CALL FOR ABSTRACTS

BOSTON 2015

March 28 – April 1 • Boston Convention and Exhibition Center

ANNUAL MEETING OF:

American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

Abstract Deadline: Thursday, November 6, 2014
Experimental Biology 2015 Organizations

Guest Societies Participating Include:

**AAA**
- Anatomical Society (AS)
- International Society of Vertebrate Morphology (ISVM)

**APS**
- American Federation for Medical Research (AFMR)
- Association of Latin American Physiological Societies (ALACF)
- Biomedical Engineering Society (BMES)
- Microcirculatory Society (MCS)
- The Physiological Society (TPS)

**ASBMB**
- Biochemical Society
- Division of Biological Chemistry – American Chemical Society
- Pan-American Association for Biochemistry and Molecular Biology (PABMB)
- Society for Experimental Biology and Medicine (SEBM)

**ASIP**
- American College of Veterinary Pathologists (ACVP)
- American Society for Matrix Biology (ASMB)
- Association of Pathology Chairs (APC)
- The Histochemical Society (HCS)
- Society for Cardiovascular Pathology (SCVP)
- Society for Toxicologic Pathology (STP)
- Società Italiana di Patologia e Medicina Traslazionale/Italian Society of Pathology and Translational Medicine (SIPMeT)

**ASN**
- Academy of Nutrition and Dietetics (AND)
- American Society for Animal Science (ASAS)
- Association of Nutrition Departments and Programs (ANDP)
- Brazilian Society for Food and Nutrition
- Canadian Nutrition Society
- Chinese Nutrition Society
- ILSI North America (ILSI)
- Japan Society of Nutrition and Food Science
- Korean Nutrition Society (KNS)
- Nutrition Society of Taiwan (NST)
- Plant Phenolics and Human Health Research Interest Group (PhenHRIG)
- Society for Nutrition Education and Behavior (SNEB)
- The Nutrition Society UK
- Southern Society for Clinical Investigation (SSCI)

**ASPET**
- Behavioral Pharmacology Society (BPS)
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The Experimental Biology Management Office is located at 9650 Rockville Pike, Bethesda, MD 20814-3998
Tel: 301-634-7010; Fax: 301-634-7014; Email: management@experimentalbiology.org
www.experimentalbiology.org
Experimental Biology is an annual meeting comprised of more than 14,000 scientists representing six sponsoring societies and 33 guest societies. Primary focus areas include anatomy, physiology, biochemistry and molecular biology, investigative pathology, nutrition and pharmacology. EB 2015 is open to all organizing and guest society members and nonmembers with interest in the latest research impacting life sciences. Attendees represent scientists from academic institutions, government agencies, non-profit organizations and industry.

This multidisciplinary, scientific meeting features plenary and award lectures, workshops, oral and posters presentations, on-site career services and exhibits spotlighting equipment, supplies and publications required for research labs and experimental study.

Experimental Biology 2015 offers:
- Access to 6 collective society meetings in one location with one registration fee
- More than 50 concurrent scientific sessions open to all attendees featuring the latest in life sciences disciplines
- Opportunity to meet representatives from over 300 companies on the exhibit floor
- Over 5,000 poster presentations in 4 days of poster sessions
- More than 90 award programs and travel funding opportunities, plus poster competitions (awards vary by society)
- On average, sixty-five countries represented annually creating a diverse audience

Mark your Calendar
Experimental Biology 2015
“Transforming the Future through Science”

March 28 – April 1
Boston Convention and Exhibition Center
415 Summer Street
Boston, MA 02210

Scientific Sessions:
Saturday, March 28 – Wednesday, April 1

Poster Sessions:
Sunday, March 29 – Wednesday, April 1

Exhibits:
Sunday, March 29 – Tuesday, March 31

Contact us at:
Experimental Biology
9650 Rockville Pike
Bethesda, MD 20814-3998

(T) 301-634-7010
(F) 301-634-7014
management@experimentalbiology.org
www.experimentalbiology.org
Career Development Sessions

ANATOMY
- Excellence in Lab, Clinic and Education Mentoring
- Leaning In Without Falling Over: Supporting the Success of Women in Science
- Best Practices for Using Social Media as it Reshapes Academia and the Classroom

PHYSIOLOGY
- Connecting with the Community
- Publishing 101: How to Get Your Work Published and Avoid Ethical Minefields
- Resilience Is Power: Dealing with the Ups and Downs of Your Scientific Career
- Scientists as Supervisors: Hiring, Firing, and Beyond

BIOCHEMISTRY
- ASBMB Graduate and Postdoctoral Professional Development Program
- ASBMB Women Scientists Panel and Networking Reception
- ASBMB Welcome and Networking Reception, sponsored by the ASBMB Minority Affairs Committee
- Diverse Career Opportunities for Scientists
- Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop
- Industry Careers
- Promoting Concept Driven Teaching Strategies in BMB through Concept Assessments
- Training the Mind of an Interdisciplinary Scientist, presented by The Society for Experimental Biology and Medicine

PATHOLOGY
- XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamental Basics for Success: How to Give an Award Winning Presentation
- Career Development Workshop and Breakfast: Mentor Me...PLEASE!!!: Fostering a Productive Relationship with Your Mentor
- NIH Bootcamp: Leadership and Management Training for Postdoctoral Fellows and Advanced Graduate Students
- F TROOP: Roadmap to Fellowship Grant Applications

NUTRITION
- Establishing Yourself as an Expert, organized by the Young Professional Interest Group
- Clinical Emerging Leader Award Competition, organized by the Medical Nutrition Council
- Graduate Student Research Award Competition, organized by the Nutritional Sciences Council
- Global Nutrition Student Poster Annual Competition
- International Student Prize, organized by the Global Nutrition Council, supported by Kellogg
- Postdoctoral Research Award Competition, organized by the Young Professional Interest Group, endowed by DuPont Nutrition & Health
- Young Minority Investigator Oral Competition, organized by the Minority and Diversity Affairs Committee, supported by DSM Nutritional Products

PHARMACOLOGY
- Active Learning: What's Up with That Flipping Classroom?
- Diversity Mentoring Breakfast
- Graduate Student-Postdoctoral Colloquium
- Speed Networking for Careers beyond the Academic Bench

www.experimentalbiology.org
Career Development Sessions (continued)

MARC & Professional Development Programs
• Get Up with Something on Your Mind: Strategic Thinking Tips for Achieving Academic/Career/Personal Success
• Networking: A Required Life Skill
• Goal Setting, Prioritizing, Time and Stress Management
• Striving for EXCELLENCE: Prerequisite for Academic/Career/Life Success
• Making the Case for Graduate School
• Navigating the Protocol, Milestones, and Graduate Degree Requirements
• Developing and Writing the Doctoral Dissertation Proposal
• Overcoming Communication Barriers
• Global Inter Skills: A Practice Workshop for International Candidates
• Job Search in Academia and Industry: Timelines and Effective Strategies
• Negotiation Strategies for Scientists
• Making the Grade: Job Talk/Chalk Talk
• I Said What?!?!?
• Networking: Is it Only Who You Know?
• Attitudes and Behaviors: How Are You Perceived?
• Successful Behaviors for Winning an Interview
• Making the Connection: The Relationship between the Resume, the Interview and the Job
• Your Behavioral CV
• Understanding Search Community & Finding Job Announcements
• Creating Effective CVs, Cover Letters, Research & Teaching Statements
• Nailing the Job Talk & Interview Prep
• Identifying Your Options Using ScienceCareers.org, LinkedIn & More
• Building Your Skills, Networking, and Informational Interviews
• Translating Your Credentials on Paper (CV=Resume) and in Person
• How to Choose your Ideal Career
• Job Hunting in Biotech Part 1 – Finding and Applying for Scientist Positions
• Job Hunting in Biotech Part 2 – Interviewing for Scientist Positions
• Job Hunting in Biotech Part 3 – Compensation Negotiation for Scientist Positions
• But I Have No Skills!
• Talking about Yourself: Interviewing Well
• Transforming your CV
• Developing Your Core Message/“Elevator “Pitch”
• Ten Ways to Get Lucky in the Job Search
• Beyond the Bench: Preparing for your Career Transition in the Life Sciences
• Ten Tough Industrial Interview Questions, (and Ten Pretty Good Responses)
• The CV, the Resume, and the Scientist’s Job Search: Which, When and Why?
• The Industrial Hiring Process: Learn the Nuisances, Get the Offer
• An Interview Tune Up: Putting Your Best Foot Forward When It Really Counts
• Workplace Dynamics
• Management Conflict
• Making Teams Work
• Managing a Lab
• Managing Up
• The Federal Job Hunt
• Training at the NIH
• Careers in Science Education and Outreach

NIH Career Development Programs and Early-Stage Investigators
• NIH Bootcamp: Leadership and Management Training for Postdoctoral Fellows and Advanced Graduate Students
• F Troop: Roadmap to Fellowship Grant Applications
• NIH ‘K’ Awards and NIH ‘F’ Awards
FASEB Career Resources/MARC Program
A service of FASEB Office of MARC & Professional Development Programs, arranged by Experimental Biology 2015

Career Center
The EB 2015/FASEB Career Center will feature:
• Virtual Career Fair (before, during and after the meeting)
• Computer-assisted registration, ‘search-and-referral’ services, interview scheduling and message services
• On-site interview facilities
• ‘Position Available’ posting area
• Career development seminars
• Cover letter and resume critique workshops
• Message center for job-seekers and employers
• Job-Seeker database (year-round job-seeker resume referrals)

Note: Access to the Career Center is FREE to all registered Experimental Biology 2015 meeting attendees.

FASEB MARC Program
The FASEB MARC Program will be sponsoring EB 2015 Travel Awards to help support the participation of full-time faculty/mentors, postdoctoral fellows, and students from minority institutions (MIs) and historically black colleges and universities (HBCUs). The travel awards are funded up to $1,850 each for travel-related expenses and meeting registration. Travel awards are provided as reimbursements after the meeting. The travel awards are supported by a federal training grant from the NIGMS/NIH; therefore, only U.S. citizens and permanent residents of the U.S. are eligible for the travel awards. Faculty/mentors, students and postdoctoral fellows from underrepresented groups at majority institutions are also eligible to apply for the travel awards. For travel award information, visit: www.faseb.org/marc/travel

Note: Travel award application deadline—February 13, 2015, 5:00 PM ET.

NIH Career Development Programs
The FASEB Office of MARC & Professional Development Programs will offer NIH seminars as part of the Career Center at the Experimental Biology 2015 Annual Meeting. Dr. Henry Khachaturian of NIGMS, NIH will give presentations on the “NIH K Awards” and “NIH F Awards.” Drs. Sharon Milgram and Lori Conlan will facilitate the NIH Boot Camp: Leadership and Management Training for Advanced Graduate Students and Postdoctoral Fellows.

IMPORTANT: Handouts and resource materials will be provided on-site.

For further information, visit: http://bit.ly/CareerCtrAtEB

NIH Boot Camp:
Leadership and Management Training for Advanced Graduate Students and Postdoctoral Fellows
A one and a half day program organized and sponsored by FASEB MARC and ASIP.

FRIDAY, MARCH 27, 2015
(FASEB MARC)
• The Friday program is open to all EB 2015 attendees who are graduate students/postdoctoral fellows.
• A $25 “participation fee” will be charged to registrants to offset the costs for the AM/PM networking/coffee breaks and the provided lunch meal.
• Participants must be registered in advance for the Friday program and be confirmed for EB 2015 meeting attendance. Registration is separate from EB registration and will be handled directly by the FASEB office of MARC and Professional Development Programs. Contact marcssm@faseb.org for more information and forms.
• Travel assistance (up to $500) will be offered for eligible participants (USA Citizens/Permanent Residents of the USA... who also reside in the USA). The assistance is being provided to offset the additional expense of Thursday night lodging in order for the participants to be able to attend the program. Program participation will be mandatory in order to receive reimbursement for the travel assistance/award. Persons who are not USA citizens or Permanent Residents of the USA will be able to register and attend the program, but will not be eligible for the travel assistance. Preference will be given to sponsoring society members.

For further information, contact: marcssm@faseb.org.

SATURDAY, MARCH 28, 2015
(ASIP)
• F-Troop: Roadmap to Fellowship Grant Applications
• Registration for F-Troop is handled separately from the Friday program. Please register for this event when you register for the Experimental Biology meeting.
• For more details, see page 28 (ASIP Workshops/Special Sessions).

For further information, Email: meetings@asip.org
Education-Related Sessions


ANATOMY
- Anatomy Education Roundtable – Developing Effective Cognitive Strategies for Future Long Term Recall of Medical Knowledge
- “Back to Basics” Anatomy for Everyday Practice: Integrating Anatomy Education into the Clinical Years
- Didactic Methods in the Anatomical Sciences: How Does Technology Help or Hinder? (Hybrid)
- Educational Neuroscience: Towards the Science of Learning
- Keep Calm and Carry On Educating
- Let’s Get EDucated! How Anatomists Can Help with Accreditation Requirements
- Anatomy Education (Platform Sessions)

PHYSIOLOGY
- It’s All in Your Head – A Refresher Course on The Brain and Systems Control
- Big Data Workshop
- Proteomics for the Physiologist
- Innovations in Classroom Teaching
- Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section
- From Basic Science to Precision Medicine: The Use of Genomic, Epigenomic and Translational Research to Develop Personalized Treatments
- Resources and Experiences in Developing Flipped Classrooms for Graduate and Medical Physiology
- What’s Your Major? The Rise of the Undergraduate Physiology Degree

PATHOLOGY
- XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist
- High School Teacher Session: Scientific Sleuthing of Human Disease for High School Teachers
- Lunch and Learn: The Ethics of Personalized Medicine: Quandaries among the Possibilities
- Pathobiology for Basic Scientists: Looking Into the Crystal Ball: Inflammasomes and Disease

NUTRITION
- Establishing Yourself as an Expert, Organized by the Young Professional Interest Group
- Meet the Editors
- First-Time Attendee and New Member Orientation

PHARMACOLOGY
- 2015 Teaching Institute: Training Students for Teaching Careers
- Active Learning: What’s Up with That Flipping Classroom?
- “Can We Talk?” Strategies for Collaborative Pharmacology Education
- Pharmacology Education Division Symposium
- Securing NIH Intramural Fellowships in Neuropharmacology
- Speed Networking for Careers Beyond the Academic Bench

BIOCHEMISTRY
- ASBMB Award for Exemplary Contributions to Education Lecture
- Changes in Medical Education
- Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop
- Helping Postdoctoral Fellows and Graduate Students Develop Professionally
- Promoting Concept Driven Teaching Strategies in BMB through Concept Assessments

www.experimentalbiology.org
Science Policy and Outreach

BIOCHEMISTRY
• Science Outreach Poster Session, during the ASBMB Opening Reception
• Improvisation for STEM Professionals: Creating Engaging Conversations
• Improvscience Science CHAT
• Who SHOULD Be Funding Biomedical Research?

PHYSIOLOGY
• Reproducibility in Research: What Are the Problems? How Can We Fix Them? What Happens if We Don’t?
CME Accreditation Statement:
This activity (“American Society for Investigative Pathology [ASIP] 2015 Annual Meeting”) has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Society for Clinical Pathology (ASCP) and the American Society for Investigative Pathology (ASIP). ASCP is accredited by the ACCME to provide continuing medical education for physicians.

The ASCP designates this “live” educational activity (ASIP 2015 Annual Meeting) for a maximum of 30.5 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Educational Objective/Target Audience
The objective of the ASIP 2015 Annual Meeting is to increase basic and applied pathology knowledge, and to provide a forum for the exchange of new research by scientists and investigators. The ASIP 2015 Annual Meeting is designed to meet the participants’ education needs in the physician competency area of Medical Knowledge, as defined by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and to support participants’ lifelong learning towards a goal of promoting patient safety and improving patient care and is specifically targeted to graduate and medical students, postdoctoral fellows, research scientists, clinical practitioners, and medical education professionals.

At the completion of the ASIP 2015 Annual Meeting, participants should be able to:
1. discuss the research underway and/or the current topics relevant to their areas of interest in pathology;
2. demonstrate a gained level of knowledge of the methods and techniques being used by researchers and practitioners in the field;
3. utilize information and data that lead to improvements in human health.

Disclosure of Financial Relationships and Resolution of Conflicts of Interest:
In order to ensure balance, independence, objectivity and scientific rigor in all its educational activities, and in accordance with ACCME Standards, the ASCP requires that all individuals in a position to influence and/or control the content of ASCP CME activities disclose to the ASCP and subsequently to learners whether they do or do not have any relevant financial relationships with proprietary entities producing health care goods or services that are discussed in CME activities. Faculty are asked to use generic names in any discussion of therapeutic options, to base patient care recommendations on scientific evidence and to base information regarding commercial products/services on scientific methods generally accepted by the medical community. All ASCP CME activities are evaluated by participants for the presence of any commercial bias and thus input is used to subsequent CME planning decisions. The primary purpose of this “live” CME activity is educational and the comments, opinions, and/or recommendations expressed by the faculty or authors are their own and not those of ASCP or ASIP.

