by Positive Allosteric Modulators of the Mu-Opioid Receptor. R. Kandasamy, J.R. Traynor. University of Michigan Medical School. (684.6)

5:15 Dopaminergic Perturbations from Food Restriction and Exercise Are Sex-Dependently Amplified During Adolescence. T.L. Gilman, W.A. Owens, C.M. George, L. Metzel, L.C. Daws. The University of Texas Health Science Center at San Antonio. (682.6)


301. DIVISION FOR TRANSLATIONAL AND CLINICAL PHARMACOLOGY—YOUNG INVESTIGATOR AWARDS PLATFORM SESSION

Symposium
(Sponsored by: ASPET Division for Translational and Clinical Pharmacology (TCP))
3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 17A
CHAIR: F. Kim

Translational and Clinical Pharmacology

3:30 Introduction.
4:40 Therapeutic Exosome Preparations: Relative Bioactivities of Intra- and Extra-Vesicular Components. K. Luther, J. Liu, E. Marban. Cedars-Sinai Medical Center. (840.8)
4:55 DNA-PK Is Activated in Human Atherosclerotic Plaques and Its Partial Inhibition by Gene Heterozygosity Reduces Atherogenesis in Mouse Model of the Disease. M.A. Ghonim, K. Pyakurel, H. Luu, M. Dean, H. Bazan, H. Boulares. Louisiana State University Health Sciences Center. (570.2)
5:10 Awards Presentation.
Physiology

303. DO IT AGAIN: HOW TO ACHIEVE RIGOROUSLY REPRODUCIBLE RESEARCH II

Symposium
(Sponsored by: Trainee Advisory Committee)
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: R. DOWNEY
COCHAIR: I. OBI

Career and Professional Development
7:00 Building bridges: learning to work effectively with regulatory committees. Bill Yates. Univ. of Pittsburgh Sch. of Med.
7:30 Practical applications of rigor and reproducibility in the laboratory. Sean Stocker. Univ. of Pittsburgh Sch. of Med.

304. HALLMARKS OF GROUND RULES FOR PRODUCTIVE COLLABORATIONS IN SCIENCE. MAINTAINING MOMENTUM IN COLLABORATIONS

Symposium
(Sponsored by: APS Careers in Physiology Committee)
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: J. BRANDAUER
COCHAIR: B. BECKER

Career and Professional Development
7:00 Maintaining momentum in collaborations. David Pollock. Univ. of Alabama at Birmingham.
7:40 Panel discussion.

305. 2018 MENTORING SYMPOSIUM: RECOGNIZING AND RESPONDING TO IMPLICIT BIAS IN SCIENCE III

Symposium
(Sponsored by: Women in Physiology Committee)
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: D. AL ALAM
COCHAIR: K. WALLACE AND D.H. HO

Diversity in Science
Career and Professional Development
7:00 Impact Bias: What is it and what can we do about it? Tamera Schneider. Wright State Univ.
7:30 General discussion.

306. NOVEL PHYSIOLOGIC-BASED APPROACHES TO TREATING SLEEP APNEA

Symposium
(Sponsored by: Hypoxia Group)
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC
CHAIR: J. DEMPSEY
COCHAIR: M. BATES

Neuroscience
Emerging Technologies
Cardiovascular
8:30 Treating upper airway muscle dysfunction via hypoglossal nerve stimulation. Atul Malhotra. UCSD.
9:00 Strategic decision making and identification of potential drug targets for OSA pharmacology. Richard Horner. Univ. of Toronto.
9:30 Treating the apnea of heart failure: complexities and controversies. Shahrokh Javaheri. Univ. of Cincinnati.

307. NEW CONCEPTS IN JGA PHYSIOLOGY

Symposium
(Sponsored by: Renal Section)
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: J. PETI-PETERDI
COCHAIR: C. BUCKLEY

Metabolism and Metabolic Disease
8:30 SGLT2 inhibitors and glomerular hemodynamics. Volker Vallon. UCSD.
8:52 New role of macula densa cells in tissue remodeling. Georgina Gyarmati. USC.
308. IMPACT OF SEX-SPECIFIC SIZE OF THE NORMAL AND FAILING LEFT VENTRICLE: STUDIES IN HUMANS AND MICE

Symposium
Sex/Gender Research Interest Group
Mon. 8:30 AM—San Diego Convention Center, Room 22
Chair: P.L. Kerkhof
Co-Chair: V.M. Miller

Cardiovascular
Diversity in Science
8:30 Sex-specific aspects of cardiac maladaptation to hypertension and arterial stiffness. Tatiana Kuznetsova. KU Leuven.
9:00 Sex differences in cardiac function for mice with increased arterial stiffness. Jessica Wagenseil. Washington Univ.

309. PUBLISHING 101: HOW TO GET YOUR WORK PUBLISHED AND AVOID ETHICAL MINEFIELDS

Symposium
(Sponsored by: Publications Committee)
Mon. 8:30 AM—8:30—San Diego Convention Center, Room 28DE
Preparing your work for publication in APS journals. Curt Sigmund. Roy J. and Lucille A. Carver College of Medicine University of Iowa.
9:00 Publications ethics considerations. Christina Bennett. American Physiological Society.

310. BIOARTIFICIAL ORGANS: USING DONOR AND SYNTHETIC SCAFFOLDS

Symposium
(Sponsored by: Integrative Physiology Symposium Series)
Mon. 8:30 AM—San Diego Convention Center, Room 20A
Chair: L.M. Harrison-Bernard

Emerging Technologies
9:00 Bioartificial lung regeneration derived from lungs of Rhesus macaques. Bruce Bunnell. Tulane Univ.

311. THE PHYSIOLOGY OF PERSONALIZED NUTRITION

Symposium
(Sponsored by: Nutrition Physiology Interest Group)
Mon. 8:30 AM—San Diego Convention Center, Room 26AB
Chair: B. Voy
Co-Chair: J. Anthony

Nutrition/Obesity
8:30 Genetic and gender variation in the response to global human diets. William Barrington. UCLA.
8:52 Contribution of the gut microbiome to individual response to diet. Frederico Rey. Univ. of Wisconsin—Madison.

312. NON-CODING RNA REGULATION OF INFLAMMATION IN CARDIOVASCULAR, KIDNEY, AND RESPIRATORY DISEASES

Featured Topic
(Sponsored by: Physiological Genomics Group)
Mon. 8:30 AM—San Diego Convention Center, Room 25A
Chair: A. Krieger
Co-Chair: L. Rogers

Inflammation/Immunity
9:15 Renal Impact of Systemic Inhibition of miRNA-451 in a Mouse Model of Insulin Resistance. M.B. Fluit, L. Li, N. Shivapurkar, C.M. Ecelbarger. Georgetown University. (752.3)
9:30 Liposomal Delivery of miR-29b Restored PRMT-1 and PRMT-5 Expression and Histone Methylation in Mice Exposed to Perinatal Inflammation. S.S. Sugar, K.M. Heyob, R.M. Lee, L.K. Rogers. The Research Institute at Nationwide Children’s Hospital and The Ohio State University. (916.1)
9:45 Chronic Alcohol Misuse Induces Alveolar Macrophage Oxidative Stress and Mitochondrial Dysfunction via Upregulation of microRNA-130a. S.M. Yeligar. Emory University and Atlanta VA Medical Center. (618.22)
313. ION CHANNELS AND TRANSPORTERS IN HEALTH AND DISEASE

Featured Topic
(Sponsored by: Cell and Molecular Physiology Section)

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: R. Worrell

Neuroscience
Cardiovascular

8:30 Porcine Epidemic Diarrhea Virus, a Member of the Coronaviridae Family, Increases Epithelial Secretion in the Jejunum by Up-Regulation of Kcnn4. C.B. Enns, J.C. S. Harding, M.E. Loewen. University of Saskatchewan, Canada. (750.28)

8:45 Oligomerization of Ferroportin and the Mechanism of Autosomal Dominance in Ferroportin Disease. J.P. Bonamer, T.A. Ruwe, B. Qiao, K.R. Vieth, T. Ganz, E. Nemeth, B. Mackenzie. University of Cincinnati College of Medicine, David Geffen School of Medicine at University of California, Los Angeles. (750.14)

9:00 The Role of Exocyst Complex in the Fusion Process of Kca3.1 at the Basolateral Membrane of Epithelial Cells. R.E. Farquhar, F.J. McDonald, K.L. Hamilton. University of Otago, New Zealand. (750.26)

9:15 Characterizing the Expression of TRPV4 in the Choroid Plexus Epithelia as a Prospective Component in the Development of Hydrocephalus in the Gas8 GT Juvenile Mouse Model. A.E. Hochstetler, L. Whitehouse, P. Antonellis, N.F. Berbari, B.L. Blazer-Yost. Indiana University—Purdue University Indianapolis. (750.12)

9:30 Knockout of KCNJ16 (Kir5.1) in Dahl Salt-Sensitive Rats Produces Seizure Phenotype. A.D. Manis, M.R. Hodges, T.S. Pavlov, A. Staruschenko, O. Palygin. Medical College of Wisconsin and Henry Ford Hospital. (750.3)

9:45 A Conserved Pain Syndrome Resulting from the Acute Activation of TRPA1 by Chemotherapy Drugs. N. Boiko, E. Montano, K.M. Hargreaves, B.A. Eaton, J.D. Stockand. The University of Texas Health Science Center at San Antonio. (750.4)

314. GUT-BRAIN INTERACTIONS AND CONTROL OF FEEDING BEHAVIOR

Featured Topic
(Sponsored by: Endocrinology and Metabolism Section)

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: L. Stein

Nutrition/Obesity
Neuroscience

8:30 Gut vagal afferent signaling regulates hippocampus function through multisynaptic pathways. Scott Kanoski. University of Southern California.

315. NOVEL INSIGHTS ON SYMPATHETIC ACTIVATION IN KIDNEY DISEASE: FROM ANIMAL MODELS TO CLINICAL TRIALS

Featured Topic
(Sponsored by: Neural Control and Autonomic Regulation Section)

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 24AB
CHAIR: J. Park
COCHAIR: B. Becker

Neuroscience
Cardiovascular


8:45 Augmented Vascular α1-Adrenergic Receptor Sensitivity in Humans with Chronic Kidney Disease. D.G. Morison, Y. Li, I. Fonkoue, M. Kankam, D. DaCosta, D. Rapista, R.M. Downey, J. Park. Emory University School of Medicine and Emory University. (736.3)

9:00 A Conserved Pain Syndrome Resulting from the Acute Activation of TRPA1 by Chemotherapy Drugs. N. Boiko, E. Montano, K.M. Hargreaves, B.A. Eaton, J.D. Stockand. The University of Texas Health Science Center at San Antonio. (750.4)

9:15 Splenic 6-Hydroxydopamine Worsens Renal Inflammation and Injury in a Murine Model of Systemic Lupus Erythematosus. G.S. Pham, B. Osazuwa, O. Thomas, S.S. Vedantam, D.L. Fancher, K.W. Mathis. University of North Texas Health Science Center, Texas Southern University and Texas Christian University. (736.4)
316. ADAPTATIONS IN PHYSIOLOGY EDUCATION

Featured Topic

(Sponsored by: Teaching of Physiology Section)
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28B
CHAIR: D. OSBORNE

Career and Professional Development

8:30 Collaborative Phun Week Program Engages Elementary School Children in Physiology Learning and Jumpstarts Year-Long Physiology Curriculum. R. Altman, K. Whited. California State University, Sacramento and Sacramento Country Day School. (629.10)

8:45 Student Perspectives on Active Learning Activities in a Human Anatomy and Physiology Course. H.M. DiFrancesca. University of Mary Hardin-Baylor. (773.23)

9:00 Collaborative Testing and Reflection Papers as Supplementary Assessment Tools in a Clinical Physiology Course. L.C. Anderson. University of Minnesota. (773.9)


9:30 The Impact of a Team Based Learning Exercise in the Understanding and Retention of Medical School Nutrition Education. L. Cialdella-Kam, S. Khadilkar. Case Western Reserve University School of Medicine. (773.24)

9:45 A Teaching EHR for Delivery of Small Group Cases. D.U. Silverthorn, C. Johnston, K. Ziai. Dell Medical School and The University of Texas at Austin. (773.25)

317. REGULATION OF BLOOD FLOW IN HEALTH AND DISEASE

Featured Topic

(Sponsored by: Cardiovascular Section)
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 27AB
CHAIR: V. OHANYAN

Cardiovascular

8:30 Diabetic vasculopathy: mechanisms and potential treatments. David Stepp. Medical College of Georgia.

8:45 LPA-Induced Activation of LPA1 Receptor Leads to the Loss of No-Mediated Flow-Induced Dilation in Human Microvessels. D.S. Chabowski, K. Ait-Aissa, A.D. Kadlec, J.H. Hockenberry, A.M. Beyer, D.D. Gutterman. Medical College of Wisconsin. (713.15)


318. IDENTIFICATION OF NOVEL DRUG TARGETS FOR THE MODULATION OF GASTROINTESTINAL MOTILITY

Symposium

(Sponsored by: GI and Liver Physiology Section)
(Cosponsored by: AJP—Gastrointestinal and Liver Physiology)
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC

Microbiome

Nutrition/Obesity

Neuroscience

1:30 Inflammation-induced neuroplasticity in the gut. Gary Mawe. University of Vermont.


2:14 Microbial modulation of the gut innervation. Alan Lomax. Queen’s University.

2:36 Ca2+ sensitization mechanisms and gastric motility. Brian Perrino. University of Nevada, Reno School of Medicine.

319. CARDIOVASCULAR SECTION—YOUNG INVESTIGATOR SYMPOSIUM

Symposium

(Sponsored by: Cardiovascular Section)
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: S. GOULOPOULOU

COCHAIR: E. BELIN DE CHANTEMELE

Cardiovascular

1:30 Inhibition of FPR2 impaired leukocyte get-in signal and triggers non-resolving inflammation in heart failure. V. Kain. Univ. of Alabama at Birmingham.

