

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME Weiner, I. David		POSITION TITLE	
eRA COMMONS USER NAME DavidWeiner			
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
Vanderbilt University, Nashville, TN	B.S.	1980	Mathematics, Computer Science (double major)
Vanderbilt University, Nashville, TN	M.D.	1984	Medicine

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

2004 to present - Chief, Renal Section, NF/SGVHS, Gainesville, Fla.

2005 to present - Professor of Medicine and Physiology, University of Florida, Gainesville, Fla.

Chairperson, VA Merit Review Subcommittee in Nephrology, 2003 - 2005

Member, VA Merit Review Subcommittee in Nephrology, 2001 - 2005

NIH GMB Special Study Section Study Section Member, 2003

NIH GMB Study Section, *ad hoc* reviewer, June 2001

1996 to 2001 - Nephrology fellowship program director, University of Florida

1995 to 2005 - Associate Professor of Medicine, University of Florida, Gainesville, Fla.

1990 to present - Staff Physician, NF/SGVHS, Gainesville, Fla.

1990 to 1995 - Assistant Professor of Medicine, University of Florida, Gainesville, Fla.

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

- Weiner ID. Expression of the non-erythroid Rh glycoproteins in mammalian tissues. *Transfus Clin Biol* (In press).
- Mak DD, B Dang, ID Weiner, JK Foskett, and CM Westhoff. Characterization of transport by the kidney Rh glycoproteins, RhBG and RhCG. *Am J Physiol Renal Physiol* 290: F297-F305, 2006.
- Seshadri RM, JD Klein, S Kozlowski, JM Sands, YH Kim, ME Handlogten, JW Verlander, and ID Weiner. Renal expression of the ammonia transporters, Rhbg and Rhcg, in response to chronic metabolic acidosis. *Am J Physiol Renal Physiol* 290: F397-F408, 2006.
- Weiner ID. Expression of the non-erythroid Rh glycoproteins in mammalian tissues. *Transfus Clin Biol* 2006 (In press).
- Handlogten ME, SP Hong, L Zhang, AW Vander, ML Steinbaum, M Campbell-Thompson, and ID Weiner. Expression of the ammonia transporter proteins, Rh B Glycoprotein and Rh C Glycoprotein, in the intestinal tract. *Am J Physiol Gastrointest Liver Physiol* 288: G1036-G1047, 2005.
- Handlogten ME, SP Hong, CM Westhoff, and ID Weiner. Apical ammonia transport by the mouse inner medullary collecting duct cell (mIMCD-3). *Am J Physiol Renal Physiol* 289: F347-F358, 2005.
- Kim YH, JW Verlander, SW Matthews, I Kurtz, WK Shin, ID Weiner, LA Everett, ED Green, S Nielsen, and SM Wall. Intercalated cell H⁺/OH⁻ transporter expression is reduced in *Slc26a4* null mice. *Am J Physiol Renal Physiol* 289: F1262-F1272, 2005.
- Handlogten ME, SP Hong, CM Westhoff, and ID Weiner. Basolateral ammonium transport by the mouse inner medullary collecting duct cell (mIMCD-3). *Am J Physiol Renal Physiol* 287: F628-F638, 2004.
- Weiner ID. The Rh gene family and renal ammonium transport. *Curr Opin Nephrol Hyper* 13: 533-540, 2004.
- Verlander JW, RT Miller, AE Frank, IE Royaux, YH Kim, and ID Weiner. Localization of the ammonia transporter proteins, Rh B Glycoprotein and Rh C Glycoprotein, in the mouse kidney. *Am J Physiol Renal Physiol* 284: F323-F337, 2003.
- Weiner ID. Theme: New roles for ammonia in renal ion transport - Foreword. *Acta Physiologica Scandinavica* 179: 323, 2003.

