DEPARTMENT OF CELL BIOLOGY AND PHYSIOLOGY
ANNUAL REPORT
Academic Year 2012-2013

Oscar Bizzozero, Ph.D.
Professor and Chair

HIGHLIGHTS

- **Department faculty had a large number of educational contact hours in the Phase I Medical School Curriculum and in the Biomedical Sciences Graduate Program**

- **Continued faculty involvement and alignment with the Signature Research programs. Members of the department submitted a record number of research grant applications to federal agencies and private foundations.**

- **Department faculty held several educational administrative positions including Associate Dean for Undergraduate Medical Education, and Director of the Biomedical Sciences Graduate Program**

- **Successfully maintained the financial health of the department within the guidelines of the SOM financial administration.**

DEPARTMENT OF CELL BIOLOGY AND PHYSIOLOGY
July 1, 2012 - June 30, 2013

Oscar Bizzozero, Ph.D.
Professor and Chair

Departmental Research Divisions.

***Division of Vascular Biology/Physiology*:**
Faculty in this division continue to receive new extramural funding to support their research activities. These investigators also continue to attract talented undergraduate, graduate and postgraduate students.

***Division of Cancer Cell Biology*:**
Faculty in this division are fully integrated into the activities of the UNM Cancer Research and Treatment Center (CRTC). These investigators continue to pursue important research questions related to the basic and clinical aspects of women's cancers and continue to mentor numerous postdoctoral fellows and graduate students.

Division of Medical and Graduate Education
Faculty in this division continue to provide outstanding medical student and graduate student instruction and curriculum development and administration.

EDUCATION ACTIVITIES

The Department continues to participate in all Phase I blocks of the Medical School Curriculum (See Table 3), Biomedical Graduate School curriculum (See Table 4), mentoring of graduate students and postdoctoral fellows (See Table 5).

RESEARCH ACTIVITIES

Publications

Table 6 lists the 2012-2013 publications resulting from the research activities of individual faculty members.

Funding

Although at a reduced level, due to current poor funding environment, department faculty continue to receive extramural funding to support their research activities. All faculty in the department are actively engaged at obtaining additional research funding support for academic year 2013-2014. Table 7 lists the 2012-2013 externally funded research grants.

SERVICE ACTIVITIES

Anatomical Teaching Facility and Donations Program

The Anatomical Teaching Facility and Donations Program continues under the directorship of Thomas Estenson with Amy Rosenbaum supervising the teaching lab and managing the donations program and its web site.

***Donations Program*:** This program is administered for the advancement of medical science and is central to the educational and research missions of the Health Sciences Center. The program counsels potential donors, maintains a donor database of almost 4000 individuals, arranges for delivery and curation of donors, and handles their final disposition.

***Teaching Facilities*:** The new state of the art laboratory and support facilities occupied in 2010 in the Domenici Education building continues to serve as the focal point of anatomical education at the Health Sciences Center. This year the facilities provided educational and research opportunities to other programs of the School of Medicine, a number of divisions of the Health Sciences Center, several UNM main campus departments and to an increasing number of state-supported and private educational institutions. The successful outreach program, which offers mini-courses in anatomy to high school science students, continued to expand as well with many visits to the laboratory. The Anatomical Teaching Facilities were used by:

School of Medicine	Health Sciences Center	Other UNM Departments	Other NM Institutions	Other Groups
Phase I	PA Program	Biology	Santa Fe Community College	SW College of Acupuncture
Phase III Clerkship	PT Program	Anthropology	Eastern NM University	International Institute of Chinese Medicine
UNMH-Emergency	OT Program	Theater and Dance	CNM	Universal Therapeutics Med Institute