1:45 Leptin-Induced Endothelial Dysfunction Is Mediated by Endothelial Mineralocorticoid Receptor Epithelial Sodium Channel Activation in Female Mice. J.L. Faulkner, S. Kennard, I. Jaffe, E.J. Belin de Chantemele. Augusta University and Tufts University. (843.32)
2:00 Endothelial TRPA1 Channels Are Activated by Hypoxia in Cerebral Arteries and Protect Against Ischemic Damage. P.W. Pires, S. Earley. University of Nevada, Reno School of Medicine. (845.2)


2:45 Neddylation Is Essential for Cardiac Development via Regulation of Notch Signaling. R.E. Littlejohn, J. Zou, W. Ma, J. Li, N. Weintraub, J. Zhou, H. Su. Augusta University and Augusta University, Republic of Korea. (900.5)

320. BIOPHYSICAL AND METABOLIC REGULATION OF STEM CELLS

Symposium

(Sponsored by: Cell and Molecular Physiology Section)

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C

CHAIR: J. REHMAN

COCHAIR: J-W. SHIN

Neuroscience

Cardiovascular

1:30 Introduction: Key questions in the biophysical and metabolic regulation of stem cells. Jae-Won Shin. University of Illinois at Chicago.

1:35 Biomechanical regulation of hematopoietic stem cell potential. Pamela Wenzel. University of Texas Health Sciences Center.

2:00 Oxygen and mechanics to control vascular differentiation and network assembly. Sharon Gerecht. Johns Hopkins University.


321. APS PRESIDENT’S SYMPOSIUM SERIES

II. EXOSOMES: THE NEW FRONTIER. PATHOPHYSIOLOGY OF EXOSOMES

Symposium

President’s Symposium Series

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 20A

CHAIR: C. THÉRY

Cancer and Therapy

Neuroscience

Microbiome

1:30 Pathological role of exosomes and other extracellular vesicles in cancer. Lorraine O’Driscoll. Trinity College Dublin.

2:00 Neurodegenerative diseases and extracellular vesicles. Shilpa Buch. Univ. of Nebraska Med. Ctr.


322. BIOSENSORS ADVANCING HEALTH AND DISEASE RESEARCH

Symposium

(Sponsored by: APS Physiologists in Industry Committee)

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB

CHAIR: B. BUCHER

COCHAIR: T.D. OLVER

Emerging Technologies

1:30 The use of telemetry to study glucose metabolism. Patrick Tso. University of Cincinnati Medical Center.


2:30 Closed-loop neuromodulation in physiological and translational research. Stavros Zanos. Fienstein Institute for Medical Research.

323. THE PHYSIOLOGICAL CHALLENGES OF ESCAPING Extreme Environments: DISABLED SUBS AND STRATOSPHERIC BAILOUTS

Symposium

(Sponsored by: History of Physiology Group)

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B

CHAIR: K. RYAN

COCHAIR: J. DEAN

Physiology of Extreme Environments

1:30 33 Gs of deceleration, anoxia and frozen eyeballs: Bailout at 40,000 feet in 1943. Jay Dean. Univ. of South Florida.


324. THE ROLE OF REDD1 IN THE REGULATION OF SKELETAL MUSCLE METABOLISM

Symposium
(Sponsored by: Endocrinology and Metabolism Section)
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: F. FAVIER
Metabolism and Metabolic Disease

1:30 REDD1-mediated redox control governs autophagy and skeletal muscle ATP generation to promote exercise capacity. Leif Ellisen. Massachusetts General Hospital.

2:00 The role of REDD1 during muscle hypertrophy and atrophy. Scot Kimball. Pennsylvania State University College of Medicine.


325. HANS USSING LECTURE OF THE EPITHELIAL TRANSPORT GROUP

Featured Topic
(Sponsored by: Epithelial Transport Group)
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: Y. AKIBA
Metabolism and Metabolic Disease

Nutrition/Obesity


2:00 Novel Mouse Model of a Human Mutation in NKCC1 Confirms Its Mistargeting in Epithelia. R. Koumangooye, S. Omer, E. Delpire. Vanderbilt University School of Medicine. (747.14)


326. NCAR HOT TOPICS IN AUTONOMIC REGULATION

Featured Topic
(Sponsored by: Neural Control and Autonomic Regulation Section)
MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28DE
CHAIR: K.W. MATHIS
COCHAIR: C.T. BANEK
Neuroscience

1:30 Hypertensive Young Adult Female Obese Zucker Rats (OZR) Do Not Have the Blunted Baroreflexes and Poor Glycemic Control Observed in Age-Matched Hypertensive Male OZR. P. Chaudhary, A.M. Schreihofer. University of North Texas Health Science Center. (885.21)

1:45 Thoracic TRPV1 Receptor Spinal Afferent Ablation Prevents the Development and Progression of Hypertension in SHR but Not in Ang II-Infused Rats. J.A. Shanks, S. Del Bem Velloso de Morais, H. Wang, I.H. Zucker. University of Nebraska Medical Center. (885.4)

2:00 The Inflammatory Reflex Controls Inflammation in Response to Viral Challenges. D. Martelli, D.G. S. Farmer, E.N. Komegae, M.J. McKinley, R.M. McAllen. Università di Bologna, Italy, Florey Institute of Neuroscience and Mental Health, Australia and University of São Paulo, Brazil. (885.2)


2:30 Corticotropin-Releasing Hormone Receptor 2 in the Nucleus of the Solitary Tract Contributes to the Intermittent Hypoxia Induced Hypertension. L. Wang, D. Nguyen, S. Cross, S. Mifflin. University of North Texas Health Science Center. (885.11)

2:45 Resting Regional Brain Activity and Functional Connectivity Varies with Resting Blood Pressure but Not Muscle Sympathetic Nerve Activity in Normotensive Humans. V.G. Macefield, S. Kobuch, L.A. Henderson. Baker Heart and Diabetes Institute, Australia, Western Sydney University, Australia and University of Sydney, Australia. (885.15)
327. ADVANCES IN RENAL PHYSIOLOGY I

Featured Topic

(Sponsored by: Renal Section)

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B

CHAIR: P. ORTIZ

COCHAIR: R. CORNELIUS

Microbiome


1:45 A Sympathetically Mediated α1-Adrenoceptor Dependent Pathway Promotes Renal Sodium Chloride Cotransporter Activity in Age-Related Hypertension. A.A. Frame, R.D. Wainford. Boston University School of Medicine. (621.8)

2:00 SPAK (STK39) Is Involved in NKCC2 Phosphorylation and Salt-Sensitive Hypertension in Dahl Salt-Sensitive Rats. J. A. Garcia-Pedraza, P.A. Ortiz. Henry Ford Hospital. (620.9)

2:15 Renal Expression of Adhesion GPCR GPR116 (ADGRF5) Plays a Role in Urinary Concentration in Mice. N. Zaidman, J. Pluznick. Johns Hopkins University. (619.6)

2:30 Elevated Superoxide Production in Response to Angiotensin II by Proximal Tubules of Rats Consuming a Moderately Enriched Fructose Diet. A. Gonzalez-Vicente, N. Yang, A. Morris, J.L. Garvin. Case Western Reserve University. (716.11)


329. EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION

Lecture

(Sponsored by: Environmental and Exercise Physiology Section)

MON. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 27AB

Cardiovascular

1:30 Muscle microcirculation: Gateway to function and dysfunction. David Poole. Kansas State Univ. Col. of Veterinary Med.

330. SYNERGIZING TEACHING AND SCHOLARSHIP

Symposium

(Sponsored by: Teaching of Physiology Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B

CHAIR: D.M. HARRIS

Education

Career and Professional Development

3:30 How to apply learning theories to teaching and scholarship. Denise Kay. Univ. of Central Florida.

4:00 How to choose an appropriate research design. John Dobson. Georgia Southern Univ.


331. ALTERING PHENOTYPE WITHOUT GENOTYPE

Symposium

(Sponsored by: Translational Physiology Interest Group)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B

CHAIR: J. SONES

COCHAIR: D. REIJNERS-MOST

Nutrition/Obesity

Metabolism and Metabolic Disease

Cardiovascular


4:30 Maternal obesity and neonatal body mass biometry. Leanne Redman. LSU Pennington Biomedical Research Center.


Eating for two: parental dietary effects on offspring. Rebecca Simmons. Perelman Sch. of Med., Univ. of Pennsylvania
332. **BROWN ADIPOSE TISSUE AND CARDIOVASCULAR FUNCTION: INSULIN RESISTANCE, VASCULAR TONE, AND CARDIOPROTECTIVE EFFECTS**

Symposium  
*(Sponsored by: Cardiovascular Section)*  
**MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC**  
**CHAIR: K. STANFORD**  
**COCHAIR: M. SCHERRER-CROSBIE**

**Cardiovascular**

3:30 Origin and function of human beige adipocytes. **Silvia Corvera.** University of Massachusetts Medical School.

4:00 The cardioprotective role of brown adipose tissue. **Kristin Stanford.** Ohio State University.

4:30 Neuro-vascular interactions in adipose tissue. **Kristy Townsend.** University of Maine.

333. **COMPARATIVE PERSPECTIVES ON MAXIMAL O₂ AND CO₂ TRANSPORT IN ANIMALS**

Symposium  
*(Sponsored by: Comparative & Evolutionary Physiology Section)*  
**MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C**  
**CHAIR: M. HEDRICK**

**Cardiovascular**

3:30 What limits cardiac output in vertebrates? **William Joyce.** University of Aarhus.

4:00 Getting to the heart of the matter: oxygen supply and demand in fish. **Georgina Cox.** University of Pennsylvania.

4:30 Maximum gas exchange rates: Lessons from across the vertebrate spectrum. **James Hicks.** University of California—Irvine.

334. **MOLECULAR, CELLULAR AND SYSTEMS-LEVEL MECHANISMS DRIVING VENTILATION AND CO₂ SENSITIVITY DURING ACUTE AND CHRONIC HYPERCAPNIA**

Featured Topic  
*(Sponsored by: Respiration Section)*  
**MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A**  
**CHAIR: M. HODGES**  
**COCHAIR: V. HAWKINS**

**Neuroscience**

3:30 Molecular physiology of RTN respiratory chemoreceptor neurons. **Douglas Bayliss.** University of Virginia.

335. **IMPACT OF DIET ON BLOOD PRESSURE REGULATION**

Featured Topic  
*(Sponsored by: Water and Electrolyte Homeostasis Section)*  
**MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A**  
**CHAIR: A. GREENE**  
**COCHAIR: T. STODOLA**

**Microbiome**

**Nutrition/Obesity**

**Metabolism and Metabolic Disease**

3:30 The DASH Diet Produces a Natriuretic Effect and Interacts with the Renin-Angiotensin-Aldosterone System. **S.A. Maris, S. Brown, P.R. Conlin, J.S. Williams.** Brigham & Women’s Hospital and Harvard Medical School and Veterans Affairs Boston Healthcare System. *(763.7)*


4:00 Female BALB/c Mice Develop Salt-Sensitive Hypertension and Endothelial Dysfunction in Association with Activation of the Renin-Angiotensin Aldosterone System. **J.L. Faulkner, D. Harwood, L. Bender, J. Morwitzer, M. Brands, S. Kennard, G. Antonova, E.J. Belin de Chantemele.** Augusta University. *(904.5)*

336. PROTECTIVE MECHANISMS IN THE VASCULATURE: WIGGERS AWARD SESSION

Featured Topic
(Sponsored by: Cardiovascular Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: C. SIGMUND

Cardiovascular
3:30 PPARgamma-dependent pathways protect the vasculature. Curt Sigmund. University of Iowa.
3:30 CD70 Modulates the Role of eNOS in Endothelial Cells. A.K. Pandey, J.D. Brown, D.G. Harrison, H.A. Itani. Vanderbilt University Medical Center. (845.7)
3:30 Mitochondrial-Targeted Antioxidant (MitoQ) Improves Vascular Function in Healthy Late Middle-Aged and Older Adults. M.J. Rossman, J.R. Santos-Parker, C.A. C. Steward, N.Z. Bispham, L.M. Cuevas, H.L. Rosenberg, K.A. Woodward, M. Chonchol, R.A. Gioscia-Ryan, M.P. Murphy, D.R. Seals. University of Colorado Boulder, University of Colorado Anschutz Medical Campus and Medical Research Council Mitochondrial Biology Unit, United Kingdom. (845.8)
3:30 Protective Effects of Diet and Sex on Cell Death and Intracellular Calcium in Resistance Arteries During Oxidative Stress. C.E. Norton, S.Y. Sinkler, C.M. Manrique, S.S. Segal. University of Missouri. (845.3)
3:30 Loss of Lymphocyte Adaptor Protein Lnk Predisposes to Acute Aortic Dissection. F. Laroumanie, M.A. Saleh, L. Xiao, B.L. Dale, K.A. Gavulic, A. Korneva, M.R. Bersi, J.D. Humphrey, M.S. Madhur. Vanderbilt University Medical Center and Yale University. (845.4)

338. CARL W. GOTTSCHALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION

Lecture
(Sponsored by: Renal Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB

339. JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION

Lecture
(Sponsored by: CNS Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB

Neuroscience

340. MCS LANDIS AWARD LECTURE AND BUSINESS MEETING

Lecture
(Sponsored by: Microcirculatory Society (MCS))
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: S. PEIRCE-COTTLER
COCHAIR: J. LOMBARD

Cardiovascular
3:30 Following the yellow brick road toward a better understanding of human arteriolar function requires courage, heartfelt collaborations and presence of mind. David Gutterman. Med. Col. of Wisconsin.

341. HENRY PICKERING BOWDITCH AWARD

Lecture
APS
MON. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB
Across Societies

342. NIH K AWARDS: NAVIGATING NIH PROGRAMS TO ADVANCE YOUR CAREER

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 31 A
Career and Professional Development
This presentation will focus on the NIH’s Career Development Awards (K) including the most recent K99/00 Pathways to Independence Award (for postdoctoral scientists) and other K awards targeted to individuals with research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the K awards discussed will be the K01 Mentored Research Scientist Development Award, the K02 Independent Scientist Award, the K22 Career Transition Award, the K08 Mentored Clinical Scientist Development Award, the K23 Mentored Patient Oriented Career Development Award, the K24 Mid-Career Patient Oriented Career Award, and K25 Mentored Quantitative Scientist Career Development Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for beginning investigators.

