

BIOGRAPHICAL SKETCH

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NAME Christopher S. Wilcox, M.D., Ph.D		POSITION TITLE Professor of Medicine	
eRA COMMONS USER NAME cwilcox			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Oxford University, United Kingdom	B.A.		
Oxford University, United Kingdom	M.A.	1965	Physiology
Oxford University, United Kingdom	M.B., B.Ch.	1967	Physiology
London University, United Kingdom	(MD)	1968	Medicine/Surgery
	Ph.D.	1974	Renal Physiology

A. Positions and Honors**Positions and Employment (1990-pres)**

1990 Visiting Professor, Clare Hall College, Cambridge UK
 1992-94 Director, Hypertension Center, University of Florida College of Medicine, Gainesville, FL
 1994-pres George E. Schreiner Professor of Nephrology, Georgetown University
 1994-pres Chief, Division of Nephrology and Hypertension, Georgetown University Medical Center
 1998-pres Vice Chair for Research and Academic Affairs, Department of Medicine, Georgetown University
 2000-pres Director, Hypertension and Renal Disease Research Center, Georgetown University
 2002-pres Director, Cardiovascular-Kidney Institute, Georgetown University
 2005-pres Director, Nephrology and Hypertension Training Program

Honors (1990-pres)

1990 Elected Fellow, Royal College of Physicians, UK
 1991 Elected Fellow, American College of Physicians
 1992 Stubenbord Visiting Professor in Pharmacology, Cornell, UMC, NY
 1998-02 NIH Study Section, CVB
 2000 Dahl lecturer, American Heart Association Council for High BP Research
 2001 Elected fellow, American Association of Professors
 2001 Chair, FASEB International Conference of Renal Hemodynamics
 2002 Chair, American Heart Association Summer School of Hypertension
 2003-pres Chair, NIH Renal Disease Study Section
 2003-2013 NIH MERIT Award
 2004 Ernest H. Starling Distinguished Lecturer, American Physiological Society
 2004-05 Chair, Cardiovascular-Kidney Investigator Conference, Amelia Island, FL
 2005 James J. Smith Memorial Lecturer, Medical College of Georgia
 2005 Eric Muirhead Lecturer, University of Tennessee

B. Selected peer-reviewed publications (in chronological order)(from a list of 141)

1. Welch, WJ, Baumgartl, H., Lübbers, D, Wilcox, C.S.: Renal Oxygenation Defects in the spontaneously hypertensive rat: Role of AT₁ receptors. *Kidney Int*, 63:202-208, 2003.
2. Braith, R.W., Mills, R.M., Wilcox, C.S., Davis, G.L., & Hill, J.A.: High-dose angiotensin-converting enzyme inhibition restores body fluid homeostasis in heart transplant recipients. *J Am Coll Cardiol*, 41:426-432, 2003.
3. Welch, W.J., Mendonca, M., Aslam, S., & Wilcox, C.S.: Roles of oxidative stress and AT₁ receptors in renal hemodynamics and oxygenation in the post-clipped, 2K,1C kidney. *Hypertension*, 42:692-696, 2003.
4. Chabrashvili, T, Kitiyakara, C, Blau, J, Karber, A, Aslam, S, Welch, WJ, & Wilcox, CS: Effects of Ang II Type I and Type II Receptors on Oxidative Stress and Renal NADPH Oxidase and SOD Expression. *Am J*