School of Medicine	Health Sciences Center	Other UNM Departments	Other NM Institutions	Other Groups
Medicine				
General Surgery	HSC Staff day	UNM Career Enrichment	Crystal Mountain Sch. of Massage	A-Med Systems & Medicine Wheel
Neuro-Surgery	HSC Admin Day		NM School of Natural Therapeutics	Albuquerque, Rio Rancho and Cleveland High School
Orthopedics	Office of Diversity		UNM Taos	Albuquerque Academy and Sandia Prep
OB/GYN	SOM Admissions		UNM Valencia	St Pius, Highland and Goddard High School
Biomedical graduate	BA/MD Program		UNM LA	La Queva, Capitol and Rio Grande HS
	EMS Program		Highlands Univ	Penasco, Socorro, Grants & Moriarty HS

ADMINISTRATIVE ACTIVITIES

Faculty of the department serve on numerous medical and graduate research and education committees. Paul McGuire is the Associate Dean for Undergraduate Medical Education. Eric Prossnitz serves as chair of the Conflict of Interest Committee and Tom Resta and Rebecca Hartley are department representatives to the Biomedical Sciences Graduate Program Steering Committee. David Bear is the department representative to the UNM-SOM Curriculum Committee. Rebecca Hartley participates on the Committee for Student Promotion and Evaluation, and Nancy Kanagy is currently co-chair of the CVMD signature research program for the Health Sciences Center. Helen Hathaway served as chair of the Biomedical Sciences Graduate Program. Laura Gonzalez Bosc and Steve Jett are the department representatives to IACUC and Science Advisory Committee, respectively. Nikki Jernigan and Oscar Bizzozero serve in the HSC Research Allocation Committee. Oscar Bizzozero also serves in the HSC Research Strategic Planning Committee.

STRATEGIC PLAN FOR 2013

I. Education Activities

Continue to be the top basic science department in fulfilling the educational missions of the SOM.

I.1 Maintain active participation of department faculty in SOM Phase I blocks (through both lectures and tutorials) and in educational policy and steering committees related to this program.

I.2 Maintain active participation of department faculty in the Biomedical Sciences Graduate Program (through both courses and laboratory training) and in educational policy and steering committees related to this program.

I.3 Encourage professional behavior on the part of the faculty in dealing with all learners.

II. Research Activities

Excel in research activities that focus on the causes and potential treatments of human diseases.

II.1 Encourage interdepartmental and interdisciplinary research efforts that emphasize in understanding the mechanisms of human disease and in translating these discoveries to the clinical realm.

II.2 Encourage faculty to actively participate in CRTC programs, the SOM's Signature Research Programs and the CTSC.

II.3 Maintain departmental presence and active participation on the Research Strategic Planning Committee and Science Advisory Committee.

II.5 Maintain research infrastructure within the department by financially supporting technical personnel and the purchase of updated equipment.

II.6 Facilitate and strongly encourage the submission of high-quality research grants applications to funding agencies by departmental faculty. Provide timely and effective administrative support to facilitate grant submission.

III. Academic Affairs

Provide the environment and resources to enable our faculty to perform at their best.

III.1 Recognize faculty for their contributions to research, teaching and service. Utilize the plan established in CY 2011 to increase FY14 compensation to the AAMC 25th percentile for faculty that meet expectations if approved by SOM leadership

III.2 Create an environment where faculty achievements are recognized and valued. Promote professional development of faculty.

III.3 Promote professional behavior on the part of the faculty in dealing with colleagues, staff members and administrators.

III.4 Maintain an environment of transparency, ethics and integrity.

IV. Finance and Administration

IV.1 The Department Administration will strive to maintain the financial health of the department within the guidelines of the SOM administration by achieving an unrestricted positive net margin by the end of the fiscal year.

IV.2 Maintain an efficient department administration that provides faculty with timely and accurate financial accounting and grant and human resources support.

