Meet Our 2012 Undergraduate Researchers!

**Type of Institution**

- 48% US Doctoral/Research Universities-Extensive
- 6% US Doctoral/Research Universities-Intensive
- 13% US Master’s Colleges & Universities
- 19% US Baccalaureate Colleges-Liberal Arts/General
- 15% International Universities

**Graduation Year (Anticipated)**

- 2011: 2%
- 2012: 54%
- 2013: 35%
- 2014: 5%
- 2015-16: 3%

**Research Focus**

- 19% Cardiovascular
- 15% Cell & Molecular
- 12% Central Nervous System
- 10% Endocrinology & Metabolism
- 9% Environmental & Exercise
- 2% Gastrointestinal & Liver
- 9% Neural Control/Autonom. Regul.
- 5% Renal
- 5% Respiration
- 2% Water & Electrolyte Homeostasis
- 4% Anatomy
- 4% Stem Cells

**Future Plans**

- 35% Graduate School only
- 33% Medical School only
- 24% Graduate & Medical School
- 4% Other Professional School
- 4% Other Prof & Grad or Med

**Years of Research Experience**

- 39% 0.5-2 years
- 32% 2-3 years
- 13% 3-4 years
- 10% 4-5 years
- 6% >5 years

**Majors**

- 48% Biology (animal science, life sciences/physiology/nutrition)
- 10% Biomed. Engineer./ Biotechnology
- 10% Biochemistry/Chemistry
- 9% Exercise Science/Kinesiology
- 8% Health Sciences/Medicine
- 7% Cell/Molecular Biology
- 4% Neuroscience/psychology
- 3% Anatomy
- 3% Liberal Arts

**The American Physiological Society**

**2011-2012 Council**

- Joey P. Granger, President
- Peter D. Wagner, Past President
- Susan M. Barman, President-Elect

**Councilors:**

- Kenneth M. Baldwin
- Ida J. Llewellyn-Smith
- Jane F. Reckelhoff
- David P. Brooks
- Patricia E. Molina
- Curt D. Sigmund
- Dennis Brown
- Usha Raj
- Alan F. Sved

**2012 Education Committee - Thomas A. Pressley, Chair**

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- Kim Henige
- Jae Woo Lee
- Michael J. Ryan
- J. Michael Wyss

- Jessica A. Dominguez
- Johanna K Kronbri-Litowitz
- Andrew M. Roberts
- Carmen M. Troncoso Brindeiro

- Tom W. Ecyay
- Lila P. LaGrange
- David W. Rodenbaugh
- Christopher R. Woodman

**APS Staff**

- Martin Frank, Executive Director
- Marsha Lakes Matyas, Director of Education Programs
- Melinda E. Lowy, Higher Education Programs Coordinator
- Scarletta L. Whitsett, Science Fair Coordinator/Project Assistant

2012 APS
Undergraduate Poster Session
and
David S. Bruce Award for Excellence in Undergraduate Research Reception

Recognizing the Undergraduate Researcher

Guest Society: American Association of Anatomists (AAA)

Experimental Biology 2012

Sunday, April 22, 2012
San Diego Convention Center, Sails Pavilion
San Diego, CA
David S. Bruce (1939 - 2000) served as Chair of the APS Teaching Section and as a professor of physiology at Wheaton College from 1978-2000. Dr. Bruce was a dedicated physiology educator who played active roles in both the APS and the Society for Integrative & Comparative Biology. As an undergraduate educator at Wheaton College, Dr. Bruce had a particular interest in engaging undergraduate students in scientific research. Dr. Bruce not only encouraged and supported his students in participating in research, but he also regularly brought undergraduate students to the Experimental Biology meeting, often to present their research findings. In 2000, Dr. Bruce died at the age of 61 of complications following a kidney transplant. This award honors Dr. Bruce’s commitment to promoting undergraduate involvement in research, in the APS annual meeting, and, ultimately, in research careers.

