
BIOGRAPHICAL SKETCH

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NAME Colin Sumners	POSITION TITLE Program Director & Professor		
eRA COMMONS USER NAME csumners			
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 Southampton, UK	B.Sc. (Hons)	1976	Physiology/Biochemistry
University of Southampton, UK	Ph.D	1979	Physiology

A. Personal Statement

Since the start of my research training as an undergraduate in 1978, the major focus of my work has been on the peptide angiotensin II (Ang II) and its receptors and functional effects in the brain. This work has spanned the use of several behavioral, physiological, cellular and molecular approaches to study the functions of Ang II in the brain at the whole animal and cellular level, in both normal and hypertensive rat models. I have received continuous support as P.I. for this work from NIH (NHLBI or NINDS) since 1984, including a Javits Neuroscience Investigator MERIT award (1992-1999), and have also received grants from the American Heart Association. These efforts have yielded >210 publications and book chapters, the majority of which involve studies on one or more aspects of the renin-angiotensin system (RAS), including ~30 that involve studies on angiotensin type 2 receptors (AT2R). My current work encompasses two major areas: first, a long standing effort on the role of Ang II in the brain in the neural control of blood pressure and neurogenic hypertension; and second, a newer avenue in which we investigate the potential beneficial actions of angiotensin peptides in ischemic and hemorrhagic stroke, with a view to uncovering novel therapeutic avenues.

B. Positions and Honors.

Positions and Employment

1979-1980	Postdoctoral Fellow, Department of Pharmacy, Univ. Groningen, Holland
1981-1982	Postdoctoral Associate, Department of Physiology, Univ. Florida
1982-1987	Assistant Professor, Department of Physiology, Univ. Florida
1987-1992	Associate Professor, Department of Physiology, Univ. of Florida
1992-Pres	Professor, Department of Physiology, Univ. Florida
1992-Pres	Adjunct Professor, Department of Neuroscience, Univ. Florida
1999-2001	Associate Dean for Graduate Education, College of Medicine, Univ. Florida
1999-2009	Director, Medical Student Research Program, Univ. Florida
2005-Pres	Director, Junior Honors BS/MD Program, Univ. Florida

Other Experience and Professional Memberships

1984-Pres	Society for Neuroscience
1985-Pres	American Physiological Society
1996-1998	Chair, Research Committee, American Heart Association FL/PR
2000-2002	Chair, CV Regulation 1 study group, American Heart Association National
2001-Pres	American Heart Association Council for High Blood Pressure Research
2003-2005	Chair, Molecular Signaling study group, AHA Southern/Ohio Valley
2007-2014	Member, 7 NIH/NHLBI SEPs.
2008-2009	Chair, Molecular Signaling study group, AHA Greater Southeast
2011	Co-Chair, Established Investigator Basic Science study section, AHA National.
2012, 2013	Chair, Established Investigator Basic Science study section, AHA National.
2013-2015	Member, American Heart Association Council for HBPR Program Committee

2014- Member, NIH/NHLBI PPG SEP.

Honors

1979-1980 Royal Society, London, European Programme Postdoctoral Fellowship
1992-1999 NIH/NINDS Javits Neuroscience Investigator MERIT Award
1997 Univ. Florida Presidential Medallion for Teacher/Scholar of the Year
2002-2005 Univ. Florida Research Foundation Professor
2003-2004 Univ. Florida College of Medicine, Basic Science Teacher of the Year
2005-2006 Univ. Florida College of Medicine, Basic Science Teacher of the Year
2006 Alpha Omega Alpha Medical Honor Society, beta chapter, Univ. Florida.
2008-2009 Univ. Florida College of Medicine, Basic Science Teacher of the Year
2012-2015 Univ. Florida Research Foundation Professor
2013 Fellow, American Heart Association Council for High Blood Pressure Research