Table 1. Dept. of Cell Biology & Physiology Faculty – Academic Year 2012-2013

Name	Rank	FTE
David G. Bear, Ph.D.	Professor	1
Oscar Bizzozero, Ph.D.	Professor	1
Thomas Estenson, Ph.D.	Lecturer/Director Anatomy Lab	1
Laura Gonzalez Bosc, Ph.D.	Associate Professor	1
Rebecca Hartley, Ph.D.	Associate Professor	1
Helen Hathaway, Ph.D.	Associate Professor	1
Nikki Jernigan, Ph.D.	Assistant Professor	1
Steven Jett, Ph.D.	Research Assistant Professor	1
Nancy Kanagy, Ph.D.	Professor	1
Paul McGuire, Ph.D.	Professor and Chair	1
Eric Prossnitz, Ph.D.	Professor	1
Thomas Resta, Ph.D.	Associate Professor	1
Sherry Rogers, Ph.D.	Associate Professor (Retired)	.15
John Trotter, Ph.D.	Professor (Retired)	.25
Benjimen Walker, Ph.D.	Professor	1
Stephen C. Wood, Ph.D.	Lecturer III	.50

Table 2. Dept. of Cell Biology & Physiology Staff – Academic Year 2012-2013

Name	Position	New Hire Date
Yolanda Chacon-Aguilar	Accountant II	
Daniel Cimino	HS Research Scientist I	
Wieslawa Giermakowska	HS Research Technician I	
Lindsay Herbert	HS Research Technician II	
Tamara Howard	HS Associate Scientist III	
Jamie Che-Lin Hu	HS/Associate Scientist I	
Amy Lucero	HS Research Specialist	
Therese Mitchell	HS Research Assistant	
Minerva Murphy	HS Research Technician III	
Vijay S. Naik, Ph.D.	Sr. Research Scientist II	
Carols Nitta	HS Research Technician I	
Melissa Nuttall	Department Administrator R1	
Carolyn E. Pace	HS Research Technician II	
Amy Rosenbaum	Operations Manager	
Geetanjali Sharma	HS Associate Scientist II	01/07/2013

Table 3. Faculty Participation in Medical Student Education – Academic Year 2012-2013
Phase 1-1 and 1-2 First and Second Year

I.

Faculty	Human Structure Function & Development	Neuro-science	CV/ Pulmonary/ Renal	Genetics & Neoplasia	GI/Nutrition	Human Sexuality/ Reproduction/ Endocrinology
Bear				X		
Bizzozero		X				
Estenson	X		X			X
Hartley	X			X		
Gonzalez Bosc					X	
Hathaway						X
Kanagy			X			
McGuire[1]	X					
Resta			X			
Rogers						
Walker						
Jernigan			X			

[1] Block Chair

In addition, the Department of Cell Biology and Physiology has two employees dedicated to support Phase I teaching:

Thomas Estenson, Director of the Anatomical Teaching Laboratories
Amy Rosenbaum, Operations Manager, Anatomical Teaching Laboratories

Table 4. Participation in the Biomedical Sciences Graduate Program – Academic Year 2012-2013

Faculty of the Department of Cell Biology and Physiology offered, participated in and/or were research thesis advisors for the following Biomedical Sciences Program courses:

BIOMED 501 Frontiers in Medical Biology: *Entire graduate teaching faculty*

BIOMED 505 ST/Developmental Biology Journal Club: *Hathaway*

BIOMED 505 Cellular & Molecular Basis of Disease Journal Club: *Rogers*

BIOMED 507 Advanced Cellular and Molecular Biology 1: *Hathaway*

BIOMED 508 Advanced Cell Biology 2: *Hathaway, Core Course Leader*; *Hartley, Hathaway, Prossnitz*

BIOMED 510 Physiology: *Kanagy, Resta, Walker*

BIOMED 522 Experimental Methods & Design: Prossnitz, Course *Leader*; *Bizzozero, Jett, Hathaway, Hartley*

BIOMED 532 Neurochemistry: *Bizzozero*

BIOMED 595 Master's Research: *Faculty*

BIOMED 599 Master's Thesis: *Faculty*

BIOMED 615 Signal & Adhesion Seminar: *Prossnitz*

BIOMED 646 Advanced Topics in Molecular Biology: *Bear*

BIOMED 657 Regulation and Systems Biology: *Walker -Course Leader, Kanagy*

BIOMED 659 Regulation and Systems Biology: *Walker*

BIOMED 695 Research in Cell Biology and Physiology: *Faculty*

BIOMED 699 Dissertation: *Faculty*

Table 5. Dept. of Cell Biology & Physiology Postdoctoral Fellow & Graduate Student
Academic Year 2012-2013

