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## BIOGRAPHICAL SKETCH

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NAME Deborah A. Scheuer	POSITION TITLE Associate Professor of Physiology and Functional Genomics		
eRA COMMONS USER NAME scheuerd			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Hawaii, Honolulu, HI Univ. of California, San Francisco Univ. of TX Health Science Center, San Antonio, TX	BS Honors Ph.D. Post-doc	1981 1988 1988-91	Biology Physiology Neural Control of the Circulation

### A. Personal Statement

I have been investigating the interactions between the endocrine and nervous systems in the control of blood pressure since I was in graduate school at the University of California, San Francisco, with the exception of 2 years that I spent in the pharmaceutical industry. I have had continuous NIH funding for this work since 1997, and I am currently a PI on 2 NIH R01 grants (one is a multiple PI grant with Dr. Colin Sumners). I have trained 2 graduate students (1MS, 1 PhD) and 3 postdoctoral fellows. I am currently the research advisor for a Predoctoral Fellow on this training grant, Rebekah Clifton. In addition I have trained at least 4 technicians who have gone on to PhD programs in biomedical science. Within the past several years I directed both the Department of Physiology and Functional Genomics seminar course for graduate students and the Department Journal Club course. I encourage the participation of postdoctoral trainees in these courses by inviting them to teach and give presentations, thus providing them much-needed opportunities to enhance their professional skills. I was also the course coordinator for the graduate level class, "Fundamentals of Respiratory Physiology", and was awarded an Exemplary Teacher award from the University of Florida College of Medicine in 2011 and 2013. I currently serve on the Admissions Committee for the College of Medicine Interdisciplinary PhD program. Therefore, I am very actively involved in the medical, graduate and post-graduate education here at the University of Florida. I have also served nationally on the American Physiological Society *Careers in Physiology* committee, working to improve the training experiences and professional success for trainees.

### B. Positions and Honors.

#### Positions and Employment

- 1982-84 Laboratory Instructor, Physiology, Schools of Medicine, Dentistry and Pharmacy, University of California, San Francisco, CA (Dr. R. Kellog). Instructor, National Dental Board Examination Review, School of Dentistry, University of California, San Francisco CA
- 1990 Co-coordinator and Instructor, Graduate Physiology, Department of Kinesiology, The University of Texas, Austin TX
- 1988-91 Postdoctoral Fellow, Department of Pharmacology, University of Texas Health Science Center, San Antonio TX (DR. V. S. Bishop)
- 1991-93 Research Scientist, Cardiovascular Biology, Rhone-Poulenc Rorer, Inc.
- 1993 Sr. Research Scientist, Cardiovascular Biology, Rhone-Poulenc Rorer, Inc.
- 1994 Consultant, Cardiovascular Biology, Rhone-Poulenc Rorer, Inc.
- 1993-98 Instructor, Department of Pharmacology, The University of Texas Health Science Center, San Antonio
- 1998-99 Research Assistant Professor, Department of Pharmacology, The University of Texas Health Science Center, San Antonio
- 1999-05 Assistant Professor, Division of Pharmacology, University of Missouri-Kansas City
- 2005-06 Associate Professor, Division of Pharmacology, University of Missouri-Kansas City
- 2006- Associate Professor, Dept. Of Physiology & Functional Genomics, University of Florida

## **Other Experience and Professional Memberships**

1987-present American Physiological Society  
1998-present American Heart Association (FAHA since 2001)  
2002- 2005 Member, American Physiological Society Careers in Physiology Committee  
2006-present Endocrine Society  
2001-2013 Ad Hoc reviewer for NIH  
2005-2008 Member, Programming Committee, Neural Control of Autonomic Function section of the American Physiological Society  
2006-2007 National American Heart Association study section member  
2008-2011 American Heart Association Affiliate study section  
2009-2012 Member, NCAR Steering Committee, American Physiological Society  
2009-2012 Member, Committee on Committees, American Physiological Society  
2010-2011 Chair, NIH PO1 Study Section  
2010-present Member *Hypertension* Editorial Board  
2013- Member, NIH Study Section (Hypertension and Microcirculation)  
2014- Member, *American Journal of Physiology Heart and Circulatory Physiology* Editorial Board

## **Honors**

1983-84 Regents Scholarship, University of California, San Francisco, CA  
1984-85 Chancellors Fellowship, University of California, San Francisco, CA  
2004 Member of NIH Working Group on Cardiovascular Consequences of Chronic Stress  
2009 Organizer and Chair, Experimental Biology cross-sectional symposium  
2011, 2013 University of Florida College of Medicine Exemplary Teacher Award