Please contact the ASIP Education Office (cme@asip.org, 301-634-7130) if you have any questions regarding CME.

Continuing Professional Education
The American Society for Nutrition (Provider #NS010) is accredited and approved by the Commission on Dietetic Registration (CDR) as a provider of Continuing Professional Education (CPE) programs for Registered Dietitians. CPE credits will be offered for select sessions. Dietitians and dietetic technicians, registered should only claim credit commensurate with the extent of their participation in the activity.

For additional information contact the ASN office at meetings@nutrition.org
Society Awards and Travel Funding Opportunities

Details and award application forms are available on the websites noted below. Deadlines

ANATOMY: Visit www.anatomy.org/content/ebawards

Apply online when submitting your abstract.

Graduate Student Poster Presentation Award 11/06/2014
Langman Graduate Student Platform Presentation Award 11/06/2014
Postdoctoral Fellow Poster Presentation Award 11/06/2014
Postdoctoral Fellow Platform Presentation Award 11/06/2014
Education Research Platform Presentation Award 11/06/2014
AAA/ASE Student/Postdoctoral Education Research Poster Award 11/06/2014
Undergraduate Student Poster Presentation Award 11/06/2014
Student/Postdoctoral Travel Award 11/06/2014
Young Faculty Travel Award 11/06/2014

PHYSIOLOGY: Visit www.apsebmeeting/awards/index.htm

APS ADInstruments Macknight Early Career Innovative Educator Award 12/01/2014
APS Cardiovascular Section Clinical Science Young Investigator Award sponsored by Portland Press 11/09/2014
APS Cardiovascular Section New Investigator Award 11/09/2014
APS Cardiovascular Section Carl J. Wiggers Award 02/02/2015
APS Cardiovascular Section Research Recognition Awards 11/09/2014
APS Caroline tum Suden/Frances Hellebrandt Professional Opportunity Awards 11/06/2014
APS Cell & Molecular Physiology Section New Investigator Award 12/01/2014
APS Cell & Molecular Physiology Section Research Recognition Award 12/01/2014
APS Cell & Molecular Physiology Section Robert Gunn Student Award 12/01/2014
APS Central Nervous System New Investigator Award 11/13/2014
APS Central Nervous System Research Recognition Award 11/13/2014
APS Central Nervous System Van Harreveld Award 11/13/2014
APS Comparative & Evolutionary Physiology New Investigator Award 12/08/2014
APS Comparative & Evolutionary Physiology Research Recognition Award 12/08/2014
APS Comparative & Evolutionary Physiology Travel Award sponsored by Dr. Dolittle 12/08/2014
APS Comparative & Evolutionary Physiology Travel Award sponsored by GlaxoSmithKline 12/08/2014
APS Comparative & Evolutionary Physiology Travel Award sponsored by Novo Nordisk Foundation 12/08/2014
APS Dale J. Benos Early Career Professional Service Award 01/24/2015
APS David S. Bruce Outstanding Undergraduate Abstract Awards and Awards for Excellence in Undergraduate Research 01/12/2015
APS Endocrinology & Metabolism Campbell Awards 11/20/2014
APS Endocrinology & Metabolism Section New Investigator Award 11/20/2014
APS Endocrinology & Metabolism Section Research Recognition Award 11/20/2014
APS Environmental & Exercise Physiology Section Gatorade Beginning Investigator Award 11/06/2014
APS Environmental & Exercise Physiology Section Gatorade Predoctoral Investigator Award 11/06/2014
APS Environmental & Exercise Physiology Section Military Award for Beginning Investigators 11/06/2014
APS Nike, Inc. Environmental and Exercise Physiology Predoctoral Research Award 11/06/2014
APS Nike, Inc. Environmental and Exercise Physiology Predoctoral Research Award 11/06/2014
APS Environmental & Exercise Physiology Section New Investigator Award 11/06/2014
APS Environmental & Exercise Physiology Section Pre-Doctoral Military Physiology Award 11/06/2014
APS Environmental & Exercise Physiology Section Predoctoral Recognition Award 11/06/2014
APS Environmental & Exercise Physiology Section Honor Award 03/01/2015
APS Environmental & Exercise Physiology Section Recognition Award for Beginning Investigators 11/06/2014
APS Excellence in Professional Student (MD or DO) Research Travel Award 11/13/2014
APS Fleur L. Strand Professional Opportunity Awards 11/06/2014
APS Gastrointestinal & Liver Physiology Section New Investigator Award 11/13/2014
APS Gastrointestinal & Liver Physiology Section Predoctoral and Postdoctoral Poster Awards 12/14/2014
APS Gastrointestinal & Liver Physiology Section Research Recognition Award 12/14/2014
Society Awards and Travel Funding Opportunities, continued

Details and award application forms are available on the websites noted below.

### PHYSIOLOGY, continued

<table>
<thead>
<tr>
<th>Award Description</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>APS Gastrointestinal &amp; Liver Physiology Section Takeda Distinguished Research</td>
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<td>Awards</td>
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<td>APS Gastrointestinal &amp; Liver Physiology Section Takeda Travel Awards</td>
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<td>APS Mead Johnson Research Award in Endocrinology &amp; Metabolism</td>
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<td>APS Neural Control &amp; Autonomic Regulation Section Michael J. Brody Young</td>
<td>11/06/2014</td>
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<td>Investigator Award</td>
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<td>APS Neural Control &amp; Autonomic Regulation Section Data Sciences International</td>
<td>11/06/2014</td>
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<td>Outstanding Graduate Student Award</td>
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<td>APS Neural Control &amp; Autonomic Regulation Section New Investigator Award</td>
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<td>APS Renal Section Amgen Postdoctoral Excellence in Research Award</td>
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<td>APS Renal Section New Investigator Award</td>
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<td>APS Renal Section Predoctoral Excellence in Renal Research Awards</td>
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<td>APS Renal Section Research Recognition Award</td>
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<td>APS Renal Section Young Investigator Award</td>
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<td>APS Respiration Section New Investigator Award</td>
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<td>APS Respiration Section Research Recognition Award</td>
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<td>APS Robert W. Berliner Award for Excellence in Renal Physiology sponsored by</td>
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<td>Abbott Laboratories</td>
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<td>APS Steven M. Horvath Professional Opportunity Award</td>
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<td>APS Teaching of Physiology Section New Investigator Award</td>
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<td>APS Teaching of Physiology Section Research Recognition Award</td>
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<tr>
<td>APS Virendra B. Mahesh Award of Excellence in Endocrinology</td>
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<td>APS Water &amp; Electrolyte Homeostasis Section Juan Carlos Romero Postdoctoral</td>
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<td>Research Recognition Award</td>
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<td>APS Water &amp; Electrolyte Homeostasis Section New Investigator Award in Regulatory</td>
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<td>and Integrative Physiology</td>
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<tr>
<td>APS Water &amp; Electrolyte Homeostasis Section Predoctoral Research Recognition</td>
<td>11/06/2014</td>
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<tr>
<td>Award</td>
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<tr>
<td>APS Minority Travel Fellowship Awards</td>
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### BIOCHEMISTRY: Visit www.asbmb.org/meeting2015

Applicant is responsible for following all application requirements posted at www.asbmb.org/meeting2015/travelawards. Applicant must submit his/her own application by the posted deadline. Advisors should NOT submit abstracts or applications on behalf of a student/trainee.

<table>
<thead>
<tr>
<th>Award Description</th>
<th>Deadline</th>
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<tr>
<td>ASBMB Annual Meeting Childcare Grant</td>
<td>11/11/2014</td>
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<tr>
<td>ASBMB Underrepresented Graduate Student Travel</td>
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<tr>
<td>Award</td>
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<tr>
<td>ASBMB Graduate/Postdoctoral Travel Award</td>
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<tr>
<td>ASBMB Undergraduate Faculty Travel Award</td>
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<tr>
<td>ASBMB Undergraduate Student Competitive Travel</td>
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<td>ASBMB Undergraduate Affiliate Network (UAN)</td>
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<td>ASBMB Undergraduate Affiliate Network (UAN)</td>
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<td>Outstanding Chapter Award</td>
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### PATHOLOGY: Visit http://www.asip.org/mtgs/eb15

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<thead>
<tr>
<th>Award Description</th>
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<tr>
<td>ASIP Experimental Pathologist-in-Graduate Training Award</td>
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<tr>
<td>ASIP Trainee Travel Awards</td>
<td>11/06/2014</td>
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<tr>
<td>ASIP Under-Represented Group (URG)</td>
<td>11/06/2014</td>
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<tr>
<td>Gotlieb Undergraduate Student Travel Award</td>
<td>11/06/2014</td>
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<tr>
<td>HCS Trainee Travel Awards</td>
<td>11/06/2014</td>
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<tr>
<td>The Marcos Rojkind – ASIP Trainee Travel Award</td>
<td>11/06/2014</td>
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</table>
Details and award application forms are available on the websites noted below. Deadlines

### NUTRITION: Visit: www.nutrition.org/awards/
- ASN Conrad Elvehjem Award for Public Service in Nutrition 09/15/2014
- ASN David Kritchevsky Career Achievement Award 09/15/2014
- ASN E.L.R. Stokstad Award 09/15/2014
- ASN General Mills Institute of Health and Nutrition Innovation Award 09/15/2014
- ASN Kellogg Prize for International Nutrition Research 09/15/2014
- ASN McCormick Science Institute Research Award 09/15/2014
- ASN Milton L. Sunde Award 09/15/2014
- ASN Norman Kretchmer Memorial Award in Nutrition and Development 09/15/2014
- ASN Osborne and Mendel Award 09/15/2014
- ASN Pfizer Consumer Healthcare Nutritional Sciences Award 09/15/2014
- ASN Robert H. Herman Memorial Award 09/15/2014
- ASN Excellence in Nutrition Education Award 09/15/2014
- ASN Dannon Institute Mentorship Award 09/15/2014
- ASN Roland L. Weinsier Award for Excellence in Medical/Dental Education 09/15/2014
- ASN Bio-Serv Award in Experimental Animal Nutrition 09/15/2014
- ASN Mary Swartz Rose Senior Investigator Award 09/15/2014
- ASN Mary Swartz Rose Young Investigator Award 09/15/2014
- ASN Mead Johnson Award for Research 09/15/2014
- ASN Peter J. Reeds Young Investigator Award 09/15/2014
- ASN Samuel J. Fomon Young Physician Award, sponsored by Nestlé Nutrition Institute 09/15/2014
- ASN Postdoctoral Research Award Competition, endowed by DuPont Nutrition & Health, LLC 11/06/2014
- ASN Predoctoral Fellowship for Students in Nutrition Research 12/15/2014
- ASN Vernon R. Young Award 09/15/2014
- ASN Nutrition Science Media Award 09/15/2014
- ASN Graduate Student Research Award Competition, supported by the Nutritional Sciences Council 11/06/2014
- ASN Clinical Emerging Leader Award Competition, supported by the Medical Nutrition Council 11/06/2014
- ASN Global Nutrition Council Poster Award Competition Student Prize, Organized by the Global Nutrition Council 11/06/2014
- ASN Clinical Nutrition Internship Program 02/01/2015
- ASN Physician Nutrition Specialist Award 02/01/2015
- ASN MARC Travel Award 01/20/2015
- ASN Young Minority Investigator Oral Competition, supported by DSM Nutritional Products 01/20/2015
- ASN W.O. Atwater Lectureship Award, organized by the USDA Agricultural Research Service 12/01/2014
- ASN Volunteer of the Year Award 01/20/2015
- ASN Sustaining Member Committee Award of Distinction 01/20/2015
- ASN Korean Nutrition Society Award 01/20/2015

### PHARMACOLOGY: Visit www.aspet.org/awards
- John J. Abel Award 09/15/2014
- Julius Axelrod Award 09/15/2014
- Pharmacia-ASPET Award in Experimental Therapeutics 09/15/2014
- Robert R. Ruffolo Career Achievement Award 09/15/2014
- Torald Sollmann Award in Pharmacology 09/15/2014
- David Lehr Research Award 09/15/2014
- Reynold Spector Award in Clinical Pharmacology 09/15/2014
- Drug Metabolism Early Career Achievement Award 09/15/2014
- ASPET Division for Drug Discovery and Development Young Investigator Award 11/24/2014
- ASPET Graduate Student Best Abstract Awards 11/24/2014
- ASPET Graduate Student Travel Awards 12/12/2014
- ASPET Underrepresented Graduate Student Travel Awards 12/12/2014
- ASPET Underrepresented Young Scientist Travel Awards 12/12/2014
- ASPET Pharmacology Educators Travel Award 01/05/2015
Society Awards and Travel Funding Opportunities, continued

Details and award application forms are available on the website noted below.  

PHARMACOLOGY, continued

ASPET Postdoctoral Scientist Best Abstract Awards  
ASPET Summer Undergraduate Research Fellow Travel Awards  
ASPET Undergraduate Student Best Abstract Awards  
ASPET Young Scientist Travel Awards  

December 12, 2014

FASEB MARC PROGRAM: Visit http://www.faseb.org/marc/travel

Poster/Platform Presenter Travel Awards
Faculty/Mentor and Students Travel Awards

February 13, 2015

Details and award application forms are available on the website noted below. Deadlines
KEYNOTE SPEAKER
Sean Carroll
Howard Hughes Medical Institute and Univ. of Wisconsin

MINI-MEETINGS
Sunday, March 29
Cardiovascular Biology Mini-Meeting
Chairs: Michael Simons (Yale School of Medicine) & Anne Eichmann (Yale School of Medicine)
Featuring Plenary Speakers:
Anne Eichmann (Yale School of Medicine)
Ken Walsh (Boston Univ. School of Medicine)

SYMPOSIA
Vascular Organization and Patterning
Endothelial-to-Mesenchymal Transition

Monday, March 30
Neurobiology Mini-Meeting
Featuring Nobel Laureate Plenary Speakers:
The Anatomy of Memory and Neurodegenerative Disease:
Prions, a Nobel Idea
Eric Kandel (Columbia Univ.)
Stanley Prusiner (Univ. of California, San Francisco)

PROFESSIONAL DEVELOPMENT SESSIONS
Excellence in Lab, Clinic and Education Mentoring
Chairs: Linda May (East Carolina Univ.) & Jonathan Wisco (Brigham Young Univ.)

Leaning In Without Falling Over: Supporting the Success of Women in Science
Chairs: Lorinda Smith (Univ. of Utah) & Valerie O’Loughlin (Indiana Univ.)

Best Practices for Using Social Media as it Reshapes Academia and the Classroom
Chair: Jason Mussell (Louisiana State Univ. Health Sciences Center)

EDUCATION & TEACHING SYMPOSIA
Anatomy Education Roundtable - Developing Effective Cognitive Strategies for Future Long Term Recall of Medical Knowledge
Chair: James Walker (Purdue Univ./ IU School of Medicine – Lafayette)

“Back to Basics” Anatomy for Everyday Practice: Integrating Anatomy Education into the Clinical Years
Chair: Nirusha Lachman (Mayo Clinic)

Didactic Methods in the Anatomical Sciences: How Does Technology Help or Hinder? (Hybrid)*
Chair: Michael Hortsch (Univ. of Michigan)

Educational Neuroscience: Towards the Science of Learning
Chair: Ann Zumwalt (Boston Univ. School of Medicine)

Keep Calm and Carry On Educating
Co-sponsored by the Anatomical Society
Chair: Claire Smith (Univ. of Sussex)

Let’s Get EDucated! How Anatomists Can Help with Accreditation Requirements
Chair: Anne Poznanski (California Northstate Univ. College of Medicine)

SCIENTIFIC SYMPOSIA
Anatomy of Aging
Chair: H. Wayne Lambert (West Virginia Univ.)

Breaking the Barrier: The Gastrointestinal Tract in Health and in Inflammatory Bowel Disease
Chairs: Abdo Jurjus (American Univ. of Beirut) & Inaya Hajj Hussein (Oakland Univ. William Beaumont School of Medicine)

*AAA will be accepting abstracts for oral presentation within this session. Please see AAA topic categories on pages 39-40.

Please visit our website www.anatomy.org/content/annualmeeting for program updates.
Cardiovascular Development and Disease  
**Chair:** L. Bruno Ruest (Texas A&M Univ. Baylor College of Dentistry)

Cilia in Development  
**Chair:** Jeffrey Amack (SUNY Upstate Medical Univ.)

Craniofacial Tissues: Development, Repair and Regeneration  
**Chairs:** Xiaohua Liu (Texas A&M Univ. Baylor College of Dentistry) & Venu Varanasi (Texas A&M Univ. Baylor College of Dentistry)

Creation of Tissue-Like Structures In Vitro Using Advanced Technologies  
Co-sponsored by the Anatomical Society  
**Chair:** Stefan Przyborski (Durham Univ.)

Evolution, Development and Relationships between Heart and Head Muscles: Surprising Implications for Vertebrate Origins and Medicine  
**Chair:** Rui Diogo (Howard Univ.)