Fellow/Student	Mentors	New Hire Date
Postdoctoral Fellows		
Anushka Dasgupta, Ph.D.	Oscar Bizzozero, Ph.D.	03/01/2013
Finny Monickaraj, Ph.D.	Paul McGuire, Ph.D. & Arup Das, M.D., Ph.D.	04/01/2013
Carolina Franco Nitta, Ph.D.	Paul McGuire, Ph.D. & Arup Das, M.D., Ph.D.	05/01/2013
Jessica Osmond, Ph.D.	Nancy Kanagy, Ph.D.	
Jessica Snow, Ph.D.	Thomas Resta, Ph.D.	
Jianzheng Zheng, Ph.D.	Oscar Bizzozero, Ph.D.	
Graduate Students		
Sara Alcon	Helen Hathaway, Ph.D.	
Mario Aragon	Matthew Campen, Ph.D. (T32 Grant)	
Natalie Fredette	Eric Prossnitz, Ph.D. (T32 Grant)	
Molly Harmon	Matthew Campen, Ph.D. (T32 Grant)	
Levi Maston	Thomas Resta, Ph.D. (T32 Grant)	
Jaclyn Murton	Helen Hathaway, Ph.D.	

Table 5. Dept. of Cell Biology & Physiology Postdoctoral Fellow & Graduate Student Academic Year 2012-2013 – Continued

Fellow/Student	Mentors
Graduate Students Continued	
Chuck Norton	Thomas Resta, Ph.D.
Grace Okello	Rebecca Hartley, Ph.D.
Danielle Plomaritas	Nikki Jernigan, Ph.D. (T32 Grant)
Joshua Sheak	Thomas Resta, Ph.D. (T32 Grant)
Kayla Zehr	Mary Walker, Ph.D. (T32 Grant)
Erin Zekas	Eric Prossnitz, Ph.D.
Bonjun Zhang	Benjimen Walker, Ph.D.

Table 6. Department of Cell Biology and Physiology Publications: All Types
Academic Year 2012 – 2013

Bizzozero, Oscar A.

Dasgupta A, Zheng J, Perrone-Bizzozero NI, Bizzozero OA, . ASN Neuro. Increased carbonylation, protein aggregation and apoptosis in the spinal cord of mice with experimental autoimmune encephalomyelitis. 5(1). e00111. Jan 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Increased+carbonylation%2C+protein+aggregation+and+apoptosis+in+the+spinal+cord+of+mice

Gonzalez Bosc, Laura V.

Jackson-Weaver O, Osmond JM, Riddle MA, Naik JS, Gonzalez Bosc LV, Walker BR, Kanagy NL. American journal of physiology. Heart and circulatory physiology. Hydrogen sulfide dilates rat mesenteric arteries by activating endothelial large-conductance Ca^{2+}-activated K^{+} channels and smooth muscle Ca^{2+} sparks. 304(11). H1446-54. Jun 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Hydrogen+sulfide+dilates+rat+mesenteric+arteries+by+activating+endothelial+large-conduc

Ramiro-Diaz JM, Nitta CH, Maston LD, Codianni S, Giermakowska W, Resta TC, Gonzalez Bosc LV. Am J Physiol Lung Cell Mol Physiol. NFAT is required for spontaneous pulmonary hypertension in superoxide dismutase 1 knockout mice. 304(9). L613-25. May 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=NFAT+is+required+for+spontaneous+pulmonary+hypertension+in+superoxide+dismutase+1+knock

Hathaway, Helen J.