9:00 Speaker. M. Matthews. NIH.

343. POSTER/ORAL PRESENTATION PRACTICE & MENTORING SESSIONS

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, PEER MENTOR POD
Career and Professional Development
FASEB Diversity Resources Program will sponsor Presentation Practice & Mentoring Sessions beginning Saturday, April 21, to provide FASEB DREAM poster/oral presentation travel award recipients and other interested EB2018 student/postdoc attendees with an opportunity to practice their presentations and obtain feedback from designated Workshop Mentors/Coaches. If you would like to participate in the poster/oral presentation & mentoring sessions, sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session

344. CAREER CORNER SESSIONS WITH DR. ADAMS

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER CORNER
Career and Professional Development
Drop in or sign-up for one-on-one or group sessions for career counseling/career planning sessions with Dr. Howard G. Adams in between his presentations in the EB2018 Career Center. Dr. Adams will be available in the “Career Corner” in the EB2018 Career Center located in Hall D beginning on Saturday, April 21. Sign up by using the following link, http://bit.ly/EB18SignUp1on1Session.

345. ONE-ON-ONE RESUME CRITIQUE/CV, CAREER COUNSELING, ESSAY PERSONAL STATEMENT ASSESSMENTS

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CAREER COUNSELING ROOM
Career and Professional Development
One-on-one sessions for CV/resume critiques, career counseling, and essay/personal statement assessments will begin on Saturday, April 21. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

346. HOW SENSATIONS AND PERCEPTIONS INFLUENCE YOUR BEHAVIOR

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-1
Career and Professional Development
The neuroscience of sensations and perceptions is often presented separate from behaviors we choose; yet, they are essential antecedents causing us to behave the way we do. In this seminar, we will review the neuroscience of sensations and perceptions and learn how these unique physiological and cognitive processes influence our behavior. This understanding will help better prepare you to achieve your goals when networking and interviewing, in addition to helping you do well in all interactions, such as with professors and colleagues.

9:00 Speaker. J. Blumenthal. Montgomery Col., Rockville, MD and Univ. of Maryland Univ. Col., Adelphi, MD.

347. WHAT YOU SEEK IS WHAT YOU GET

Workshop
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, EB 2018 CAREER CENTER, CRC-2
Career and Professional Development
It is generally agreed that sharing in a mentoring relationship can boost one’s career/professional/technical growth and development. One common concern of some professionals in today’s workplace regarding mentoring is this: “Since I am not privileged to have formal mentoring available to me, how do I find and choose a mentor on my own?” This seminar provides
an overview of essential strategies for identifying, screening, selecting, and using a mentor(s). Key topics:

- Decoding the Language of Mentoring.
- Establishing Mentoring Needs and Expectations.
- Identifying, Screening, and Selecting a Mentor.
- Building a Mentorship Alliance.
- Developing Mentorship Goals and Action Steps.

9:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA

348. CAREER OPPORTUNITIES IN SCIENCE COMMUNICATIONS

Workshop
Tues. 9:00 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development
Do you enjoy talking about science more than doing it? Are you the person your labmates ask to edit their manuscripts? Are you a podcast junkie, and wonder how they do it? This career session will explore careers in science communication. In science journalism, institutional communication and multimedia careers, you use your science training to make a living talking about science. If it sounds like a dream come true, then this workshop is for you.


349. JOB HUNTING IN BIOTECH PART 3: COMPENSATION NEGOTIATION FOR SCIENTIST POSITIONS

Workshop
Tues. 10:30 AM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development
So you’ve landed a job offer for an industry scientist position! Now, how do you know if the compensation package is competitive, and how do you ask for more? In this seminar you will learn how to:

- Separate out the typical components of an industry job offer letter, so you know what to ask for
- Determine if an offer is competitive and when to ask for more
- Ask for additional compensation in a way that represents your interests while maintaining positive relationships.

(This is part 3 of a 3-part series. Each seminar can be taken separately, but together they provide comprehensive information about the industry job search process.)

10:30 Speaker. B. Lindstaedt. UCSF.
353. Navigating Doctoral Work Protocols/Milestones/Requirements

Workshop

TUES. 1:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development

Success in graduate school starts with goal setting and the formation of an action plan to achieve desired results—obtaining the degree sought. The graduate study plan should delineate 1) what is to be accomplished in terms of expectations, degree requirements, and program milestones; 2) action steps that establish priorities for tasks to be completed; 3) process for implementing action steps; and 4) timeframe for meeting program requirements and milestones. Session participants will be guided through exercises and provided with templates for developing a graduate program plan. Session topics: Planning in the context of the Graduate School Process, Establishing Realistic Program Goals, Objectives, and Milestones, the Planning Process—Writing and Implementing a Graduate Degree Plan, and Charting Milestones to Monitor Progress and Refine Actions Steps.

1:00 Speaker. H. Adams. H.G. Adams & Assoc., Norfolk, VA.

354. NIH F Awards: Navigating NIH Programs to Advance Your Career

Workshop

TUES. 12:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development

This presentation will focus on the NIH’s Ruth L. Kirschstein National Research Service Awards (NRSA). The NRSA research training fellowship (F) awards are targeted to individuals with or seeking research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the F awards discussed will be the F30, NRSA Individual Predoctoral MD/PhD or Other Dual-Doctoral Degree Fellowship Award, the F31 NRSA Individual Predoctoral Fellowship, the F31 NRSA Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research Award, the F32 NRSA Individual Postdoctoral Fellowship Award, and the NRSA Individual Senior Fellowship Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for pre- and postdoctoral fellows and senior investigators.

1:30 Speaker. M. Matthews. NIH.

355. Next Gen PhDs and Careers

Workshop

TUES. 2:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development

There are more career options than ever before for life science PhDs. This session will provide actionable advice on how to determine what career path to pursue and how to best position yourself for your desired career.

2:00 Speaker. P. Clifford. Univ. of Illinois at Chicago.

356. Career Opportunities in Science Communications

Workshop

TUES. 2:30 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-3

Career and Professional Development

Do you enjoy talking about science more than doing it? Are you the person your labmates ask to edit their manuscripts? Are you a podcast junkie, and wonder how they do it? This career session will explore careers in science communication. In science journalism, institutional communication and multimedia careers, you use your science training to make a living talking about science. If it sounds like a dream come true, then this workshop is for you.


357. Global Interview Skills: A Practice Workshop for International Candidates

Workshop

TUES. 3:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-1

Career and Professional Development

This interview practice workshop is customized for international job candidates. The key topics are: The four central questions in virtually every employment interview, understanding cultural and communication dynamics, the STAR method, and how to use “small talk” for big results.

3:00 Speaker. D. Behrens. Univ. of California, Berkeley.

358. The Strategic Postdoc: How to Find & Leverage Your Postdoc Experience

Workshop

TUES. 3:00 PM—San Diego Convention Center, Hall D, EB 2018 Career Center, CRC-2

Career and Professional Development

Many PhDs just kind of fall in to a postdoc, rather than thinking about it from a strategic perspective. Your postdoc is never an end in itself; rather it’s a means to another end whether that goal is a faculty position at a research university, a small college, national lab, or perhaps an industry job. Learn how to find postdoc opportunities that will best prepare you for that next step, and how to use your postdoc experience to facilitate the transition to your next position.

3:00 Speaker. A. Green. Univ. of California, Berkeley.
Anatomy

359. NEUROBIOLOGY AWARD HYBRID SYMPOSIUM

Symposium
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: G. SCHÖNWOHL
Neuroscience
C.J. Herrick Award Lecture in Neuroanatomy featuring 2018 Young Investigator Award Recipient, Helen Bateup


9:00 359.2 Cardiolipin Exposure on the Outer Mitochondrial Membrane Modulates α-Synuclein Proteostasis in hPSC-Derived Parkinson’s Disease Neurons. S.D. Ryan, T.L. Ryan, V.V. Bamm, M.G. Stykel, C.C. Coackley, K. Humphries, G. Harauz. University of Guelph, Canada.

9:15 359.3 The Role of Neuropeptides in Peripheral Taste Signaling. A.Y. Huang, S.Y. Wu. Southern Illinois University School of Medicine.

9:30 359.4 Axonal Pathology in hPSC-Based Models of Parkinson’s Disease Results from Loss of Nrf2-Transcriptional Activity at the MAP1B Gene Locus. T. Ryan, J. Drolet, K. Sherriff, C.C. Coackley, S.D. Ryan. University of Guelph, Canada.

9:45 359.5 Nociceptive Stimulus in the Neonatal Period Affects Satellite Glial Cells Morphology in Adult Life, with Differences Between Male and Female Rats. A. L.B. Simoes, G. A.R. Silva, C. Giorgetto, E.C. Carmo, V.P.S. Fazan. Ribeirão Preto Medical School and University of São Paulo, Brazil.

360. FROM BATS TO WHALES: FEEDING SHAPES DIVERSITY IN THE MAMMALIAN SKULL

Symposium
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11A
COCHAIR: E. BRAINERD AND A. SUMMERS
Evolution/Anthropology

8:30 360.1 Food, Form and Function: Motor Control, Movement and Modulation during Mastication in Mammals. S.H. Williams. Ohio University Heritage College of Osteopathic Medicine.


361. BONE DEVELOPMENT AND DISEASE

Symposium
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: R.J. SHERWOOD
Bones/Muscle/Connective Tissue

8:30 361.1 Birth Defects of the Craniofacial Skeleton and the Potential for Prevention. P. Trainor. Stowers Institute for Medical Research.

9:00 361.2 Heterotopic Ossification in Fibrodysplasia Ossificans Progressiva—How Does One Tissue Become Another? E.M. Shore. Perelman School of Medicine and University of Pennsylvania.


362. GRADUATE ANATOMY EDUCATION; SUCCESSES AND CHALLENGES IN A CHANGING HEALTHCARE WORLD

Symposium
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
CHAIR: A. NOTEBAERT
Education

8:30 362.1 Creating a Unique Graduate Training Program for Educator Scholars in the Anatomical Sciences. A. Notebaert. University of Mississippi Medical Center.

9:00 362.2 The Value of Anatomy Coursework for Professional School. E. Robertson. The University of Mississippi Medical Center.


363. NEW PERSPECTIVES ON THE DEVELOPMENT AND EVOLUTION OF THE CEREBELLUM

Symposium
TUES. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: A. IULIANELLA
Evolution/Anthropology

Neuroscience


11:00 363.2 Constraints and Catalysts in Cerebellar Evolution. R. Wingate. King’s College London, United Kingdom.

11:30 363.3 Morphogenetic Mechanisms Generating Cell Fates in the Cerebellum. A. Iulianella. Dalhousie University, Canada.
364. VERTEBRATE MORPHOLOGY AND EVOLUTION PLATFORM

Symposium
TUES. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 11A
CHAIR: C. Holliday

Vertebrate Paleontology
Evolution/Anthropology
11:00 364.3 A Mixed Model for the Relationship Between Latitude and Human Post-Cranial Form. K.R. R. Savell, D.C. Katz, B.M. Auerbach, T.D. Weaver. University of Tennessee, Knoxville, University of Calgary, Canada, University of California, Davis.

365. FUTURE OF OSTEOPOROSIS TREATMENT

Symposium
TUES. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: M. Elsalanty

Bones/Muscle/Connective Tissue
10:30 365.1 A Novel Model to Assess the Effects of Osteoporosis Medications on Bone Quality. D.R. Sumner, R. Ross. Rush University and Rush University Medical Center.
11:00 365.2 Targeting the Intestine to Treat Osteoporosis. J. Schepper, N. Rios, H. Kang, N. Parameswaran. University of Michigan and Stanford University.

366. ANATOMY EDUCATION PLATFORM 3—COMPETENCIES, LEARNING STRATEGIES, AND OUTCOMES

Symposium
TUES. 10:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 8
COCHAIR: C. Vasan and A. Zumwalt

Education
11:00 Can 3D Printed and Virtual Whole Embryo Models Save Embryology Education?. A.N. Dueñas, J. Stratford, E. Salcedo, B. Blezinski, L.M. J. Lee. University of Colorado Anschutz Medical Campus and University of Colorado Boulder. (508.14)
11:15 366.3 Student Perceptions and Experiences with Team-Based Learning (TBL) in a Graduate Histology Course. H.M. Azim, K.W. Condon, J.J. Brokaw. Indiana University School of Medicine.
11:30 366.4 The Implementation and Evaluation of a Clinically Oriented Anatomy Laboratory Session (COALS) for Undergraduate Nursing Students. V. Roach. Oakland University William Beaumont School of Medicine.
11:45 366.5 Benefits of Anatomy-Centered Interdisciplinary Review Sessions. W. Lackey-Cornelison, J. Woodcock. Western Michigan University and Homer Stryker M.D. School of Medicine.

367. ASSEMBLING THE PERIPHERAL NERVOUS SYSTEM

Symposium
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11B
CHAIR: L. Tanehill

Neuroscience
2:00 367.1 When PNS Assembly Goes Awry: Familial Dysautonomia. F. Lefcort, L. George, M. Chaverra. Montana State University.
2:30 367.2 Colonization of the Lower Urinary Tract by Neural Crest and Development of Pelvic Autonomic Innervation. E.M. Southard-Smith. Vanderbilt University Medical Center.
3:00 367.3 The Warburg Effect and Lactate Signaling Augment FGF Signaling to Promote Sensory-Neural Development in the Otic Vesicle. B. Riley, H. Kantarci. Texas A&M University.
368. “WELL-PRESERVED” ANATOMISTS—KEEPING LIFE FUN AND PRODUCTIVE IN RETIREMENT
Symposium
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 11A
COCHAIR: D. RHODES AND J. RHODES
Career and Professional Development
2:00 The Wide Open Spaces of Post-retirement Life. Bruce Carlson. The University of Michigan.
2:20 Life after the Lab: One Thing Leads to Another. Gina Schatteman. University of Iowa.
3:00 Tomorrow in Focus. Debra Anderson, CFP. TIAA.
3:15 Q & A.

