

CURRICULUM VITAE

PERSONAL DATA

Name: Kanchan Chitaley
DOB: February 15, 1975

CONTACT INFORMATION

Department of Urology, Box 359668
University of Washington
Seattle, WA 98195-6410
Telephone: (206)-341-5440
Fax: (206)-341-5442
E-mail: kanchanc@u.washington.edu

FACULTY POSITIONS

2004-present University of Washington, Seattle, WA, Acting Assistant Professor
(Urology)

EDUCATION

2002-2004 University of Washington, Seattle, WA, Postdoctoral Fellow (Surgery)
1998-2002 University of Michigan, Ann Arbor, MI, Ph.D. (Physiology)
1993-1997 Miami University of Ohio, Oxford, OH, B.A. (Psychology)

RESEARCH INTERESTS

The physiology and pathophysiology of vascular smooth muscle:

- Intracellular contractile signaling mechanisms
- Mechanisms of smooth muscle cell growth and migration
- Mechanisms of diabetes-associated hypertension and erectile dysfunction

PROFESSIONAL SOCIETY MEMEMBERSHIPS

2004-2005 North American Vascular Biology Organization
2003-2005 American Society for Investigative Pathology
2000-2005 Society for Experimental Biology and Medicine
1999-Present American Physiological Society

HONORS AND AWARDS

2006 APS Cardiovascular Section Young Investigator Award sponsored by
Bristol-Myers Squibb 2005 Sexual Medicine Society
of North America- Award and Presentation for
Top 10 Basic Science Abstracts
2004 NIH (NHLBI) travel award- International Vascular Biology Meeting
2004 Second Prize Presentation- Department of Surgery Schilling Research
Symposium-University of Washington
2003 American Society for Investigative Pathology Trainee Travel Award
2002-2004 National Institutes of Health Training Grant in Cardiovascular Research -
University of Washington
2001 Virendra B. Mahesh Award for Excellence in Endocrinology Research-
Medical College of Georgia
2001 Second Prize Essay-Sexual Medicine Society Fall Meeting
2001 Jean Francois Ginestie Prize for best basic science manuscript-
International Society for Impotence Research 9th World Meeting on
Impotence
2001 Merck New Young Investigator Award
1998-2001 National Institutes of Health Training Grant in Systems and Integrative
Physiology-University of Michigan

FUNDING**Current Research Support**

Chitaley, K (PI)

03/01/2006-2/28//08

1 R21 DK073758-01

Erectile Dysfunction in Type II Diabetes: Role of Adiponectin

This application seeks to establish a mouse model of type II diabetes-associated erectile dysfunction through biochemical analysis as well as *in vitro* and *in vivo* measurement of penile endothelial and erectile dysfunction, respectively. Further, the role of decreased adiponectin in altered penile endothelial function will be examined.

Completed Research Support

Dichek, DA (PI)

07/01/2002 –06/30/2004

5 T32 GM008322 NIH/NIGMS

Cardiovascular Research Training Program

The purpose of this application is to continue a training program devoted to the study of the molecular and cellular basis of cardiovascular diseases and to the development of novel therapeutic approaches to these diseases. This program provides support for clinical fellows and trainees with Ph.D degrees who have a significant focus on molecular and cellular biology and genetics of the mammalian cardiovascular system.

Role: Post-doctoral trainee

Williams, JA (PI)

09/01/1998 – 06/30/2001

5 T32 GM008322 NIH/NIGMS

Systems and Integrative Biology

The purpose of this program is to provide graduate students with broad training in the application of cellular and molecular techniques to the study of problems in systems and integrative biology

Role: Post-doctoral trainee

Chitaley, K (PI)

07/01/2001-06/30/2003

Predoctoral Fellowship, American Heart Association-Midwest Affiliate:

“The Role of the RhoA/Rho-kinase Calcium-Sensitizing Pathway in DOCA-Salt Hypertension.”

The purpose of this application is to evaluate the role of the RhoA-Rho-kinase signaling pathway in the altered vascular function associated with mineralocorticoid-salt-induced hypertension.