Butler KS, Lovato DM, Adolphi NL, Belfon R, Fegan DL, Monson TC, Hathaway HJ, Huber DL, Tessier TE, Bryant HC, Flynn ER, Larson RS. Cell Transplant. Development of antibody-tagged nanoparticles for detection of transplant rejection using biomagnetic sensors. Oct 2012. http://www.ncbi.nlm.nih.gov/pubmed?term=Development%20of%20antibody-tagged%20nanoparticles%20for%20detection%20of%20transplant%2

Williamson EA, Damiani L, Leitao A, Hu C, Hathaway H, Oprea T, Sklar L, Shaheen M, Bauman J, Wang W, Nickoloff JA, Lee SH, Hromas R. Cancer Res. Targeting the Transposase Domain of the DNA Repair Component Metnase to Enhance Chemotherapy. 72(23). 6200-6208. Dec 2012.
http://www.ncbi.nlm.nih.gov/pubmed?term=Targeting%20the%20transposase%20domain%20of%20the%20DNA%20repair%20component%20metnase%2

Jernigan, Nikki L.

Norton CE, Broughton BR, Jernigan NL, Walker BR, Resta TC. Antioxid Redox Signal. Enhanced depolarization-induced pulmonary vasoconstriction following chronic hypoxia requires EGFR-dependent activation of NAD(P)H oxidase 2. 18(14). 1777-88. May 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Enhanced+Depolarization-Induced+Pulmonary+Vasoconstriction+Following+Chronic+Hypoxia+Re

Plomaritas DR, Herbert LM, Resta TC, Walker BR, Jernigan NL. FASEB J. Loss of endogenous H2O2-induced inhibition of ASIC1-mediated Ca2+ influx in pulmonary artery smooth muscle cells following chronic hypoxia. 27. 1140.4. Jan 2013.

Kanagy, Nancy L.

Webster BR, Osmond JM, Paredes DA, DeLeon XA, Jackson-Weaver O, Walker BR, Kanagy NL. The Journal of pharmacology and experimental therapeutics. Phosphoinositide-dependent kinase-1 and protein kinase Cδ contribute to endothelin-1 constriction and elevated blood pressure in intermittent hypoxia. 344(1). 68-76. Jan 2013.
http://www.ncbi.nlm.nih.gov/pubmed/?term=Phosphoinositide-dependent+kinase-1+and+protein+kinase+C+d+contribute+to+endothelin-1+c

Meyer MR, Field AS, Kanagy NL, Barton M, Prossnitz ER. Life Sci. GPER regulates endothelin-dependent vascular tone and intracellular calcium. 91(13-14). 623-7. Oct 2012.
http://www.ncbi.nlm.nih.gov/pubmed?term=GPER%20regulates%20endothelin-dependent%20vascular%20tone%20and%20intracellular%20calciu

Jackson-Weaver O, Osmond JM, Riddle MA, Naik JS, Gonzalez Bosc LV, Walker BR, Kanagy NL. Am J Physiol Heart Circ Physiol. Hydrogen sulfide dilates rat mesenteric arteries by activating endothelial large-conductance Ca^{2+}-activated K^{+} channels and smooth muscle Ca^{2+} sparks. 304(11). H1446-54. Jun 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Hydrogen+sulfide+dilates+mesenteric+arteries+by+activating+endothelial+large-conductanc

Prossnitz, Eric R.

Prossnitz ER. Crit Care Med. G protein-coupled estrogen receptor: A new therapeutic target in stroke and traumatic brain/spinal cord injury?*. 40(12). 3323-5. Dec 2012. http://www.ncbi.nlm.nih.gov/pubmed?term=G%20protein-coupled%20estrogen%20receptor%3A%20A%20new%20therapeutic%20target%20in%20str

Burai R, Ramesh C, Nayak TK, Dennis MK, Bryant BK, Prossnitz ER, Arterburn JB. PLoS One. Synthesis and characterization of tricarbonyl-Re/Tc(I) chelate probes targeting the G protein-coupled estrogen receptor GPER/GPR30. 7(10). e46861. Jul 2012. 10.1371/journal.pone.0046861

Meyer MR, Field AS, Kanagy NL, Barton M, Prossnitz ER. Life Sci. GPER regulates endothelin-dependent vascular tone and intracellular calcium. 91(13-14). 623-7. Oct 2012. http://www.ncbi.nlm.nih.gov/pubmed?term=GPER%20regulates%20endothelin-dependent%20vascular%20tone%20and%20intracellular%20calciu