369. STEM CELLS, TISSUE ENGINEERING & REGENERATION PLATFORM
Symposium
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: K. KRAMER
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
2:00 369.1 The roles of histone methyl-transferase KMT2D in vasculogenesis. A. Serrano, B.L. Demarest, M. Tristani-Firouzi, H.J. Yost. Eccles Institute of Human Genetics—University of Utah and Nora Eccles Harrison Cardiovascular Research and Training Institute.
2:30 369.3 Critical Role of Claudin-7 in Maintaining Intestinal Crypt Stem Cell Functions. T. Xing, S. Sabu, L.J. Benderman, Y. Chen. East Carolina University.
3:00 ARHGAP29 Expression and Localization in Cutaneous Wound Healing. T. Reeb, M. Dunnwald. University of Iowa. (645.9)
3:15 369.4 Whole Cell and Bacterial Movement: The Identification of the Ubiquitin E2 Enzyme (UBE2N) as a Novel Actin-Associated Protein. M.D. Chua, K-M. Moon, L.J. Foster, J.A. Gutman. Simon Fraser University, Canada and University of British Columbia, Canada.

370. ANATOMY IN TRANSITION: CHALLENGES AND OPPORTUNITIES ADDRESSED THROUGH HISTORICAL AND ETHICAL INQUIRY
Symposium
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 8
COCHAIR: S. HILDEBRANDT AND T. CHAMPNEY
Education
2:00 370.1 The Transition from “Unclaimed Bodies” to Body Donation—an Ongoing Process. A. Winkelmann. Medical School Brandenburg, Germany.
3:00 370.3 Reframing Anatomy as a “Safe Space” for Acquiring Professional Competencies: The Role of History and Ethics of Anatomy in Medical Education. S. Hildebrandt. Boston Children’s Hospital/Harvard Medical School.

371. HENRY GRAY SCIENTIFIC AWARD LECTURE
Lecture
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
CHAIR: K. TOPP
Award Lectures
4:00 Chair’s introduction.
4:20 Q & A.

372. HENRY GRAY DISTINGUISHED EDUCATOR AWARD LECTURE
Lecture
TUES. 4:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
Award Lectures
4:30 Chair’s introduction.
4:35 372.1 Authentic Anatomy Education: Leave Your Ego at the Door to Create Memorable Learning Experiences. V.D. O’Loughlin. Indiana University School of Medicine.
4:50 Q & A.

373. A. J. LADMAN EXEMPLARY SERVICE AWARD LECTURE
Lecture
TUES. 5:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 9
Award Lectures
5:00 Chair’s introduction.
5:05 373.1 “For of Those to Whom Much Is Given...”. J.T. Laitman. Icahn School of Medicine at Mount Sinai.
5:20 Q & A.
Biochemistry and Molecular Biology

374. WAKE-UP! IT’S TRIVIA TIME

Society Events
(Sponsored by: ASBMB Membership Committee)
TUES. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Workshops & Events
Calling all trivia junkies! Join your colleagues for a daily dose of trivia, music, fun and prizes! It’s a lively way to jump-start your day—the complimentary coffee and nosh also helps! Prize values increase over the course of the meeting, so come back each morning! ASBMB members and biochemistry registrants welcome. Space is limited with first come, first served.

375. ASBMB-MERCK AWARD

Lecture
(Sponsored by: Merck & Co.)
TUES. 8:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Award Lectures
8:00 Awardee introduction.
8:05 375.1 Black Spot, Black Death, Black Pearl: The Tales of Bacterial Effectors. K. Orth. Howard Hughes Medical Institute and The University of Texas Southwestern Medical Center.

376. RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD

Lecture
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Diversity in Science
Award Lectures
8:30 Awardee introduction.
8:35 376.1 Vision Cycle Proteins: Their Function, Structure and Links to Retinal Disease. A. Tsin. The University of Texas Rio Grande Valley School of Medicine.

377. DELANO AWARD FOR COMPUTATIONAL BIOSCIENCES

Lecture
TUES. 9:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6B

Award Lectures
9:00 Awardee introduction.
9:05 377.1 Solutions to the Computational Protein Folding Problem. C. Sander, D. Marks. Harvard Medical School and Dana-Farber Cancer Institute and Harvard Medical School.

378. ADVANCES IN SINGLE CELL OMICS

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6E
CHAIR: J.H. ABERWIN

Genomics, Proteomics
10:00 378.1 Super-Resolution Imaging of Transcription in Live Mammalian Cells. I.I. Cissé. Massachusetts Institute of Technology.

379. BIOCHEMISTRY OF AUTOPHAGY AND ORGANELLE TRAFFICKING

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6F
CHAIR: K-L. GUAN

Lipids and Membranes
11:00 379.3 AMPK: Guardian of Metabolism and Mitochondrial Homeostasis. R.J. Shaw. Salk Institute for Biological Studies.

380. PLANTS DO IT ALL

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6C
CHAIR: S.R. CUTLER

Plant Biochemistry
10:30 380.2 Spatiotemporal Phytochrome-Dependent Regulation of Photosynthesis and Growth. B.L. Montgomery. Michigan State University.
11:00 380.3 Discovery and Engineering of Plant Chemistry for Plant and Human Health. E. Sattely. Stanford University.
381. RNA-MEDIATED EPIGENETICS

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 1AB

Chromatin, Epigenomics

RNA

10:00 381.1 Exploring the Biosynthesis of Hypermodified Bases One Step at a Time. V. Bandarian. University of Utah.
10:30 381.2 The Dynamic Epitranscriptome: Control of mRNA Fate and Function by Nucleotide Modifications. S. Jeffrey. Weill Cornell Medicine and Cornell University.
11:00 381.3 Smrt-Cappable-Seq Reveals Complex Operon Variants in Bacteria. L. Ettwiller, B. Yan. New England BioLabs Inc.
11:30 381.4 Beyond the Central Dogma: The tRNA Epitranscriptome and an Alternative Genetic Code Tune Translation During Stress in Eukaryotes, Prokaryotes and Viral Infections. P. Dedon. Massachusetts Institute of Technology.

382. SIGNAL TRANSDUCTION, PATHOGENESIS AND DISEASE

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 6D
CHAIR: K. Orth

Cell Signaling, Signal Transduction

10:00 382.1 Single Protein-Catalyzed Ubiquitination: Chemistry and Implications in Cell Signaling. Z-Q. Luo. Purdue University.
10:30 382.2 Proteasomal Regulation of Hormone Signaling in Mycobacterium tuberculosis. K.H. Darwin. New York University School of Medicine.

383. STRUCTURAL BIOLOGY

Symposium
TUES. 10:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 14A
CHAIR: T. Thompson

Structural Biology/Biophysics

10:00 Molecular Mechanisms in Wnt Signaling. William Weis. Stanford Univ.
11:15 Biased Agonism in Receptor Tyrosine Kinase Signaling. Mark Lemmon. Yale Univ.
11:40 General discussion.

384. ASBMB MEET THE SPEAKERS

BIOCHEMISTRY

Symposium
TUES. 12:30 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Molecular Mechanisms of G Protein Signaling

3:15 Novel Biosensors for an Enigmatic Phosphoinositide. B. Flister, C. Bergom. Georgia Institute of Technology. (661.1)

3:00 Phosphorylation of G Protein γ Subunit Ste18 and the Ste5 Scaffold Form a Braking System that Governs Pathway Activation Kinetics and Switch-Like Signaling in Yeast. M. Torres, S. Choudhury, P. Baradaran-mashinchii. Georgia Institute of Technology. (661.8)


388. MEMBRANE LIPID BIOCHEMISTRY

Symposium
TUES. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIRED: J. BURKE

Lipids and Membranes
2:30 Crystallographic and Enzyme Kinetic Analyses of the Human Inositol Polyphosphate Multikinase (IPMK). R. Blind. Vanderbilt University. (671.6)

2:45 Structure and Function of Lipins: Key Enzymes in Triglyceride Metabolism. M. Airola. Stony Brook University. (672.6)

3:00 A Novel Multi-Domain Phosphatidylinositol Transfer Protein/Oxysterol Binding Protein Senses Specific Phosphoinositide Pools on Toxoplasma Dense Granules. A. Grabon, V.A. Bankaitis. Texas A&M University. (540.7)


3:30 Sphingomyelin-Cholesterol Complexes in Plasma Membranes. S. Endapally, D. Frias, D. Tomchick, A. Radhakrishnan. The University of Texas Southwestern Medical Center. (671.1)

390. METALS IN BIOLOGY

Symposium
TUES. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E
CHAIRED: A.E. PALMER

2:30 PRL Phosphatases Promote Tumor Progression by Regulating the Level of Intracellular Magnesium. S. Hardy, E. Kostantin, S. J. Wang, N. Uetani, M.L. Tremblay. McGill University, Canada. (533.73)

2:45 Zinc-Mediated Oligomerization of S100a12. S.M. Damo, V. Garcia, S. Little, D. Franklin, J.A. Gaddy. Fisk University and Vanderbilt University. (792.40)

3:00 Herne-Free H-NOX from Vibrio cholerae Is Activated by Oxidation via a Zinc Ligand Switch Mechanism. E. Yukl, K. Chacon, J. Jarvis. New Mexico State University and Reed College. (533.91)


3:30 Metabolic Reprogramming of Macrophages Exposed to Pseudomonas aeruginosa Biofilm. M. C.B. Ammons, A. Fuchs, V. Copie. Idaho Veterans Research and Education Foundation and Montana State University. (669.23)


Impact of Short- and Long-Term Weight Loss on the Inflammatory Profile of Metabolically Healthy and Unhealthy Obese Patients. M. Clark, F. Barrenás, M. Rajan, M. Sotak, V. Wallenius, E. Borgeson. Institute of Medicine, University of Gothenburg, Sweden, Department of Cell and Molecular Biology, Uppsala University, Sweden, Institute of Clinical Sciences and University of Gothenburg, Sweden. (670.12)
391. PROTEIN FOLDING: EVERY WHICH WAY BUT LOOSE

Symposium
TUES. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31A
CHAIR: J.E. Kim


2:45 The Amyloid-β Peptide in Alzheimer’s Disease: Molecular Interactions and Structure Conversions. A. Gräslund. Stockholm University, Sweden. (795.11)

3:00 The Disordered Landscape of the 20s Proteasome Substrates and the Mechanism of Their in Vitro and in Vivo Degradation. Y. Shaul, N. Myres, A. Biran, N. Reuven. Weizmann Institute of Science, Israel. (795.14)

3:15 A Nucleotide-Dependent Switch in Proteasome Assembly Mediated by the Nas6 Chaperone. S. Park, F. Li, V. Sokolova. University of Colorado Boulder. (526.41)

3:30 Biophysical Analysis of Human Neuropeptide Y: Mutations in the Hairpin Core Reveal Unusual Thermal Stability Linked to Higher-Order Self-Association. M.M. Hopkins, D.L. Bain. University of Colorado Anschutz Medical Campus. (792.28)

392. STRUCTURE AND MECHANISM IN NATURAL PRODUCT BIOSYNTHESIS ENZYMES

Symposium
TUES. 2:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 31B
CHAIR: A.K. Boal

2:30 Transport and Synthesis of a Bacterial Natural Product. L.M. K. Dassama, G.E. Kenney, A.C. Rosenzweig. Boston Children’s Hospital, Dana-Farber Cancer Institute, and Harvard Medical School and Northwestern University. (796.1)


3:00 Structural Insights into Peptide Recognition and Modification by the Radical SAM Enzyme SuIB. K.M. Davis. Princeton University. (796.9)


BIOCHEMISTRY


5:00 Oleic Acid Protected Pancreatic β-Cell Against Saturated Fatty Acid Induced Lipotoxicity. X. Liu, X. Chen, L. Li, R. Luo, D. Long, Y. Lu, Y. Chen. West China Hospital and Sichuan University, People’s Republic of China. (812.32)

396. CHROMATIN, REPLICATION AND REPAIR

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31B
CHAIR: S. FORSBURG

4:00 Heterochromatin Proteins Influence the Choice of DNA Repair in Euchromatin Domains. S. Forsburg, A. Jensen, C. Jones, T-T. Li, J-P. Yuan. University of Southern California. (786.14)


4:30 Analysis of CoREST Complex-Chromatin Interactions with Chemical Tools. M. Wu, D. Hayward, J.H. Kalin, Y. Song, J. Schwabe, P.A. Cole. Brigham and Women’s Hospital and Harvard Medical School, Johns Hopkins University School of Medicine and University of Leicester, United Kingdom. (524.7)


397. ENGINEERING BIOLOGY

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 31A
CHAIR: A. CHATTERJEE

4:00 Engineering Yeast Endosymbionts as a First Step Towards Laboratory Evolution of Mitochondria. A. Mehta, L. Supekova, F. Supek, P. Schultz. Scripps Research Institute and The Genomics Institute of the Novartis Research Foundation. (530.3)

4:15 Base Editing: Chemistry on the Genome. A.C. Komor. University of California and San Diego. (649.6)


4:45 Mini-Ins: A Monomeric Human Insulin Inspired from Cone Snail Venom Peptides. D. Chou. University of Utah. (798.16)


398. HIGH-THROUGHPUT METHODS FOR CONNECTING TRANSCRIPTOMES, PROTEOMES, AND SECRETOMES

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30E
CHAIR: S. ZHONG

4:00 A System for Global Analysis of Correlation Between Protein Expression and mRNA. K. Johnson, S. Zhong. University of California and San Diego. (651.10)


4:30 Genome-Scale Reconstructions of the Mammalian Secretory Pathway Predict Metabolic Costs and Limitations of Protein Synthesis and Secretion. N. Lewis. University of California and San Diego. (526.18)