APS Congratulates the 2012 Bruce Outstanding Abstract Awardees

Alexander Allen, Winona State Univ.
Larry Bachman Jr., Univ. of California, San Diego
Paulo Basso, Univ. de São Paulo
Elaina Bost, Univ. of Florida
Kathern Chintamaneni, Washington Univ. in St. Louis
Vinhas Dang, Michigan State Univ.
Cheryl Dykstra-Aiello, Eastern Washington Univ.
Kari Echtenkamp, Univ. of Nebraska
Christopher Engler, Creighton Univ.
Aida Freire Valls, Pompeu Fabra Univ.
Jennifer Frielle, Gettysburg College
Michael Gowen, Univ. of Pittsburgh
Troy Green, William Jewell College
David Hallowell, Brigham Young Univ.
Giancarlo Ibanez, Univ. of California, Davis
Alex Johnson, Univ. of Minnesota, Duluth
Woojin Joo, Chapman Univ.
Kaitlyn Kennard, Ursinus College
Breann Kluck, College of Saint Benedict
Anfei Li, Cornell Univ.
Brandon Newmyer, Radford Univ.
Humphrey Petersen-Jones, Michigan State Univ.
Marissa Saenz, Univ. of California, Davis
Amy Shiah, Univ. of California, San Diego
Walter Wang, Univ. of Missouri
Brian Wynia, South Dakota State Univ.

Support for the Bruce Awards is provided by APS, Dr. Isis, Central Nervous System Section, and APS Members Marlowe W. Eldridge, Thomas F. Hopkins, Ida J. Llewellyn-Smith, and Thomas A. Pressley

2012 APS Undergraduate Presenters

92 - Toombs, Casey
University of New England
Differential axon size and hypoxia tolerance in two color morphs of the green crab, Carcinus maenas

93 - Valenti, Vanessa
University of Sao Paulo
Inhibition of dipeptidyl peptidase IV by sitagliptin increases GLUT4 expression in insulin-sensitive tissues of SHR

94 - Wang, Walter
University of Missouri
Soluble guanylate cyclase activation protects against postischemic inflammation and reduces nitrate tolerance in heme-oxygenase-1 knockout mice

95 - Warner, Paige
University of Arizona
Isolation of the TRPV4 osmoreceptor from the avian lower gastrointestinal tract

96 - Wasson, Elisa
University of New Mexico
Middle cerebral artery blood velocity during running: interactions of heart and stride impact rates

2012 AAA Undergraduate Presenters

100 - Wu, Maddalena
University of Milan
Abnormal heart rate control in SCN5A-delta-KPQ mice

101 - Wynia, Brian
South Dakota State University
Caveolin-1 regulation of mouse lung epithelial progenitor cell differentiation and morphogenesis

97 - Webster, Rebekah
Radford University
LPLRFamide causes anorectic effects associated with the brain stem in rats

98 - Weekman, Erica
University of Kentucky
Comparison of clock gene expression across skeletal muscles of different origins and functions

99 - Welter, Ashleigh
University of Florida
Effect of exercise on the mitochondrial profile of testicular tumors in aged Fischer 344 rats

102 - Zekhtser, Mitchell
San Francisco State University
What motivates medical students to learn anatomy?

103 - Zekhtser, Max
Southern Illinois University
Effects of daidzein on post-stroke injury and recovery of function in the rat

104 - Zekhtser, Mitchell
San Francisco State University
Differential anoxia and hypoxia tolerance in two color morphs of the green crab, Carcinus maenas

105 - Zekhtser, Max
Southern Illinois University
The African clawed frog (Xenopus laevis) is sensitive to pyrene exposure during early development

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San Francisco State University
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109 - Zekhtser, Max
Southern Illinois University
What motivates medical students to learn anatomy?

110 - Balzano, Vincent
Ohio State University
The educational value of virtual 3D skeletal model rendered from CAT scan in anatomy education

111 - Bilal, Alina
Grossmont College
Biological sex and tympanic dehiscence

112 - Bogatyryov, Yevgen
University of California, San Fransisco
Isolation of the TRPV4 osmoreceptor from the avian lower gastrointestinal tract

113 - Conigli, Lacy
San Francisco State University
Undergraduate dissection techniques: Unique views of internal structures

114 - Hausken, Krist
Keene State College
Phenanthrene affects cardiovascular function in the developing African clawed frog (Xenopus laevis)

115 - Hong, Trudy
University of Hawaii
Esrp1 and Esrp2 expression in the developing midface and kidney of mice with frontonasal dysplasia and renal hypoplasia

116 - Jabalee, James
Mount Saint Vincent University
Mesenchymal condensation sets the stage for intramembranous bone development

117 - Lu, Zhen
Johns Hopkins University
A novel staging system to assess the severity of colorectal polyposis in patients with FAP

118 - Orellana, Elise
Louisiana State University
Comparative functional morphology of the avian integument: Implications for the evolutionary history of feathers

119 - Selby, Keegan
Western University
What motivates medical students to learn anatomy?