## **C. Selected publications**

1. Annette D. de Kloet, Lei Wang, Jacob A. Ludin, Justin A. Smith, David J. Pioquinto, Helmut Hiller, U. Muscha Steckelings, Deborah A. Scheuer, Colin Sumners, Eric G. Krause. Reporter mouse strain provides a novel look at angiotensin type-2 receptor distribution in the central nervous system. *J. Comp. Neurol.* In revision.
2. Daubert D., Looney B., Clifton R., Cho J. and Scheuer DA. Elevated corticosterone in the dorsal hindbrain increases plasma norepinephrine and neuropeptide Y, and recruits a vasopressin response to stress. *Am J Physiol Regul Integr Comp Physiol.* 307: 212-224, 2014.
3. Daubert D.L., McCowan M., Erdos B. and Scheuer D.A. Nucleus of the Solitary Tract catecholaminergic neurons modulate cardiovascular responses to psychological stress in rats. *J. Physiol.* 590: 4881-4895, 2012.
4. Scheuer, D.A. Regulation of the stress response in rats by central actions of glucocorticoids. *Exp. Physiol.* 95: 26-31, 2010. PMID: 19748967
5. Scheuer, D.A. Adrenal corticosteroid effects in the central nervous system on long-term control of blood pressure. *Exp. Physiol.* 95: 10-12, 2010. PMID: 20064826
6. Bechtold A.G., Patel G., Hochhaus G. and Scheuer D.A. Chronic blockade of hindbrain glucocorticoid receptors reduces blood pressure responses to novel stress and attenuates adaptation to repeated stress. *Am. J. Physiol. Regul Integr Comp Physiol.*, 296: R1445-R1454, 2009. PMID: 19279295
7. Li H., Gao, Y., Qi Y., Katovich M.J., Jiang N., Braseth L.N., Scheuer D.A., Shi P., and Sumners C. Macrophage migration inhibitory factor in hypothalamic paraventricular nucleus neurons decreases blood pressure in spontaneously hypertensive rats. *FASEB J.*, 22: 3175-3185, 2008. PMID: 18535252
8. Bechtold G.A., Vernon K., Hines T. and Scheuer D.A. Genetic predisposition to hypertension sensitizes borderline hypertensive rats to the hypertensive effects of prenatal glucocorticoid exposure. *J. Physiol.*, 586: 673-684, 2008. PMID: 18006585
9. Scheuer D.A., Bechtold A.G. and Vernon K.A. Chronic activation of dorsal hindbrain corticosteroid receptors augments the arterial pressure response to acute stress. *Hypertension*, 49: 127-133, 2007. PMID: 17088452
10. Bechtold A.G. and Scheuer D.A. Glucocorticoids act in the dorsal hindbrain to modulate baroreflex control of heart rate. *Am. J. Physiol. Regul Integr Comp Physiol.*, 290: R1003-R1011, 2006. PMID: 16269575

11. Scheuer D.A., Bechtold A.G., Shank S.S. and Akana S.F. Glucocorticoids act in the dorsal hindbrain to increase arterial pressure. *Am J. Physiol. Heart Circ. Physiol.*, 286: H458-H467, 2004. PMID: 14512285
12. Garavalia L.S., Scheuer D.A. and Carroll C.A. Comparative analysis of first- and third-year pharmacy students' perception of student-regulated learning strategies and motivation. *Am. J. Pharmaceutical Education.*, 66: 219-223, 2002.
13. Scheuer D.A. and Bechtold A.G. Glucocorticoids potentiate central actions of angiotensin to increase arterial pressure. *Am. J. Physiol. Regul. Integr. Comp. Physiol.*, 280: R1719-R1726, 2001. PMID: 11294766
14. Scheuer D.A. and Mifflin S.W. Glucocorticoids modulate baroreflex control of renal sympathetic nerve activity. *Am. J. Physiol. Regul. Integr. Comp. Physiol.*, 280: R1440-R1449, 2001. PMID: 11294766
15. Shank S. and Scheuer D.A. Glucocorticoids reduce responses to AMPA receptor activation and blockade in nucleus tractus solitarius. *Am. J. Physiol. Heart Circ. Physiol.*, 284: H1751-H1761, 2003. PMID: 12531728

#### **D. Research Support.**

##### **Ongoing Research Support**

2 R01 HL076807-07A2 Scheuer (PI)

07/18/11 - 06/30/15

NIH/NHLBI with dual assignment to NIDDK

"Glucocorticoids, Stress and Blood Pressure Regulation"

The major goal of this project is to determine the role of dorsal hindbrain glucocorticoid receptors on glucocorticoid-mediated modulation of blood pressure regulation

Role: PI

1 R01 HL093186-01A1 (Scheuer and Sumners, Multiple PI)

08/01/2009-07/31/2015 (No Cost

Extension)

NIH/NHLBI

"Paraventricular nucleus regulatory mechanisms in stress and hypertension"

The major goal of this project is to investigate the interactive roles of angiotensin II and macrophage migration inhibitory factor within the paraventricular nucleus of the hypothalamus in the regulation of cardiovascular and neuroendocrine responses to stress.

Role: Co-PI

##### **Recently Completed Support**

10GRNT4460047 Scheuer

07/01/10-06/30/2013

American Heart Association, Southeast Affiliate Grant-in-Aid

"Nucleus Tractus Solitarius catecholaminergic neurons and glucocorticoid-mediated blood pressure regulation"

The major goal of this project is to determine the Nucleus of the Solitary Tract catecholaminergic neurons on mediating the cardiovascular effects of glucocorticoids and stress.

Role: PI

R01 HD056288-01 Keller-Wood (PI)

06/01/06 – 05/31/2013

NIH/NICHD

"The baroreflex in pregnancy: effects of adrenal and placental steroids"

The major goal of this project is to determine if the effects of cortisol on the baroreflex responsiveness in pregnant and nonpregnant ewes are mediated by MR or GR and to test for interactions of estradiol and progesterone on the effect of cortisol.

Role: Co-Investigator