- Physiol Regul Integr Comp Physiol*, 285:R117-124, 2003.
5. Gonin, JM, Nguyen, H, Gonin, R, Sarna, A, Michels, A, Masri-Imad, F, Bommareddy, G, Chassaing, C, Wainer, I, Loya, A, Cary, D, Barker, LF, Assefi, A, Greenspan, R, Mahoney, D, & Wilcox, CS: Controlled trials of very high dose Folic Acid, Vitamins B12 and B6, Intravenous Folinic Acid and Serine for treatment of hyperhomocysteinemia in ESRD. *J Nephrol*, 16:522-534, 2003.
 6. Wang, D, Borrego-Conde, L., Falck, J.R., Sharma, K.K., Wilcox, C.S., & Umans, J.G.: Contributions of NO, EDHF and EETs to endothelium-dependent relaxation in renal afferent arterioles. *Kidney Int*, 63:2187-2193, 2003.
 7. Wang D, Iversen J, Wilcox CS, & Strandgaard S: Endothelial dysfunction of resistance arteries and reduced nitric oxide generation in autosomal dominant polycystic kidney disease. *Kidney Int*64:1381-1388, 2003.
 8. Kitiyakara, C., Chabrashvili, T., Chen, Y., Blau, J., Karber, A., Aslam, S., Welch, W.J., & Wilcox, C.S.: Salt intake, oxidative stress and renal expression of NADPH oxidase and superoxide dismutase. *J Am Soc Nephrol*, 14:2775-2782, 2003.
 9. Wang, D., Chen, Y., Chabrashvili, T., Aslam, S., Borrego-Conde, L.J., Umans, J.G., & Wilcox, C.S.: Role of oxidative stress in endothelial dysfunction and enhanced responses to Ang II afferent arterioles from rabbit infused with Ang II. *J Am Soc Nephrol*, 14:2783-2789, 2003.
 10. Zheng, C., Wang, D., Asico, L.D., Welch, W.J., Wilcox, C.S., Hopfer, U., Eisner, G.M., Felder, R.A., Jose, P.A.: Aberrant D₁ and D₃ dopamine receptor transregulation in hypertension. *Hypertens*; 43:654-660, 2004.
 11. Zheng, C., Wang, D., Yang, Z., Wang, Z., Asico, L.D., Wilcox, C.S., Eisner, G.M., Welch, W.J., Felder, R.A., Jose, P.A.: Dopamine D₁ receptor augmentation of D₃ receptor action in rat aortic or mesenteric vascular smooth muscle. *Hypertens*; 43:673-679, 2004.
 12. Wang, D., Chabrashvili, T., Wilcox, C.S.: Enhanced contractility of renal afferent arterioles from angiotensin-infused rabbits: Roles of oxidative stress, thromboxane prostanoid receptors and endothelium. *Circ Res* 94: 1436-1442, 2004.
 13. Kawada, N., Dennehy, K., Solis, G., Modlinger, P., Hamel, R., Kawada, J.T., Aslam, S., Moriyama, T., Imai, E., Welch, W.J., Wilcox, C.S.: TP receptors regulate renal hemodynamics during angiotensin II slow pressor response. *Hypertens*, 287:F753-F759, 2004.
 14. Welch, W.J., Blau, J., Xie, H., Chabrashvili, T., Wilcox, C.S.: Angiotensin-induced defects in renal oxygenation: role of oxidative stress. *Am J Physiol*, 288:H22-H28, 2005.
 15. Zhang, Z., Rhinehart, K., Solis, G., Pittner, J., Lee-Kwon, W., Welch, W.J., Wilcox, C.S., Pallone, T.L.: Chronic Ang II infusion increases NO generation by rat descending vasa recta" *Am J of Physiol*, 288:H29-H36, 2005.
 16. Welch, W.J., Mendonca, M., Blau, J., Karber, A., Dennehy, K., Patel, K., Lao, Y., José, P., Wilcox, C.S. Antihypertensive response to prolonged tempol in the spontaneously hypertensive rat. *Kidney Int.*, 68: 179-187, 2005.
 17. Kawada, N., Solis, G., Ivey, N., Connors, S., Dennehy, K., Modlinger, P., Hamel, R., Kawada, J.T., Imai, E., Langenbach, R., Welch, W.J. and Wilcox, C.S. Cyclooxygenase-1 deficient mice have high sleep-to- wake BP ratios and renal vasoconstriction. *Hypertension*. 45:1131-1138, 2005.

C. Research Support

Ongoing Research Support

CURRENT NIH GRANT SUPPORT:

R01-DK49870 (C.S. Wilcox)

1/5/2005-11/30/2009

National Institutes of Health Individual Investigator Award

Nitric Oxide Synthase in the Juxtaglomerular Apparatus

Goal: Describe studies in rats to assess the role of NO in microvascular function.

Role: PI

HL 6868601; Program Project Award (C.S. Wilcox)

9/30/2001-8/31/2006

National Institutes of Health Program Project Award

Oxidative Stress in the Kidney in Hypertension

CSW components:

- Subproject 2:
- Core A:

Goal: Describes protocols in knockout mice to assess the role of reactive oxygen species in the kidney in development of hypertension.

Role: PI

RO1-DK36079 (C.S. Wilcox)

8/15/2003-5/31/2008

National Institutes of Health Individual Investigator Award:

Regulation of Renal Function and BP by Thromboxane

Goal: Describe protocols to study vasoconstrictor prostaglandins with a goal to understanding their roles in BP regulation.

Role: PI

T32-DK59274 (C.S. Wilcox)

1/1/2005-8/31/2006

National Institutes of Health

Nephrology and Hypertension Training Grant

Goal: The goal is to train post-doctoral students in nephrology and hypertension research.

Role: PI only beginning 1/1/2005-8/31/2006

Completed Research Support

RO1-DK36079 (C.S. Wilcox)

7/1/1985-7/31/2003

National Institutes of Health Individual Investigator Award

Regulation of Renal Function and BP by Thromboxane

Goal: The goal was to evaluate the role of thromboxane in hypertension.

Role: PI

RO1-DK49870 (C.S. Wilcox)

09/20/1994 - 08/31/2004

National Institutes of Health Individual Investigator Award:

Nitric Oxide Synthase in the Juxtaglomerular Apparatus

Goal: The goal was to evaluate the role of NO in hypertension.

Role: PI