Major Transformations of the Amniote Nose  
**Chair:** Tomasz Owerkowicz (California State Univ., San Bernardino)

Making Connections: Comparative Biomechanics and Evolution of Joints  
**Chair:** Casey Holliday (Univ. of Missouri)

Structures and Functions of Primary Cilia  
**Chair:** Takanari Inoue (Johns Hopkins Univ.)

The Anatomy of Genetics: How Trait Variation Gleaned from Anatomy Is Crucial to Understanding the Genetics of Evolution (Hybrid) *  
Co-sponsored by AAA’s Advisory Committee for Young Anatomists  
**Chair:** Benjamin Auerbach (The Univ. of Tennessee)

The Development and Control of Vertebrate Morphology  
Co-sponsored by the International Society of Vertebrate Morphologists  
Co-sponsored by The Anatomical Record

The Evolutionary Tapestry of Vertebrate Morphology and Function  
Co-sponsored by the International Society of Vertebrate Morphologists  
Co-sponsored by The Anatomical Record

Understanding the Zygoma: A Key Morphofunctional Partition in the Craniofacial Skeleton  
**Chair:** Qian Wang (Mercer Univ. School of Medicine)

Vascular and Connective Tissue Imaging In Situ: Returning Bone to the Skeleton  
**Chair:** Maria Serrat (Marshall Univ. School of Medicine)

**PLATFORM SESSIONS**

Anatomy Education *  
Biological Anthropology *  
Bones, Cartilage & Teeth *  
Cardiovascular Biology *  
Evolution and Comparative Anatomy *  
Neurobiology *  
Stem Cells, Tissue Engineering & Regeneration *

*AAA will be accepting abstracts for oral presentation within this session. Please see AAA topic categories on pages 39-40.*
PRESIDENT’S SYMPOSIUM SERIES
PHYSIOLOGY: ANSWERS TO BIG QUESTIONS
Organized by: David Pollock, Univ. of Alabama at Birmingham

LECTURE
APS Nobel Prize in Physiology or Medicine Lecture
Robert Lefkowitz

SYMPOSIA
The Future of Obesity Research
Alyssa Hasty

The Future of Hypertension Research
Howard Jacob

The Future of Diabetes Research
John Hall

APS DISTINGUISHED LECTURES
Henry Pickering Bowditch Award Lecture
Babette LaMarca

Physiology in Perspective – The Walter B. Cannon Memorial Award Lecture
Masashi Yanagisawa

Robert M. Berne Distinguished Lectureship of the APS Cardiovascular Section
Peipei Ping

Hugh Davson Distinguished Lectureship of the APS Cell and Molecular Physiology Section
Anita C. Aperia

Joseph Erlanger Distinguished Lectureship of the APS Central Nervous System Section
Karl Deisseroth

August Krogh Distinguished Lectureship of the APS Comparative and Evolutionary Physiology Section
Arthur L. DeVries

Solomon A. Berson Distinguished Lectureship of the APS Endocrinology and Metabolism Section
Grahame Hardie

Edward F. Adolph Distinguished Lectureship of the APS Environmental and Exercise Physiology Section
Harold Laughlin

Horace W. Davenport Distinguished Lectureship of the APS Gastrointestinal and Liver Physiology Section
Pradeep Dudeja

Carl Ludwig Distinguished Lectureship of the APS Neural Control and Autonomic Regulation Section
Jere H. Mitchell

Carl W. Gottschalk Distinguished Lectureship of the APS Renal Section
David Ellison

Julius H. Comroe, Jr. Distinguished Lectureship of the APS Respiration Section
Usha Raj

Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section
Anthony MacKnight

Ernest H. Starling Distinguished Lectureship of the APS Water and Electrolyte Homeostasis Section
TBD

TECHNIQUES AND TECHNOLOGY WORKSHOPS
Big Data Workshop
Jennie Larkin and Merry L. Lindsey

Proteomics for the Physiologist
Bishow Adhikari and Jesse Rinehart
CROSS SECTIONAL SYMPOSIA
Contributors to the Slowed Aging Phenotype: Exercise and Other Common Mediators
Karyn L. Hamilton

The Host-Microbe Interface and Control of Barrier Function: The Path from Pathology to Therapy
Beth A. McCormick

Neurohormonal Mechanisms in Blood Pressure Control
Jane Reckelhoff and Joey Granger

Omics and Epithelial Systems Physiology
Eric Delpire and Jim McCormick

CARDIOVASCULAR SECTION
SYMPOSIA
The Pathophysiology of Drug-Induced Vascular Injury (DIVI)
Brian R. Wamhoff and James Turk

New Insights into Vascular Function from In Vivo Vascular Imaging
Withrow Gil Wier and Jin Zhang

Cardiopulmonary Consequences of Perinatal Exposures
Lynette K. Rogers and Markus Velten

The Physical Biology of Thrombosis Formation
Owen McCarty and Keith Neeves

Ion Channels in Health and Disease
Jonathan H. Jaggar and Manuel Navedo

Treating Cardiovascular Disease with Exercise: Mechanistic Insight Translated from Animal Models
Craig A. Emter and Joseph Libonati

The Role of Store-Operated Calcium Entry in Cardiovascular Physiology and Disease
Ann-Marie Lompré and Helen E. Collins

FEATURED TOPICS
Systemic and Pulmonary Vascular Function at High Altitude/Hypoxia: Learning from Maladaptations
Urs Scherrer

Cerebrovascular Abnormalities in Hypertensive Disease
Anne Dorrance and Junie P. Warrington

Cellular Membrane Repair in Cardiovascular Physiology and Pathophysiology
Noah Weisleder

Vascular Endothelial Cell Insulin Resistance: A New Target for Reducing Vascular Risk in Diabetes?
Gary Pierce

Autophagy and miRNA in Diabetic Heart Failure
Paras Kumar Mishra

Kaley Lecture and Complementary Presentations
Mark Nelson

Cardiovascular Responses to Trauma
Robert L. Hester

Molecular Regulators of Skeletal Muscle Angiogenesis in Health and Disease
Tara Haas and Thomas Gustafsson

Wiggers Award Featured Topic
Jos A.E. Spaan

CAREERS IN PHYSIOLOGY COMMITTEE
SYMPOSIUM
Resilience Is Power: Dealing with the Ups and Downs of Your Scientific Career
Erica Wehrwein and Christine Schnackenberg

CELL AND MOLECULAR PHYSIOLOGY
SYMPOSIA
Morphogen Signaling Pathways in Tissue Patterning and Disease Processes (cosponsored by American Journal of Physiology: Cell Physiology)
Josephine C. Adams and Jason X. Yuan

Organoids and Physiology – The Way of the Future and Beyond?
Karyn L. Hamilton

Cation Channels Controlling Intracellular Functions
Ashot Kozak

FEATURED TOPICS
Cell Signaling: Proteins, Pathways and Mechanisms
Heather M. Jones and Neil A. Bradbury

Ion Channels and Transporters in Health and Disease
Scott M. O’Grady and Jayashree Sarathy

Oxidative Stress: Mechanisms and Responses
Carl White

CENTRAL NERVOUS SYSTEM SECTION
SYMPOSIA
Brainstem Mechanisms Underlying Cardiorespiratory Signaling: From Synapses to Circuits
Andrei V. Derbenev and Michael C. Andresen

Gliotransmission and Behavior
Vladimir Parpura
FEATURED TOPICS
Spinal Plasticity
Erica Dale

CNS Mechanisms of Blood Pressure Regulation
Richard D. Wainford

COMMUNICATIONS COMMITTEE
SYMPOSIUM
Connecting with the Community
Barbara Goodman

COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION
SYMPOSIA
Effects of a Changing Climate on Insect Physiology
Kendra J. Greenlee and Jon F. Harrison

Comparative Biology of Mitochondria: From Physiology to Molecules and Back
Martin Jastroch and Fabiana Perocchi

FEATURED TOPICS
CEPS Abstract-Driven Trainee Featured Topic
Matthew Pamenter and Scott Kirkton

The Cost of Physiological Plasticity
Allyson Hindle and Frank van Breukelen

EDUCATION COMMITTEE
SYMPOSIUM
It's All in Your Head – A Refresher Course on the Brain and Systems Control
Catharine G. Clark and David W. Rodenbaugh

ENDOCRINOLOGY AND METABOLISM SECTION
SYMPOSIA
The Yin/Yang of Estrogen Signaling in the Control of Energy Homeostasis
Martin J. Kelly

Rejuvenating the Beta Cell
Ronald M. Lynch and Willis K. Samson

Inflammation in Obesity Is Not All Bad
Jianping Ye and Owen P. McGuinness

FEATURED TOPICS
Circadian Clock in Metabolic Regulation
Li Wang

Diet, Nutrition, and Adipose Tissue: You Are What You Eat
Gina L.C. Yosten

ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION
SYMPOSIA
Muscle Atrophy, Hypertrophy and microRNA
James A. Carson and Xiaonan H. Wang

Exercise at the Molecular Level: Myokines and Other Novel Therapeutic Opportunities
Carl White

Victor A. Convertino and Carmen Hinojosa-Laborde

Limitations to and Potential of Exercise for the Spinal Cord Injured
J. Andrew Taylor

FEATURED TOPICS
Sympathetic Control of the Vasculature in Clinical Populations
Lacy Alexander and Jody Greaney

Autophagy in Muscle
David Hood

Sex Hormone Effects on Autonomic and Endothelial Function
Nina Stachenfeld

New Insights into the Physiology and Pathophysiology of Diving and Hyperbaric Environments
John Florian

EPITHELIAL TRANSPORT GROUP
SYMPOSIUM
Autophagy: Importance in Health, Epithelial Transport and Aging
Janet Klein

FEATURED TOPICS
Epithelial Transport: Pathophysiology
Jennifer Bomberger and Timo Rieg

Epithelial Transport: Cell Biology
Hanne Møller and Mitsi Blount
GASTROINTESTINAL AND LIVER PHYSIOLOGY SECTION

SYMPOSIA
- Enteric Nervous System Regulation of GI Function
  Ravinder Mittal

- Wanted and Unwanted Paracellular Passage in Intestinal Epithelia
  Michael Fromm and Jörg D. Schulzke

FEATURED TOPICS
- Targeting Colonic Contents as Treatment for Disease
  Stephen J. Keely

- Cancer: Current Insights into the Mechanism and Treatment of Inflammatory Responses in Gastrointestinal and Liver
  R.K. Rao

HISTORY OF PHYSIOLOGY GROUP

SYMPOSIUM
- Neuroplasticity in Space: Reflections from the STS-90 Neurolab Space Shuttle Crew
  Jay Dean

HYPOXIA GROUP

SYMPOSIUM
- Molecular Oxygen: At the Crossroads of Inflammation and Metabolism
  Volker Hans Haase

FEATURED TOPIC
- Cellular, Molecular and Systems Integration Underlying Adaptation and Maladaptation to Hypoxia
  Jan-Marino Ramirez

MUSCLE BIOLOGY GROUP

SYMPOSIUM
- Membrane Repair in Muscle Cells: Molecular Mechanisms and Therapeutic Approaches
  Daniel E. Michele and Joseph M. Metzger

FEATURED TOPICS
- Neuromuscle Diseases: Novel Therapeutic Strategies
  Vladimir Ljubicic

- Muscle Diseases: Recent Advances in Disease Mechanisms
  Aaron Beedle and Joshua Selsby

NEURAL CONTROL AND AUTONOMIC REGULATION

SYMPOSIA
- Angiotensin Type 2 Receptors in the Brain: A Functional Coming-of-Age in Cardiovascular Control
  Colin Sumners

- Autonomic Denervation in Cardiovascular Disease: Mechanisms and Therapeutic Potential
  Irving H. Zucker and Julian Paton

FEATURED TOPICS
- Interactions between Cardiovascular and Ingestive Behavioral Signals at the Circumventricular Organs
  Helen E. Collins and Alastair Ferguson

- Baroreflex and Chemoreflex Controls of the Human Cerebral Circulation
  Yu-Chieh Tzeng

- Refreshing Perspectives on the Role of the Chemoreflexes in the Control of Cardiorespiratory Functions: New Pathways and Players
  Rodrigo del Rio

NCAR Trainee Featured Topic
- Karla Haack

HYPOXIA GROUP

SYMPOSIUM
- Hypothalamic Autonomic Control of Metabolism
  Yanyan Jiang and Andrea Zsombok

AWARD RECOGNITION AND PRESENTATION SESSION
- Data NCARnation
  TBD

PHYSIOLOGICAL GENOMICS

SYMPOSIUM
- Revolutionary Systems-Medicine Approaches to Understand Disease and Drug Response Physiology
  Brian R. Wamhoff

FEATURED TOPICS
- Physiologic Effects of Sex Chromosome Complementation and Chromosome Y Genetic Variants
  Christian F. Deschepper

- Trainee Highlights in Physiological Genomics
  TBD

CONFERENCE
- Second Annual APS Physiological Genomics Group Conference
  TBD
PHYSIOLOGISTS IN INDUSTRY COMMITTEE

SYMPOSIUM
Targeting Gut Microbiome in Human Diseases and as Novel Therapeutics
Carol Patricia Moreno Quinn and Suttira Intapad

PUBLICATIONS COMMITTEE

SYMPOSIUM
Publishing 101: How to Get Your Work Published and Avoid Ethical Minefields
Hershel Raff and Rita Scheman

RENAL SECTION

SYMPOSIUM
Novel Mechanisms in Renal Function and Blood Pressure Regulation
Ora Weisz and Paulo Caceres

Control of Electrolyte Balance by Novel Pathways in Intercalated Cells
Steven C. Sansom and P. Richard Grimm

Emerging Role of AMPK in Kidney Epithelial Transport, Metabolism and Disease
Prabhleen Singh and Alicia McDonough

FEATURED TOPICS
Recent Advances in Renal Physiology and Kidney Disease I
Paul A. Welling

Recent Advances in Renal Physiology and Kidney Disease II
Pablo Ortiz

Immune Cells, The Kidney and Hypertension
Jennifer Sullivan and Darwin Bell

RESPIRATION SECTION

SYMPOSIUM
Mechanochemical Background in the Intact Lung and the Role of Contextural Cell Biology for the Study of Lung Injury and Repair
Wolfgang M. Kuebler and Chris Waters

Pathogenesis of Sudden Infant Death Syndrome: Is it Just a Breathing Disorder?
Eugene Nattie

Neonatal Lung Development and Adult Lung Homeostasis: Common Molecular Mechanisms in Lung Disease
Leif Nelin and Steven Abman

The Brain on Intermittent Hypoxia
Jyoti Watters and Brendan Dougherty

FEATURED TOPICS
Lung Epithelium and Endothelium: Injury, Repair, and Remodeling
Yutong Zhao and Irina Petrache

Cellular Quality Control in the Lung: Role of ERAD, Autophagy, and Mitophagy in Health and Disease
Michael F. Beers and E. Danielle Morse

Respiratory Related Disorders in Aging and Neurodegeneration
Sarah M. Greising and Gary C. Sieck

Evolution of Air Breathing
Michael B. Harris and Richard J.A. Wilson

SCIENCE POLICY COMMITTEE

SYMPOSIUM
Reproducibility in Research: What Are the Problems? How Can We Fix Them? What Happens if We Don’t?
Carrie Northcott

TEACHING OF PHYSIOLOGY SECTION

SYMPOSIUM
What’s Your Major? The Rise of the Undergraduate Physiology Degree
John R. Halliwill and Erica Wehrwein

Resources and Experiences in Developing Flipped Classrooms for Graduate and Medical Physiology
Thad Wilson

FEATURED TOPIC
Innovations in Classroom Teaching
Cynthia J. Miller and Lynelle Golden

TRAINEE ADVISORY COMMITTEE

SYMPOSIUM
Scientists as Supervisors: Hiring, Firing, and Beyond
Megan Greenlee-Mitzelfelt and Christopher T. Banek

FEATURED TOPIC
Recent Advances in Obesity Research
Karla Haack

TRANSLATIONAL PHYSIOLOGY GROUP

SYMPOSIUM
Translational Strategies for Musculoskeletal Regenerative Medicine
Christopher Mendias and Katsuhiko Funai

www.experimentalbiology.org
**TRANSLATIONAL PHYSIOLOGY GROUP**

**FEATURED TOPIC**
Highlights in Translational Physiology
TBD

**WATER AND ELECTROLYTE HOMEOSTASIS SECTION**

**LECTURE**
WEH New Investigator Award Lecture

**SYMPOSIUM**
Gastro-Renal Communication
Pedro Jose

**FEATURED TOPICS**
The Heart of the Matter: Menopause, Sex Steroids, and Cardiovascular Disease
Jane Reckelhoff and Megan Wenner

Hypertension: Developing Concepts
Jennifer Sullivan and Mike Ryan

Water, Electrolyte, and Blood Pressure Homeostasis: Neural and Humoral Regulators and Stressors
Jean Gao and Roland Veelken