PEER REVIEWED PUBLICATIONS

1. Wessells H, Sullivan CJ, Teal TH, Tran KB, Engel K, Gallis B, **Chitaley K**. Fluid shear stress-induced nitric oxide production in human cavernosal endothelial cells: inhibition by hyperglycemia. *BJU International*, *In press for May, 2006*.
2. **Chitaley K**, Wessells H. Vascular Mechanisms of Erectile Dysfunction. *Drug Discovery Today: Disease Mechanisms* 12:1-5, 2004.
3. Bivalacqua TJ, Champion HC, Usta MF, Celtek S, **Chitaley K**, Webb RC, Lewis RL, Mills TM, Hellstrom WJG, Kadowitz PJ. RhoA/Rho-kinase Suppresses Endothelial Nitric Oxide Synthase in the Penis: Novel Mechanism for Diabetic Associated Erectile Dysfunction. *Proceeding of the National Academy of Sciences* 101:9121-9126, 2004.

4. Chen L, Daum G, **Chitaley K**, Coats SA, Bowen-Pope DF, Eigenthaler M, Thumati NR, Walter U and Clowes AW. VASP Regulates Cell Proliferation and Growth Inhibition by Nitric Oxide in Vascular Smooth Muscle Cells. *Atherosclerosis, Thrombosis and Vascular Biology* 24:1403-1408, 2004.
5. **Chitaley K**, Chen L, Galler A, Walter U, Daum G, Clowes A. Vasodilator-stimulated Phosphoprotein is a Substrate for Protein Kinase C. *FEBS Letters* 556:211-215, 2004.
6. Dai Y, **Chitaley K**, Webb RC, Lewis RW, Mills TM. Topical Application of a Rho-kinase Inhibitor in Rats Causes Penile Erection. *International Journal of Impotence Research* 16:294-298, 2004.
7. **Chitaley K**, Webb RC, Mills TM. The Ups and Downs of Rho-kinase and Penile Erection: Upstream Regulators and Downstream Substrates of Rho-kinase and their Potential Role in the Erectile Response. *International Journal of Impotence Research* 15:105-109, 2003.
8. **Chitaley K**, Bivalacqua TJ, Champion HC, Usta MF, Hellstrom WJ, Mills TM, Webb RC. Adeno-associated Viral Gene Transfer of Dominant Negative RhoA Enhances Erectile Function in Rats. *Biochemical and Biophysical Research Communications* 298:427-432, 2002.
9. **Chitaley K**, Webb RC. Microtubule Depolymerization Facilitates Contraction of Rat Aorta via Activation of Rho-kinase. *Vascular Pharmacology* 38:157-161, 2002.
10. Mills TM, **Chitaley K**, Lewis R, Webb RC. Nitric Oxide Inhibits RhoA/Rho-kinase Signaling to Cause Penile Erection. *European Journal of Pharmacology* 439:173-174, 2002.
11. **Chitaley K**, Webb RC. Nitric Oxide Induces Dilation of Rat Aorta via Inhibition of Rho-kinase Signaling. *Hypertension* 39:438-442, 2002.
12. Mills TM, Lewis RW, Wingard CJ, Chitaley K, Webb RC. Inhibition of Tonic Contraction--a Novel Way to Approach Erectile Dysfunction. *Journal of Andrology* 23:S5-9, 2002.
13. **Chitaley K**, Weber DS, Webb RC. RhoA/Rho-kinase, Vascular Changes and Hypertension. *Current Hypertension Reports* 3(2):139-144, 2001.
14. **Chitaley K**, Mills TM, Webb RC. RhoA/Rho-kinase: A Novel Player in the Regulation of Penile Erection. *International Journal of Impotence Research* 13:67-72, 2001.
15. Mills TM, **Chitaley K**, Lewis RW. Vasoconstrictors in Erectile Physiology. *International Journal of Impotence Research* 13:212-220, 2001.
16. Mills TM, **Chitaley K**, Wingard CJ, Lewis RW, Webb RC. Effect of Rho-kinase Inhibition on Vasoconstriction in the Penile Circulation. *Journal of Applied Physiology* 91:1269-1273, 2001.
17. **Chitaley K**, Webb RC, Dorrance AM, Mills TM. Decreased Penile Erection in DOCA-Salt and Stroke Prone-Spontaneously Hypertensive Rats. *International Journal of Impotence Research* 13:S16-S20, 2001.
18. **Chitaley K**, Wingard CJ, Webb RC, Branam H, Stopper VS, Lewis RW, Mills TM. Antagonism of Rho-kinase Stimulates Rat Penile Erection via a Nitric Oxide-Independent Pathway. *Nature Medicine* 7:119-122, 2001.