120 - Snake, Deena
Keene State College
The African clawed frog (Xenopus laevis) is sensitive to pyrene exposure during early development

121 - Stout, Jessica
University of New Mexico
Comparative functional morphology of the avian integument: Implications for the evolutionary history of feathers

122 - Zekhtser, Mitchell
San Francisco State University
Restoration and preservation of pathological surgical specimens
70 - Nelson, Michael
Medgar Evers College
Adenyl cyclase inhibitors reverse the neurotoxic effects of manganese on post-synaptic dopamine D2 receptors

71 - Ness, Emily
Carleton College
Epithelial sodium channel activity in oocytes is reduced by Inter-α-trypsin Inhibitor

72 - Newmyer, Brandon
Radford University
Neureptide Y is associated with changes in appetite-related nuclei but not food intake in a hypophagic avian model

73 - Nguyen, Van
Tulane University
Tissue-specific expression of angiotensin-converting enzyme 2 (ACE2) from two promoter regions is unaffected by elevated levels of renin and angiotensinogen

74 - Niu, Jacqueline
University of Virginia
Collateral artery blood flow measurements made in the mouse ischemic hindlimb model using deep laser speckle imaging

75 - Ongele, Michael
Howard University
The Role of Plasma Interleukin-6 and Interleukin-10 in DOCA-salt hypertension

76 - Parikh, Jay
University of California, San Diego
Viability of two sub-strains of C57BL/6 mice in response to cardiac pressure-overload

77 - Patchen, Bonnie
Williams College
Rapamycin prevents muscle growth and the increase in MHCIIa induced by voluntary wheel running

78 - Patrone, Luis
São Paulo State University - UNESP
Gap junction blockade in the locus coeruleus (LC) decreases the hypercapnic ventilatory response

79 - Petersen-Jones, Humphrey
Michigan State University
Decreased protein expression and activity of transglutaminases 1 and 2 in arteries from DOCA-salt rats

80 - Phan, Anthony
University of Michigan
Achilles tendon ablation induces scleraxis expression and neotendon formation in the plantaris tendon

81 - Popovich, Irina
University of California, Merced
AT1 blockade decreases NADPH oxidase 2 content and increases insulin signaling in a model of insulin resistance

82 - Robotham, Margaret
Barnard College
Effect of time of day on methamphetamine anticipation and neural activation

83 - Ruan, Ting
University of Utah
Ceramide mediates vascular dysfunction in diet-induced obesity by PP2A-mediated dephosphorylation of the eNOS-Akt complex

84 - Ruiz, Louis
University of Puerto Rico
Mitochondrial proliferation is not affected by inhibition of the intracellular renin-angiotensin system

85 - Saenz, Marissa
University of California, Davis
Multiple factors working in concert regulate blood pressure over a hibernation bout in the Syrian hamster

86 - Salley, Eric
Taylor University
Mechanistic assessment with panoramic ultrasonography: measurement reliability among varying body mass

87 - Sapp, Glenn
University of Florida
Local adiponectin production in skeletal muscle resistance arteries: effects of exercise and shear stress

88 - Shah, Amy
Univ. of California, San Diego
Effect of hypoxia on single skeletal muscle fiber contractility at physiological temperature

89 - Sonoda, Mayra
Universidade Federal do ABC
Renal ischemia/reperfusion induced cardiac hypertrophy in mice: Contribution of apoptotic process

90 - Sove, Richard
University of Western Ontario
Computational analysis of a microfluidic device for measuring oxygen-dependant ATP release from erythrocytes

91 - Spence, Madoka
University of Missouri
Sonic hedgehog gene expression is increased in adult skeletal muscle in ovarian hormone deficient mice that wheel exercise

1 - Allen, Alexander
Mayo Clinic
Age but few other commonly measured physiologic traits are associated with cardiovascular reactivity across multiple stressors in healthy young adults

2 - Alvarado, John
University of Puerto Rico in Ponce
Depression and anxiety behaviors are influenced by sex and estrous cycle stage

3 - Anderson, Justin
Morningside College
The truth behind pre-exercise exercises: males versus females

4 - Arnal, Ashley
Dartmouth College
Thermal prolongation of the Hering-Breuer inflation reflex in neonatal rats depends on an adenosinergic mechanism in the brainstem

5 - Bachman, Larry
University of California, San Diego
Modeling intracranial pressure in microgravity during parabolic flight

6 - Baghdadwal, Mufaddal
University of Calgary
Identification of lung priming area in frog brainstem, adjacent to the lung oscillator, distinct from the buccal oscillator: homologous to RNfPFRG?

