

**CURRICULUM VITAE****MEDICAL UNIVERSITY OF SOUTH CAROLINA  
SCHOOL OF MEDICINE FACULTY****PERSONAL INFORMATION**

Name: Phillip Darwin Bell, Ph.D.

Date and Place of Birth: January 24, 1952  
Salt Lake City, UT

Home Address: 34 State Street  
Charleston, SC 29401

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**RANK/TITLE**

Rank: Professor

Department: Medicine

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**EDUCATION**

<u>Institution</u>	<u>Degree</u>	<u>Year</u>
Millsaps College	B.S.	1974
University of Alabama at Birmingham	Ph.D.	1980

**POSTDOCTORAL TRAINING**

<u>Year</u>	<u>Degree</u>	<u>Institution</u>
1980-1982	Ph.D.	University of Alabama at Birmingham

**ACADEMIC APPOINTMENTS** (In reverse chronological order)

<u>Year</u>	<u>Rank/Title</u>	<u>Institution</u>
2008	Adjunct Professor, Department of Bioengineering, College of Engineering and Science	Clemson University
2008	Research Health Specialist, (Joint Appointment),	Ralph H. Johnson VAMC
2007	Professor, Department of Pharmaceutical Sciences (Secondary Appointment)	Medical University of South Carolina
2006	Director, Renal Research, Department of Medicine	Medical University of South Carolina
2006	DCI Professor of Medicine, Department of Medicine	Medical University of South Carolina
2003	Thomas E. Andreoli Professorship of Medicine	University of Alabama at Birmingham
1997	Professor, Department of Medicine	University of Alabama at Birmingham
1997	Professor, Dept. of Physiology & Biophysics (Secondary Appointment)	University of Alabama at Birmingham
1992	Associate Professor, Dept. of Medicine	University of Alabama at Birmingham
1992	Associate Professor, Dept. of Physiology & Biophysics (Secondary Appointment)	University of Alabama at Birmingham
1988	Associate Professor, Dept. of Physiology & Biophysics	University of Alabama at Birmingham
1985	Assistant Professor, Dept. of Physiology & Biophysics	University of Alabama at Birmingham
1983	Research Assistant Professor, Dept. of Medicine	University of Alabama at Birmingham
1982	Scientist II, Nephrology Research & Training Ctr.	University of Alabama at Birmingham
1982	Research Assistant Professor, Dept. of Physiology & Bio.	University of Alabama at Birmingham
1982	Postdoctoral Fellow, Nephrology Research & Training Ctr.	University of Alabama at Birmingham
1981	Scientist I, Nephrology Research & Training Center	University of Alabama at Birmingham
1981	Instructor, Dept. of Physiology & Biophysics	University of Alabama at Birmingham
1980	Postdoctoral Fellow, Cardiovascular Res & Training Ctr.	University of Alabama at Birmingham
1980	Research Associate, Department of Medicine	University of Alabama at Birmingham

**AWARDS/HONORS**

Predoctoral Fellowship, 1978, University of Alabama at Birmingham  
 NIH Postdoctoral Fellowship (HL07457)  
 Session Chairman, 1983-1986, American Society of Nephrology  
 Established Investigator Award, July 1985-June 1990, American Heart Association  
 FASEB Minority Scientist, University of Sacred Heart, San Juan, Puerto Rico, 1987  
 Consultant Miles Laboratories, 1987-1989  
 Visiting Scholar 1988-1990, University of Montreal  
 Member of General Medicine B NIH Study Section, 1992-1996  
 Session Chairman, 1993, Experimental Biology Meetings  
 Alabama Kidney Foundation Medical Advisory Council, 1994-2005  
 Editorial Board of the American Journal of Physiology, 1997-2001  
 AHA National Study Section, 1997-2001  
 Editorial Board, Kidney International, 1997 - Present  
 Editorial Board of the American Journal of Physiology, 1998-2004  
 Member of the Cell and Molecular Biology of the Kidney - NIH Study Section, 2002-2006  
 Thomas E. Andreoli Professorship in Medicine, 2003  
 Nephrology Research Endowed Chair, 2006, Medical University of South Carolina  
 American Journal of Physiology, Renal Physiology Journal, Associate Editor, 2007 – Present  
 Gottschalk Award- American Physiological Society 2010