The Biology of Oxygen Homeostasis and Hypoxia
Aaron Polichnowski and Roger Evans

**AWARD RECOGNITION AND PRESENTATION SESSION**
WEH Trainee Award Finalists Session and Data Diuresis
TBD

**WOMEN IN PHYSIOLOGY COMMITTEE**

**SYMPOSIUM**
Mentoring for Diverse Careers: Mentor and Protégé Perspectives
Melinda R. Dwinell and Karen M. Mathis

**BIOMEDICAL ENGINEERING SOCIETY**

**SYMPOSIUM**
Biomedical Engineering
TBD

Stem Cells for Tissue Regeneration
TBD

**MICROCIRCULATORY SOCIETY**

**LECTURE**
Microcirculatory Society Landis Award Lecture
Dai Fukumura

**SYMPOSIUM**
Microcirculation: Inflammation
TBD

Microcirculation: Oxygen/Blood Flow
Mary Frame

Microcirculation: Signaling/Channels
TBD

**INTERNATIONAL PHYSIOLOGY COMMITTEE, LATIN AMERICAN INITIATIVE**

**SYMPOSIUM**
Pan-American Physiological Societies Symposium
Bene Machado and Rodrigo Iturriaga

**THE PHYSIOLOGICAL SOCIETY**

**SYMPOSIUM**
Voltage-Gated Calcium Channels and the Function of Excitable Cells: From Basic Mechanisms to Disease (cosponsored by The APS)
Annette C. Dolphin

Heart Attack on a Chip: Is Microanalysis the Future?
Heather M. Jones

Omics of Brain Injury
Eng H. Lo

Protecting and Restoring Functional Beta Cell Mass in Type 1 Diabetes: Research from Bench to Bedside
Carmella Evans-Molina and Patrick Fueger

Emerging Concepts in Hypoxia-Related Disease Signaling
Neda Rasouli and Sean P. Colgan

www.experimentalbiology.org
ASBMB 2015 PLENARY LECTURES
• C. David Allis, The Rockefeller University
• Bonnie Bassler, Princeton University
• Zhijian James Chen, University of Texas Southwestern Medical Center
• Rachel Klevit, University of Washington
• Ian Wilson, The Scripps Research Institute

ASBMB 2015 AWARD LECTURES
ASBMB Award for Exemplary Contributions to Education
J. Ellis Bell, University of Richmond

ASBMB/Merck Award
Zhijian James Chen, University of Texas Southwestern Medical Center

ASBMB Young Investigator Award
Erica Ollmann Saphire, The Scripps Research Institute

Avanti Award in Lipids
Karen Reue, David Geffen School of Medicine at University of California, Los Angeles

Mildred Cohn Award in Biological Chemistry
Judith P. Klinman, University of California, Berkeley

DeLano Award for Computational Biosciences
Vijay Pande, Stanford University

Ruth Kirschstein Diversity in Science Award
JoAnn Trejo, University of California, San Diego

Fritz Lipmann Lectureship
Rachel E. Klevit, University of Washington

William C. Rose Award
Kathleen Matthews, Rice University

Walter A. Shaw Young Investigator Award in Lipid Research
Britta Brügger, Heidelberg University

Herbert Tabor Research Award
Joan A. Steitz, Howard Hughes Medical Institute, Yale University

Earl and Thressa Stadtman Distinguished Scientist Award
Jack E. Dixon, University of California, San Diego

Bert and Natalie Vallee Award in Biomedical Science
David Eisenberg, University of California, Los Angeles, Department of Energy

Alice and C. C. Wang Award in Molecular Parasitology
Alan F. Cowman, The Walter and Eliza Hall Institute of Medical Research

Alice and C. C. Wang Award in Molecular Parasitology Symposium
Alan F. Cowman, David Horn, Sebastian Lourido, Elizabeth Winzeler
THE ASBMB THEMATIC PROGRAM AND SYMPOSIA

ASBMB 2015 PROGRAM PLANNING COMMITTEE
CO-CHAIRS
Mary Roberts *, Boston College and
Dorothy Beckett *, University of Maryland, College Park

Each ASBMB theme (or track) consists of four symposia, one symposium scheduled each day of the meeting, March 29th – April 1st. Symposia feature invited speakers and volunteered talks selected from abstracts submitted to ASBMB topic categories.

Those wishing to have an abstract considered for oral presentation must:
1) submit an abstract to an ASBMB topic category (2000-series numbers)
2) complete the submission by the abstract deadline: November 6th
3) select presentation preference, “oral”
Volunteered abstracts programmed for oral presentation will ALSO be programmed for poster presentation. All other abstracts, including those not selected for oral presentation, will be programmed for poster presentation.

CANCER: THE WAR AT 44, WARBURG AT 90

Imaging: A Picture is Worth > 1,000 Words
Carolyn J. Anderson, Neal Fedarko * (Chair), Jason S. Lewis, Elizabeth A. Maher

RNA: Beyond Messages and Translation (Micro and Long Noncoding RNA)
Carlo M. Croce, Muller Fabbri, Cheryl D. Helgason

Metabolism: Warburg at 90
Jules L. Griffin, Craig B. Thompson, David L. Wishart

Biologics: Antibodies and Antidotes
Lieping Chen, Nicholas P. Restifo, Martine J. Smit

DNA REPLICATION AND REPAIR

Engaging Stalled Replication Forks
Peter M. J. Burgers, Myron F. Goodman *, Wei Yang

Super-Resolution Replication Studies
Lorena Beese, David Sheratt, Antoine M. van Oijen

DNA Topology and Repair
Steven Kowalczykowski, Yves Pommier, Deborah S. Wuttke

Cooperativity and Crosstalk
Michael G. Fried *, Laura Lindsey-Boltz, Evgeny Nudler

EXTRACELLULAR MATRICES IN HEALTH AND DISEASE

Interactions of Growth Factors and Integrins with the Extracellular Matrix
Reinhard Fassler, Jeffrey A. Hubbell, Karen M. Lyons *

Effects of Enzymatic Modification of Extracellular Matrix Proteins
Xi He, Nabil G. Seidah, Zena Werb

Regulation of Stem Cell Niches by the Extracellular Matrix
George E. Davis, Songtao Shi, Steve Weiss

Function of the Extracellular Matrix in Development and Disease
Peter H. Byers, Jeffrey P. Gorski *, Ralph Marcucio

THE HUMAN MICROBIOME

Measuring and Predicting Microbial Community Dynamics
Elhanan Borenstein, Eric Martens, Howard Ochman

Microbe-Host Interaction
Andrew Goodman *, Lora Hooper, Dennis Kasper

Chemistry of Commensal Biology
Helen Blackwell, Nicole Koropatkin, David Mills

Gut Microbes, Drugs, and Toxins
Gautam Dantas, Matthew Redinbo *, Laurence Zitvogel

LIPIDS – IN VIVO DYNAMICS, PROTEIN PARTNERS AND SIGNALING

Multi-talented Lipids
Pietro De Camilli, Nullin Divecha, Adrian Salic

Lipids Meet Chemistry
Michael Best *, Takanari Inoue, Jin Zhang

Lipids Caught in Action
Wonhwa Cho *, Rami Hannoush, Carsten Schultz

Lipid Magic: How Do They Do It?
Anne-Claude Gavin, Carol Robinson, Roger Williams

(*) ASBMB Annual Meeting Program Planning Committee Member
**Chemical and Optogenetic Manipulation of Lipid Signaling Workshop**
Pietro De Camilli, Takanari Inoue

**MECHANISTIC IMPACTS OF POSTTRANSLATION MODIFICATIONS**

*Posttranslational Modifications of Lysine*
Philip Cole *, Robert A. Copeland, Dirk Schwarzer

*Posttranslational Modifications of Arginine: Methylation, Citrullination, Phosphorylation*
Tim Clausen, Danica Galonic Fujimori, Paul R. Thompson *

*Posttranslational Modifications of Cysteine: Lipidation and Oxidation*
Maurine Linder, Brent Martin, Eranthie Weerapana

**O-GlcNAcylation: How Sweet It Is**
Donald Bers, Gerald W. Hart, Suzanne Walker

**NEW DIRECTIONS IN ENZYMEOLOGY**

*New Reactions of Old Cofactors*
Tadgh P. Begley, Lizbeth Hedstrom *, Bradley Moore

*Discovering New Enzymes*
Karen N. Allen, Margaret A. Phillips, Frank M. Rauschel

*Enzyme Modules and Complexes*
Francisco J. Asturias, Eileen K. Jaffe, Vicki Hopper Wysocki

*Strategies for Substrate Recognition*
Kate S. Carroll *, Hening Lin, Wilfred van der Donk

**PLANT METABOLISM**

*Vitamin and Amino Acid Metabolism of Plants*
Gilles J. Basset, Natalia Dudareva, Andrew D. Hanson

*Applying Proteomics and Metabolomics to Understand Plant Function*
Ana Paula Alonso, Mike R. Sussman, Jay J. Thelen, Ruth Welti *

*Plant Lipid Metabolism*
Christoph Benning, Edgar Cahoon *, Kent D. Chapman, Ljerka Kunst

*Plants as Sources of Bioenergy*
John M. Dyer, Maureen C. McCann, Sabeeha Merchant

**PROTEIN NON-FOLDING AS A REGULATORY PHENOMENON**

*Mediating Protein Interactions: Is Folding Required?*
Jane Clark, Ashok Deniz, Tanja Mittag

*Regulating Functional Interactions by Dysfunctional Proteins*
David Eliezer, Elizabeth Rhoades *, Collin Stultz

*Defining Protein Disorder*
Mónika Fuxreiter, Jörg Gsponer, Scott A. Showalter *

*Targeting Disorder with Small Molecules*
Carlos J. Camacho, Steven J. Metallo, Sheena E. Radford
RNA EXPRESSION AND POSTTRANSCRIPTIONAL REGULATORY EVENTS

Structure and Function of the Transcription Machinery
Jeff L. Corden, Dong Wang, Yan Jessie Zhang *

Making Mature RNA
David Bentley, Akiko Hata, Ian MacRae

Crosstalk between RNA, Transcription and Chromatin
Jeannie T. Lee, Danesh Moazed, Ramin Shiekhattar

RNA Expression and Cell Fate
Xiang-Dong Fu, Grace Gill *, John T. Lis

WHAT’S NEW IN MEMBRANE TRANSPORT PROTEINS

Membrane Channels I – Molecular Basis of Gating, Activation, and Selectivity
William Cetterall, Ann E. McDermott, Mark L. Mayer

Membrane Channels II – New Channels and Novel Functions
 Rachelle Gaudet, Hartmut Luecke, Christopher Miller

Transporters I – Crystallographic Insight Into Transporter Mechanisms
 Olga Boudker *, Robert Stroud, Ming Zhou

Transporters II – Capturing Functional Motions of Transporters
 Scott C. Blanchard, Heather Pinkett, Emad Tajkhorshid *

CAREERS, MENTORING, AND CHANGES IN MEDICAL EDUCATION

This theme is sponsored by the ASBMB Education and Professional Development Committee.

Diverse Career Opportunities for Scientists
Cheryl P. Bailey*, Judith S. Bond, Bridget Coughlin

Industry Careers
Tomi K. Sawyer, Mark Wallert*

Helping Postdoctoral Fellows and Graduate Students
Develop Professionally
Suzanne E. Barbour, Phillip S. Clifford, Keith Micoli

Changes in Medical Education
Charles Brenner, Marc Kroopnick, Jose Manuel de la Rosa

GUEST SOCIETY SYMPOSIUM

Training the Mind of an Interdisciplinary Scientist
Presented by The Society for Experimental Biology and Medicine

ASBMB PUBLIC POLICY AND SCIENCE OUTREACH

Who SHOULD Be Funding Biomedical Research?
Science Outreach Poster Session
Improvisation for STEM Professionals: Creating Engaging Conversations
Raquell Holmes
Improvscience Science CHAT
Raquell Holmes

ASBMB UNDERGRADUATE STUDENT SPECIAL EVENTS

The following events are scheduled on Saturday, March 28th.
• ASBMB Annual Meeting Undergraduate Orientation
• ASBMB 19th Annual Undergraduate Student Research Poster Competition **
• ASBMB Career Development Workshop for Undergraduates

Attention Undergraduates - Submitted abstracts will be programmed for presentation during the main EB meeting, March 29-April 1. The presentation day/time will be sent in early February in an official EB 2015 programming notification email. Participation in the undergraduate poster competition is a special event and is in addition to presenting during the main EB meeting. Poster competition details are posted at www.asbmb.org/meeting2015.

(**) Advance registration required.
ASBMB SPECIAL EVENTS

• ASBMB Graduate and Postdoctoral Professional Development Program **
• ASBMB Graduate and Postdoctoral Travel Award Networking Poster Session **
• ASBMB Opening Lecture and Reception
• ASBMB Welcome and Networking Reception sponsored by the ASBMB Minority Affairs Committee **

ASBMB TRAVEL AWARDS

Applicant is responsible for following all application requirements posted at www.asbmb.org/meeting2015/travelawards. Applicant must submit his/her own application by the posted deadline. Advisors should NOT submit abstracts or applications on behalf of a student/trainee.

19th ANNUAL ASBMB UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION

Saturday, March 28, 2015, Boston

Cash prizes awarded to students making the best poster presentations. Sign up information and competition details for competitors and judges available at www.asbmb.org/meeting2015/events.

ABSTRACT & PROGRAM INFORMATION

American Society for Biochemistry and Molecular Biology (ASBMB)

Phone: 240-283-6600
Email: meetings@asbmb.org
Website: http://www.asbmb.org/meeting2015
LECTURES

ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE: Cancer Progression: The Failure to Resolve? Award Recipient: DIPAK PANIGRAHY MD
Sponsored by the ASIP Neoplasia/Growth Regulation Scientific Interest Group

ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE: High Throughout Sequencing for Discovering New Biology Award Recipient: ANINDYA DUTTA PhD, MBBS

ASIP ROUS-WHIPPLE AWARD LECTURE: Leukocyte-Epithelial Interactions: A Double-Edged Sword Award Recipient: CHARLES A. PARKOS MD PhD

ASIP YOUNG SCIENTIST LEADERSHIP AWARD: IQGAP1 is a Critical Regulator of Transendothelial Migration Award Recipient: DAVID P. SULLIVAN PhD
Supported by an unrestricted educational grant from the A.D. Sobel – ASIP Education Fund

ASMB LECTURE: Extracellular Matrix Proteolysis by ADAMTS Proteases in Development and Disease Speaker: Suneel S. Apte
Sponsored by ASIP and the American Society for Matrix Biology

THE JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY LECTURE
Chair: John R. Couchman
Speaker: Gauden Danuser
Sponsored by The Histochemical Society

SYMPOSIA

ACVP Symposium: Intestinal Microbiome: Lessons from Comparative Medicine
Chairs: Melissa M. Schutten and Ruth Sullivan
Sponsored by the ASIP Veterinary Pathology Scientific Interest Group and the American College of Veterinary Pathologists

Blood Vessel Club: Macrophages in the Vessel Wall
Chairs: Jonathon W. Homeister and James R. Stone
Sponsored by the ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group

Environmental and Toxicologic Pathology Symposium: Air Pollution and Health Effects: Cognition, Neuropathology, Cardiovascular, and Metabolic Disease – What You Ought to Know by Now!
Chairs: Lilian O. Calderon-Garciduenas and Elizabeth Galbreath
Sponsored by the ASIP Environmental and Toxicologic Pathology Scientific Interest Group and the Society of Toxicologic Pathology

Epithelial Junctions, Polarity and Cancer
Chairs: Andrei I. Ivanov and Asma Nusrat
Sponsored by the ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group

HCS Symposium: Advance Imaging Techniques and Systems: Super Resolution Microscopy
Chairs: Paul Goodwin and Douglas Rosene
Sponsored by The Histochemical Society and the ASIP Immunohistochemistry and Microscopy Scientific Interest Group
**Chairs:** John J. Shacka and Stephen M. Hewitt
Sponsored by The Histochemical Society and the ASIP Immunohistochemistry and Microscopy Scientific Interest Group
Supported by an unrestricted educational grant from The Robert E. Stowell Endowment Fund

**Histones, Inflammasomes, NETs and Cell/Organ Injury**
**Chairs:** Peter A. Ward and Charles T. Esmon
Sponsored by the ASIP Cell Injury Scientific Interest Group

**Inflammation and Wound Repair**
**Chairs:** Asma Nusrat and Andrei I. Ivanov
Sponsored by the ASIP Cell Injury, Inflammation/Immunopathology and Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Groups

**Liver Pathobiology Symposium: Hepatic Regenerative Medicine: De-Liver-ing the Promethean Promise!**
**Chair:** Satdarshan P. Monga
Sponsored by the ASIP Liver Pathobiology and Regenerative Medicine Scientific Interest Groups

**Lung Symposium: Ontogeny and Injury**
**Chairs:** Mary E. Sunday and Charles W. Frevert
Sponsored by the ASIP Pulmonary Pathobiology Scientific Interest Group

**Modulators of Endothelial Cell Inflammation and Angiogenesis**
**Chairs:** Tanya N. Mayadas and Pilar Alcaide
Sponsored by the ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group