Brunsing RL, Owens KS, Prossnitz ER. J Immunother. The G protein-coupled estrogen receptor (GPER) agonist G-1 expands the regulatory T-cell population under TH17-polarizing conditions. 36(3). 190-6. Apr 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=The+G+protein-coupled+estrogen+receptor+(GPER)+agonist+G-1+expands+the+regulatory+T-cel

E. R. Prossnitz, L. A. Sklar. Encyclopedia of Biological Chemistry. Chemotactic Peptide/Complement Receptors. Academic Press: Elsevier. 493-497. Jan 2013.

Resta, Tom

Norton CE, Walker BR, Resta TC. FASEB J. Pressure-dependent pulmonary arterial tone following chronic hypoxia requires depolarization-induced activation of epidermal growth factor receptor and NADPH oxidase. 27:1140. 3. Jan 2013.

Maston LD, Resta TC, Cannon JL, Giermakowska W, Gonzalez Bosc LV. FASEB J. Adaptive immune cells contribute to chronic hypoxia-induced pulmonary hypertension. 27:1140. 10. Jan 2013.

Zhang B, Naik J, Resta T, Walker B. FASEB J. Membrane cholesterol facilitates agonist-induced calcium entry in pulmonary arterial endothelium. 27:724. 7. Jan 2013.

Ramiro-Diaz JM, Nitta CH, Maston LD, Codianni S, Giermakowska W, Resta TC, Gonzalez Bosc LV. Am J Physiol Lung Cell Mol Physiol. NFAT is required for spontaneous pulmonary hypertension in superoxide dismutase 1 knockout mice. 304(9). L613-25. May 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=NFAT+is+required+for+spontaneous+pulmonary+hypertension+in+superoxide+dismutase+1+knock

Norton CE, Broughton BR, Jernigan NL, Walker BR, Resta TC. Antioxid Redox Signal. Enhanced depolarization-induced pulmonary vasoconstriction following chronic hypoxia requires EGFR-dependent activation of NAD(P)H oxidase 2. 18(14). 1777-88. May 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Enhanced+Depolarization-Induced+Pulmonary+Vasoconstriction+Following+Chronic+Hypoxia+Re

Plomaritas DR, Herbert LM, Resta TC, Walker BR, Jernigan NL. FASEB J. Loss of endogenous H2O2-induced inhibition of ASIC1-mediated Ca2+ influx in pulmonary artery smooth muscle cells following chronic hypoxia. 27. 1140.4. Jan 2013.

Walker, Benjimen R.

Jackson-Weaver O, Osmond JM, Riddle MA, Naik JS, Gonzalez Bosc LV, Walker BR, Kanagy NL. American journal of physiology. Heart and circulatory physiology. Hydrogen sulfide dilates rat mesenteric arteries by activating endothelial large-conductance Ca^{2+}-activated K^{+} channels and smooth muscle Ca^{2+} sparks. 304(11). H1446-54. Jun 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Hydrogen+sulfide+dilates+rat+mesenteric+arteries+by+activating+endothelial+large-conduc

Webster BR, Osmond JM, Paredes DA, DeLeon XA, Jackson-Weaver O, Walker BR, Kanagy NL. The Journal of pharmacology and experimental therapeutics. Phosphoinositide-dependent kinase-1 and protein kinase Cδ contribute to endothelin-1 constriction and elevated blood pressure in intermittent hypoxia. 344(1). 68-76. Jan 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Phosphoinositide-dependent+kinase-1+and+protein+kinase+C+d+contribute+to+endothelin-1+c

Riddle MA, Walker BR. Am J Physiol Cell Physiol. Regulation of endothelial BK channels by heme oxygenase-derived carbon monoxide and caveolin-1. 303(1). C92-C101. Jul 2012. http://www.ncbi.nlm.nih.gov/pubmed?term=Regulation%20of%20endothelial%20BK%20channels%20by%20heme%20oxygenase-derived%20carbon%2