**PROFESSIONAL SOCIETIES\MEMBERSHIPS**

American Physiological Society  
 American Society of Nephrology  
 International Society of Nephrology  
 American Heart Association, Council on the Kidney in Cardiovascular Disease

**COUNCILS AND COMMITTEES**

18 Graduate Student Doctoral Committees in the Department of Physiology & Biophysics  
 2 Graduate Student Doctoral Committees in the Department of Pharmacology  
 Minority Hypertension Program  
 Secretary (Renal Section) of the American Physiology Society  
 Promotions Committee, UAB Medical School, 1989-1992  
 Division of Nephrology Promotions and Tenure Committee, 1999-2003  
 NIH Study Section General Medicine B (CMBK) 1991-1995, 2002-2006  
 American Heart Association, National Cardiorenal Research Review Group, 1997-2000  
 Basic Science Advisory Committee, 2003  
 UAB Medical School Wide Promotion Committee, 2003-2006  
 APS Renal Section Program Committee Representative, 2004 - Present  
 UAB, Department of Medicine Research Advisory Council, 2004  
 VA Merit Review Committee, 2005 – Present  
 MUSC, Dept. of Medicine, Junior Faculty Development and Mentoring Committee, 2007 – 2008  
 MUSC, VAMC, Research and Development Committee – 2007  
 Chair, NIH Ad Hoc Review Committee  
 Chair, APS Conference Committee, 2006 - Present

**UNIVERSITY TEACHING ACTIVITIES**

Lecturer, 1978-1979, Renal Section, Minority Hypertension Summer Training Program  
 Lecturer, 1979-1981, Cardiovascular Section, Optometry Physiology  
 Lecturer, 1981-1982, Renal Section, Optometry Physiology  
 Lecturer, 1982-pres., Renal Section, Dental Physiology  
 Lecturer, 1990-pres., Renal Section, Surgical Assistants and Biomedical Engineers  
 Lecturer, 1991-1993, Physiology Graduate Seminar Program  
 Course Director, 1987-1988, Optometry Physiology  
 Lecturer, 1989-1993, Renal Section: Medical Physiology  
 Course Director, 1989-1992, Medical Physiology  
 Coordinator, 1988- pres., Nephrology Research and Training Center Weekly Noon Conference  
 2007 – Present, Systems Biology, Medical University of South Carolina

**EDITORIAL BOARD MEMBERSHIPS**

Associate Editor of the American Journal of Physiol. Renal Physiol., 2007-  
 Editorial Board: Kidney International, 1998 – Present  
 Editorial Board: American Journal of Physiology: Renal Physiology, 1991-2001  
 Referee for: American Journal of Physiology: Renal Physiology  
 American Journal of Physiology: Cell Physiology  
 American Journal of Physiology: Integrative and Comparative Physiology  
 Journal of The American Society of Nephrology  
 Kidney International  
 Journal of Investigative Medicine  
 Journal of Clinical Investigation  
 American Journal of Nephrology  
 Laboratory Investigation  
 Hypertension

**AD HOC REVIEWER**

NIH/CMBK

**TOTAL CURRENT LABORATORY GRANT SUPPORT**

5 RO1 DK32032	Bell (PI)	03/01/2006 – 02/28/2011
NIH/NIDDKD		Total Cost: \$1,074,043
Cellular Mechanisms for Tubuloglomerular Feedback System		
5 P30 DK074038	Guay-Woodford (PI)	09/01/2006 – 09/30/2015
NIH/NIDDKD P30 CORE C (Bell/MUSC)		Total Costs: \$1,558,045
UAB Recessive PKD Research and Translational Core Center		
VA BLR&D Merit Review Award Program	Bell (PI)	04/01/2008 - 03/31/2012
Cellular Mechanisms for Cilia Dependent Cystic Disease		Total Cost: \$899,308
VA BLR&D REAP Program	Raymond & Gilkeson (Co-PIs)	07/01/1998 - 06/30/2009
Inflammatory Mediators of Renal Diseases		Total Cost: \$3,150,000
P. Darwin Bell, Collaborating Investigator		