12. Weiner ID and JW Verlander. Renal and hepatic expression of the ammonium transporter proteins, Rh B Glycoprotein and Rh C Glycoprotein. *Acta Physiol Scand* 179: 331-338, 2003.
13. Weiner ID, RT Miller, and JW Verlander. Localization of the ammonium transporters, Rh B Glycoprotein and Rh C Glycoprotein in the mouse liver. *Gastroenterology* 124: 1432-1440, 2003.
14. Wingo CS, ID Weiner, and SL Xia. Renal microperfusion techniques. *Methods Mol Med* 86: 457-473, 2003.
15. Frank AE, CS Wingo, PM Andrews, S Ageloff, MA Knepper, and ID Weiner. Mechanisms through which ammonia regulates cortical collecting duct net proton secretion. *Am J Physiol Renal Physiol* 282: F1120-F1128, 2002.
16. Leung JC, BR Travis, JW Verlander, SK Sandhu, SG Yang, AH Zea, ID Weiner, and DM Silverstein. Expression and developmental regulation of the *N*-methyl-D-aspartate receptor subunits in the kidney and cardiovascular system. *AJP - Regul* 283: R964-R971, 2002.
17. Frank AE and ID Weiner. Effects of ammonia on acid-base transport by the B-type intercalated cell. *J Am Soc Nephrol* 12: 1607-1614, 2001.
18. Frank AE, CS Wingo, and ID Weiner. Effects of ammonia on bicarbonate transport in the cortical collecting duct. *Am J Physiol Renal Physiol* 278: F219-F226, 2000.
19. Campbell WG, ID Weiner, CS Wingo, and BD Cain. H,K-ATPase in the RCCT-28A rabbit cortical collecting duct cell line. *Am J Physiol* 276: F237-F245, 1999.
20. Gabrielli A, L Caruso, ID Weiner, and JM Crabtree. Postoperative acute renal failure secondary to rhabdomyolysis from exaggerated lithotomy position. *Journal of Clinical Anesthesia* 11: 257-263, 1999.
21. Weiner ID, AE Frank, and CS Wingo. Apical proton secretion by the inner stripe of the outer medullary collecting duct. *Am J Physiol Renal Physiol* 276: F606-F613, 1999.
22. Milton AE and ID Weiner. Regulation of B-type intercalated cell apical anion exchange activity by CO₂/HCO₃⁻. *Am J Physiol* 274: F1086-F1094, 1998.
23. Milton AE and ID Weiner. Regulation of B-type intercalated cell apical anion exchange activity by CO₂/HCO₃⁻. *American Journal of Physiology-Renal Physiology* 43: F1086-F1094, 1998.
24. Weiner ID and CS Wingo. Hyperkalemia: a potential silent killer. *J Am Soc Nephrol* 9: 1535-1543, 1998.
25. Donahue JL, ID Weiner, and DT Lowenthal. Nocturia, aging, benign prostatic hypertrophy, and nocturnal vasopressin. *Geriatric Nephrology and Urology* 7: 111-117, 1997.
26. Milton AE and ID Weiner. Intracellular pH regulation in the rabbit cortical collecting duct A-type intercalated cell. *Am J Physiol* 273: F340-F347, 1997.
27. Milton AE and ID Weiner. Intracellular pH regulation in the rabbit cortical collecting duct A-type intercalated cell. *American Journal of Physiology-Renal Physiology* 42: F340-F347, 1997.
28. Hamm LL, KS HeringSmith, and ID Weiner. Optical studies of intracellular pH in kidney cells in vitro. *International Review of Experimental Pathology, Vol 36: New in Vivo and in Vitro Imaging Techniques* 36: 161-173, 1996.
29. Weiner ID and AE Milton. H⁺-K⁺-ATPase in rabbit cortical collecting duct B-type intercalated cell. *Am J Physiol* 270: F518-F530, 1996.
30. Weiner ID, AR New, AE Milton, and CC Tisher. Regulation of luminal alkalization and acidification in the cortical collecting duct by angiotensin II. *Am J Physiol* 269: F730-F738, 1995.
31. Weill AE, CC Tisher, MF Conde, and ID Weiner. Mechanisms of bicarbonate transport by cultured rabbit inner medullary collecting duct cells. *Am J Physiol* 266: F466-F476, 1994.
32. Weiner ID, AE Weill, and AR New. Distribution of Cl⁻/HCO₃⁻ exchange and intercalated cells in the rabbit cortical collecting duct. *Am J Physiol* 267: F952-F964, 1994.
33. Weiner ID, CS Wingo, and LL Hamm. Regulation of intracellular pH in two cell populations of the inner stripe of the rabbit outer medullary collecting duct. *Am J Physiol* 265: F406-F415, 1993.
34. Hamm LL, ID Weiner, and VM Vehaskari. Structural-functional characteristics of acid-base transport in the rabbit collecting duct. *Semin Nephrol* 11: 453-464, 1991.
35. Hering-Smith KS, EJ Cragoe, D Weiner, and LL Hamm. Inner medullary collecting duct Na⁺-H⁺ exchanger. *Am J Physiol* 260: C1300-C1307, 1991.
36. Weiner ID and LL Hamm. Regulation of Cl⁻/HCO₃⁻ exchange in the rabbit cortical collecting tubule. *J Clin Invest* 87: 1553-1558, 1991.
37. Weiner ID and LL Hamm. Regulation of intracellular pH in the rabbit cortical collecting tubule. *J Clin Invest* 85: 274-281, 1990.
38. Vehaskari VM, KS Hering-Smith, DW Moskowitz, ID Weiner, and LL Hamm. Effect of epidermal growth factor on sodium transport in the cortical collecting tubule. *Am J Physiol* 256: F803-F809, 1989.
39. Weiner ID and AD Northcutt. Leprosy and glomerulonephritis: case report and review of the literature. *Am J Kidney Dis* 13: 424-429, 1989.
40. Weiner ID and LL Hamm. Use of fluorescent dye BCECF to measure intracellular pH in cortical collecting tubule. *Am J Physiol* 256:F957-F964, 1989