Norton CE, Broughton BR, Jernigan NL, Walker BR, Resta TC. Antioxid Redox Signal. Enhanced depolarization-induced pulmonary vasoconstriction following chronic hypoxia requires EGFR-dependent activation of NAD(P)H oxidase 2. 18(14). 1777-88. May 2013. http://www.ncbi.nlm.nih.gov/pubmed/?term=Enhanced+Depolarization-Induced+Pulmonary+Vasoconstriction+Following+Chronic+Hypoxia+Re

Plomaritas DR, Herbert LM, Resta TC, Walker BR, Jernigan NL. FASEB J. Loss of endogenous H2O2-induced inhibition of ASIC1-mediated Ca2+ influx in pulmonary artery smooth muscle cells following chronic hypoxia. 27. 1140.4. Jan 2013.

Table 7. Dept. of Cell Biology & Physiology Sponsored Research – Academic Year 2012-2013

Research

Faculty	Sponsor Name	Project Title	Sponsor Number	Start	Stop	F A	Direct	Total
Gonzalez Bosc, Laura V.	NIH/National Heart, Lung, and Blood Institute	NFATc3 in Chronic Hyposic Pulmonary Hypertension	5R01HL088151-05 REVISED	12/1/2011	11/30/2012	12,375	24,750	37,125
Kanagy, Nancy L.	AHA / American Heart Association	PDK-1 and Endothelin-1 in Intermittent Hypoxia-induced Hypertension		1/1/2012	12/31/2013	0	6,772	6,772
Gonzalez Bosc, Laura V.	NIH/National Heart, Lung, and Blood Institute	NFATc3 in Chronic Hypoxic Pulmonary Hypertension	5 R01 HL088151-05 (No-Cost Extension)	12/1/2011	11/30/2013	111,375	222,750	334,125
Jernigan, Nikki L.	NIH/National Heart, Lung, and Blood Institute	Role of Acid-Sensing Ion Channels in Pulmonary Vascular Smooth Muscle Store-Operated Calcium Entry	5K01HL092598-05 (No-Cost Extension)	5/1/2012	4/30/2014	11,190	139,879	151,069
Prossnitz, Eric R.	NIH/National Cancer Institute	Development of GPR30-Selective Ligands - MPI	5 R01 CA127731-05 (No-Cost Extension)	6/1/2012	5/31/2014	64,408	173,544	237,952
Prossnitz, Eric R.	NIH/National Cancer Institute	Development of GPR30 Selective Ligands (Research Supplement for Sara Alcon)	3R01CA127731-02S1 (No-Cost Extension)	6/1/2012	5/31/2014	4,278	15,656	19,934
Resta, Tom	NIH/National Heart, Lung, and Blood Institute	Pulmonary Vasoreactivity Following Chronic Hypoxia	5 R01 HL088192-05 (No-Cost Extension)	6/1/2012	5/31/2014	123,750	247,500	371,250
Resta, Tom	AHA/American Heart Association (South Central Affiliate)	Pulmonary Vasoconstrictor Reactivity Following Intermittent Hypoxia	11POST5260026	1/1/2011	12/31/2012	0	82,000	82,000
McGuire, Paul G.	NIH/National Heart, Lung, and Blood Institute	ARRA - Building Care Programs in Cardiovascular Metabolic Disease	5P30HL101351-02	9/1/2011	8/31/2012	0	0	0
Walker, Benjimen R.	NIH/National Heart, Lung, and Blood Institute	Minority Institutional Research Training Program (T32)	5R32HL007736-17	8/1/2011	7/31/2012	17,873	251,409	269,282
Hartley, Rebecca S.	ABQMR	Ultra-Compact MRI	1R43RR032603-01 (No-Cost Extension)	9/10/2011	9/9/2013	13,161	25,806	38,967
Jernigan, Nikki L.	American Physiological Society	2011 Giles F. Filley Memorial Award	Jernigan15929 (No-Cost Extension)	2/21/2012	2/28/2014	0	0	0
Walker, Benjimen R.	NIH/National Heart, Lung, and Blood Institute	Endothelial BK Channels and Vasoreactivity Following Chronic Hypoxia	5R01HL095640-03	7/1/2012	6/30/2013	126,225	247,500	373,725
Prossnitz, Eric R.	NIH/National Cancer Institute	G Protein-Coupled Estrogen Receptor GPER and Breast Carcinogenesis	1R01CA163890-01-A1	8/1/2012	5/31/2013	105,825	207,500	313,325