**TOTAL CURRENT LABORATORY GRANT SUPPORT** (continued)

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R01 AR45476-09	Gilkeson & Oates (Co-PIs)	04/01/1999 - 6/30/2013
NIAMS		Total Cost: \$1,464,891
Role of Reactive Intermediates in Lupus Nephritis		
P. Darwin Bell, Collaborating Investigator		

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1 KO1 DK075652-01A2	Kolb (PI)	03/01/2008 - 02/28/2013
NIH/NIDDKD		Total Cost: \$681,750
P. Darwin Bell, Mentor		
The Role of the Primary Cilium in Glomerular Podocyte Cells		

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**TOTAL PENDING LABORATORY GRANT SUPPORT**


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1R01DK090333-01	Bell (PI)	12/01/2010 – 11/30/2015
NIH/NIDDK		Total Cost: \$1,843,749
Interactions between Cilia, Hypertrophic Signaling, and Cystogenesis		

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**MAJOR LECTURES AND VISITING PROFESSORSHIPS**

FASEB Symposium: Regulatory Role of Calcium in the Kidney, 1981  
 Satellite Symposium of VII International Congress of Nephrology: The Juxtaglomerular Apparatus and the Tubuloglomerular Feedback Mechanism--Morphology, Biochemistry and Function, 1981  
 Satellite Symposium of VII International Union of Physiol Sciences: Intrinsic Nephron Control Mechanisms, 1983  
 American Society of Nephrology Introductory Lecture, 1983  
 Visiting Scientist, Department of Physiology, University of Colorado, 1985  
 Visiting Scientist, Department of Physiology, University of Montreal, 1986  
 American Physiological Society Tutorial Lecture, 1986  
 Symposium: Calcium Antagonists and the Kidney, 1986  
 Satellite Symposium of American Society of Hypertension: Calcium Antagonists and the Kidney, 1986  
 Visiting Scientist, Hypertension Research Division, Henry Ford Hospital, 1987  
 FASEB Visiting Minority Scientist, University of Sacred Heart, San Juan, Puerto Rico, 1987  
 Membrane Transport Group, University of Montreal, 1987  
 Meadow Brook Hypertension Meeting, 1987  
 Fernstrom Symposium: The Juxtaglomerular Apparatus and the Tubuloglomerular Feedback Mechanism, Lund, Sweden 1987  
 Department of Physiology, University of Portland Medical School, Portland OR, 1988  
 Bayer Centenary Symposium: Calcium Channel: Structure and Function, Stresa, Italy, 1988  
 Department of Physiology, University of Tennessee Medical School, Memphis, TN, 1989  
 The Juxtaglomerular Apparatus & The Tubuloglomerular Feedback Mechanism, Satellite Symposium of the XI International Congress of Nephrology, Kanazawa, Japan, 1990  
 The National Science Council: General, Renal Function Regulation, Satellite Symposium for ICN Congress, Taipei, Taiwan, 1990  
 Georgia State University, Atlanta, GA, 1991  
 Henry Ford Hospital, Detroit, MI, 1992  
 FASEB Summer Conference, Saxtons River, Vermont, 1992