7 - Barclay, Samantha
Cedarville University
Mechanisms regulating norepinephrine-mediated alpha2-IPSCs in the rat locus coeruleus

8 - Basso, Paulo
Universidade de São Paulo
Oxidative stress in hypothalamic neurons may explain the impaired vasopressin secretion observed during sepsis

9 - Battis, Christine
Cedarville University
Influence of cellular magnesium concentration on fibroblast phenotype differentiation

10 - Bauer, Ashley
University of Minnesota, Duluth
Pravastatin attenuates hypertension and angiogenic imbalance in placental ischemia induced hypertension in the rat

11 - Biette, Kelly
Seattle University
Inter-participant variability in circulating cortisol and nuclear hsp90 concentrations following short-term aerobic activity

12 - Bolanos, Juan
University of Texas at El Paso
Stress-induced activation of distinct subpopulations of neurons in the basolateral amygdala of the rat

13 - Borchert, Corie
University of Wisconsin, Madison
Inactivity-induced phrenic motor facilitation is associated with decreased phrenic burst-to-burst variability

14 - Bost, Elaina
University of Florida
Deficiency of p47phox subunit of NADPH oxidase protects skeletal muscle from depression of force stimulated by sphingomyelinase

15 - Bradley, Joshua
University of Michigan
Fat accumulation, fibrosis, fiber-type switching, and a reduction in specific force production following rotator cuff tear

16 - Burdette, Aaron
Ohio University
Mechanical deformation decreases activation time for neutrophils

17 - Calvert, Robert
University of Utah
Sirtuin-1 gain of function increases endothelial function in murine femoral arteries.

18 - Cardon, Brandon
Brigham Young University
Dietary isoflavones and supplemental selenium show interactive effects on blood-glucose homeostasis in male FVB mice

19 - Chenard, Pamela
Laurentian University
Tissue concentrations of Doxorubicin and Doxorubicinol 24 and 96 hours following injection in the rat

20 - Chintamaneni, Kathan
Washington University in St. Louis
Response of the HPA axis to intermittent hypoxia in the neonatal rat: ACTH, corticosterone, and the expression of adrenal mRNAs

21 - Clute-Reinig, Nicholas
Pomona College
Neureptide Y type 1 receptors are expressed in pre-autonomic neurons in the hypothalamic paraventricular nucleus

22 - Dang, Vinh
Michigan State University
Decreased protein expression and activity of transglutaminases 1 and 2 in arteries from DOCA-salt rats

23 - Dautermann, Valerie
Beloit College
Previous day's exercise does not affect indicators of physiological stress measured during practice in male collegiate soccer players