**Molecular and Cellular Basis of Disease: Neoplasia Mornings:**
**SIPMeT Symposium: Cancer Stem Cells**
**Chairs:** Sebastiano Andò and Kevin Gardner
Sponsored by the Società Italiana di Patologia e Medicina Trasazionale and the ASIP Neoplasia/Growth Regulation and Regenerative Medicine Scientific Interest Groups

**Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: Advances in the Understanding of Neural Development and Disease: Cells and Circuits**
**Chairs:** Jose J. Otero and Anne F. Buckley
Sponsored by the ASIP Neuropathology Scientific Interest Group

**Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: President’s Symposium: Advances in Investigative Neuropathology**
**Chair:** Kevin A. Roth
Sponsored by the ASIP Neuropathology Scientific Interest Group

**Programmed Non-apoptotic Cell Death in Tissue Injury**
**Chairs:** Wen-Xing Ding and Wei-Xing Zong
Sponsored by the ASIP Cell Injury Scientific Interest Group

**SCVP Symposium: Protein Misfolding in the Heart: Conformation Cardiomyopathies**
**Chairs:** James R. Stone and Monte S. Willis
Sponsored by ASIP and the Society for Cardiovascular Pathology

**Signaling through the Matrix in Inflammation, Autophagy and Angiogenesis**
**Chairs:** Renato V. Iozzo and Liliana Schaefer
Sponsored by the ASIP Inflammation/Immunopathology Scientific Interest Group
WORKSHOPS/SPECIAL SESSIONS

XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamental Basics for Success: How to Give an Award Winning Presentation
Chairs: Jayne Reuben and Edward A. Medina
Sponsored by the ASIP Committee for Career Development and Diversity and the American Association of Anatomists
Supported by an unrestricted educational grant from the FASEB Maximizing Access to Research Careers (MARC) Office
Please register for this event when you register for the Experimental Biology Meeting

XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist
Chairs: Michael A. LaFlamme and Jonathan S. Reichner
Sponsored by the ASIP Education Committee and the Association of Pathology Chairs
Please register for this event when you register for the Experimental Biology Meeting

ASIP Awards Reception
Open to all EB 2015 Attendees

ASIP Membership Business Meeting
Chair: Kevin A. Roth

Breast Cancer Workshop: Genetic and Phenotypic Diversity
Chair: William B. Coleman
Sponsored by the ASIP Breast Cancer Scientific Interest Group

Cell Injury Workshop: Scars and Souvenirs: Inflammation and Fibrosis in the Heart, Lung, and Skin
Chairs: Cecelia C. Yates and Monte S. Willis
Sponsored by the ASIP Cell Injury Scientific Interest Group

Course: Pathobiology for Basic Scientists: Looking Into the Crystal Ball: Inflammasomes and Disease
Chairs: Richard N. Mitchell and Patrica A. D’Amore
Sponsored by the ASIP Education Committee

* NIH Bootcamp: Leadership and Management Training for Postdoctoral Fellows and Advanced Graduate Students
Sponsored by the ASIP Committee for Career Development and Diversity and the FASEB Maximizing Access to Research Careers (MARC) Office

* F TROOP: Roadmap to Fellowship Grant Applications
Chairs: Linda M. McManus and Cecelia C. Yates
Sponsored by the ASIP Committee for Career Development and Diversity
Supported by an unrestricted educational grant from the FASEB Maximizing Access to Research Careers (MARC) Office

HCS Members Awards Presentation, Business Meeting and Reception
Sponsored by The Histochemical Society

Highlights: Graduate Student Research in Pathology
Chairs: Titus A. Reaves and Sarah Headland
Sponsored by the ASIP Committee for Career Development and Diversity

High School Teacher Session: Scientific Sleuthing of Human Disease for High School Teachers
Chairs: Kari Nejak-Bowen and Martha B. Furie
Sponsored by the ASIP Education Committee

Liver Pathobiology Workshop: Cellular and Molecular Mechanisms of Liver Injury: Implications in Disease Pathogenesis
Chairs: Kari Nejak-Bowen and Bryan L. Copple
Sponsored by the ASIP Liver Pathobiology Scientific Interest Group

* Lunch and Learn: Ethics of Personalized Medicine
Chairs: Wendy Mars, Danny A. Milner, and Richard N. Mitchell
Sponsored by the ASIP Education Committee
* Scientific Interest Group Networking Sessions and Poster Discussions
This session is open to all. All of the ASIP Scientific Interest Group Poster Sessions will be held at the same time in the same location. Select posters from each Scientific Interest Group will be on display for informal discussions.
• Biobanking
• Breast Cancer
• Club Hepatomania™ (Liver Pathobiology)
• Der Schadenklub (Cell Injury)
• Environmental and Toxicologic Pathology
• Immunohistochemistry & Microscopy
• Neuropathology
• Vascular and Mucosal Pathobiology
• Veterinary Pathobiology

Trainee Welcome Reception
Sponsored by the ASIP Committee for Career Development and Diversity

Workshop: Lessons From TCGA
Chairs: Thomas J. Giordano and Matthew Meyerson
Sponsored by the ASIP Neoplasia/Growth Regulation Scientific Interest Group

NIH Bootcamp: Leadership and Management Training for Advanced Graduate Students and Postdoctoral Fellows
Sponsored by the FASEB MARC Program and the ASIP Committee for Career Development and Diversity
This is a one and a half day program, including a Friday all day session. Pre-register directly with FASEB MARC; travel assistance available (see page 5) and the Saturday morning F TROOP session (see page 28). Register for this event when you register for the Experimental Biology meeting.

* Please register for this event when you register for the Experimental Biology Meeting
SYMPOSIA

The Presidential Symposium: Nutrition and Developmental Origins of Health and Disease
Chair: Simin N. Meydani

Gut Microbes and the Brain: What Is the Effect on Human Behavior?
Chairs: Emeran Mayer and W. Allan Walker

Translational and Transformational Concepts in Amino Acid Sensing
Chairs: Susan Hutson and Tracy G. Anthony

Integrated Nutrition and Early Child Development Interventions
Chairs: Kristen Hurley and Silvia Fernandez-Rao

Is “When” We Eat as Important as “What” We Eat?
Chronobiological Aspects of Food Intake
Chairs: Lisa Sanders

Improving Cardioskeletal Health by Exploring the Heart – Bone Connection
Chairs: Connie M. Weaver

Approaches to Account for the Effects of Inflammation on Nutrient Biomarkers: Results from the Biomarkers Reflecting Inflammation and Nutrition Determinants of Anemia (BRINDA) Project
Chairs: Rafael Flores-Ayala and Daniel Raiten

An Interdisciplinary Examination of Potential Effects of Maternal Obesity on Lactation Physiology and the Human Milk Microbiome
Chairs: Cheryl Lovelady and Laurie Nommsen-Rivers

Improving Nutrient Recommendations: A Look at Replication, Risk Assessment and the Role of Food Science in Research
Chairs: Kristin Rubin

Moderate Alcohol Use, Nutrition and Chronic Diseases: What We Know and Where to Go Next
Chairs: Niyati Parekh and Mary Platek

Determinants of Disease Risk in the Postprandial Period
Chairs: TBD

EDUCATION TRACK SESSIONS

Establishing Yourself as an Expert
Chairs: Eric Ciappio and Mary N. Henderson
Organized by the Young Professional Interest Group

Research Reporting in the 21st Century: How it is Different and Why You Should Care
Chair: Naomi Fukagawa

Clinical Emerging Leader Award Competition
Organized by the Medical Nutrition Council

Global Nutrition Student Poster Competition
Organized by the Global Nutrition Council

Postdoctoral Research Award Competition
Organized by the Young Professional Interest Group

Young Minority Investigator Oral Competition
Organized by the Minority and Diversity Affairs Committee

Graduate Student Research Award Competition
Organized by the Nutritional Sciences Council
AWARD LECTURES
The ASN scientific program includes the following award lectures. Award recipients and presentation titles will be announced at a later date.

G.A. Leveille Lecture
Kellogg Prize in International Nutrition Research Lecture
W.O. Atwater Memorial Lecture

SPECIAL EVENTS
• Membership Reception and University Mixer
• ASN Annual Business Meeting
• Awards Ceremony
• Graduate Student Breakfast
• Department Heads Breakfast
• First-Time Attendee and New Member Orientation
• Luncheon for Fellows, 50-Year Members, and Past-Presidents
• Council and RIS Business Meetings and Special Functions

MINISYMPOSIA AND POSTER SESSIONS
For more information, visit http://scientificsessions.nutrition.org/abstract-information/

Minisymposia and/or poster sessions will be organized on the following topics:

Aging and Chronic Disease
• Risk Factor Modification for Cardiometabolic Health and Chronic Disease
• Nutritional Needs and Assessment in Older Adults/Populations
• Nutrition and Sarcopenia (New!)
• Nutrition and Osteoporosis

Community and Public Health Nutrition
• Community and Public Health Nutrition Interventions
• Food Security and Its Connections to Nutrition and Health
• Health Disparities and Promoting Health in Diverse Populations
• Food Environment
• Policy and Systems Approaches in Community and Public Health Nutrition (New!)

Carotenoid Research Interest Group (CARIG)
• Carotenoids and Health
• Carotenoids and Retinoids: Molecular Mechanisms of Action
• Bioavailability and Metabolism of Carotenoids and Vitamin A
• Biofortification of Staple Crops with Micronutrients

Diet and Cancer
• Molecular Targets
• Animal Studies
• Clinical and Human Studies

Dietary Bioactive Components
• Bioavailability, Metabolism and Biomarkers of Dietary Bioactive Components
• Mechanisms of Action and Molecular Targets of Dietary Bioactive Components
• Effects of Dietary Bioactive Components on Experimental Models of Chronic Disease Risk
• Antioxidant and Anti-inflammatory Effects of Dietary Bioactive Components
• Cardiovascular Effects of Dietary Bioactive Components
• Dietary Bioactive Components of Medicinal, Functional and Whole Foods (including Probiotics and Fermented Foods)

Energy and Macronutrient Metabolism
• Energy Balance, Macronutrients and Weight Management
• Obesity and the Metabolic Syndrome (Co-sponsor: Obesity RIS)
• Protein and Amino Acid Metabolism
• Lipid and Fatty Acid Metabolism and Transport
• Energy and Macronutrient Metabolism and the Gut
• Metabolic Phenotyping, Metabolomics and Biomarkers
• Carbohydrate Metabolism
• Diet and/or Exercise Regulation of Food Intake (Co-sponsor: Obesity RIS)
• Energy Metabolism and Aging (Co-sponsor: Aging and Chronic Disease RIS)
• Dietary Fatty Acids and Health
• Protein Intake and Health Implications

Experimental Animal Nutrition
• Animal Models of Fetal Nutrition, Programming and Neonatal Development (New!)
• Comparative Animal Nutrition and Physiology (New!)
• Animal Models of Nutrition and Disease (New!)
• Animal Models for Nutrition across Physiological States (New!)

Lactation
• Relationships of Maternal Diet and Health to Lactation Performance and Infant Health (New!)
• Predictors of Lactation Initiation and Duration and Interventions to Improve Lactation Success (New!)
• Bioactive Components and Other Milk Constituents and Their Effect on the Infant (New!)
• Biology of Lactogenesis, Lactation and Milk Composition (New!)

Global Nutrition
• Global Nutrition
Medical Nutrition
- Personalized Nutrition
- Nutrition and the Microbiome
- Interventions for the Treatment and Prevention of Nutrition-Related Diseases
- Nutrition and Inflammation
- Prenatal Nutrient Programming in Humans
- Nutrition across the Lifespan: Nutrition, Neurobiology, Mood and Behavior (Co-sponsor: Aging and Chronic Disease, Obesity and Nutrition Translation) (New!)
- Nutrition across the Lifespan: Early Childhood Nutrition (New!)
- Nutrition across the Lifespan: Nutrition and Reproductive Health (New!)

Nutrition Education
- Evidence-Based Nutrition Education: Development, Testing, and Evaluation
- Nutrition Education and Behavior Change
- Childhood Obesity Prevention
- Developing Healthy Eating and Physical Activity Behaviors across the Lifespan

Nutrient-Gene Interactions
- Nutrient-Gene Interactions: Genomics, Proteomics, and Metabolomics
- Nutrient-Gene Interactions: Epigenetics
- Nutrient-Gene Interaction: Obesity and Inflammation
- Nutrient-Gene Interaction: Chronic Disease (New!)
- Nutrient-Gene Interaction: Exercise (New!)
- Nutrient-Gene Interaction: Bioactives (New!)
- Nutrient-Gene Interaction: Biomarkers (New!)

Nutritional Epidemiology
- Innovation and Validation of Dietary Assessment Tools and Their Applications
- Epidemiological Research Addressing Diet and Health Outcomes
- Nutrition and Chronic Disease Epidemiology
- Research with Dietary Supplements and Bioactive Components
- Advancing Nutritional Epidemiology with Public Use and Commercial Data Sets
- Epidemiologic Methods in Examining Health Outcomes in Diverse Populations (Co-sponsor: Minority and Diversity Affairs Committee)
- Exploring Geographic Based Methods in Nutrition Epidemiological Research

Nutritional Immunology
- Nutritional Immunology
- Nutrition and Infection (New!)

Nutrition Translation
- Food Science and Technology in Nutrition (New!)
- Nutrition Science for Public Policy, Practice and the Consumer (New!)

Obesity
- Diet, Devices, Medications and Surgery
- Gut Microbiome and Obesity (New!)
- Obesity and Chronic Diseases
- Macronutrients and Obesity (New!)
- Body Composition
- Childhood Obesity Management (New!)

Vitamins and Minerals
- Water and Fat Soluble Vitamins and Chronic Disease
- Micronutrient Bioavailability and Antioxidant Function
- Zinc
- Selenium
- B Vitamins and One-Carbon Metabolism
- Micronutrient Interventions
- Trace Element Transport and Homeostasis in Health and Disease (New!)

Sports Nutrition
- Nutrition, Dietary Supplements and Human Performance

Other
- Dairy and Yogurt: Health and Nutrition Effects
- Nutrition and Sustainability (New!)

Education and Teaching
- Nutrition Education in Medical and Other Professional Schools
- Nutrition Education for Practicing Clinicians
- Innovations in Undergraduate, Graduate and Medical Nutrition Education

Policy
- Innovations in Nutrition Monitoring (New!)
- Nutrition Policy Implementation and Evaluation
- Nutrition Programs and Policies to Improve the Health of Subpopulations (i.e., Children, Older Adults, Minorities) (Co-sponsor: Aging, Community and Public Health, and Public Policy Committee) (New!)
- Public-Private Partnerships (New!)