Department of Medicine, University of South Carolina Medical School, Charleston, SC, 1993  
Department of Physiology, Tulane Medical School, New Orleans, LA, 1994  
Visiting Scientist, Department of Physiology, University of Texas Health Science Center, 1995  
FASEB Summer Conference, Saxtons River, Vermont, 1995  
Experimental Biology meeting, Washington, DC, 1996  
The Tigerstedt symposium in Lund, Sweden, May, 1997  
Simmelweis Univ., Medical School, Dept. of Pathophysiology, Budapest, Hungary, May, 1998  
University of Lausanne, Dept. of Pharmacology and Toxicology, Lausanne, Switzerland, May 1998  
University of Birmingham Medical School, Birmingham, England, 1998  
University Hospital Amiens, Amiens, France, 1998  
University of Uppsala, Uppsala, Sweden, 1998  
Tohoku University School of Medicine, Sendai, Japan, 1998  
Jichi Medical School, Tochigi, Japan, 1998  
National Institute of Physiological Sciences, Okazaki, Japan, 1998  
University of South Carolina Medical Center, Charleston, SC, 1998  
Karolinska Institute, Stockholm, Sweden, 1999  
Department of Molecular Physiology, National Cardiovascular Center Research Inst., Osaka, Japan, 1999  
ACTA Physiological Scandinavia Symposium: "Vasodilators in the Development of Hypertension: NO and Dopamine", Uppsala, Sweden, 1999  
The Histochemical Society: Invited Speaker for Workshop: Microscopy of living cells and tissues. Washington, DC, 1999  
University of North Carolina at Chapel Hill, North Carolina April, 2000  
University of Utah School of Medicine, 2001  
Tulane University Medical School, 2002  
Department of Physiology, UAB, 2002  
Medical College of Georgia, Augusta, GA, 2002  
ACTA Scandinavia JGA Symposium, Odessa, Denmark, 2003  
American Society of Nephrology Invited Lecturer, 2003  
UAB Medical Grand Rounds, 2004  
FASEB Summer Conference, Callaway Gardens, GA, 2004  
Tulane University Medical School, 2005  
Medical University of South Carolina, 2005  
Duke Medical Center, 2005  
Kansas University Medical Center, 2006  
Ohio State University, Columbus, OH, 2007  
World Congress of Nephrology, Rio de Janeiro, Brazil, 2007  
Experimental Biology, Washington, DC, 2007  
Canadian Society of Nephrology, Nova Scotia, Canada, 2007  
9<sup>th</sup> Annual Meeting for New Research in Cardiovascular & Kidney Disease, Amelia Island, FL, 2007  
The American Society of Nephrology, San Francisco, CA, 2007  
61<sup>st</sup> Annual High Blood Pressure Research Conference, AHA, Tucson, AZ, 2007  
FASEB Summer Conference, Saxtons River, Vermont, 2007  
The American Heart Association, New Orleans, LA, 2008  
Experimental Biology, San Diego, CA, 2008  
American Society of Nephrology, Philadelphia, PA, 2008  
15<sup>th</sup> International Nephrology School, Budapest, Hungary, 2008  
Experimental Biology Meeting, Renal Ion Transport Session, San Diego, CA, 2008  
FASEB Summer Research Conference, Snowmass Village, CO, 2008  
Nephrology Research Conference, Mount Sinai School of Medicine, New York, NY, 2009

## EXTRAMURAL PROFESSIONAL ACTIVITIES

Flight Instructor: CFII

## COMMUNITY SERVICE

President of the Birmingham Aero Club  
Volunteer pilot for Angel Flight

## MANUSCRIPTS

1. Navar, LG, B Chomdej, and PD Bell. Absence of estimated glomerular pressure autoregulation during interrupted distal delivery. *Am. J. Physiol.* 229: 1596-1603, 1975.
2. Chomdej, B, PD Bell, and LG Navar. Renal hemodynamic and autoregulatory responses to acute hypercalcemia. *Am. J. Physiol.* 232 (Renal Fluid Electrolyte Physiol. 1): F490-F496, 1977.
3. Navar, LG, PD Bell and TJ Burke. Autoregulatory responses of superficial nephrons and their association with sodium excretion during arterial pressure alterations in the dog. *Circ. Res.* 41: 487-496, 1977.
4. Navar, LG, PD Bell, RW White, RL Watts, and RH Williams. Evaluation of the single nephron glomerular filtration coefficient in the dog. *Kidney Int.* 12: 137-149, 1977.
5. Williams, RH, CE Thomas, PD Bell, and LG Navar. Autoregulation of nephron filtration rate in the dog assessed by an indicator dilution technique. *Am. J. Physiol.* 233 (Renal Fluid Electrolyte Physiol. 2): F282-F289, 1977.
6. Navar, LG, PD Bell, CE Thomas, and RH Williams. Characterization of glomerular feedback responses to distal nephron microperfusion in the dog. *Cardiovasc. Med.* 3: 755-764, 1978.
7. Bell, PD, CE Thomas, RH Williams, and LG Navar. Filtration rate and stop-flow pressure feedback responses to nephron perfusion in the dog. *Am. J. Physiol.* 235 (Renal Fluid Electrolyte Physiol. 3): F154-F165, 1978.
8. Navar, LG, PD Bell, and CE Thomas. Influence of perfusate osmolality on stop-flow pressure feedback responses in the dog. *Am. J. Physiol.* 235 (Renal Fluid Electrolyte Physiol. 4): F352-F358, 1978.
9. Thomas, CE, PD Bell, and LG Navar. Glomerular filtration dynamics in the dog during elevated plasma colloid osmotic pressure. *Kidney Int.* 15: 502-512, 1979.
10. Navar, LG, R LaGrange, PD Bell, CE Thomas, and DW Ploth. Glomerular and renal hemodynamics during converting enzyme inhibition in the dog. *Hypertension* 1: 371-377, 1979.
11. Bell, PD and LG Navar. Stop flow pressure feedback responses during reduced renal vascular resistance in the dog. *Am. J. Physiol.* 237 (Renal Fluid Electrolyte Physiol. 6): F204-F209, 1979.
12. Adams, PL, FF Adams, PD Bell, and LG Navar. Impaired renal blood flow autoregulation in ischemic acute renal failure. *Kidney Int.* 18: 68-70, 1980.