24 - Davis, Bethany
University of North Dakota
Alpha1a adrenergic receptor stimulation improves mood in mice
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<td>Trafficking of renal betaine/GABA transporter is disrupted by mutation at T40</td>
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<tr>
<td>Altered expression of KATP channel genes after acclimation to hypoxia in goldfish (Carassius auratus)</td>
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<td><strong>27 - Dykstra-Aiello, Cheryl</strong></td>
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<td>Eastern Washington University</td>
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<tr>
<td>Age effects on aerobic exercise-induced reductions in pain sensitivity in female Sprague-Dawley rats</td>
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<td><strong>28 - Echtenkamp, Karin</strong></td>
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<tr>
<td>University of Nebraska, Omaha</td>
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<td>The trans-tubular K gradients (TTKG) reveal long-term adaptation in mice to Na deficient, high K diets</td>
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<td>Contractile properties of mice deficient in dystrophin and the NADPH subunit p47Phox</td>
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<td><strong>30 - Engler, Christopher</strong></td>
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<td>Nonclassical G protein coupled receptor kinase 5 regulation of angiotensin II type 1 receptor in CATH.a neurons</td>
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<td><strong>31 - Ehthiy, Farid</strong></td>
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<td>Search for RAGE in avian vasculature</td>
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<td><strong>32 - Farah, Livia</strong></td>
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<td>The renin-angiotensin system (RAS) in adaptive thermogenesis</td>
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<td><strong>33 - Fidelibus, Robert</strong></td>
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<td>Nationwide Children's Hospital</td>
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<td>Peptide expression and purification to elucidate the mechanism of vascular alpha-2C adrenergic receptor translocation</td>
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<td><strong>34 - Field, Kristina</strong></td>
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<td>Thrombotic and thrombolytic factors in human plasma with aging</td>
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<td><strong>35 - Flood, Michael</strong></td>
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<td>Achilles tendon ablation induces sclerosis expression and neotendon formation in the plantaris tendon</td>
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<td><strong>36 - Freire Valls, Aida</strong></td>
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<td>Pompeu Fabra University</td>
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<td>Measurement of contraction-induced blood flow in mouse gastrocnemius muscle by optical imaging of fluorescent microspheres</td>
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<td><strong>37 - Frielle, Jennifer</strong></td>
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<td>Arcuate nucleus injection of anti-insulin affibody prevents sympathetic response to circulating insulin</td>
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<td>Neural responses to looming objects in the dragonfly</td>
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<td><strong>39 - Gorbatenko, Andrej</strong></td>
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<td>Regulation of the Na,HCO3-cotransporter NBCn1 (SLC4A7) by a constitutively active ErbB2 receptor in MCF-7 breast cancer cells</td>
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<td><strong>40 - Gowen, Michael</strong></td>
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<tr>
<td>Collateralization of projections of rostral ventrolateral medulla (RVLM) neurons to levels of the thoracic spinal cord that regulate upper- and lower-body blood flow</td>
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<td>Direct hypertrophic effects of fibroblast growth factor 23 on cardiomyocytes</td>
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<td>Quantification and analysis of advanced glycation end products in avian plasma</td>
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<td>The effects of play-based physical activity on metabolic signatures in adolescents</td>
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<td><strong>45 - Hallowell, David</strong></td>
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<td>Exercise training-induced mitochondrial biogenesis is impaired in skeletal muscle-specific LKB1 knockout mice</td>
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<td>Study of octopamine in bivalves</td>
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<td><strong>49 - Ibanez, Giancarlo</strong></td>
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<td>Histamine enhances excitability and may augment neuroprotection in the Syrian hamster hippocampus</td>
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<td>Examination of avian renal tissue for the presence of sodium-glucose co-transporters</td>
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<td><strong>51 - Johnson, Alex</strong></td>
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<td>Pulmonary inflammation and airway hyperresponsivity associated with placental ischemia induced hypertention in rat dams and offspring</td>
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<td>Paradoxical relationship between alpha-adrenergic tone and mSNA in human metabolic syndrome</td>
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<td>Pregnancy induces cardiac hypertrophy with hypercontractile ventricular myocytes</td>
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<td>Effect of body position and hypoxia on the patent foramen ovale</td>
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<td>Effects of endurance and caloric restriction on mitochondrial regulation and apoptotic susceptibility in aged rat skeletal muscle</td>
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<td>Release of iron from cellular iron stores in lysosomes: potential involvement of divalent metal transporter 1 (DMT1) and common metabolites</td>
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<td>Seasonal variation in thrombotic and thrombolytic factors in human plasma</td>
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2012 APS Undergraduate Presenters

25 - Day, Christopher
DePauw University
Trafficking of renal betaine/GABA transporter is disrupted by mutation at T40

26 - DeWitt, Judy
Wellesley College
Altered expression of KATP channel genes after acclimation to hypoxia in goldfish (Carassius auratus)

27 - Dykstra-Aiello, Cheryl
Eastern Washington University
Age effects on aerobic exercise-induced reductions in pain sensitivity in female Sprague-Dawley rats

28 - Echtenkamp, Karin
University of Nebraska, Omaha
The trans-tubular K gradients (TTKG) reveal long-term adaptation in mice to Na deficient, high K diets

29 - Engle, Jeffrey
University of Iowa
Contractile properties of mice deficient in dystrophin and the NADPH subunit p47Phox

30 - Engler, Christopher
Creighton University
Nonclassical G protein coupled receptor kinase 5 regulation of angiotensin II type 1 receptor in CATH.a neurons

31 - Eyrthb, Farid
University of Arizona
Search for RAGE in avian vasculature

32 - Farah, Livia
Presbyterian University Mackenzie
The renin-angiotensin system (RAS) in adaptive thermogenesis

33 - Fidelibus, Robert
 Nationwide Children's Hospital
Peptide expression and purification to elucidate the mechanism of vascular alpha-2C adrenoceptor translocation

34 - Field, Kristina
University of Southern California
Thrombic and thrombolytic factors in human plasma with aging