Thank You
The American Society for Nutrition thanks its partners that support scientific symposia, awards, special events and more. To learn how you can get involved in ASN’s Scientific Sessions and Annual Meeting at EB 2015, please contact meetings@nutrition.org.
LECTURES

JOHN J. ABEL AWARD IN PHARMACOLOGY LECTURE
Speaker: TBD at www.aspet.org

JULIUS AXELROD AWARD IN PHARMACOLOGY LECTURE:
Arresting Developments in Receptor Signaling
Speaker: Jeffrey L. Benovic

BENEDICT R. LUCCHESI DISTINGUISHED LECTURESHIP IN
CARDIAC PHARMACOLOGY: Regenerative Therapy for the
Failing Heart
Speaker: Andre Terzic

NORMAN WEINER LECTURE
Speaker: William A. Catterall

DRUG METABOLISM EARLY CAREER ACHIEVEMENT
AWARD LECTURE
Speaker: TBD at www.aspet.org

REYNOLD SPECTOR AWARD IN CLINICAL
PHARMACOLOGY LECTURE
Speaker: TBD at www.aspet.org

PRELIMINARY SYMPOSIA

Active Learning: What's Up with That Flipping Classroom?
Chair: John L. Szarek

ASPET Presidential Symposium: Navigating the Future of
Biomedical Research
Chair: Annette E. Fleckenstein

Biased GPCR Signaling in Drug Development: From Theory
to Physiology
Chair: Sudarshan Rajagopal and Arthur Christopoulos

Bile Acids and Liver Disease in Pregnant Women and
Neonates
Chair: Lauren M. Aleksunes

“Can We Talk?” Strategies for Collaborative
Pharmacology Education
Chairs: A. Laurel Gorman, Jayne S. Reuben and John L. Szarek

Cardiac Fibroblasts: Fair-weather Friends in Myocardial
Fibrosis and Repair
Chair: Paul A. Insel

Common Pathways and Mechanisms of Chronic Pain and
Opioid Addiction
Chair: Susan L. Ingram

Crossing the Line: Exploring the Boarders between
Physiological Redox Signaling and Oxidative Stress
Chair: Thomas Michel

Elucidating the Molecular Underpinnings of Behavior Using
Pharmacological Knock-in Mouse Models
Chair: Randy D. Blakely

Emerging Regenerative Therapies in Pulmonary Disease
Chair: Yuru Liu

Emerging Roles of Trace Amine Associated Receptor 1
(TAAR1) in Drug Abuse and Mental Disorders
Chair: Jun-Xu Li

Interindividual Variability in CYP-Mediated Drug
Metabolism
Chairs: Hyunyoung Jeong and Timothy S. Tracy

Ion Channel Drug Discovery-Advancements and Current
Challenges
Chairs: Sujay V. Kharade and Michael F. Jarvis

Julius Axelrod Symposium: The Ins and Outs of G Protein-
Coupled Receptor Signaling
Chair: Jeffrey L. Benovic

Membrane Transporters at the Interface of Drug
Interactions, Biomarker Monitoring and Toxicity
Chairs: Lauren M. Aleksunes and Yurong Lai
Monoamines and Neurotrophins in Inflammatory Bowel Disease/Irritable Bowel Syndrome  
**Chairs:** Hamid I. Akbarali and Sandor Szabo

Moving Beyond Traditional Stimulants: Emerging Characteristics and Therapeutic Applications of Atypical Reuptake Inhibitors  
**Chairs:** Lawrence P. Carter and Bruce E. Blough

Nanotoxicology: Small Particles, Big Concerns  
**Chairs:** Jeffrey S. Fedan and Dale W. Porter

Natural Products: Bioactive Molecules from Nature  
**Chairs:** Benedict T. Green and Bruce E. Blough

New Roles of Mitochondria in Vascular Function  
**Chairs:** David W. Busija and Prasad Katakam

New Technologies to Measure Mitochondrial Changes  
**Chairs:** Craig C. Beeson and Brian S. Cummings

New Therapies for an Old Problem: The NINDS-Sponsored Anticonvulsant Screening Program  
**Chairs:** John H. Kehne and Karen S. Wilcox

Novel Therapeutic Targets and Preclinical Models of Post-Traumatic Stress Disorder  
**Chair:** Carrie K. Jones

Pharmacology of Neuronal Regeneration and Repair  
**Chairs:** Jonathan S. Marchant and Brock Grill

Presynaptic Autoreceptors and Improved Treatments of Major Psychiatric Disorders  
**Chair:** Salomon Z. Langer

Protein Trafficking and Drug Development  
**Chair:** P. Michael Conn

Psychomotor Stimulant Addiction: Lessons from Methamphetamine  
**Chairs:** Rajeev I. Desai and Michael A. Nader  
(Acceptance pending)

Reproducibility in the Pharmacological Sciences: Moving the Discussion Forward  
**Chair:** Darrell R. Abernethy

Securing NIH Intramural Fellowships in Neuropharmacology  
**Chairs:** Margarita Valencia and Janet E. Clark

Speed Networking for Careers Beyond the Academic Bench  
**Chairs:** Janet E. Clark and Paul McGonigle

Structural and Dynamic Basis of Receptor-Ligand Interactions  
**Chairs:** Eric Ortlund and Stephen F. Traynelis

Structural Basis for Ion Channel Pharmacology  
**Chair:** William A. Catterall

Systems Pharmacology: Enhancing Translational Research by Networking and Pharmacodynamic Modeling  
**Chairs:** Donald E. Mager and Darrell R. Abernethy

The Human Microbiome: Systems Pharmacology Insights and the Potential for New Drug Discovery  
**Chairs:** Ross Corriden and Christopher LaRock

The Role of Protein-Protein and Protein-Membrane Interactions on P450 Function  
**Chair:** Wayne L. Backes

Transporter-Mediated Drug Interactions: Clinical Significance and Predictions  
**Chairs:** Maciej J. Zamek-Gliszcznski and Caroline Lee

Vascular Stiffness, A Novel Therapeutic Approach for Hypertension  
**Chair:** Stephen F. Vatner

**DIVISION SESSIONS**

Behavioral Pharmacology Division Symposium  
**Chair:** TBD at www.aspet.org

Cardiovascular Pharmacology Division Trainee Showcase

Drug Discovery and Development Division Symposium: Drug Development in Academics  
**Chairs:** Robert J. Leadley and Robert W. Centers

Drug Metabolism Division James Gillette Best Paper Award and Platform Session

Integrative Systems, Translational and Clinical Pharmacology Young Investigator Awards Platform Session

Molecular Pharmacology Division Postdoctoral Award Finalists  
Keynote Speaker: TBD at www.aspet.org

Neuropharmacology Division Postdoctoral Scientist Award Finalists  
Keynote Speaker: TBD at www.aspet.org

Pharmacology Education Division Symposium  
**Chair:** TBD at www.aspet.org

Toxicology Division Symposium: Pharmacogenetics and Drug Toxicity  
**Chair:** Gary O. Rankin
Student-Postdoc Best Abstract Competition

Sunday March 29, 2015
Cash prizes will be awarded to students and postdocs making the best poster presentations

1. Submit an abstract as first author by November 24, 2014 to EB 2015

2. Go online to www.aspet.org/awards/best-abstract, and select Graduate Student Best Abstract Awards, Postdoctoral Scientist Awards, Drug Discovery and Development Young Investigator Awards or Undergraduate Student Best Abstract Awards, as appropriate.

3. Apply online by November 24, 2014 to the Division in which the presented research falls.

4. Finalists will be asked to present their poster at the Graduate Student-Postdoc Best Abstract Competition from 6:30 p.m. - 8:30 p.m. on Sunday, March 29.

5. Posters will be judged by judges from the Divisions.
Teaching Poster Sessions
Recognizing that techniques and issues related to teaching and the use of computers in research and teaching cross all biomedical disciplines, EB 2015 will combine education posters from all participating societies into two special poster sessions. Although posters will be on display during exhibit hours Sunday through Tuesday, authors are required to be present at their posters during an assigned day and time for demonstration, which will be listed in the Program. Authors must prepare standard-sized posters in addition to their demonstrations.

Computers in Research & Teaching
**Topic Category 8100-EB**
Demonstrate collegial (not for sale) software for research and teaching purposes. A special area of the exhibit hall will have poster boards and provisions for both IBM PC compatible and Mac computers with Internet access. Authors are encouraged to bring laptops. For more information, please contact Dr. Jerry Collins at 2113 Timberwood Place, Nashville TN 37215; telephone 615-243-5535 (cell); email: jerry@bothcollinses.com.

Teaching, Learning and Testing in the Biological and Biomedical Sciences
**Topic Category 8200-EB**
This is for all teaching/education-related posters, regardless of discipline, that do not require a computer. Posters describing any aspect of teaching and learning in the biological and biomedical sciences should be submitted to this category. For presentations that involve a demonstration, authors are encouraged to bring the actual materials that they use for teaching. Tables and electrical outlets will be available at each poster board for demonstrations.

Abstract Deadline:
**Thursday, November 6, 2014**
**Abstract Processing Fee:** $65
Before you submit your abstract, please read the Rules and Guidelines for Abstract Submission at [www.experimentalbiology.org](http://www.experimentalbiology.org)

The topic that you select from the topic category list determines which society receives and programs your abstract. Therefore, it is important that you review the society topic categories on pages 39–56 or at [www.experimentalbiology.org](http://www.experimentalbiology.org) before submitting your abstract. Please follow the guidelines below.

Help us program your abstract correctly
Each society has its own list of topics. You may choose a topic from any society listing. Please begin by searching for all related topic categories at [www.experimentalbiology.org](http://www.experimentalbiology.org).

Remember which society is programming your abstract
• Your abstract will be received and programmed by the society that lists your topic choice.

• Each society uses a different programming method – your abstract may go to a program committee or to a session chair.
• Knowing which society is programming your abstract makes follow-up easier.

Indicate your preference for oral or poster presentation
• While the programming society makes the final decision about whether you will make an oral or poster presentation, it is important to indicate your preference on the submission form.
• For all societies, abstracts not selected for oral presentation will be programmed as posters. For APS and ASBMB all abstracts selected for oral presentation must also be presented as posters.
• Submitting to a minisymposium or featured topic is not necessarily an automatic request for oral presentation. You may request a poster presentation when submitting to a minisymposium or featured topic.
• AAA hybrid symposia and platform sessions are only oral presentations. Abstracts not selected will be programmed as posters.
NOTIFICATION OF PROGRAMMING
The first author and the sponsor will be notified via email late January:
• Title, date, and time of session in which abstract has been programmed
• Format of presentation (oral, poster or both)
• Program number
• Presentation time

This information will not be available prior to that time! It will be emailed prior to the February 2, 2015 early registration deadline. Co-authors will not receive notification.

Poster Policy
• Presenters must mount their posters no later than 8:30 AM on their day of presentation.
• The Exhibit Hall opens at 7:00 AM to mount posters.
• Presenters are expected to be at their poster boards during the assigned session presentation time, as designated by each society.
• Posters must remain on display all day from 8:30 AM – 5:00 PM (except on Wednesday.)
• Posters that do not remain on display all day during their assigned day may at the discretion of the programming society, be ineligible for awards.
• Recording (photographing, audio taping or videotaping) any presentation/session is PROHIBITED, except by an EB-authorized agent or by First Authors who want to photograph their poster presentation.

E-Posters
• Following the EB 2015 meeting, all poster authors are invited to upload their poster to the EB website.
• The e-posters will be accessible to all registered attendees for viewing after the conclusion of the meeting.
• Instructions for uploading your poster will be sent with your confirmation in February.

IMPORTANT PROCEDURAL INFORMATION
• The abstract fee is NOT your registration fee and NOT your society membership fee.
• In addition to submitting your abstract, you must register for the meeting.
• After submitting your abstract, you must submit a separate application if you wish to apply for any of the Society awards and follow the process required by the society.
• The complete Call for Abstracts and general information is available at www.experimentalbiology.org
• Read the Scientific Integrity Policy on page 38.
The EB Scientific Integrity Policy for Submission of Abstracts is based on recommendations from the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, the Council of Science Editors White Paper on Promoting Integrity in Scientific Journal Publications, and the US Department of Health and Human Services’ Office of Research Integrity.

EB sponsoring societies expect all authors to comply with generally accepted standards to avoid scientific misconduct. For more information, please see Scientific Misconduct at experimentalbiology.org/2015/AbstractSubmissions.aspx.

ABSTRACT REVIEW

All abstracts submitted to EB for possible publication and presentation at the conference will undergo a review process by the sponsoring societies prior to publication in The FASEB Journal. (Please note: The FASEB Journal’s editors and editorial board play no role in the review of EB abstracts, and the review of EB abstracts is the responsibility of the sponsoring societies.) The goal of abstract review is to be inclusive of quality science without compromising scientific integrity. Each sponsoring society has developed a procedure for reviewing abstracts and has the general authority to reject an abstract as part of the review process. Both authors and reviewers are expected to take their roles seriously, as detailed below. For information about the abstract review process, please see Reviewer Conduct at experimentalbiology.org/2015/AbstractSubmissions.aspx.

AUTHOR CONDUCT

General Authorship Guidelines for EB Abstracts. Authorship is defined as 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the abstract or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3. Submission of an abstract to EB constitutes a commitment by the author(s) to scientifically defend their work in the format (poster, oral presentation, or both) assigned by the sponsoring society. Failure to do so, if not justified, may result in a notice of retraction in The FASEB Journal or may jeopardize future acceptance of abstracts.
Review the list of topics below to see which category fits best. Oral presentations will be selected from the submitted abstracts. Abstracts not selected for oral presentations, will be programmed as poster presentations. **You can submit more than one abstract.**

**POSTER TOPICS**

**7000-AAA Anatomy**
- Anatomy: Animal Models
- Anatomy: Gastrointestinal
- Anatomy: Cardiovascular
- Anatomy: Form & Variation
- Anatomy: Functional Anatomy & Biomechanics
- Anatomy: Respiratory
- Anatomy: Neural
- Anatomy: Musculoskeletal
- Anatomy: Urogenital

**7010-AAA Anatomy Education**
- Anatomy Education: Assessment, Curriculum & Mentoring
- Anatomy Education: Clinical Based Approaches
- Anatomy Education: Technology-Assisted Learning
- Anatomy Education: Teaching Methods & Innovations

**7015-AAA Biological Anthropology**

**7016-AAA Bones, Cartilage & Teeth**
- Bones, Cartilage & Teeth: Anatomy & Morphology
- Bones, Cartilage & Teeth: Craniofacial
- Bones, Cartilage & Teeth: Development
- Bones, Cartilage & Teeth: Evolution & Anthropology
- Bones, Cartilage & Teeth: Exercise, Biomechanics; Bioengineering
- Bones, Cartilage & Teeth: Molecular Mechanisms

**7023-AAA Cardiovascular Biology**
- Cardiovascular Biology: Aging
- Cardiovascular Biology: Anatomy & Morphology
- Cardiovascular Biology: Angiogenesis; Lymphangiogenesis; Vasculogenesis
- Cardiovascular Biology: Biomechanics; Bioengineering
- Cardiovascular Biology: Dysfunction; Disease; Genetic Disorders

**7029-AAA Cardiovascular Biology: Heart Development & Growth**

**7030-AAA Cardiovascular Biology: Imaging**

**7031-AAA Cardiovascular Biology: Sex & Gender Related Differences**

**7032-AAA Cardiovascular Biology: Stem Cells, Cell & Molecular Biology**

**7033-AAA Cell Biology**
- Cell Biology: Membranes & Cytoskeleton
- Cell Biology: Signaling & Molecular Biology
- Cell Biology: Organelles

**7037-AAA Development & Growth**
- Development & Growth: Birth Defects
- Development & Growth: Craniofacial
- Development & Growth: Limbs
- Development & Growth: Neural Crest & Placodes
- Development & Growth: Patterning
- Development & Growth: Reproduction
- Development & Growth: Gene & Protein Expression
- Development & Growth: Organogenesis

**7046-AAA Evolution and Comparative Anatomy**

**7047-AAA Extracellular Matrix**

**7048-AAA Imaging**
- Imaging: Anatomy
- Imaging: Functional Imaging
- Imaging: Technology & Methods
- Imaging: Computational Biology

**7053-AAA Muscle**
- Muscle: Biomechanics & Exercise
- Muscle: Development
- Muscle: Stem Cells & Regeneration

**7057-AAA Neurobiology**
- Neurobiology: Behavior; Neuropsychiatric Disorders; Disease; Aging
- Neurobiology: Brain
- Neurobiology: Development
- Neurobiology: Neural Cell Biology
- Neurobiology: Neuronal & Spinal Cord Degeneration, Repair & Regeneration
- Neurobiology: Neuroprotection & Neuroimmunology
EB 2015 BOSTON

7064-AAA  Regenerative Medicine, Stem Cells, Wound Healing & Bioengineering

7065-AAA  Didactic Methods in the Anatomical Sciences: How Does Technology Help or Hinder?

7066-AAA  The Anatomy of Genetics: How Trait Variation Gleaned from Anatomy is Crucial to Understanding the Genetics of Evolution

PLATFORM & HYBRID SYMPOSIUM
TOPIC SESSIONS
(ORAL PRESENTATIONS)
Abstracts submitted to the following topics will be considered for an oral presentation in either a hybrid or platform session. Submitting to one of these categories does not guarantee an oral presentation. A hybrid symposium includes an invited talk and up to four 15-minute oral presentations selected from abstracts; a platform session includes six-eight 15-minute oral presentations selected from abstracts.

Anatomy Education (7010 - 7014)
Biological Anthropology (7015)
Bones, Cartilage & Teeth (7016 - 7022)
Cardiovascular Biology (7003, 7023 - 7032)
Cell Biology (7033 - 7036)
Developmental Biology (7037 - 7045)
Didactic Methods in the Anatomical Sciences: How Does Technology Help or Hinder? (7065)
Evolution and Comparative Anatomy (7046)
Morphological Sciences (7017)
Neurobiology (7007, 7057 - 7063)
Stem Cells, Tissue Engineering & Regeneration (7064)
The Anatomy of Genetics: How Trait Variation Gleaned from Anatomy is Crucial to Understanding the Genetics of Evolution (7066)

EB TEACHING POSTER SESSION
If you would like to submit an abstract to one of EB’s Teaching poster sessions (#8100-8200), then you will have the opportunity to present your poster twice - once with the EB Teaching posters and a second time with the AAA Education posters. See page 36 for information about the EB Teaching posters.

8100-EB  Computers in Research & Teaching
8200-EB  Teaching, Learning and Testing in the Biological and Biomedical Sciences

STUDENT/POSTDOC TRAVEL AWARDS AVAILABLE
Travel awards of $250 and $350 are available for new and renewing AAA members who submit an abstract and present at EB 2015. All travel award applicants are also eligible for the on-site competition awards. The application is part of the abstract submission process, so apply online when you submit your abstract at www.experimentalbiology.org.

Visit www.anatomy.org/content/ebawards for details.