13. Bell, PD, LG Navar, DW Ploth, and CB McLean. Tubuloglomerular feedback responses during perfusion with nonelectrolyte solutions in the rat. *Kidney Int.* 18: 460-471, 1980.
14. Huang, WC, DW Ploth, PD Bell, J Work, and LG Navar. Bilateral renal function responses to converting enzyme inhibitor (SQ20881) in two kidney, one clip Goldblatt hypertensive rats. *Hypertension* 3: 285-293, 1981.
15. Bell, PD, CB McLean, and LG Navar. Dissociation of tubular-glomerular feedback responses from distal tubular chloride concentration in the rat. *Am. J. Physiol.* 240 (Renal Fluid Electrolyte Physiol. 9): F111-F119, 1981.
16. Bell, PD and LG Navar. Relationship between tubulo-glomerular feedback responses and perfusate hypotonicity. *Kidney Int.* 22: 234-239, 1982.
17. Thomas, CE, PD Bell, and LG Navar. Influence of bradykinin and papaverine on renal and glomerular hemodynamics in dogs. *Renal Physiol.* 5: 197-205, 1982.
18. Navar, LG, D Jirakulsomchok, PD Bell, CE Thomas, and WC Huang. Influence of converting enzyme inhibition on renal hemodynamics and glomerular dynamics in sodium restricted dogs. *Hypertension* 4: 58-68, 1982.
19. Bell, PD and LG Navar. Cytoplasmic calcium in the mediation of macula densa tubuloglomerular feedback responses. *Science* 215: 670-673, 1982.
20. Thomas, CE, CE Ott, PD Bell, FG Knox, and LG Navar. Glomerular filtration dynamics during renal vasodilation with acetylcholine in the dog. *Am. J. Physiol.* 244 (Renal Fluid Electrolyte Physiol. 9): F606-F611, 1983.
21. Bell, PD and M Reddington. Intracellular calcium in the transmission of tubuloglomerular feedback signals. *Am. J. Physiol.* 245 (Renal Fluid Electrolyte Physiol. 14): F295-F302, 1983.
22. Bell, PD, M Reddington, DW Ploth, and LG Navar. Directly measured tubuloglomerular feedback mediated decreases in glomerular capillary pressure in the Munich Wistar rat. *Am. J. Physiol.* 247 (Renal Fluid Electrolyte Physiol. 16): F877-F880, 1984.
23. Carmines, PK, PD Bell, RJ Roman, J Work, and LG Navar. Prostaglandins in the sodium excretory response to altered renal arterial pressure in dogs. *Am. J. Physiol.* 248 (Renal Fluid Electrolyte Physiol. 17): F8-F14, 1985.
24. Kirk, K, PD Bell, D Barfuss, and MD Ribadeneira. Direct visualization of the isolated perfused renal macula densa. *Am. J. Physiol.* 248 (Renal Fluid Electrolyte Physiol. 17): F890-F894, 1985.
25. Bell, PD. Cyclic AMP-calcium interaction in the transmission of tubuloglomerular feedback signals. *Kidney Int.* 28: 728-732, 1985.
26. Bell, PD. Tubuloglomerular feedback responses in the rat during calmodulin inhibition with trifluoroperazine. *Am. J. Physiol.* 250 (Renal Fluid Electrolyte Physiol. 19): F715-F719, 1986.
27. Clubb, FJ, PD Bell, JD Kriseman, and SP Bishop. Correlation of cardiomegaly with blood pressure in the neonatal spontaneously hypertensive rat. *Laboratory Invest.* 56: 189-197, 1987.