35 - Flood, Michael
University of Michigan
Achilles tendon ablation induces sclerosis expression and neotendon formation in the plantaris tendon

36 - Freire Valls, Aida
Pompeu Fabra University
Measurement of contraction-induced blood flow in mouse gastrocnemius muscle by optical imaging of fluorescent microspheres

37 - Frielle, Jennifer
Gettysburg College
Acute nucleus injection of anti-insulin affibody prevents sympathetic response to circulating insulin

38 - Gaffin-Cahn, Elion
Union College
Neural responses to looming objects in the dragonfly

39 - Gorbatenko, Andrej
University of Copenhagen
Regulation of the NaHCO3-cotransporter NBCn1 (SLC4A7) by a constitutively active ErbB2 receptor in MCF-7 breast cancer cells

40 - Gowen, Michael
Univ. of Pittsburgh
Collateralization of projections of rostral ventrolateral medulla (RVLM) neurons to levels of the thoracic spinal cord that regulate upper- and lower-body blood flow

41 - Green, Troy
William Jewell College
Direct hypertrophic effects of fibroblast growth factor 23 on cardiomyocytes

42 - Gu, Mary
University of Arizona
Quantification and analysis of advanced glycation end products in avian plasma

43 - Guimaraes, Ernesto
Federal University of Juiz de Fora
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44 - Gulas, Maria
Appalachian State University
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45 - Hallowell, David
Brigham Young University
Exercise training-induced mitochondrial biogenesis is impaired in skeletal muscle-specific LKB1 knockout mice

46 - Hanna, Minha
University of Florida
Effects of spaceflight on vasoconstrictor and mechanical properties of mouse cerebral arteries

47 - Harper, Jaclyn
University of Arizona
Competitive exchange diffusion to determine transport of hOCT2 inhibitors

48 - Hogue, Ruma
Medgar Evers College
Study of octopamine in bivalves

49 - Ibanez, Giancarlo
University of California, Davis
Histamine enhances excitability and may augment neuroprotection in the Syrian hamster hippocampus

50 - Issacs, James
University of Arizona
Examination of avian renal tissue for the presence of sodium-glucose co-transporters

51 - Johnson, Alex
University of Minnesota, Duluth
Pulmonary inflammation and airway hyper-responsiveness associated with placental ischemia induced hypertention in rat dams and offspring

52 - Jou, Woorin
Chapman University
Sex differences in bone mineral density after resistance training in growing rats

53 - Juan, Tiffany
Arizona State University
Immune responses to parasitic infections in mourning doves (Zenaida macroura)

54 - Kennard, Kaitlyn
University of Illinois
Pregnancy induces cardiac hypertrophy with hypercontractile ventricular myocytes

55 - Kluck, Breann
College of St. Benedict
Higher aortic wave reflection is mediated in part by greater autonomic support in older women

56 - Kluo, Tiffany
University of California, Davis
Cardiac myocyte exosome stability and function: role of HSP90

57 - Li, Anfei
University of California, Davis
Histamine enhances excitability and may augment neuroprotection in the Syrian hamster hippocampus

58 - Liss, Tyler
Arizona State University
High fat feeding leads to inflammation and depressed markers of immune system reactivity in rats

59 - Loar, Abigail
Trinity University
Physiological analysis of the ZO-1 actin binding region on cell adhesion and function in epithelial cells

60 - Lopez, Robert
University of Puerto Rico in Ponce
Isolifurane-induced impairments in rodents exposed to a novel object recognition task

61 - Macedo, Fabricio
Federal University of São Paulo
Study of octopamine in bivalves

62 - Malama, Angelina
University of Florida
Effect of resveratrol and caloric restriction on mitochondrial regulation and apoptotic susceptibility in aged rat skeletal muscle

63 - Martinez, Bridget
University of California, Merced
The effects and function of the hypothalamic-pituitary thyroid axis on fasting Northern elephant seals

64 - McClure, Erin
Marian College
Mannose-binding lectin concentrations correlate with enhanced whole blood aggregation and thrombin-like activity in humans

65 - McKenna, Edward J.
University of Wisconsin-Madison
Paradoxical relationship between alpha-adrenergic tone and mSNA in human metabolic syndrome