5:00Localized Single Transcript Detection of EML4-ALK in NSCLC Using Co-Localization Quantum Dot Fluorescent in Situ Hybridization (Coqfish). N. Huang, Y. Jiang, S. Zhong. University of California and San Diego. (532.7)
399. MOLECULAR BASIS OF SIGNALING

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIR: K. GEHRING

4:00 Regulation of Mitophagy by the Parkin Ubiquitin Ligase and PINK1 Ubiquitin Kinase. K. GEHRING. McGill University, Canada. (654.11)

4:15 Protein Kinase C (PKC) Gain-of-Function Variant in Alzheimer’s Disease Displays Enhanced Catalysis by a Mechanism That Evades Down-Regulation. J. Callender, Y. Yang, N. Stephenson, A. Jones, J. Brognard, A. Newton. University of California, San Diego, Cancer Research UK Manchester Institute, United Kingdom, National Cancer Institute at Frederick and National Institutes of Health. (662.7)

4:30 Novel Crystal Structure of Calcium-Independent Phospholipase iPLA2γ: Mechanism of Activity Regulation and Membrane Localization. S. Korolev, O. Koroleva, K. Malley. Saint Louis University School of Medicine. (672.2)

4:45 Chemoproteomic Discovery of Ligand Binding Hotspots in the Lipid Kinome. K.-L. Hsu. University of Virginia. (540.1)

5:00 Sac1 Degrades Its Lipid Substrate PtdIns4P in the Er to Maintain a Steep Electrochemical Gradient on Donor Membranes. G. Hammond, J. Zewe, S. Sangappa, R. Wills, B. Goulden. University of Pittsburgh. (814.10)

400. NUTRITION, GENETICS AND METABOLISM

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30C
CHAIR: C.-L.E. YEN


4:45 Long-Chain Acyl-CoA Synthetase 6 Deficiency Reduces the Omega-3 Fatty Acid DHA in the Brain and Disrupts Motor Control. J.M. Ellis, R.F. Fernandez, Y. Zhao, J.L. Counihan, D.K. Nomura, J.A. Chester. Purdue University and University of California. (539.21)


401. RIBOSOMES AND TRANSLATIONAL REGULATION

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30B
CHAIR: S. VASUDEVAN

4:00 High Throughput Discovery of Novel Regulators of Human Ribosome Biogenesis. S.J. Baserga, K.I. Farley-Barnes, K. McCann, L. Ogawa, J. Merker, Y. Surovtseva. Yale University School of Medicine, Yale School of Medicine and National Institute of Environmental Health Sciences, National Institutes and Yale West Campus. (526.25)


4:30 Regulation of Protein Translation Initiation by Estrogen. M.K. Holz. Yeshiva University. (651.3)


5:15 How ribosomes stop protein synthesis without a stop codon. H. Jin, F. Zeng. Univ. of Illinois at Urbana-Champaign.

402. ASBMB WOMEN SCIENTISTS MENTORING AND NETWORKING EVENT

Symposium
TUES. 4:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 30D
CHAIR: S. VASUDEVAN

Workshops & Events
Join us in discussing strategies for career advancement and how to successfully promote oneself. We will also discuss ideas about the formation of a new advocacy group within the ASBMB to promote the career trajectories and professional growth of all women biochemists at all career stages (Women in Biochemistry and Molecular Biology or WIBMB). All ASBMB members and biochemistry registrants welcome.
Pathology

403. ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE

In Conjunction with the SCVP Symposium: Non-Conventional Players in Heart Disease

Lecture
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2

Award Lectures
Cardiac Pathobiology
Immunopathology

8:30 T-cell Immune Responses and Cardiotropism in Heart Failure. \textit{P. Alcaide}. Tufts Univ. School of Medicine Medical School.

404. SCVP SYMPOSIUM: NON-CONVENTIONAL PLAYERS IN HEART DISEASE

Symposium
\textit{(Sponsored by the ASIP and the Society for Cardiovascular Pathology)}
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 2

\textit{Chair}: J. Stone

\textit{Cochair}: T. Parry

Cardiac Pathobiology
Cardiovascular

9:30 Cardiomyocytes Initiate Inflammation and Contribute to Remodeling in Non-ischemic Heart Disease through the Activity of CaM Kinase II. \textit{J. Brown}. UCSD.

10:10 Differential Cellular Impact of BAR signaling on Cardiac Function and Repair. \textit{D. Tilley}. Lewis Katz School of Medicine, Temple Univ.

10:50 Mitochondrial Quality Control in Heart Failure. \textit{A. Gustafsson}. UCSD.

405. ACVP-IEPC SYMPOSIUM: VECTOR-BORNE DISEASES: BRIDGING SCALE

Symposium
\textit{(Sponsored by the ASIP and the American College of Veterinary Pathologists)}
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 3

\textit{Chair}: A.S. Davis

\textit{Cochair}: N. Gottdenker

Bacteria, Parasitology, Microbiome, Antibiotics
Environmental and Toxicologic Pathology

8:30 Tissue and Cellular Tropism of Rift Valley Fever Virus in Sheep. \textit{L. Odendaal}. Univ. of Pretoria.


10:00 Chagas Disease Transmission in Fragmented Forest Landscapes. \textit{N. Gottdenker}. Univ. of Georgia College of Veterinary Medicine.

10:45 Experimental Approaches to Studying Impacts of Global Climate Change on Mosquito Borne Disease Transmission. \textit{C. Murdock}. Univ. of Georgia College of Veterinary Medicine.

406. PATHOGENESIS OF TISSUE INFLAMMATION: NEW MOLECULES AND MECHANISMS

Symposium
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 4

\textit{Chair}: S. Keely

\textit{Cochair}: A. Neish

Inflammation/Immunology
Cell and Tissue Injury
Immunopathology

8:30 \textbf{406.1} Platelet Activating Factor Receptor (PAFR) Regulates Colitis-Induced Pulmonary Inflammation. \textit{G. Liu, S. Matee, A. Mathe, B. Goggins, A. Hsu, K. Minahan, J. Bruce, M. Fricker, P. Wark, P. Hansbro, S. Keely}. Hunter Medical Research Institute and University of Newcastle, Australia.

8:45 \textbf{406.2} The Influence of High Fiber Diet and Probiotic Supplementation in a Murine Model of Colitis. \textit{J. Owens, B. Saeedi, T. Darby, R. Jones}. Emory University.

9:00 \textbf{406.3} The Metabolomic Signature of \textit{Giardia} Sp. \textit{T. Allain, R. Groves, I.A. Lewis, A.G. Surette}. Université de Moncton, Canada.


9:30 \textbf{406.5} Tumor Nuclear YAP1 Expression Status and Molecular Characteristics in Relation to Immune Response to Colorectal Carcinoma. \textit{J. Borowsky, C. Du, K. Kosumi, T. Hamada, T. Morikawa, A.d. Silva, K. Nosho, J.A. Nowak, R. Nishihara, J.K. Lennerz, M. Giannakis, A.T. Chan, J.A. Meyerhardt, C.S. Fuchs, S. Ogino}. Dana-Farber Cancer Institute, Dana-Farber Cancer Institute and Harvard Medical School, The University of Tokyo, Japan, Sapporo Medical University School of Medicine, Japan, Brigham and Women’s Hospital and Harvard Medical School, Massachusetts General Hospital and Harvard Medical School and Yale Cancer Center.


10:00 \textbf{406.7} Protein Kinase R Modulates Nlrp3 Inflammasome in Cardiac Fibroblasts in Sepsis. \textit{X. Xu, A. Tao, R. Kao, C. Martin, T. Rui}. Lawson Health Research Institute, Canada and The Affiliated People’s Hospital of Jiangsu University, People’s Republic of China.

10:15 \textbf{406.8} PRAP1: A Novel Epithelial Secreted Protein. \textit{A. Wolfarth, A. Neish}. Emory University.
10:30 406.9 RGDSK Peptide Functionalized Helical Rosette Nanotubes (RGDSK-HRNs) Inhibit E. coli Adherence to Jejunal Epithelium by Blocking Integrin αvβ3. N.P. K. Le, C.C. Quach, G. Aulakh, V. Gerds, H. Fenniri, B. Singh. Western College of Veterinary Medicine, University of Saskatchewan, Canada and Northeastern University.

10:45 406.10 Regulation of HMGB1 in Hepatocytes by MYD88 and Type-I Interferon (IFN-I) During Ehrlichia-Induced Acute Liver Injury. M. Kader, M. Scott, C. Yates, N. Ismail. University of Pittsburgh School of Medicine and University of Pittsburgh School of Nursing.

11:00 406.11 A Discovery Platform to Identify Novel Beneficial Bacteria. T. Darby, J. Owens, B. Saeedi, L. Luo, B. Robinson, R. Jones. Emory University.

11:15 406.12 Describing the Molecular Mechanism by Which the A2 Protein Improves Survival in Mice with Endotoxemia. M. Martinez, Q. Da, T.A. Fisipe, M.A. Cruz. Baylor College of Medicine.

407. CARCINOGENESIS: MODELS, MECHANISMS, AND MODULATORS

Symposium
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 5A
CHAIRMED: S.A. OAKES
COCHAIRMED: G. POST

Neoplasia
Cancer and Therapy
In Conjunction with the Molecular and Cellular Basis of Cancer Program


8:45 407.2 Prion Protein Is Required for Tumor Necrosis Factor Alpha (TNFα)-Triggered Nuclear Factor Kappa B (NF-κB) Signaling and Cytokine Production. C. Li. Wuhan Institute of Virology and Chinese Academy of Sciences, People’s Republic of China.


9:45 407.6 Peri-Arteriolar Glioblastoma Stem Cell Niches Express Bone Marrow Hematopoietic Stem Cell Niche Proteins. V. Hira. Cancer Center Amsterdam and VUMc, Netherlands.

10:00 407.7 Identification and Characterization of TGF-β1-Induced Long Noncoding RNAs in Lung Cancer. T.C. Lai, M. Hsiao. Academia Sinica, Taiwan.


10:45 407.10 From RNAsSeq to Immunohistochemistry: Keratin 17 Defines Pancreatic Cancer Subtypes. L. Roa-Peña, E.A. Vanner, A. Akalin, J. Bandovic, R.A. Moffitt, C. Iacobuzio-Donahue, L.F. Escobar-Hoyos, K.R. Shroyer. Stony Brook Medicine, University of Massachusetts Medical School Memorial Medical Center and Memorial Sloan Kettering Cancer Center.


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

Workshop
(Sponsored by: the ASIP Education Committee)
TUES. 9:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM SALON G
CHAIRMED: K. NEJAK-BOWEN
COCHAIRMED: M. FURIE

Workshops & Events
Pulmonary Pathobiology
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Bacteria, Parasitology, Microbiome, Antibiotics

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


11:15 Break.

PATHOLOGY TUESDAY

12:40 Stem Cells: A Case of Dr. Jekyll and Mr. Hyde. S. Monga. Univ. of Pittsburgh.
1:30 Visit the Exhibit Hall.

409. LUNCH AND LEARN: SCIENCE, STATISTICS AND GETTING IT RIGHT

Society Events
(Sponsored by: the ASIP Education Committee)
TUES. 11:45 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM SALON F

Workshops & Events
Digital and Computational Pathology
Registration Required
11:45 An interactive lunch session will include an opportunity for participants to review case vignettes featuring common problems in scientific research statistics followed by a presentation and discussion with statistical faculty. D. Milner. American Society for Clinical Pathology.

410. THE HISTOCHEMICAL SOCIETY (HCS) JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY MEET THE EDITOR

Society Events
TUES. 12:00 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALL, BOOTH 320

Workshops & Events
Imaging, Immunohistochemistry and Microscopy

411. ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE

In Conjunction with the Symposium: What’s the Big Deal About Big Data: Mining Molecular Epidemiology for Insights into Pathogenesis

Lecture
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 2

Award Lectures
Digital and Computational Pathology
Immunopathology

2:00 Integrative Immunology-MPE (Molecular Pathological Epidemiology): Frontier for Pathobiological Discovery from Big Data. S. Ogino. Brigham & Women’s Hospital, Dana-Farber Cancer Inst., Harvard School of Public Health.

412. WHAT’S THE BIG DEAL ABOUT BIG DATA: MINING MOLECULAR EPIDEMIOLOGY FOR INSIGHTS INTO PATHOGENESIS

Symposium
TUES. 3:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 2
CHAIR: W.B. COLEMAN
COCHAIR: M. SOBEL

Digital and Computational Pathology
Cancer and Therapy

3:00 Divining the ‘Om’ in ‘Oomics’: Making Actionable Sense out of a Mountain of Data. A. Chinnaiyan. Univ. of Michigan.
4:00 Computational Biology and the Microbiome: Predicting Therapeutic Responses to Infectious Assaults. G. Gerber. Harvard Univ.

413. SIPMET SYMPOSIUM: IMMUNOPATHOGENESIS OF CANCER—FROM BASIC KNOWLEDGE TO MARKERS FOR CANCER DIAGNOSIS AND THERAPEUTICS

Symposium
(Sponsored by the ASIP and the Società Italiana di Patologia e Medicina Traslazionale /Italian Society of Pathology and Translational Medicine)
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 3
CHAIR: M. LOCATI

Neoplasia
Immunopathology
Cancer and Therapy

2:00 Leveraging the Immune System in the War on Cancer. D. Hansel. Univ. of California, San Diego.
3:00 Activation and Biological Properties of Tumor Associated Macrophages. M. Locati. Univ. of Milan.
4:00 Immune Editing and Surveillance in Breast Cancer. J. Bui. Univ. of California, San Diego.