• Join or renew your AAA membership for 2015 by 11/10/14
• Be a First author and presenter at EB 2015
• List AAA/Anatomy as your sponsoring society
• Select an AAA abstract topic category
FEATURED TOPICS:

(IMPORTANT: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1001-APS  Autophagy and miRNA in Diabetic Heart Failure (Mishra)
1002-APS  Cardiovascular Responses to Trauma (Hester)
1003-APS  Cellular Membrane Repair in Cardiovascular Physiology and Pathophysiology (Weisleder)
1004-APS  Cerebrovascular Abnormalities in Hypertensive Disease (Dorrance/Warrington)
1005-APS  Molecular Regulators of Skeletal Muscle Angiogenesis in Health and Disease (Haas/Gustafsson)
1006-APS  Systemic and Pulmonary Vascular Function at High Altitude/Hypoxia: Learning from Maladaptations (Scherrer)
1008-APS  Wiggers Award Featured Topic (Spaan)
1009-APS  Kaley Lecture and Complementary Presentations (Nelson)

POSTERS:

1010-APS  Angiogenesis and vascular growth
1011-APS  Blood pressure regulation
1012-APS  Cardiac electrophysiology
1013-APS  Cardiac function and dynamics
1014-APS  Cerebral circulation
1015-APS  Coronary circulation
1016-APS  Diabetes and insulin resistance
1017-APS  Endothelial cell biology
1018-APS  Extracellular matrix and cardiac remodeling
1019-APS  Free radical signaling, oxidant stress, and injury
1020-APS  Gene expression and cardiovascular function
1021-APS  Genetic models of cardiovascular function
1022-APS  Hypertension
1023-APS  Microcirculation
1024-APS  Myocardial ischemia/myocardial metabolism
1025-APS  Nitric oxide/carbon monoxide/vasoactive molecules
1026-APS  Peripheral Circulation
1027-APS  Shock
1028-APS  Vascular pathobiology
1029-APS  Vascular smooth muscle

THE MICROCIRCULATORY SOCIETY

POSTERS:

1035-APS  Angiogenesis/microvascular remodeling/injury & repair
1036-APS  Atherosclerosis/thrombosis/platelets
1037-APS  Inflammation/leukocyte-endothelium interactions
1038-APS  Instrumentation, methodology, and experimental models
1039-APS  Ischemia-reperfusion/free radical biology
1040-APS  Lymphatic and venular function
1041-APS  Microvascular cell signaling pathways
1042-APS  Microvascular development and aging
1043-APS  Microvascular flow regulation/oxygen delivery/networks
1044-APS  Microvascular mechanics/hemodynamics/rheology
1045-APS  Microvascular pathophysiology-pharmacology, therapeutics and translational aspects
1046-APS  Pericytes and Stem Cells
1047-APS  Permeability/fluid & solute exchange/glycocalyx
1048-APS  Tissue-microvessel interactions/extracellular matrix
1049-APS  Vasomotor control: endothelium/smooth muscle/nerve

BIOMEDICAL ENGINEERING SOCIETY

POSTERS:

1055-APS  Mathematical models of organ systems, tissues or cells
1056-APS  Mechanobiology
1057-APS  Regenerative medicine
1058-APS  Tissue engineering

CELL & MOLECULAR PHYSIOLOGY SECTION

FEATURED TOPICS:

(IMPORTANT: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1060-APS  Cell Signaling: Proteins, Pathways and Mechanisms (Jones/Bradbury)
1061-APS  Ion Channels and Transporters in Health and Disease (O’Grady/Sarathy)
1062-APS  Oxidative Stress: Mechanisms and Responses (White)
POSTERS:
1063-APS Physiology of signal transduction: proteins, pathways and cells
1064-APS Microbiome: cellular interactions between host and organisms
1065-APS Ion channels, transporters and pumps in health and disease
1066-APS Apoptosis, cell stress and cell death
1067-APS Cell volume, osmoregulation and water transport
1068-APS Vesicle trafficking, membrane domains, polarity and protein targeting
1069-APS Oxidative stress, mitochondrial metabolism and redox changes in health and disease
1070-APS Stem cells, cell growth, development, differentiation and autophagy
1071-APS Transporters for transmitters, nutrients, metabolites and drugs
1072-APS Cell migration, contractility, cytoskeleton, and adhesion
1073-APS Physiology and pathophysiology of barriers in endothelia, epithelia and the blood brain barrier
1074-APS Cellular responses to inflammation
1075-APS pH homeostasis and acid-base transport
1076-APS Extracellular matrix, cell interactions and tissue organization

CENTRAL NERVOUS SYSTEM SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1080-APS CNS Mechanisms of Blood Pressure Regulation (Wainford)
1081-APS Spinal Plasticity (Dale)

POSTERS:
1082-APS Cognition and behavior
1083-APS Blood-brain barrier, brain blood flow and metabolism
1084-APS Brain development and aging
1085-APS Neuroinflammation/neuroprotection/ischemia
1086-APS Neuroendocrinology/neuroimmunology
1087-APS Neuroexcitability, neurotransmission and neuroplasticity
1088-APS Neurotransmission and signaling molecules
1089-APS Central nervous system: other
1090-APS Central regulation of food intake and body weight
1091-APS Central regulation of body fluid homeostasis
1092-APS Astrocyte and neuroglial interactions

COMPARATIVE & EVOLUTIONARY PHYSIOLOGY SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1095-APS The Cost of Physiological Plasticity (Hindle/van Breukelen)

POSTERS:
1096-APS Comparative cardiovascular and respiratory physiology
1097-APS Comparative metabolic physiology, biochemistry and endocrinology
1098-APS Comparative muscle physiology, locomotion and behavior
1099-APS Comparative osmotic, ionic, and acid-base regulation
1100-APS Comparative neurobiology
1101-APS Comparative nutritional physiology
1102-APS Comparative translational physiology
1103-APS Other comparative and evolutionary physiology
1104-APS Scholander Award Competition

ENDOCRINOLOGY & METABOLISM SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1115-APS Circadian Clock in Metabolic Regulation (Wang)
1116-APS Diet, Nutrition, and Adipose Tissue: You are What You Eat (Yosten)

POSTERS:
1117-APS Cardiovascular endocrinology, including renin-angiotensin-aldosterone
1118-APS Gestation, fetal, and neonatal biology, including mammary gland and lactation
1119-APS Mitochondrial function
1120-APS Neuroendocrinology, hypothalamus and pituitary
1121-APS Obesity and satiety
1122-APS Adipocyte function and metabolism
1123-APS Pancreatic hormones and diabetes
1124-APS Reproduction and sex hormones
1125-APS Stress and trauma including adrenal gland
1126-APS Exercise, muscle protein synthesis, and bone metabolism
1127-APS Nutrition and nutrient metabolism, including lipids, amino acids, and carbohydrates
1128-APS Translational endocrinology and metabolism
## ENVIRONMENTAL & EXERCISE PHYSIOLOGY SECTION

### FEATURED TOPICS:
(Note: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>1130-APS</td>
<td>Autophagy in Muscle</td>
<td>Hood</td>
</tr>
<tr>
<td>1131-APS</td>
<td>New Insights into the Physiology and Pathophysiology of Diving and Hyperbaric Environments</td>
<td>Florian</td>
</tr>
<tr>
<td>1132-APS</td>
<td>Sex Hormone Effects on Autonomic and Endothelial Function</td>
<td>Stachenfeld</td>
</tr>
<tr>
<td>1133-APS</td>
<td>Sympathetic Control of the Vasculature in Clinical Populations</td>
<td>Alexander</td>
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</tbody>
</table>

### POSTERS:

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1134-APS</td>
<td>Acute exercise responses</td>
</tr>
<tr>
<td>1135-APS</td>
<td>Altitude and hypoxia</td>
</tr>
<tr>
<td>1136-APS</td>
<td>Cardiac responses to exercise</td>
</tr>
<tr>
<td>1137-APS</td>
<td>Circadian and biological timekeeping</td>
</tr>
<tr>
<td>1138-APS</td>
<td>Exercise training responses</td>
</tr>
<tr>
<td>1139-APS</td>
<td>Exercise, health and disease</td>
</tr>
<tr>
<td>1140-APS</td>
<td>Fluid balance, blood volume regulation and trauma</td>
</tr>
<tr>
<td>1141-APS</td>
<td>Metabolism and energetics of muscle and related tissues</td>
</tr>
<tr>
<td>1142-APS</td>
<td>Muscle atrophy and hypertrophy</td>
</tr>
<tr>
<td>1143-APS</td>
<td>Muscle plasticity and gene regulation/expression</td>
</tr>
<tr>
<td>1144-APS</td>
<td>Neural control of the circulation during exercise</td>
</tr>
<tr>
<td>1145-APS</td>
<td>Ergogenics and Detection</td>
</tr>
<tr>
<td>1146-APS</td>
<td>Reduced gravity and hyperbaric environments</td>
</tr>
<tr>
<td>1147-APS</td>
<td>Respiratory responses to exercise</td>
</tr>
<tr>
<td>1148-APS</td>
<td>Responses of bone and connective tissue to exercise and inactivity</td>
</tr>
<tr>
<td>1149-APS</td>
<td>Signaling with muscle among cells, tissues and organs</td>
</tr>
<tr>
<td>1150-APS</td>
<td>Temperature regulation</td>
</tr>
<tr>
<td>1151-APS</td>
<td>Vascular responses to exercise and environmental stress</td>
</tr>
<tr>
<td>1152-APS</td>
<td>Exercise and nutrition</td>
</tr>
</tbody>
</table>

## GASTROINTESTINAL & LIVER PHYSIOLOGY SECTION

### FEATURED TOPICS:
(Note: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1165-APS</td>
<td>Inflammatory Responses in Gastrointestinal and Liver Cancer: Current Insights into Mechanisms and Treatment</td>
<td>Rao</td>
</tr>
<tr>
<td>1166-APS</td>
<td>Targeting Colonic Contents as Treatment for Disease</td>
<td>Keely</td>
</tr>
</tbody>
</table>

### POSTERS:

<table>
<thead>
<tr>
<th>Session</th>
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<tbody>
<tr>
<td>1167-APS</td>
<td>Alcoholic and nonalcoholic fatty liver diseases</td>
</tr>
<tr>
<td>1168-APS</td>
<td>Barrier function and repair</td>
</tr>
<tr>
<td>1169-APS</td>
<td>Effects of diet and metabolites on mucosal immunology</td>
</tr>
<tr>
<td>1170-APS</td>
<td>Effects of diet on GI and liver physiology</td>
</tr>
<tr>
<td>1171-APS</td>
<td>Gastric physiology and pathophysiology</td>
</tr>
<tr>
<td>1172-APS</td>
<td>Gastrointestinal cancer and metastasis</td>
</tr>
<tr>
<td>1173-APS</td>
<td>Gastrointestinal development</td>
</tr>
<tr>
<td>1174-APS</td>
<td>Gastrointestinal motility</td>
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<tr>
<td>1175-APS</td>
<td>Gastrointestinal nutrient sensors</td>
</tr>
<tr>
<td>1176-APS</td>
<td>GI hormones, peptides and receptors</td>
</tr>
<tr>
<td>1177-APS</td>
<td>GI and liver epithelial junctions</td>
</tr>
<tr>
<td>1178-APS</td>
<td>GI and liver stem cells</td>
</tr>
<tr>
<td>1179-APS</td>
<td>Growth factors, proliferation, differentiation and apoptosis</td>
</tr>
<tr>
<td>1180-APS</td>
<td>Hepcidin and iron homeostasis</td>
</tr>
<tr>
<td>1181-APS</td>
<td>Immunology and microbiology of the gut</td>
</tr>
<tr>
<td>1182-APS</td>
<td>Intestinal inflammation and pathophysiology</td>
</tr>
<tr>
<td>1183-APS</td>
<td>Liver physiology and pathophysiology</td>
</tr>
<tr>
<td>1184-APS</td>
<td>Mechanisms of intestinal nutrient, water and electrolyte transport</td>
</tr>
<tr>
<td>1185-APS</td>
<td>Membrane trafficking and secretion in digestive epithelia</td>
</tr>
<tr>
<td>1186-APS</td>
<td>Metal ion transport</td>
</tr>
<tr>
<td>1187-APS</td>
<td>Metabolic disease: GI and liver function</td>
</tr>
<tr>
<td>1188-APS</td>
<td>Microbes and nutrition</td>
</tr>
<tr>
<td>1189-APS</td>
<td>Microbiome of the GI tract</td>
</tr>
<tr>
<td>1190-APS</td>
<td>Nuclear receptors in the liver and GI tract</td>
</tr>
<tr>
<td>1191-APS</td>
<td>Nutrient metabolism in the gut</td>
</tr>
<tr>
<td>1192-APS</td>
<td>Pancreatic physiology and pathophysiology</td>
</tr>
<tr>
<td>1193-APS</td>
<td>Prebiotics, probiotics and gut function</td>
</tr>
</tbody>
</table>

## EPITHELIAL TRANSPORT GROUP

### FEATURED TOPICS:
(Note: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1160-APS</td>
<td>Epithelial Transport: Cell Biology</td>
<td>Møller/Blount</td>
</tr>
<tr>
<td>1161-APS</td>
<td>Epithelial Transport: Pathophysiology</td>
<td>Bomberger/Rieg</td>
</tr>
</tbody>
</table>

### POSTERS:

<table>
<thead>
<tr>
<th>Session</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1162-APS</td>
<td>Epithelial transport: cell biology of transporters and channels</td>
</tr>
<tr>
<td>1163-APS</td>
<td>Epithelial transport: pathophysiology of transporters and channels</td>
</tr>
</tbody>
</table>

## HISTORY OF PHYSIOLOGY GROUP

### POSTERS:

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200-APS</td>
<td>History of Physiology</td>
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HYPOXIA GROUP

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1201-APS Cellular, Molecular and Systems Integration Underlying Adaptation and Maladaptation to Hypoxia (Ramirez)

POSTERS:
1202-APS Carotid body structure and function
1203-APS Hypoxia-induced gene expression
1204-APS Hypoxia/transmitters, second messengers, and signal transduction
1205-APS Hypoxia and ion channels
1206-APS Intermittent hypoxia/oxidative stress
1207-APS Responses to acute or chronic hypoxia exposure and altitude

MUSCLE BIOLOGY GROUP

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1215-APS Muscle Diseases: Recent Advances in Disease Mechanisms (Beedle)
1216-APS Neuromuscle Diseases: Novel Therapeutic Strategies (Ljubicic)

POSTERS:
1217-APS Aging and muscle function
1218-APS Calcium and muscle contractility
1219-APS Calcium homeostasis
1220-APS Cardiac muscle, physiology
1221-APS Contractile and regulatory proteins
1222-APS Excitation-contraction coupling mechanisms
1223-APS Heat shock proteins and muscle function
1224-APS Muscle chemistry and metabolism
1225-APS Skeletal muscle, physiology
1226-APS Smooth muscle, physiology/pharmacology

NEURAL CONTROL & AUTONOMIC REGULATION SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1230-APS Baroreflex and Chemoreflex Controls of the Human Cerebral Circulation (Tzeng)
1231-APS Hypothalamic Autonomic Control of Metabolism (Jiang)
1232-APS Interactions Between Cardiovascular and Ingestive Behavioral Signals at the Circumventricular Organs (Collins)
1233-APS NCAR Trainee Featured Topic (Haack)
1234-APS Refreshing Perspectives on the Role of the Chemoreflexes in the Control of Cardiorespiratory Functions: New Pathways and Players (del Rio)

POSTERS:
1235-APS Autonomic adjustments to exercise
1236-APS Sympathetic mechanisms in heart failure
1237-APS Sympathetic mechanisms in hypertension
1238-APS Sympathetic mechanisms in diabetes and obesity
1239-APS Sympathetic mechanisms in aging and sex
1240-APS Autonomic circuitry in thermoregulation
1241-APS Sympathetic control of the circulation
1242-APS Arterial baroreflex function and blood pressure regulation
1243-APS Chemoreflex function and autonomic regulation
1244-APS Sympathetic regulation in disease
1245-APS Autonomic balance: sympathetic and parasympathetic
1246-APS Central regulation of autonomic control: Hypothalamus
1247-APS Central regulation of autonomic control: Brain stem
1248-APS Central regulation of autonomic control: CNS
1249-APS Inflammation and autonomic regulation
1250-APS Autonomic and respiratory interactions
1251-APS Neuroendocrine function
1252-APS Neural control of fluid volume
1253-APS Autonomic adjustments to stress
1256-APS Enteric nervous system regulation
1257-APS Autonomic control and metabolism
1258-APS Translational aspects of autonomic regulation

PHYSIOLOGICAL GENOMICS GROUP

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)
1260-APS Physiologic Effects of Sex Chromosome Complementation and Chromosome Y Genetic Variants (Deschepper)

POSTERS:
1261-APS Systems biology, computational modeling, and bioinformatics
1262-APS Genetically-engineered model organisms
1263-APS Genetics, genomics, gene expression, and epigenetics
1264-APS Ion transport: genes and function
1265-APS Non-coding RNA: miRNA, siRNA, and long ncRNA
1266-APS Genetics/genomics of exercise, obesity, and diabetes
1267-APS Genetics/genomics of cardiovascular and kidney disease
1268-APS Renin-angiotensin system: genes and function
1269-APS Functional genomics: transcriptomics, proteomics and metabolomics
1270-APS Vascular disease: genes and function
1271-APS Translational genomics: from model organisms to humans
RENAL SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1275-APS  Immune Cells, the Kidney and Hypertension (Sullivan/Bell)
1276-APS  Recent Advances in Renal Physiology and Kidney Disease I (Welling)
1277-APS  Recent Advances in Renal Physiology and Kidney Disease II (Ortiz)