C. Selected peer-reviewed Publications.

1. Li HW, Gao Y, Grobe J, Raizada MK, Katovich MJ and Sumners C. Potentiation of the antihypertensive action of losartan by peripheral over expression of the angiotensin II (Ang II) type 2 receptor. *Am. J. Physiol. Heart and Circulatory Physiol.* 2006; 292(2):H727-35.
2. Gao L, Wang W, Wang W, Li H, Sumners C, and Zucker IH. Effects of angiotensin type 2 receptor overexpression in the rostral ventrolateral medulla on blood pressure and urine excretion in normal rats. *Hypertension.* 2008; 51(2):521-527.
3. Jiang N, Shi P, Li H, Lu S, Braseth L, Cuadra AE, Raizada MK, Sumners C. Phosphate-Activated Glutaminase-Containing Neurons in the Rat Paraventricular Nucleus Express Angiotensin Type 1 Receptors. *Hypertension* 2009; 54:845-51. PMID: PMC2747100
4. Shi P, Diez-Freire C, Jun JY, Qi Y, Katovich MJ, Li Q, Sriramula S, Francis J, Sumners C, Raizada MK. Brain microglial cytokines in neurogenic hypertension. *Hypertension.* 2010; 56(2):297-303. PMID: PMC2929640.
5. Cuadra AE, Shan Z, Sumners C, Raizada MK. A current view of brain renin-angiotensin system: Is the (pro)-renin receptor the missing link? *Pharmacol Ther* 2010; 125:27-38. PMID: PMC2815255
6. Ferreira AJ, Santos RA, Bradford CN, Mecca AP, Sumners C, Katovich MJ, Raizada MK. Therapeutic implications of the vasoprotective axis of the renin-angiotensin system in cardiovascular diseases. *Hypertension* 2010; 55:207-13. PMID: PMC2826213.
7. Shan Z, Shi P, Cuadra AE, Dong Y, Lamont GJ, Li Q, Seth DM, Navar LG, Katovich MJ, Sumners C, Raizada MK. Involvement of the brain (pro)renin receptor in cardiovascular homeostasis. *Circ Res* 2010; 107:934-8. PMID: PMC2948614.
8. Colombari E, Colombari DS, Li H, Shi P, Dong Y, Jiang N, Raizada MK, Sumners C, Murphy D, Paton JF. Macrophage migration inhibitory factor in the paraventricular nucleus plays a major role in the sympathoexcitatory response to salt. *Hypertension* 2010; 56:956-63. PMID: PMC3130992.
9. Qi Y, Li H, Shenoy V, Li Q, Wong F, Zhang L, Raizada MK, Sumners C, Katovich MJ. Moderate cardiac-selective overexpression of angiotensin II type 2 receptor protects cardiac functions from ischaemic injury. *Exp Physiol* 2012; 97:89-101. PMID: PMC3619662
10. Freiria-Oliveira AH, Blanch GT, Li H, Colombari E, Colombari DS, Sumners C. Macrophage migration inhibitory factor in the nucleus of solitary tract decreases blood pressure in SHR. *Cardiovasc Res* 2013; 97: 153-60. PMID: PMC3584959.
11. Jiang N, Shi P, Desland F, Kitchen-Pareja MC, Sumners C. Interleukin-10 inhibits angiotensin II-induced decrease in neuronal potassium current. *Am J Physiol Cell Physiol* 2013; 304:C801-7. PMID: PMC3625804.
12. de Kloet AD, Pati D, Wang L, Hiller H, Sumners C, Frazier CJ, Seeley RJ, Herman JP, Woods SC, Krause EG. Angiotensin type 1a receptors in the paraventricular nucleus of the hypothalamus protect against diet-induced obesity. *J Neurosci* 2013; 33:4825-33. PMID: PMC3638262.
13. Joseph JP, Mecca AP, Regenhardt RW, Bennion DA, Rodriguez V, Desland F, Patel NA, Pioquinto DJ, Unger T, Katovich MJ, Steckelings UM, and Sumners C. The angiotensin type 2 receptor agonist Compound 21 elicits cerebroprotection in endothelin-1 induced ischemic stroke.