NON-PEER REVIEWED PUBLICATIONS

1. Mitchell BM, **Chitaley K**, Webb RC. Vascular Smooth Muscle Contraction and Relaxation. In: Hypertension Primer, ed. by JL Izzo and HR Black, American Heart Association, Dallas, Texas, 2002.
2. Chitaley K, Webb RC, Mills TM. Rho-kinase as a Potential Target for the Treatment of Erectile Dysfunction. *Drug News and Perspectives* 14:601-606, 2001.
3. **Chitaley K** and Webb RC. Microtubule Depolymerization Facilitates Contraction of Vascular Smooth Muscle via Increased Activation of RhoA/Rho-kinase. *Medical Hypotheses* 56:381-385, 2001.

ABSTRACTS

1. **Chitaley K**, Pham M, Luttrell I, Morton G, Ogimoto K, Wessells H and Kim F. Increased body fat results in attenuated endothelium-dependent dilation of rat aorta. *FASEB Journal*, 2006.
2. **Chitaley K**, Chen L, Reinhard M, Walter U, Daum G, Clowes AW. VASP: A Novel Substrate for Protein Kinase C. *FASEB Journal*, 2003.
3. **Chitaley K**, Mills TM, Webb RC. RhoA/Rho-kinase Activity is Increased in Rat Cavernal Tissue as Compared to Aorta. *FASEB Journal*, 2001.
4. Mills TM, **Chitaley K**, Webb RC, Wingard CJ, Lewis RW. Effects of Inhibition of Rho-kinase on the Vasoconstrictor Effects of Endothelin-1 and Methoxamine in the Cavernal Circulation of the Rat Penis. *FASEB Journal*, 2001.
5. Mills TM, Branam H, **Chitaley K**, Jackson, P, Lewis RW, Stopper VS, Webb RC, Wingard CJ. Regulation of Rho-kinase-Mediated Vasoconstriction in the Penile Circulation. VII International Congress on Andrology, June 15-19, 2001, Montreal Canada.
6. **Chitaley K** and Webb RC. Rho-kinase Antagonist Attenuates Contraction Induced by Microtubule Depolymerization in Rat Aorta. *FASEB Journal*, 2000.

SEMINARS AND PRESENTATIONS

- 2005 "Attenuated Endothelium-Dependent Vasodilation in Penile Tissue From Type II Diabetic Mice" *Sexual Medicine Society of North America, New York, NY.*
- 2003 "VASP: A Novel Substrate for Rho-kinase and Protein Kinase C." *NAVBO Blood Vessel Club, Experimental Biology, San Diego, CA.*
- 2001 "Nitric Oxide-Induced Vasodilation is Mediated Partially via the Inhibition of RhoA/Rho-kinase." *American Heart Association: Council for High Blood Pressure, Chicago, IL.*
- 2001 "Decreased Penile Erection in DOCA-Salt and Stroke Prone-Spontaneously Hypertensive Rats." *Sexual Medicine Society of North America, Charleston, SC.*
- 2001 "The Vasoconstrictor Actions of RhoA/Rho-kinase in Vascular Smooth Muscle." *7th International Symposium for Resistance Arterioles, Muskoka Sands, Ontario, Canada.*
- 2000 "A Role For Microtubules in Regulating Vascular Reactivity." *Experimental Biology, San Diego, CA.*

EDITORIAL- AD-HOC REVIEWER

- 2005-present *Journal of Urology*
- 2005-present *Journal of Pharmacology and Experimental Therapeutics*
- 2004-present *American Journal of Physiology: Heart and Circulatory Physiology*
- 2003 *British Journal of Pharmacology*
- 2002 *Hypertension*
- 2002-present *International Journal of Impotence Research*