66 - Mendes Garrido Abregu, Facundo
University of Arizona
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67 - Morgan, Jessica
University of Wisconsin-Madison
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68 - Moses, Kayla
University of Wisconsin-Madison
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69 - Murray, Erin
Saint Mary's College of California
Seasonal variation in thrombotic and thrombolytic factors in human plasma
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| 71 - Ness, Emily  
Carleton College  
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| 72 - Newmeyer, Brandon  
Radford University  
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| 73 - Nguyen, Van  
Tulane University  
Tissue-specific expression of angiotensin-converting enzyme 2 (ACE2) from two promoter regions is unaffected by elevated levels of renin and angiotensinogen |
| 74 - Niu, Jacqueline  
University of Virginia  
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| 75 - Ongele, Michael  
Howard University  
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| 76 - Parikh, Jay  
University of California, San Diego  
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| 77 - Patchen, Bonnie  
Williams College  
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| 78 - Patrone, Luis  
São Paulo State University - UNESP  
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| 79 - Petersen-Jones, Humphrey  
Michigan State University  
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| 80 - Phan, Anthony  
University of Michigan  
Achilles tendon ablation induces scleraxis expression and neotendon formation in the plantaris tendon |
| 81 - Popovich, Irina  
University of California, Merced  
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| 82 - Robotham, Margaret  
Barnard College  
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| 83 - Ruan, Ting  
University of Utah  
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| 84 - Ruiz, Louis  
University of Puerto Rico  
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| 85 - Saenz, Marissa  
University of California, Davis  
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| 86 - Salley, Eric  
Taylor University  
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| 87 - Sapp, Glenn  
University of Florida  
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| 88 - Shah, Amy  
Univ. of California, San Diego  
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| 89 - Sonoda, Maya  
Universidade Federal do ABC  
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| 90 - Sove, Richard  
University of Western Ontario  
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| 91 - Spence, Madoka  
University of Missouri  
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| 1 - Allen, Alexander  
Mayo Clinic  
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| 2 - Alvarado, John  
University of Puerto Rico in Ponce  
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| 3 - Anderson, Justin  
Montgomery College  
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| 4 - Arnal, Ashley  
Dartmouth College  
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| 5 - Bachman, Larry  
University of California, San Diego  
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| 6 - Baghadawala, Mufaddal  
University of Calgary  
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| 7 - Barclay, Samantha  
Cedarville University  
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| 8 - Basso, Paulo  
Universidade de São Paulo  
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| 9 - Battis, Christine  
Cedarville University  
Influence of cellular magnesium concentration on fibroblast phenotype differentiation |
| 10 - Bauer, Ashley  
University of Minnesota, Duluth  
Pravastatin attenuates hypertension and angioenic imbalance in placental ischemia induced hypertension in the rat |
| 11 - Bett, Kelly  
Seattle University  
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| 12 - Bolanos, Juan  
University of Texas at El Paso  
Stress-induced activation of distinct subpopulations of neurons in the basolateral amygdala of the rat |
Support for the Bruce Awards is provided by APS, Dr. Isis, Central Nervous System Section, and APS Members Marlowe W. Eldridge, Thomas F. Hopkins, Ida J. Llewellyn-Smith, and Thomas A. Pressley

APS Congratulates the 2012 Bruce Outstanding Abstract Awardees

Alexander Allen, Winona State Univ.
Larry Bachman Jr., Univ. of California, San Diego
Paulo Basso, Univ. de Sao Paulo
Elaina Bost, Univ. of Florida
Kathan Chintamaneni, Washington Univ. in St. Louis
Vinh Dang, Michigan State Univ.
Cheryl Dykstra-Aiello, Eastern Washington Univ.
Kari Echtenkamp, Univ. of Nebraska
Christopher Engler, Creighton Univ.
Aida Freire Valls, Pompeu Fabra Univ.
Jennifer Frielle, Gettysburg College
Michael Gowen, Univ. of Pittsburgh
Troy Green, William Jewell College
David Hallowell, Brigham Young Univ.
Giancarlo Ibanez, Univ. of California, Davis
Alex Johnson, Univ. of Minnesota, Duluth
Woojin Joo, Chapman Univ.
Kaitlyn Kennard, Ursinus College
Breann Kluck, College of Saint Benedict
Anfei Li, Cornell Univ.
Brandon Newmyer, Radford Univ.
Humphrey Petersen-Jones, Michigan State Univ.
Marissa Saenz, Univ. of California, Davis
Amy Shiah, Univ. of California, San Diego
Walter Wang, Univ. of Missouri
Brian Wynia, South Dakota State Univ.