28. Huang, WC, PD Bell, and LG Navar. Tubuloglomerular feedback dependent and independent influences of angiotensin II on the nonclipped kidney of Goldblatt hypertensive rats. *Kidney Int.* 34: 631-637, 1988.
29. Franco, M, PD Bell, and LG Navar. Evaluation of prostaglandins as mediators of tubuloglomerular feedback. *Am. J. Physiol.* 254 (Renal Fluid Electrolyte Physiol. 19): F642-F649, 1988.
30. Bell, PD, J-Y Lapointe, and J Cardinal. Direct measurement of basolateral membrane potential in cells of the macula densa. *Am. J. Physiol.* 257 (Renal Fluid Electrolyte Physiol. 26): F463-F468, 1989.
31. Franco, M, PD Bell, and LG Navar. Effects of adenosine A1 analog on tubuloglomerular feedback mechanism. *Am. J. Physiol.* 257 (Renal Fluid Electrolyte Physiol. 26): F231-F236, 1989.
32. Lapointe, J-Y, L Garneau, PD Bell, and J Cardinal. Membrane cross talk in the mammalian proximal tubule during alterations in transepithelial sodium transport. *Am. J. Physiol.* 258 (Renal Fluid Electrolyte Physiol. 27): F339-345, 1990.
33. Lapointe, J-Y, PD Bell, and J Cardinal. Direct evidence for an apical Na:2Cl:K co-transport in macula densa cells. *Am. J. Physiol.* 258 (Renal Fluid Electrolyte Physiol. 27): F1466-F1469, 1990.
34. Lapointe, J-Y, PD Bell, AM Hurst, and J Cardinal. Basolateral ionic permeabilities of macula densa cells. *Am J Physiol* 260 (Renal Fluid Electrolyte Physiol. 29): F856-F860, 1991.
35. Jacobs, WR, M Sgambati, G Gomez, P Vilaro, M Higdon, PD Bell, and LJ Mandel. Role of cytosolic Ca in renal tubule damage induced by anoxia. *Am. J. Physiol.* 260 (Cell Physiol. 29): C545-C554, 1991.
36. Bell, PD, PS John, M Speyer, and DR Abrahamson. Permeability of the macula densa basement membrane area to high molecular weight molecules. *Renal Physiol. and Biochem.* 15: 89-98, 1992.
37. Rouch, AJ, L Chen, LH Kudo, PD Bell, B Fowler, BD Corbitt, and JA Schafer. Intracellular Ca and PKC activation do not modulate Na and H<sub>2</sub>O transport in rat CCD. *Am. J. Physiol.* 265 (Renal Fluid Electrolyte Physiol. 34): F569-F577, 1993.
38. Bubien, JK, L-J Zhou, PD Bell, RA Frizzell, and TF Tedder. Transfection of the CD 20 cell surface molecule into ectopic cell types generates a Ca<sup>2+</sup> conductance found constitutively in B lymphocytes. *J. Cell Biol.* 121: 1121-1132, 1993.
39. Carmines, PK, BC Fowler, and PD Bell. Segmentally distinct effects of depolarization on intracellular [Ca] in renal arterioles. *Am. J. Physiol.* 265 (Renal Fluid Electrolyte Physiol. 34): F677-F685, 1993.
40. Hurst, AM, J-Y LaPointe, A Laamarti, and PD Bell. Basic properties and potential regulators of the apical K channel in macula densa cells. *Jour. of General Physiol.* 103: 1055-1070, 1994.
41. Fowler, BC, Y-S Chang, A Laamarti, M Higdon, J-Y Lapointe, and PD Bell. Evidence for apical sodium-proton exchange in macula densa cells. *Kidney Int.* 47: 746-751, 1995.