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this

application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Grant: H/HCO₃ transport by the collecting duct, NIH R01 DK-45788-09 (8/03 - 5/07)

PI: I. David Weiner, M.D.

The purpose on this project is to define the regulation of expression of the ammonia transporter family members, RhBG and RhCG, in the kidney in response to metabolic acidosis and hypokalemia *in vivo* and to extracellular ammonia *in vitro*.

Dr. Weiner is the PI on this grant.

Grant: Expression of ammonia-sensitive proteins in the CNS, NIH 1R21-NS-047624 (12/03 - 11/05)

PI: I. David Weiner, M.D.

The purpose of this project is to determine the effects of sepsis on the expression of the ammonia transporter family RhCG in the CNS in response to sepsis and to determine whether RhCG functions as an ammonia "sensor" in CNS cells.

Dr. Weiner is the PI on this grant.

Grant: Regulation of H and HCO₃ transport in the collecting duct, Department of Veterans Affairs Merit Review Grant (10/00 - 9/04)

PI: I. David Weiner, M.D.

The purpose of this project was to define the renal cortical collecting duct ion transporters that are regulated by ammonia.

Dr. Weiner was the PI on this grant.

Grant: Ion transport by mammalian ammonium transporter proteins (7/1/03 - 8/1/03)

PI: I. David Weiner, M.D.

The purpose of this grant was to determine the ion transport characteristics of the ammonia transporter family members, RhBG and RhCG. Funding was declined effective 8/1/2003 because of funding of R01-DK45788.

Dr. Weiner was the PI on this grant.

Grant: Effect of ammonia on IMCD H-K-ATPase, AHA, Florida Affiliate, Grant-in-Aid (7/00 - 6/03)

PI: I. David Weiner, M.D.

The purpose of this project is to define the ion transporters in the inner medullary collecting duct that are regulated by ammonia, and to determine whether stimulation of proton transport by ammonia in the inner medullary collecting duct is mediated through intracellular calcium, microtubules and the MAP-Kinase signaling system.

The applicant was the PI on this project.

Grant: H,K-ATPase function in potassium homeostasis, NIH R01

PI: Charles S. Wingo, M.D.

The major goals of this project are to define how renal H-K-ATPase function is regulated by potassium channels.

Dr. Weiner was a co-investigator on this project.

Grant: Ion transport in the collecting duct, VA Merit Review Grant (10/00 - 9/04)

PI: Charles S. Wingo, M.D.

The major goals of this project are to investigate whether aldosterone stimulates activity and/or expression of H,K-ATPase in the freshly isolated OMCD_i; whether pCO₂ stimulates either H,K-ATPase, or both types of pumps in the OMCD_i and to determine the role of Ca_i and membrane insertion in the activation of each type of pump; and to identify the aldosterone responsive genes in the kidney.

Dr. Weiner as a co-investigator on this project