414. MATRIX, MUCOSA, AND INFLAMMATION: AN UNEASY ALLIANCE

Symposium
TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 4
CHAIR: A. NUSRAT
COCHAIR: R. JONES

Inflammation/Immunity
Matrix Pathobiology
Epithelial and Mucosal Pathobiology

2:00 414.1 Galectin-9 Is a Novel Modulator of Epithelial Restitution. B.S. Robinson, B. Saeedi, C. Naudin, C. Arthur, T. Darby, R. Jones, S. Stowell, A. Neish. Emory University.
415. LIVER REGENERATION, CHOLESTATIC INJURY, AND CANCER

Symposium

TUES. 2:00 PM—SAN DIEGO CONVENTION CENTER, ROOM 5A

CHAIR: S. GLASER

COCHAIR: L. WANG

Liver Pathobiology

Neoplasia

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Cell and Tissue Injury

In Conjunction with the Molecular and Cellular Basis of Cancer Program

2:00 415.1 Hepatocyte Specific Knockout of MicroRNA-21-5p Alleviates Acetaminophen-Induced Hepatotoxicity by Activation of Autophagy. C. Xu, L. Wang. Department of Physiology & Neurobiology and University of Connecticut.

2:15 415.2 Acetaminophen-Induced Liver Injury in Mice Can Be Alleviated by Reducing Hepatic TGFβ1 Signaling. M. McMillin, S. Grant, G. Frampton, J. Kain, A. Petrescu, E. Williams, S. DeMorrow. Central Texas Veterans Health Care System.


3:00 415.5 Upregulation of Stromal-Derived Factor-1 by Hypoxia Requires Hypoxia-Inducible Factor-1α and Transforming Growth Factor-1. J.D. Strickland, D. Garrison, B. Copple. Michigan State University.


4:00 415.9 Treatment of a Mouse Model of Cholestasis with a Thyromimetic Improves Biliary Injury but Exacerbates Hepatocyte Injury. K. Kosar, K. Nejak-Bowen. University of Pittsburgh School of Medicine and University of Pittsburgh.


Pharmacology

418. JULIUS AXELROD AWARD IN PHARMACOLOGY LECTURE

Lecture
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A

Award Lectures
Cell Signaling, Signal Transduction

The Julius Axelrod Award was established in 1991 to honor the memory of the eminent American pharmacologist who shaped the fields of neuroscience, drug metabolism, and biochemistry and who served as a mentor for numerous eminent pharmacologists around the world. The Axelrod Award is presented for significant contributions to understanding the biochemical mechanisms underlying the pharmacological actions of drugs and for contributions to mentoring other pharmacologists.

8:30 Introduction.
8:35 Unraveling the Molecular and Structural Determinants of GPCR Functional Selectivity; Potential for Drug Discovery. M. Bouvier. Université de Montréal.

419. JULIUS AXELROD SYMPOSIUM: THE PLURIDIMENSIONALITY OF G PROTEIN-COUPLED RECEPTOR (GPCR) SIGNALING

Symposium
TUES. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16A
CHAIR: M. Bouvier

COCHAIR: A. Salahpour

Cardiovascular

Drug Discovery and Development

Neuroscience

9:30 Introduction. A. Salahpour. Univ. of Toronto.
10:08 Study of the Biased Signaling and Trafficking of the Angiotensin II Type 1 Receptor. S. Laporte. McGill Univ.—MUHC.
11:04 Genome-Wide CRISPR Screens Reveal Wnt-Frizzled Functional Selectivity in Pancreatic Cancer. S. Angers. Univ. of Toronto.
11:32 GRKs and Arrestins-Based Bias in the Neuronal Function of GPCRs. M. Caron. Duke Univ.

420. ‘BATH SALTS’: THE EVER-CHANGING LANDSCAPE OF SYNTHETIC CATHINONES

(Sponsored by: La Jolla Alcohol Research, Inc.)

Symposium
(Con-Sponsored by: ASPET Division for Behavioral Pharmacology (BEH))
TUES. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 16B
CHAIR: S. Kohut

COCHAIR: M.A. Taffe

Behavioral Pharmacology

Neuroscience

Toxicology

10:05 In Vivo Pharmacology of Novel Synthetic Cathinones. M. Gatch. Univ. of North Texas Health Science Ctr.
10:50 Neurochemical Deficits Induced by Synthetic Cathinones. A. Fleckenstein. Univ. of Utah.
11:20 Reinforcing Effects of Novel Synthetic Cathinones and Their Mixtures. G. Collins. Univ. of Texas Health Science Ctr. at San Antonio.

421. CAN METABOLIC VULNERABILITIES IN TUMORS BE THERAPEUTICALLY EXPLOITED?

Symposium
(Sponsored by: ASPET Division for Cancer Pharmacology (DCP))
TUES. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15A
CHAIR: S. Cole

COCHAIR: K. van de Wetering

Cancer and Therapy

Metabolism and Metabolic Disease

Molecular Pharmacology

Translational and Clinical Pharmacology

9:30 Modulating the Oncogenic Phenotype with Metabolites. G. Sluzdak. The Scripps Research Inst.


11:34 Raloxifene Compromises Mitochondria, Induces ROS Stress and the Unfolded Protein Response, and Synergizes Gemcitabine’s Cytotoxicity in Pancreatic Cancer Cells. H. True, J. Trinh, Q. Love, A. Badejo, D. Rao, A. Malhotra. School of Pharmacy, Pacific University, College of Arts and Sciences and Pacific University. (835.6)


422. CHALLENGES AND PROMISES OF CNS ORPHAN DRUG DEVELOPMENT: STORIES FROM BENCH TO CLINIC

Symposium
(Sponsored by: ASPET Division for Translational and Clinical Pharmacology (TCP))

TUES. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 15B

CHAIR: D. Davies

COCHAIR: J. Paul

Translational and Clinical Pharmacology

Neuroscience

Drug Discovery and Development

9:30 Regulatory Considerations in Orphan Drug Development. E. Pacifici. Univ. of Southern California Sch. of Pharmacy.


10:45 Translating Breakthrough Science Discoveries into Novel Therapeutics for Rett Syndrome (RTT) R. Carpenter. RETT Syndrome Research Trust.


423. THERE’S ALWAYS ROOM FOR DESSERT: EXAMINING THE EFFECT OF INSULIN AND HIGH FAT DIET ON NEUROTRANSMISSION, MOTIVATION AND COGNITION

Symposium
(Sponsored by: ASPET Division for Neuropharmacology (NEU))

TUES. 9:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 17A

CHAIR: C. Ferrari

COCHAIR: L. Reagan

Neuroscience

Nutrition/Obesity

Metabolism and Metabolic Disease

Inflammation/Immunity


10:05 Fighting Fat with Fat: Dietary Supplementation with Omega-3 Fatty Acids Prevents and Reverses High Fat Diet-Induced Enhanced Sensitivity to the Behavioral Effects of Dopaminergic Drugs. K. Serafine. Univ. of Texas at El Paso.


424. ASPET DAILY DATABLITZ

Poster Discussion

TUES. 1:00 PM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

ASPET POSTER DISCUSSION AREA BOOTH #820

CHAIR: A. Mughal

Experience the daily ASPET datablitz, a rapid-fire oral presentation of research in the ASPET poster discussion lounge in the poster hall. These brief snippets of research are an introduction to their full presentations that will take place at their poster boards afterwards. You won’t want to miss this fast-paced overview of the most exciting science of the day.

1:00 Pharmacokinetic Modeling of Acetylcholine-Induced Contraction of Mouse Trachea. C.M. Kieffer. Creighton University School of Medicine. (834.1)


Synergistic Effect of Combined Inhibition of the Checkpoint Kinase 1 and G9a Methyltransferase Pathways in Pancreatic Cancer. G. Urrutia, A. Salmonson, G. Lomberk. Medical College of Wisconsin. (835.1)

Break.

Influence of Liver-Specific Ablation of gp78 E3-Ligase on Hepatic Cytochrome P450-Dependent Drug Metabolism: Clinical Implications. D. Kwon, S-M. Kim, M.A. Correia. University of California, San Francisco. (833.1)


Relaxation of Porcine Isolated Irides by Novel Hydrogen Sulfide-Releasing Compounds. J. Robinson, L. Mitchell-Bush, M. Whiteman, C. Opere, S. Ohia, Y. F. Njie-Mbye. Texas Southern University, University of Exeter Medical School, United Kingdom and Creighton University. (829.1)


Protein Kinase Cβ Inhibitors Attenuate Amphetamine-Stimulated Behaviors Through Direct and Indirect Mechanisms in Different Brain Regions. R. Altschuler, M. Gnegy, E. Jutkiewicz. University of Michigan. (820.2)

Discussion.

1:20 Synergistic Effect of Combined Inhibition of the Checkpoint Kinase 1 and G9a Methyltransferase Pathways in Pancreatic Cancer. G. Urrutia, A. Salmonson, G. Lomberk. Medical College of Wisconsin. (835.1)

2:35 Sex Differences in Drug Metabolism: From Steroids and P450s to Transcription Factors and Chromatin States. D. Waxman. Boston Univ. Sch. of Med.

2:40 Hypoxic Stimulation of Vasoreparative Functions in Human CD34+ Cells Is Mediated by Angiotensin Converting Enzyme-2 and Mas Receptor. S. Joshi, E. Leclerc, Y. Jarajapu. North Dakota State University. (699.5)


3:05 Apelin and Acetylcholine Activate Distinct Nitric Oxide Signaling Pathways to Cause Endothelium-Dependent Relaxation of Isolated Coronary Arteries. A. Mughal, C. Sun, S.T. O’Rourke. North Dakota State University. (699.4)

3:20 Calcium/calmodulin-Dependent Protein Kinase II (CaMKII) Signaling in Cardiomyocytes Initiates Inflammatory Responses Required for Adverse Cardiac Remodeling in Response to Pressure Overload. T. Suetomi, A. Willeford, M. Li, S. Miyamoto, J. Heller Brown. University of California and San Diego. (698.4)
3:35 Protective RhoA Signaling Regulates DRP1 and Mitochondrial Fission in Cardiomyocytes. **C.S. Brand, V.P. Tan, J. Heller Brown, S. Miyamoto.** University of California and San Diego. (833.3)

3:50 GPER Attenuates Angiotensin II-Induced Oxidative Stress via cAMP-Mediated Regulation of NOX4. **B.O. Ogola, M.A. Zimmerman, V.N. Sure, P.V. G. Katakam, S.H. Lindsey.** Tulane University. (700.1)

4:05 Conclusion.

**427. COMPUTATIONAL APPROACHES TO G PROTEIN-COUPLED RECEPTOR STRUCTURE AND FUNCTION**

Symposium

(Sponsored by: British Pharmacological Society (BPS))

(Cosponsored by: ASPET Division for Drug Discovery and Development (DDD))

TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 17A

CHAIRED: E. KELLY

COCHAIR: A. CONIBEAR

Drug Discovery and Development

Emerging Technologies

Metabolism and Metabolic Disease

3:30 Introduction.

3:35 X-Ray Structures of GPCRs Provide Insights into New Binding Sites for Drug Discovery. **J. Mason.** Heptares Therapeutics Ltd.

4:00 Molecular Simulation and Machine Learning for the Design of Finely Tuned Drugs. **R. Dror.** Stanford Univ.


4:50 Computational Medicinal Chemistry Approaches to GPCR Drug Discovery. **C. de Graaf.** VU Univ. Amsterdam.

5:15 Probing GPCR Cell Biology by Quantitative Proteomics. **M. von Zastrow.** Univ. of California, San Francisco.

5:40 Panel discussion.

**428. DIVISION FOR DRUG METABOLISM AND DISPOSITION GILLETTE AWARDS AND JUNIOR INVESTIGATOR PLATFORM SESSION**

Symposium

(Sponsored by: ASPET Division for Drug Metabolism and Disposition (DMDD))

TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16B

CHAIRED: N. ISOHERRANEN

COCHAIR: X. DING

Drug Metabolism and Disposition

3:30 Cell-Specific Role of Aryl Hydrocarbon Receptor in Liver Fibrosis. **J. Yan, W. Xie.** University of Pittsburgh. (563.7)


4:09 In Vitro Evaluation of the Hepatic Disposition of Colistin. **B. Qi, I. Spriet, J. Wauters, P. Annaert.** Katholieke Universiteit Leuven, Belgium. (693.10)

4:22 Multidrug Resistance Protein 4 (MRP4), a Drug Transporter Is a Novel Genetic Determinant for Adipogenesis. **A.C. Donepudi, J.E. Manautou.** University of Connecticut. (693.3)


CRISPR/Cas9 GeneticModification of CYP3A5 *3 in HuH-7 Human Hepatocyte Cell Line Leads to Cell Lines with Increased Midazolam and Tacrolimus Metabolism. **C. Dorr.** Minneapolis Medical Research Foundation at Hennepin County Medical Ctr.

Interaction of 2,4-Diaminopyrimidine Containing Drugs Including Fedratinib and Trimethoprim with Thiamine Transporters. **M. Giacomini.** Gilead Sciences.

**429. DIVISION FOR MOLECULAR PHARMACOLOGY POSTDOCTORAL AWARD COMPETITION AND KEYNOTE ADDRESS**

Symposium

(Sponsored by: ASPET Division for Molecular Pharmacology (MP))

TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 15B

CHAIRED: L. HAZELWOOD

COCHAIR: H. DOHLMAN

Molecular Pharmacology

3:30 Introduction.

3:35 Drugging Undruggable Targets with Macro cyclic Peptides. **D. Pei.** The Ohio State Univ.

4:25 CRISPR/Cas9-Mediated Knockout of G Proteins and β-Arrestins Determines Transducer Specific Contributions to Dopamine D1 Receptor Signaling. **M.K. Jain, A.N. Nilson, D.E. Felsing, A. Inoue, J.A. Allen.** The University of Texas Medical Branch and Tohoku University, Japan. (827.7)

An Automated Live-Cell Microscopy System for Drug Profiling and Screening. **E.C. Greenwald, R. Wollman, J. Zhang.** University of California, San Diego, University of California, Los Angeles. (690.3)

5:55  Conclusion.