POSTERS:
1278-APS  Diabetic renal disease
1279-APS  Hormone and autacoid effects on the kidney
1280-APS  Oxidative stress and hypoxia in the kidney
1281-APS  Renal epithelial acid-base mechanisms
1282-APS  Renal hemodynamics, glomerular filtration, and the renal vasculature
1283-APS  Renal transport, trafficking, and regulation
1284-APS  Kidney in hypertension
1285-APS  Renal pathology, toxicology, and cystic diseases
1286-APS  Renal water transport, urea transport, and countercurrent mechanisms
1287-APS  Sex differences in renal function and disease
1288-APS  Aging and renal function
1289-APS  Nutrition, exercise and metabolic Syndrome in renal function
1290-APS  Immune cells, the kidney and hypertension
1291-APS  Omics and systems biology of renal function and disease
1292-APS  Renal translational physiology
1293-APS  Genetics of renal function
1294-APS  Basic science of AKI

RESPIRATION SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1295-APS  Cellular Quality Control in the Lung: Role of ERAD, Autophagy, and Mitophagy in Health and Disease (Beers/Morse)
1296-APS  Evolution of Air Breathing (Harris/Wilson)
1297-APS  Lung Epithelium and Endothelium: Injury, Repair, and Remodeling (Zhao/Petrache)
1298-APS  Respiratory Related Disorders in Aging and Neurodegeneration (Greising/Sieck)

POSTERS:
1299-APS  Control of breathing: connectivity, neuromodulation and neurotransmission
1300-APS  Control of breathing: chemoreception
1301-APS  Control of breathing: development
1302-APS  Control of breathing: integrated responses
1303-APS  Control of breathing: respiratory motoneurons and muscles
1304-APS  Control of breathing: respiratory plasticity
1305-APS  Control of breathing: rhythm generation
1306-APS  Lung physiology: airway epithelial cell biology
1307-APS  Lung physiology: airway responsiveness and smooth muscle cell biology
1308-APS  Lung physiology: alveolar epithelial cell biology
1309-APS  Lung physiology: biomechanics, surfactant and gas exchange
1310-APS  Lung physiology: development and plasticity
1311-APS  Lung physiology: endothelial cell biology
1312-APS  Lung physiology: fluid balance
1313-APS  Lung physiology: pulmonary hypertension
1314-APS  Lung physiology: vascular smooth muscle cell biology, vascular regulation, and hypoxia

TEACHING OF PHYSIOLOGY SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1400-APS  Innovations in Classroom Teaching (Miller/Golden)

POSTERS:
8100-EB  Computers in Research and Teaching
8200-EB  Teaching, Learning and Testing in the Biological and Biomedical Sciences

WATER & ELECTROLYTE HOMEOSTASIS SECTION

FEATURED TOPICS:
(NOTE: if selected for inclusion in a featured topic, abstracts will be presented twice: once as a poster and once in the oral session)

1500-APS  Hypertension: Developing Concepts (Sullivan/Ryan)
1501-APS  The Biology of Oxygen Homeostasis and Hypoxia (Polichnowski/Evans)
1502-APS  The Heart of the Matter: Menopause, Sex Steroids, and Cardiovascular Disease (Reckelhoff/Wenner)
1503-APS  Water, Electrolyte, and Blood Pressure Homeostasis: Neural and Humoral Regulators and Stressors (Gao/Veelken)

POSTERS:
1504-APS  Blood pressure and fluid volume regulation in pregnancy and developmental programming
1505-APS  Developmental programming and cardio-renal function in adults
1506-APS  Cardiovascular and renal mechanisms in diabetes and metabolic syndrome
1507-APS  Renin-angiotensin-aldosterone system in regulation of blood pressure and renal function
1508-APS  Sex differences in blood pressure and fluid volume homeostasis
1509-APS  Translational Research in Water and Electrolyte Homeostasis Physiology
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<td>3067-ASPET Chemical Biology and Experimental Therapeutics</td>
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<td>3068-ASPET Drug Formulation and Delivery</td>
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<td>3069-ASPET High Throughput Screening</td>
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<td>3070-ASPET Natural Products</td>
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<td>3071-ASPET New Methodology for Drug Discovery and Screening</td>
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<td>3072-ASPET Peptide Drug Development</td>
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<td>3073-ASPET Polypharmacology</td>
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<td>3074-ASPET Proteins as Drug Targets</td>
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</tbody>
</table>
Pharmacology Education
3075-ASPET  Knowledge Objectives in Pharmacology Education
3076-ASPET  Small Group Learning
3077-ASPET  Technology in Pharmacology Education
3078-ASPET  Use of Social Media in Pharmacology Education
3079-ASPET  Assessment in Pharmacology Education

Cancer Pharmacology
3080-ASPET  Cancer Therapeutics
3081-ASPET  Cancer Prevention
3082-ASPET  Cancer Biology

Pharmacology – Other
3083-ASPET  Pharmacology – All Other

*Abstracts submitted to this category may be eligible for presentation at the Drug Metabolism Platform Session, inclusion in a poster session and travel awards ($300 each; 3 grad students, 3 postdocs). All poster competition submissions are eligible. The postdoc category for poster competition also includes industry scientists within 5 years of earning their highest degree.
REGISTRATION

Register by February 2, 2015 to receive the discounted registration fee. Complete instructions are on the website at www.experimentalbiology.org.

The registration fee includes entrance to scientific sessions, exhibits, and a copy of the Program. NOTE: The Program will NOT be mailed this year. You may pick up your program on-site. The abstracts will be available online with the Itinerary Builder. Paper copies will not be available. Registration fees do not include abstract submission fees or membership dues.

You can register as follows:

- **Online at** www.experimentalbiology.org
- **Mail the form and payment to:**
  EB 2015 Registration Office
  9650 Rockville Pike
  Bethesda, MD 20814
  The form is online at www.experimentalbiology.org as an interactive PDF.
- **Fax the form to** 301-634-7008 (credit card payments only).

Mailed and faxed registration forms will only be accepted until February 2. Several societies have planned special activities that require a fee in addition to the Experimental Biology 2015 registration fee. Details on the activities and how to register for these activities are included on pages 59-60.

**EB Registration Fees**

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<th>On or Before February 2</th>
<th>After February 2</th>
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<tr>
<td>Sponsoring/Participating Society Members</td>
<td>$390</td>
<td>$520</td>
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<tr>
<td>Nonmembers</td>
<td>$575</td>
<td>$695</td>
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<tr>
<td>Retired Society Members</td>
<td>$140</td>
<td>$160</td>
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<tr>
<td>*Graduate Student Members</td>
<td>$85</td>
<td>$95</td>
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<tr>
<td>*Graduate Student Nonmembers</td>
<td>$110</td>
<td>$120</td>
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<tr>
<td>***Postdoctoral Trainee Member</td>
<td>$325</td>
<td>$325</td>
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<tr>
<td>Non-Member</td>
<td>$425</td>
<td>$425</td>
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<tr>
<td>1-Day Registration</td>
<td>$195</td>
<td>$350</td>
</tr>
<tr>
<td><strong>Undergraduate Students High School Students and Teachers</strong></td>
<td>On-site registration only - Free</td>
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*Graduate Student Registration (including all Society student members): You must have a department head or research advisor certify your student eligibility. If registering online, enter the name and email address of your department head. If registering at the meeting, bring your ID card or a letter signed by your department head. “Student” will be indicated on your badge. Postdoctoral fellows, hospital residents, interns, and laboratory technicians do not qualify as students and must pay the full member or nonmember rate.

Undergraduate Students and High School Students:
Registration will be accepted in advance. To receive your badge on-site, bring a student ID card or a letter signed by your department head, research advisor or teacher.

**High School Teacher:** You must be a certified High School Teacher currently teaching High School students. You do not qualify for this category if you are currently teaching at a University or a Hospital. Credentials or a letter from the school principal must be provided on-site to receive your badge.

Print program subject to availability.

***Postdoctoral Trainee:** Trainees have obtained their doctoral degree within the last five years and are currently enrolled in a postdoctoral trainee program.
Press Registration: Complimentary registration is available for qualified press to cover EB 2015. Pre-registration for members of the media and freelance writers is encouraged. A letter of assignment is necessary. Please visit http://experimentalbiology.org/content/PressInformation.aspx to view our full press credentials policy. Send your completed request to media@faseb.org.

ALL REGISTRANTS – PLEASE NOTE: NO MATERIALS WILL BE MAILED IN ADVANCE
You will not receive your badge or program prior to the meeting. There will be on-site kiosks set up to print your badge upon your arrival at the meeting. Programs will not be mailed in advance and can be picked up at the meeting along with other materials.

On-site Registration: On-site registration will be available at the Boston Convention & Exhibition Center beginning Saturday, March 27, continuing through Wednesday, April 1.

Cancellation and Refunds: The badge, receipt and a letter requesting a refund of the registration fee must be received by March 2, 2015. A $50 non-refundable processing fee will be deducted from the refund. After March 2, 2015 no refunds will be issued. Mail to: Experimental Biology 2015 Registration Office, 9650 Rockville Pike, Bethesda, MD 20814-3998.

HOTEL INFORMATION
Deadline for hotel reservations: February 28, 2015

A list of participating hotels with locations, discounted rates, amenities and instructions for making a reservation are online at www.experimentalbiology.org. Be sure to read the information on the importance of staying at an EB official hotel.

Experient Inc. is the only official housing provider for the Experimental Biology meeting.
Society-Ticketed Events

The following special Society activities have been planned and require a fee in addition to the Experimental Biology 2015 registration fee. If you plan to attend any of these activities, please note where and how to register.

AAA Closing Awards Ceremony & Reception – Tuesday, March 31
The American Association of Anatomists cordially requests the pleasure of your company at the Closing Awards Ceremony on Tuesday, March 31, 2015. The Awards Ceremony – from 7:30 PM to 10:00 PM at the Westin – will feature a cocktail reception, dinner, & presentation of AAA awards. Tickets are $70 and will be available for purchase online via the AAA website (www.anatomy.org). Limited amount of tickets will be available on-site.

The APS Opening Ceremony and Walter B. Cannon Lecture on Saturday, March 28
5:30 PM Lecture is free of charge.

APS Opening Reception on Saturday, March 28, 7:00 PM – 9:00 PM
Free for APS members and those expressing an interest in physiology on their registration form. ADMISSION IS BY TICKET ONLY.

APS Closing Party on Wednesday, April 1, 7:00 PM – 10:00 PM
Tickets are $15 in advance/$25 on-site. The closing party will include the live band “GI Distress” ADMISSION IS BY TICKET ONLY.

Please sign up for these events when registering for the meeting by checking the boxes on the registration form.

ASBMB Graduate/Postdoctoral Professional Development Program
Saturday, March 28, 9:00 AM – 4:30 PM
Features a career panel, workshops, and networking lunch. Details at www.asbmb.org/meeting2015
$25, ASBMB Members
$35, all other EB registrants

Register during the EB meeting registration process. Event will close when fully subscribed.
The following special Society activities have been planned and require a fee in addition to the Experimental Biology 2015 registration fee. If you plan to attend any of these activities, please note where and how to register.

**ASN Fellows, 50-Year Members, and Past Presidents Luncheon**
Join ASN in celebrating the accomplishments and achievements of our past and present Fellows, 50-Year members, and former society presidents over lunch at the annual meeting. This luncheon will include a presentation honoring the newly inducted class of 2015 ASN Fellows. All members are invited to attend; guests are permitted. All newly inducted Fellows will receive complimentary registration. Tickets can be purchased from [www.nutrition.org](http://www.nutrition.org).

For additional information email [awards@nutrition.org](mailto:awards@nutrition.org).

**F-Troop: Roadmap to Fellowship Grant Applications**
*Saturday, March 28, 2015 at 8:30AM*

**XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist**
*Saturday, March 28, 2015 at 11:45AM*

- $10 for ASIP Members
- $20 for Non-Members

**XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation**
*Sunday, March 29, 2015 at 11:45AM*

- *ASIP Trainee members and AAA Student members will receive a complimentary ticket*
- $10 for ASIP Members
- $20 for Non-Members

**Lunch and Learn: The Ethics of Personalized Medicine: Quandaries Among the Possibilities**
*Tuesday, March 31, 2015 at 11:45AM*

- $10 for ASIP Members
- $20 for Non-Members

**scientific interest group networking sessions and poster discussions**
*Tuesday, March 31, 2015 at 5:30PM*

FREE FOR ALL ATTENDEES

Please sign up for these events when registering for Experimental Biology by checking the boxes on the registration form.
Exhibit and Sponsorship Opportunities at EB 2015

Apply for Space Today!

Don’t miss the opportunity to meet with the leaders and decision makers looking for products and services like yours! Reserve your booth space by December 16, 2014 to have your company information printed in the meeting program. Application can be found online under Exhibitors.

Advertising
Display your company name, logo, booth number and message in the meeting program online leaderboard banner ad, or email banner. The program is posted in full on the website in advance of the meeting. Advertising rates, specifications and order forms can be found on the website.

Booth Upgrade
Increase your exposure and ROI by upgrading your booth in our virtual floor plan. Options include adding your URL, company logo, product promotion and company video. Please contact Jkearney@faseb.org for additional information.

Product Workshops
Highlight your company’s products and services in a private theater setting. Product workshops will be held on the exhibit floor and in session rooms for one hour increments and includes complimentary A/V equipment. Requests are accepted on a first-come, first-served basis. Complete the online application located on our website. Deadline for consideration is December 16, 2014. A description of the presentation will be included in the meeting program.

Attendee Mailing Lists
Reach new prospects and stay connected by purchasing the advance or post show attendee mailing lists. Names are sorted by zip code and can be segmented by domestics, Canadian or International addresses. Complete the online order form located on our website.

Company Box Ad
Maximize your visibility by displaying your company’s logo next to your company information in the meeting program. Further details and pricing can be found online.

Sponsorship Opportunities
Sponsorship and marketing opportunities are a great way to get the brand recognition and visibility that you want. Further details can be found online.

Over 14,000 independent scientists representing the participating and sponsoring societies of Experimental Biology

For information or to reserve your exhibit space please visit: www.experimentalbiology.org/exhibits.
Welcome to BOSTON

When a soft snowfall flutters down on Boston’s Beacon Hill, the heart can’t help but be filled with awe. The lamp lit streets and cobblestone alleys create a picture postcard of New England that you’ll cherish forever. And if you wish to explore outside the Boston city limits, there’s plenty to do: educational museums, thrilling theaters, and delightful dining abound.

Located only minutes from the airport, the downtown Boston districts, and the museums are among the finest in the country and the attractions are endless! View great works of art, stand inside a stained glass globe, experience the world of science, or tour a local brewery. Culture, art, history and fun – your exploration of Boston starts here.

Over in the North End, the TD BankNorth Garden is the place for sports fans in winter–both the Bruins and Celtics play here. New England has some of the best Massachusetts ski resorts, many within a short drive of Boston.
Ground Transportation

Boston’s public transportation system is operated by the Massachusetts Bay Transportation Authority, but locals know it simply as the “T”. It offers subway, bus, trolley car and boat service to just about everywhere in the Greater Boston area and beyond. Subway stops are color coded - Red Line, Green Line, Blue Line, Orange Line or Silver Line.

For specific information on routes and schedules, visit [www.mbta.com](http://www.mbta.com).

Information is in six languages and the website offers a very useful “Trip Planner” to get you to your destination.
Important Procedural Information

• The abstract fee is NOT your registration fee and NOT your society membership fee.
• In addition to submitting your abstract, you must register for the meeting.
• After submitting your abstract, you must submit a separate application if you wish to apply for any of the Society awards and follow the process required by the society.
• The complete Call for Abstracts and general information is available at www.experimentalbiology.org

As soon as possible:
• Submit your abstract
• Register for the meeting
• Make hotel reservations
• Make airline reservations

November 6, 2014
• Deadline to submit abstract and $65 non-refundable abstract processing fee
• Deadline to withdraw or make changes to a submitted abstract

February 2, 2015
• Deadline for early registration. You may register online after this date; however your registration will be at the higher fee.

February 28, 2015
• Deadline for hotel reservations. Rates and availability cannot be guaranteed after this date.

March 2, 2015
• Deadline to request a refund of advance registration.

March 28 - April 1, 2015
• Attend Experimental Biology meeting in Boston, MA!

FOLLOW EB AND THE SOCIETIES ON FACEBOOK AND TWITTER FOR MEETING UPDATES!
www.experimentalbiology.org
IMPORTANT DATES

November 6, 2014  Abstract Submission Deadline
February 2, 2015  Early Registration Deadline
February 28, 2015  Hotel Reservations Deadline

www.experimentalbiology.org