Prossnitz, Eric R.	NIH/National Institute on Drug Abuse	MLP Assay for Arrestin-AP2 Inhibitors	5R03DA031665-02	1/1/2012	12/31/2012	11,475	22,500	33,975
McGuire, Paul G.	GlaxoSmithKline	Inhibition of CCL2/CCR2 in the Prevention or Reduction of Retinal Angiogenesis and Diabetic Retinal Edema	100023477	9/30/2011	9/6/2012	4,000	16,000	20,000
Bizzozero, Oscar A.	NIH/National Institute of Neurological Disorders and Stroke	Protein Carbonylation and Axonal Damage in EAE	5R01NS057755-04 REVISED	4/1/2012	3/31/2014	0	0	0
Kanagy, Nancy L.	AHA / American Heart Association	PHK-1 and Endothelin-1 in Intermittent Hypoxia-Induced Hypertension	12POST8690008	1/1/2012	12/31/2013	0	84,000	84,000
Walker, Benjimen R.	NIH/National Heart, Lung, and Blood Institute	Minority Institutional Research Training Program (T32)	5T32HL007736-18	8/1/2012	7/31/2013	19,984	249,797	269,781
Jernigan, Nikki L.	NIH/National Institutes of Health	Vascular Smooth Muscle Function in Pulmonary Hypertension	1R01HL111084-01A1	2/1/2013	1/31/2014	127,500	250,000	377,500
Prossnitz, Eric R.	NIH/National Heart, Lung, and Blood Institute	GPR30-Induced Tregs: a Therapeutic Approach to Reversing Colitis	5F30DK084648-03	5/1/2012	4/30/2013	0	42,972	42,972
Resta, Tom	AHA / American Heart Association	NADPH Oxidase-Mediated Pulmonary Vasoconstriction Following Chronic Hypoxia	13PRE14580015	1/1/2013	12/31/2014	0	50,000	50,000
Resta, Tom	AHA / American Heart Association	Pulmonary Vasoconstrictor Reactivity Following Intermittent Hypoxia	13GRNT14510041	1/1/2013	12/31/2014	12,728	127,272	140,000
Jett, Stephen D.	TriCore Reference Laboratories	Renal Biopsy Processing for Electron Microscopy - PSA	3R84B Amend	7/1/2012	6/30/2013	5,432	20,891	26,323
Jett, Stephen D.	DOD/Air Force Research Laboratory	Biological Nanoplatforms for Integrated Molecular-Scale-Self-Assembled	FA9453-13-1-0220	1/7/2013	3/20/2014	28,703	56,281	84,984
Prossnitz, Eric R.	NIH/National Cancer Institute	G Protein-coupled Estrogen Receptor GPER and Breast Carcinogenesis	5R01Ca163890-02	6/1/2013	5/31/2014	99,476	195,050	294,526
Prossnitz, Eric R.	NIH/National Institute on Drug Abuse	MLP Assay for Arrestin-AP2 Inhibitors	5R03DA031665-02 REVISED	1/1/2012	12/31/2012	1,275	2,500	3,775
Bizzozero, Oscar A.	NIH/National Institute of Neurological Disorders and Stroke	Protein Carbonylation and Axonal Damage in EAE	5R01NS057755-05	4/1/2012	3/31/2013	88,200	176,400	264,600
Prossnitz, Eric R.	DOD / U.S. Department of Defense	GPR30 Signaling and Regulation in Breast Cancer	W81XWH-10-1-0198	4/1/2010	3/31/2013	7,206	108,431	115,637