430. NOVEL GENETIC-BASED TOOLS FOR TOXICITY SCREENING, PRECISION MEDICINE, AND MODE OF ACTION ANALYSIS

Symposium

(Sponsored by: ASPET Division for Toxicology (TOX))

TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 15A

CHAIR: A. HARRILL

COCHAIR: B. CUMMINGS

Toxicology

3:30  Novel Methods for Rapid Assessment of Toxicant-Induced Changes in DNA Methylation: Alternatives to Pyrosequencing and Methyleome Analysis. B. Cummings. Univ. of Georgia.


5:35  Genome Wide and Targeted CRISPR Functional Approaches in Toxicology. C. Vulpe. Univ. of Florida.

431. HOT TOPICS IN CARDIOVASCULAR PHARMACOLOGY

Symposium

(Sponsored by: ASPET Division for Cardiovascular Pharmacology (CVP))

TUES. 4:10 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A

CHAIR: W.J. KOCH

COCHAIR: S. LINDSEY

Cardiovascular

4:10  PAR1 and p38 MAPK Regulation of Endothelial Pro-Inflammatory Responses. C. Rada, N. Grimsey, I. Canto, H. Mejia-pena, J. Trejo. University of California and San Diego. (837.11)

4:23  Deletion of Rap1 Increases Atherosclerosis Development in ApoE Mice by Increasing Macrophage Infiltration and Foam Cell Formation. X. Chen, A. Xu, E. H. C. Tang. The University of Hong Kong, People’s Republic of China. (568.4)

4:36  Carvedilol Uniquely Stimulates βarrestin2-Dependent SERCA2a Activity via the β1-Adrenergic Receptor to Exert Positive Inotropy in Cardiac Myocytes. B.M. Parker, K.A. McCrink, A. Brill, J. Maning, V.L. Desimine, Y. Duarte, S.L. Wertz, A. Lymperopoulos. Nova Southeastern University. (839.12)


432. PAUL M. VANHOUTTE DISTINGUISHED LECTURESHIP IN VASCULAR PHARMACOLOGY

Lecture

(Sponsored by: ASPET Division for Cardiovascular Pharmacology (CVP))

TUES. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 16A

Cardiovascular

Award Lectures

The Paul M. Vanhoutte Distinguished Lectureship in Vascular Pharmacology was established to honor Dr. Vanhoutte’s lifelong scientific contributions to our better understanding and appreciation of the importance of endothelial cells and vascular smooth muscle function in health and disease and for his mentoring of countless prominent endothelial and vascular biologists and pharmacologists.

5:30  Presentation of Awards.

5:34  Introduction of Dr. Miller.


6:02  Introduction of Dr. Michel.

6:05  Life History of eNOS. T. Michel. Brigham and Women’s Hosp., Harvard Medical Sch.
Physiology

433. HALLMARKS OF GROUND RULES FOR PRODUCTIVE COLLABORATIONS IN SCIENCE. PREVENTING AND MANAGING CONFLICT.

Symposium
(Sponsored by: APS Careers in Physiology Committee)
TUES. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: J. BRANDAUER
COCHAIR: B. BECKER

Career and Professional Development
7:00 Preventing and managing conflict. I. Zucker. Univ. of Nebraska Med. Ctr.
7:20 Preventing and managing conflict. C. Moreno Quinn. MedImmune, Cambridge, UK.
7:40 Panel discussion.

434. 2018 MENTORING SYMPOSIUM: RECOGNIZING AND RESPONDING TO IMPLICIT BIAS IN SCIENCE II

Symposium
(Sponsored by: APS Women in Physiology Committee)
TUES. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: D. AL ALAM
COCHAIR: K. WALLACE AND D.H. HO

Diversity in Science
Career and Professional Development
7:00 Surviving and thriving in the post-Weinstein world. Gretchen Dahlinger Means. Univ. of Southern California.
7:30 General discussion.

435. DO IT AGAIN: HOW TO ACHIEVE RIGOROUSLY REPRODUCIBLE RESEARCH III

Symposium
(Sponsored by: APS Trainee Advisory Committee)
TUES. 7:00 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: R. DOWNEY
COCHAIR: I. OBI

Career and Professional Development
7:00 Publishing reproducible research: ensuring that editors, reviewers, and readers have confidence in your findings. Kim Barrett. UCSD Sch. of Med.

436. MOLECULAR MECHANISMS FOR SALT-INDUCED CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: Cell and Molecular Physiology Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 24AB
CHAIR: A. KIRABO
COCHAIR: N. RUGGERI BARBARO

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
Cardiovascular
Metabolism and Metabolic Disease
8:30 Salt, inflammation, and NKCC2. Steven Crowley. Duke University School of Medicine.
9:00 Renal nerves and renal inflammation in salt-induced hypertension: Afferent or efferent? John Osborn. University of Minnesota.

437. NEUROPLASTICITY OF AIRWAY REFLEXES

Symposium
(Sponsored by: Respiration Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 26AB

Neuroscience
8:30 Plasticity of nociceptive signaling from the airways. Thomas Taylor-Clark. University of South Florida.
9:36 The importance of spinal pathways in the regulation of swallow. Teresa Pitts. Unversity of Louisville.
438. MECHANISMS UNDERLYING SKELETAL MUSCLE ADAPTATION IN HEALTH AND DISEASE

Symposium
(Sponsored by: Endocrinology and Metabolism Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: C. LANG
COCHAIR: P. MOLINA

Metabolism and Metabolic Disease
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
Nutrition/Obesity

8:30 Impact of impaired stem cell differentiation on alcohol-induced muscle wasting. Liz Simon. LSU Health Science Ctr.
9:00 Proteasomal activation in remodeling muscle during aging and disuse. Sue Bodine. University of Iowa.

439. NEURO-IMMUNE INTERACTIONS IN INFLAMMATORY HOMEOSTASIS

Symposium
(Sponsored by: Neural Control and Autonomic Regulation Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC
CHAIR: P. MARVAR

Inflammation/Immunity
Neuroscience

8:30 Inflammatory homeostasis: A role for MAMPs, DAMPs and microRNA. Monika Fleshner. University of Colorado Boulder.
9:00 CNS immune activation and effects on mesolimbic dopamine in a non-human primate model of peripheral cytokine-induced depression. Jennifer Feiger. Emory.

440. TISSUE-DISTRIBUTED CONTROL OF SEX DIFFERENCES IN DIABETES AND CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: Integrative Physiology Symposium Series)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: J.M. STAFFORD

Cardiovascular
Nutrition/Obesity

8:30 Sex differences in adipose tissue growth and remodeling contribute to metabolic risk. Susan Fried. Ichan Sch. of Med. at Mount Sinai.
8:52 Estrogen mediated cardioprotection. Elizabeth Murphy. NHLBI, NIH.

441. THE EFFECTS OF ENVIRONMENTAL CHALLENGES ON PERFORMANCE AND METABOLISM

Featured Topic
(Sponsored by: Comparative & Evolutionary Physiology Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIR: C. WILLIAMS
COCHAIR: A. HINDLE

Metabolism and Metabolic Disease

8:30 From lab to field and into the future, gaining insights into environmental and physiological drivers of crocodilian performance. Craig Franklin. The University of Queensland.
9:30 Glucose Metabolism After Sleep Restriction, Total Sleep Deprivation, and Recovery. E-M. Elmenhorst, E. Hennecke, D. Lange, J. Frönczek, A. Bauer, D. Elmenhorst, D. Aeschbach. German Aerospace Center (DLR), Germany and Research Center Jülich, Germany. (859.12)


442. GETTING BLOOD TO WHERE IT NEEDS TO GO: EMERGING MECHANISMS REGULATING SKELETAL MUSCLE BLOOD FLOW IN HEALTH AND DISEASE

Featured Topic
(Sponsored by: Environmental and Exercise Physiology Section)

TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: S. Romero
COCHAIR: C. Hearon

Cardiovascular

Metabolism and Metabolic Disease

8:30 Mechanisms of Age-Related Compensatory Vasodilation: Insight from Passive Leg Movement. J.D. Trinity, R.M. Broxterman, J.R. Gifford, O.S. Kwon, J.R. Hydren, A.C. Kithas, A.D. Nelson, D.E. Morgan, J.E. Jessop, A. Bledsoe, R.S. Richardson. Salt Lake City VA Medical Center and University of Utah. (726.7)

8:45 Augmented Skeletal Muscle Vasodilation to Intravascular ATP During Exercise and Systemic Hypoxia in Humans. J.D. Terwood, M.L. Racine, C.M. Hearon; Jr., J.C. Richards, G.J. Luckasen, M.J. Joyner, F.A. Dinanno. Colorado State University, University of Colorado Health and Mayo Clinic and Foundation. (726.3)

9:00 Endothelium Mediated Dilation Does Not Blunt α1-adrenergic Vasoconstriction in First Order Arterioles. B.S. Ferguson, E. Kozina, M.A. Hill, R.S. Clifford. University of Illinois at Chicago and University of Missouri. (726.5)


443. INTERROGATING NEURONAL CIRCUITS MEDIATING BODY FLUID HOMEOSTASIS

Featured Topic
(Sponsored by: CNS Section)

TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: E. Krause
COCHAIR: L.A. Wang

Neuroscience

8:30 Salt and the NTS. Brad Lowell. Harvard.


9:30 Prefrontal Cortical Regulation of Chronic Stress-Induced Cardiovascular Susceptibility. B. Myers, D. Schaeuble, A.E. B. Packard, J.M. McKleven, R.L. Morano, S. Fourman, B.L. Smith, J.R. Scheimann, B.A. Packard, S.P. Wilson, J. James, D.Y. Hui, Y.M. Ulrich-Lai, J.P. Herman. Colorado State University, University of Cincinnati, University of South Carolina and Cincinnati Children's Hospital Medical Center. (598.11)


444. ADVANCES IN RENAL PHYSIOLOGY II

Featured Topic
(Sponsored by: Renal Section)

TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: E. Inscho
COCHAIR: J. Nespoux

8:45 Bowman's Capsule Corrected: Undiscovered Vascular Chambers in the Renal Glomerulus. D.O. Bates, K.P. Arkill, J.S. Bell, C.P. Winlove, S.J. Harper, C.R. Neal. University of Nottingham, United Kingdom, University of Exeter, United Kingdom and University of Bristol, United Kingdom. (721.22)

9:00 The Role of Renal Vascular Reactivity in the Development of Renal Dysfunction During the Phase of Compensated and Decompensated Congestive Heart Failure. V. Kratky, L. Kopkan, J. Sadowski, L. Cervenka. Institute for Clinical and Experimental Medicine, Czech Republic, Mossakowski Medical Research Centre and Polish Academy of Science, Poland. (721.4)


445. ENDOTHELIAL CELL CONTRACTION OR RETRACTION (INSIGHTS INTO BARRIER FUNCTION AND PERMEABILITY)

Featured Topic
(Sponsored by: Cardiovascular Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 28B
CHAIR: C. WEBB
COCHAIR: C.F. WENCESLAU

Cardiovascular

8:30 Endothelial contractile cytoskeleton and barrier dysfunction. Sarah Yuan. University of South Florida.


9:45 Estrogen Receptor Alpha Mediated Activation of the Endothelial Epithelial Sodium Channel: Role in the Genesis of Arterial Stiffness. C. Manrique, Y. Yang, A. Lising, D. Chen, A. Aroor, J.R. Sowers, M. Hill. University of Missouri. (846.7)

446. NOVEL DISCOVERIES IN VASCULAR PHYSIOLOGY

Featured Topic
(Sponsored by: Cardiovascular Section)
TUES. 8:30 AM—SAN DIEGO CONVENTION CENTER, ROOM 27AB
CHAIR: S. EARLEY

Cardiovascular

8:30 Introduction.

8:35 Parallel Processing of Multiple Stimuli in the Vascular Endothelium. M.D. Lee, C. Wilson, C.D. Saunter, J.M. Girkin, J.G. McCarron. University of Strathclyde, United Kingdom and Durham University, United Kingdom. (843.2)


447. HISTORY OF PHYSIOLOGY GROUP LECTURE

Lecture
(Sponsored by: History of Physiology Group)
TUES. 1:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT GRAND BALLROOM 3-4

448. APS PRESIDENT’S SYMPOSIUM SERIES III. EXOSOMES: THE NEW FRONTIER. EXOSOMES IN DIAGNOSTICS AND THERAPEUTICS

Symposium
President’s Symposium Series
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 20A
CHAIR: J.C. JONES

Cancer and Therapy
Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)
Emerging Technologies

2:00 Exosomes as liquid biopsies for disease diagnosis. Jhan Skog. Exosome Diagnostics Inc.
2:30 Stem cell derived exosomes for tissue regeneration. Johnathon Anderson. Univ. of California—Davis Medical Center.

449. STEROID RECEPTOR SIGNALING IN CARDIOVASCULAR HEALTH AND DISEASE

Symposium
(Sponsored by: Cardiovascular Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: M. HAMBLIN
COCHAIR: J. CLAYTON

Cardiovascular

1:30 Estrogen-dendrimer conjugate protection against cardiac ischemic-reperfusion injury is ablated in mice with endothelial-specific loss of ER-alpha. Elizabeth Murphy. National Heart Lung and Blood Institute.
1:52 Crucial role of mitofilin and cyclophilin D interaction in post-ischemic GPER1-induced cardioprotection against ischemia-reperfusion injury. Jean Bopassa. University of Texas Health Science Center at San Antonio.
2:14 The role of aldosterone-mineralocorticoid receptor activation in pulmonary vascular remodeling and right ventricular dysfunction in pulmonary hypertension. Jane Leopold. Brigham and Women’s Hospital.
2:36 Mineralocorticoid receptors in vascular function and CVD. Iris Jaffe. Tufts University Medical Center.

450. STRUCTURE AND FUNCTION OF RENAL EPITHELIAL CILIA

Symposium
(Sponsored by: Renal Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28DE
CHAIR: P.D. BELL
COCHAIR: D. ILATOVSKAYA

Metabolism and Metabolic Disease

1:30 Mechanosensitive differentiation of proximal tubule cells. Ora Weisz. Univ. of Pittsburgh.
2:00 Dietary interventions in polycystic kidney disease: taking advantage of metabolic defects for therapy. Thomas Weimbs. Univ. of California, Santa Barbara.