2012 APS Undergraduate Presenters

92 - Toombs, Casey
University of New England
Differential anoxia and hypoxia tolerance in two color morphs of the green crab, Carcinus maenas

93 - Valenti, Vanessa
University of Sao Paulo
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94 - Wang, Walter
University of Missouri
Soluble guanylate cyclase activation protects against postischemic inflammation and reduces nitrate tolerance in heme-oxygenase-1 knockout mice

95 - Warner, Paige
University of Arizona
Isolation of the TRPV4 osmoreceptor from the avian lower gastrointestinal tract

96 - Wasson, Elisa
University of New Mexico
Middle cerebral artery blood velocity during running: interactions of heart and stride impact rates

97 - Webster, Rebekah
Radford University
LPLRFamide causes anorectic effects associated with the brain stem in rats

98 - Weekman, Erica
University of Kentucky
Comparison of clock gene expression across skeletal muscles of different origins and functions

99 - Welter, Ashleigh
University of Florida
Effect of exercise on the mitochondrial profile of testicular tumors in aged Fischer 344 rats

100 - Wu, Maddalena
University of Milan
Abnormal heart rate control in SCN5A-delta-KPQ mice

101 - Wynia, Brian
South Dakota State University
Caveolin-1 regulation of mouse lung epithelial progenitor cell differentiation and morphogenesis

2012 AAA Undergraduate Presenters

102 - Balzano, Vincent
Ohio State University
The educational value of virtual 3D skeletal model rendered from CAT scan in anatomy education

103 - Bilal, Alina
Grossmont College
Biological sex and tympanic dehydration

104 - Bogatyryov, Yevgen
New York College of Osteopathic Medicine / NYIT
Structural composition of myocardial infarction scar does not differ between male and female middle-aged rats

105 - Coniglio, Lacy
San Francisco State University
Undergraduate dissection techniques: Unique views of internal structures

106 - Jabalee, James
Mount Saint Vincent University
Mesenchymal condensation sets the stage for intramembranous bone development

107 - Lu, Zhen
Johns Hopkins University
A novel staging system to assess the severity of colorectal polyposis in patients with FAP

108 - Orellana, Elise
Louisiana State University
Comparative functional morphology of the avian integument: Implications for the evolutionary history of feathers

109 - Selby, Keegan
Western University
What motivates medical students to learn anatomy?

110 - Snoke, Deena
Keene State College
The African clawed frog (Xenopus laevis) is sensitive to pyrene exposure during early development

111 - Stout, Jessica
Southern Illinois University
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112 - Zekhtser, Mitchell
San Francisco State University
Restoration and preservation of pathological surgical specimens
Meet Our 2012 Undergraduate Researchers!

Type of Institution

- 48% US Doctoral/Research Universities-Extensive
- 6% US Doctoral/Research Universities-Intensive
- 13% US Master's Colleges & Universities
- 19% US Baccalaureate Colleges-Liberal Arts/General
- 15% International Universities

Graduation Year (Anticipated)

- 2011: 2%
- 2012: 54%
- 2013: 35%
- 2014: 5%
- 2015-16: 3%

Research Focus

- 19% Cardiovascular
- 15% Cell & Molecular
- 12% Central Nervous System
- 10% Endocrinology & Metabolism
- 9% Environmental & Exercise
- 2% Gastrointestinal & Liver
- 9% Neural Control/Autonomic Regul.
- 5% Renal
- 5% Respiration
- 2% Water & Electrolyte Homeostasis
- 4% Anatomy
- 4% Stem Cells

Future Plans

- 35% Graduate School only
- 33% Medical School only
- 24% Graduate & Medical School
- 4% Other Professional School
- 4% Other Prof & Grad or Med

Years of Research Experience

- 39% 0.5-2 years
- 32% 2-3 years
- 13% 3-4 years
- 10% 4-5 years
- 6% >5 years

Majors

- 48% Biology (animal science, life sciences/physiology/nutrition)
- 10% Biomed. Engineer./Biotechnology
- 10% Biochemistry/Chemistry
- 9% Exercise Science/Kinesiology
- 8% Health Sciences/Medicine
- 7% Cell/Molecular Biology
- 4% Neuroscience/psychology
- 3% Anatomy
- 3% Liberal Arts

2012 APS Undergraduate Poster Session and
David S. Bruce Award for Excellence in Undergraduate Research Reception

Recognizing the Undergraduate Researcher

Guest Society: American Association of Anatomists (AAA)

Experimental Biology 2012

Sunday, April 22, 2012
San Diego Convention Center, Sails Pavilion
San Diego, CA