451. SYMPATHETIC NEUROVASCULAR TRANSDUCTION IN HUMANS: ARE WE THERE YET?

Symposium
(Sponsored by: Neural Control and Autonomic Regulation Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B
CHAIR: J.K. SHOEMAKER

Neuroscience

2:30 From one generation to the next: differential distribution of sympathetic receptors in skeletal muscle microvasculature. Baraa Al-Khazraji. Western University.
452. MOLECULAR TRANSDUCERS OF THE PHYSIOLOGICAL ADAPTATIONS TO EXERCISE AND AGING

Symposium
(Sponsored by: Environmental and Exercise Physiology Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C
CHAIRMED: D.R. SEALS
COCHAIRMED: C.R. MARTENS

Cardiovascular
Inflammation/Immunity
Metabolism and Metabolic Disease

1:40 Molecular mechanism of reversal of age-related decline of muscle mitochondria in humans. Sreekumaran (Sree) Nair. Mayo Clinic.
2:00 Inter-individual response heterogeneity: a window into molecular transducers of exercise adaptation. Marcas Bamman. University of Alabama Birmingham.
2:40 Epigenetic patterns with aging and exercise are associated with indicators of healthspan in humans. Christopher Martens. University of Delaware.

453. THE VASCULOME: AN INTEGRATED EXPLORATION OF VASCULAR REACTIVITY, LINEAGE, AND SPECIALIZATION

Symposium
(Sponsored by: Cardiovascular Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIRMED: Z. GALIS
COCHAIRMED: L. YIN

Cardiovascular

1:40 Why we need the vasculome: Lessons from the coronary circulation. William Chilian. Northeast Ohio Medical University.
2:40 Panel discussion.

454. PHYSIOLOGICAL ADAPTATIONS TO HYPOXIA: FROM MOUNTAIN TOP TO OCEAN BOTTOM

Featured Topic
(Sponsored by: Hypoxia Group)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB
CHAIRMED: M.B. HARRIS
COCHAIRMED: E.A. MOYA

Inflammation/Immunity
Metabolism and Metabolic Disease
Cardiovascular

1:30 Lahiri-Cherniak Lecture of the APS Hypoxia Interest Group. William Milsom. Univ. of British Columbia.
2:15 Mechanisms of Neuroprotection Against Oxidative Stress in the Anoxia Tolerant Turtle Trachemys scripta. M. Reiterer, S.L. Milton. Florida Atlantic University. (858.6)
2:30 High Altitude Hypoxia Impacts Omega-3 Fatty Acid Metabolites in Plasma of Fetal and Newborn Sheep. V. Lopez, M. La Frano, R. Bosviel, J. Newman, R. Thorpe, O. Feilh, L. Zhang, S.M. Wilson. Occidental College Los Angeles, California Polytechnic State University, University of California, Davis, Loma Linda University School of Allied Health Professions and Loma Linda University School of Medicine. (858.5)
2:45 Sweet Success: Metabolic Substrate Adaptations to Acute Hypoxia in the Naked Mole Rat (Heterocephalus glaber). M.E. Pamenter, A.M. Kirby, A.J. Shuhendler. University of Ottawa, Canada. (858.8)

455. EPITHELIAL MECHANO-SENSITIVITY IN HEALTH AND DISEASE

Featured Topic
(Sponsored by: Cell and Molecular Physiology Section)
TUES. 1:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIRMED: A. BEYDER
COCHAIRMED: F. CHEBIB

Neuroscience

2:15 Role of the Mechanosensitive Ion Channel Piezo1 in Autosomal Dominant Polycystic Kidney Disease (ADPKD). F. Chebib, A. Beyder, X. Wang, C. Alcaino, B. Ehrlich, V. Torres. Mayo Clinic and Yale University. (868.2)
2:30 Piezo2 Mechanosensitive Ion Channel Role in Primary Enterochromaffin (Ec) Cell Mechanosensitivity. C. Alcaino, K. Knutson, G. Yildiz, D. Linden, J.H. Li, A. Leiter, G. Farrugia, A. Beyder. Mayo Clinic and University of Massachusetts Medical School. (868.3)
456. GI AND LIVER PHYSIOLOGY AND DISEASE

TUESDay Physiology

Featured Topic

(Sponsored by: GI and Liver Physiology Section)

Tues. 1:30 PM—San Diego Convention Center, Room 23ABC

Chair: M. Frey

Nutrition/Obesity

Inflammation/Immunity

Emerging Technologies

1:30 Colonic Bile Acids Regulate Epithelial Wound Healing. N.K. Lajczak, M.S. Mroz, B. Goggins, S. Keely, S.J. Keely. Royal College of Surgeons in Ireland, Ireland, School of Biomedical Sciences and Pharmacy and University of Newcastle, Australia. (873.15)


2:00 Tofacitinib Inhibits Intestinal Epithelial Jak-Stat Signaling and Prevents Barrier Dysfunction Induced by Interferon-Gamma (IFN-γ). A. Sayoc, R. Preciado, M. Krishnan, D.F. McCole. University of California, Riverside. (873.20)

2:15 Helicobacter pylori Alters the Expression of Circadian Clock Components Per2 and Bmal1 During Infection. E.L. Teal, J. Li, J.L. Chakrabarti, N. Steele, D. Rosselot, N. Sundaram, J. Hawkins, C. Hong, M.A. Helmrath, T.L. Diwan, Y.L. Zavros. University of Cincinnati, University of Michigan and Cincinnati Children’s Hospital Medical Center. (873.21)

2:30 Enteric Neuroinflammation Driven by Exposure to Pyridostigmine Bromide Is a Possible Contributing Factor to Gulf War Illness. S. Hernandez-Rivera, V. Grubišić, D. Fried, B.D. Gulbransen. Michigan State University. (871.1)


457. CELL PLASTICITY: CALCIUM, CAMP AND BEYOND

Featured Topic

(Sponsored by: Respiration Section)

Tues. 1:30 PM—San Diego Convention Center, Room 25B

Chair: D. Mehta

Nutrition/Obesity

Inflammation/Immunity

Metabolism and Metabolic Disease

1:30 New insights into STIM-ORAI-dependent calcium signalling. Patrick Hogan, La Jolla Inst. for Allergy and Immunol.

458. ORIGINS OF CARDIOVASCULAR DISEASE: DOES METABOLIC DISEASE ALWAYS COME FIRST?

TUESDay Physiology

Featured Topic

(Sponsored by: Water and Electrolyte Homeostasis Section)

Tues. 1:30 PM—San Diego Convention Center, Room 27AB

Chair: F.T. Spradley

CoChair: A. Souza

Nutrition/Obesity

Metabolism and Metabolic Disease


2:45 AMPK as a Metabolic Sensor Regulates Inflammatory Response During Ischemic Insults. J. Li, X. Chen, C. Cates, T. Rousselle, X. Li. University of Mississippi Medical Center. (906.9)

459. RESPIRATORY AND LIMB SKELETAL MUSCLE WEAKNESS IN DISEASE AND AGING: MECHANISMS AND TREATMENTS

Symposium
(Sponsored by: Environmental and Exercise Physiology Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25C

Reactive oxygen species and diaphragm contractile dysfunction in heart failure and aging. Leo Ferreira. University of Florida.

3:50 Mechanisms of diaphragm dysfunction in the critically ill. Coen Ottenheijm. VU University Medical Center Amsterdam.


460. HEBERT LECTURE OF THE EPITHELIAL TRANSPORT GROUP

Featured Topic
(Sponsored by: Epithelial Transport Group)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25A
CHAIR: A.R. SUBRAMANYA

Metabolism and Metabolic Disease
Emerging Technologies

3:30 Potassium diet and blood pressure. Alicia McDonough. USC.

4:00 The β-Adrenergic Stimulation of the Renal NaCl Cotransporter Is Mediated via a cAMP-Dependent Activation of Protein Phosphatase 1 Inhibitor 1. D. Penton Ribas, S. Moser, A. Wengi, J. Czogalla, L.L. Rosenbaek, N. Faresse, R. Fenton, D. Loffing-Cueni, J. Loffing. University of Zurich, Switzerland and Aarhus University, Denmark. (624.23)

4:15 Collecting-Duct-Principal-Cell-Select Knockout (KO) of the Mechanistic-Target-of-Rapamycin (mTOR) Alters Sodium and Acid/base Homeostasis. M.B. Fluit, A.L. Brown, S. Tiwari, L. Li, C.M. Ecelbarger. Georgetown University and Sanjay Gandhi Post-Graduate Institute of Medical Sciences, India. (624.26)

Characterization of P2RX7 Knockout in PCK (Polycystic Kidney) Rats. S.N. Arkhipov, D. Potter, A.M. Geurts, T.S. Pavlov. Henry Ford Health System and Medical College of Wisconsin. (624.5)


461. EXERCISE AND SKELETAL MUSCLE AS KEY REGULATORS OF WHOLE BODY AGING

Featured Topic
(Sponsored by: Muscle Biology Group)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 22
CHAIR: M. JACKSON
COCHAIR: S. BROOKS

Metabolism and Metabolic Disease
Nutrition/Obesity


462. CELL SIGNALING: PROTEINS, PATHWAYS, AND MECHANISMS

Featured Topic
(Sponsored by: Cell and Molecular Physiology Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28A
CHAIR: K.L. HAMILTON
COCHAIR: M. HELMS

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

3:30 Functional selectivity of GPCR-directed drug action through location bias. Roshanak Irannejad. UC—San Francisco.


4:15 Matrix Metalloproteinase Inhibitors Attenuate Doxorubicin-Induced Heart Failure by Preventing Cardiac Titin Proteolysis. B. Chan, A. Roczkowsky, M. Poirier, N. Moser, R. Ilarraza, H. Granzier, R. Schulz. University of Alberta, Canada and University of Arizona. (864.10)


4:45 Mechanisms of CO2-Dependent Regulation of NFκB Signaling. C.E. Keogh, C.C. Scholz, J. Rodriguez, A.C. Selfridge, A. von Kreigsheim, E.P. Cummins. School of Medicine and Medical Science at University College Dublin, Ireland, Institute of Physiology, University of Zürich, Switzerland and Edinburgh Cancer Research Centre, United Kingdom. (864.4)

464. BATTLE OF THE REFLEXES: CHEMO-VERSUS BAROREFLEXES DURING PHYSIOLOGICAL STRESSORS, AGING AND CARDIOVASCULAR DISEASE

Featured Topic
(Sponsored by: Neural Control and Autonomic Regulation Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 28B
CHAIR: M. KELLAWAN
COCHAIR: M. NELSON

Cardiovascular

Neuroscience

3:30 Effects of diabetes on the exercise pressor reflex. Audrey Stone. University of Texas Austin.

4:00 Neural Responses to Mechanical Stimulation in Thin Muscle Afferents and Dorsal Root Ganglia Are Sensitized by Insulin. N. Hotta, K. Katanosaka, K. Mizumura, J.H. Mitchell, S.A. Smith, M. Mizuno. Chubu University, Japan and The University of Texas Southwestern Medical Center. (884.1)


4:30 High Intensity Muscle Metaboreflex Activation Blunts Cardiopulmonary Baroreflex Control of Sympathetic Vasomotor Outflow. K. Katayama, J. Kaur, B.E. Young, T.C. Barbosa, S. Ogho, P.J. Fadel. Nagoya University, Japan, The University of Texas at Arlington and Toyo University, Japan. (884.3)


463. AUGUST KROGH DISTINGUISHED LECTURESHIP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION (SUPPORTED BY NOVO NORDISK FONDEN)

Lecture
(Sponsored by: Comparative & Evolutionary Physiology Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 26AB

Cardiovascular

3:30 Anuran amphibians as models for understanding extreme dehydration tolerance. Stanley Hillman. Portland State Univ.
465. ADAPTATIONS IN FLUID BALANCE AND BLOOD PRESSURE REGULATION DURING PREGNANCY

Featured Topic
(Sponsored by: Water and Electrolyte Homeostasis Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 25B
CHAIR: K. DENTON
COCHAIR: L. VEIRAS

Cardiovascular
Salt
Ion Channels and Transporters

3:30 Women's health: adaptations to pregnancy. Vesna Garovic, Mayo Clinic.
4:00 Time Course of Changes in Arterial and Venous Function During Normal and Hypertensive Pregnancies in Humans J-K. Yoo, M.B. Badrov, O. Syed, R.S. Parker, A.S. Stickford, Y. Okada, S.A. Best, B.D. Levine, Q. Fu. The University of Texas Southwestern Medical Center, Institute for Exercise and Environmental Medicine and Texas Health Presbyterian Hospital Dallas. (911.11)

466. HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL AND LIVER PHYSIOLOGY SECTION

Lecture
(Sponsored by: GI and Liver Physiology Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 23ABC

Career and Professional Development
Emerging Technologies
Inflammation/Immunity


467. JULIUS H. COMROE, JR. DISTINGUISHED LECTURESHIP OF THE APS RESPIRATION SECTION

Lecture
(Sponsored by: Respiration Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 24AB


468. ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION

Lecture
(Sponsored by: Cardiovascular Section)
TUES. 3:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 27AB

Cardiovascular


469. APS BUSINESS MEETING

Business Meeting
APS
TUES. 5:30 PM—SAN DIEGO CONVENTION CENTER, ROOM 20A
470. ONE-ON-ONE RESUME CRITIQUE/CV, CAREER COUNSELING, ESSAY PERSONAL STATEMENT ASSESSMENTS

Workshop

WED. 9:00 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Career and Professional Development

One-on-one sessions for CV/resume critiques, career counseling, and essay/personal statement assessments will begin on Saturday, April 21. Sign-up by using the following link, http://bit.ly/EB18SignUp1on1Session.

9:00 One-on-One Sessions. J. Blumenthal, D. Behrens. Montgomery Col., Rockville, MD and Univ. of Maryland
Univ. Col., Adelphi, MD, Univ. of California, Berkeley.