42. LaPointe, J-Y, A Laamarti, AM Hurst, BC Fowler, and PD Bell. Activation of Na:2Cl:K cotransport by luminal chloride in macula densa cells. *Kidney Int.* 47: 752-757, 1995.
43. Isbell, JC, ST Christian, NA Mashburn, and PD Bell. A non-radioactive method for measuring Protein Kinase C activity. *Life Sciences* 57: 1701-1707, 1995.
44. Fowler, BC, PK Carmines, LD Nelson, and PD Bell. Characterization of sodium-calcium exchange in rabbit renal arterioles. *Kidney Int.* 50: 1856-1862, 1996.
45. Nelson, LD, NA Mashburn, and PD Bell. Altered sodium-calcium exchange in afferent arterioles of the spontaneously hypertensive rat. *Kidney Int.* 50: 1889-1896, 1996.
46. Guttmann, RP, PD Bell, JS Elce, and GVW Johnson. Oxidation inhibits substrate proteolysis by calpain I but not autolysis. *J. Biol. Chem.* 272: 205-2012, 1997.
47. Peti-Peterdi, J and PD Bell. Regulation of macula densa Na:H exchange by angiotensin II. *Kidney Int.* 54: 2021-2028, 1998.
48. Laamarti, MA, PD Bell, and J-Y Lapointe. Transport and regulatory properties of the apical Na:K:2Cl cotransporter of macula densa cells. *Am. J. Physiol.* 275 (Renal Physiol. 44): F703-F709, 1998.
49. Bell, PD and J Peti-Peterdi. Angiotensin II stimulates macula densa basolateral sodium/hydrogen exchange via type 1 angiotensin II receptor. *JASN* 10: S225-229, 1999.
50. Nelson, LD, TM Unlap, JL Lewis, and PD Bell. Renal arteriolar Na<sup>+</sup>:Ca<sup>2+</sup> exchange in salt sensitive hypertension. *Am. J. Physiol.* 276 (Renal Physiol. 45): F567-F573, 1999.
51. Mashburn, NA, MT Unlap, J Runquist, A Alderman, GVW Johnson, and PD Bell. Altered protein kinase C activation of Na<sup>+</sup>:Ca<sup>2+</sup> exchange in mesangial cells from salt sensitive rats. *Am. J. Physiol. Renal Physiol.* 276: F574-F580, 1999.
52. Peti-Peterdi, J and PD Bell. Cytosolic [Ca<sup>2+</sup>] signaling pathway in macula densa cells. *Am. J. Physiol. Renal Physiol.* 277: F472-F476, 1999.
53. Peti-Peterdi, J, R Chambrey, Z Bebok, PL St. John, DR Abrahamson, DG Warnock, and PD Bell. Macula densa Na:H exchange activities mediated by apical NHE2 and basolateral NHE4 isoforms. *Am. J. Physiol. Renal Physiol.* 278: F452-F463, 2000.
54. Unlap, MT, J Peti-Peterdi, and PD Bell. Cloning and functional expression of mesangial cell sodium/calcium exchangers from Dahl/Rapp salt sensitive/resistant rats. *Am. J. Physiol. Renal Physiol.* 279: F177-F184, 2000.
55. Peti-Peterdi, J, Z Bebok, J-Y Lapointe, and PD Bell. Cytosolic [Na<sup>+</sup>] regulation in macula densa cells: novel role for an apical H:K ATPase. *Am. J. Physiol. Renal Physiol.* 282: F324-F329, 2002.
56. Schwiebert, EM, DP Wallace, GM Braunstein, SR King, J Peti-Peterdi, K Hanaoka, WB Guggino, LM Guay-Woodford, PD Bell, LP Sullivan, JJ Grantham, and AL Taylor. Autocrine extracellular purinergic signaling in epithelial cells derived from polycystic kidneys. *Am. J. Physiol. Renal Physiol.* 282: F763-F775, 2002.

57. Kovacs, G, J Peti-Peterdi, L Rosivall, and PD Bell. Angiotensin II directly stimulates macula densa Na:2Cl:K cotransport via apical AT<sub>1</sub> receptors. *Am. J. Physiol. Renal Physiol.* 282: F301-F306, 2002.
58. Peti-Peterdi, J, DG Warnock, and PD Bell. Effects of angiotensin II and AT<sub>1</sub> receptor blockade on intracellular sodium concentration in the cortical collecting duct. *J. Am. Soc. Nephrol.* 13: 1131-1135, 2002.
59. Liu, R, PD Bell, J Peti-Peterdi, G Kovacs, A Johansson, and AEG Persson. Identification of purinergic receptors on rabbit macula densa cells. *J. Am. Soc. Nephrol.* 13: 1145-1151, 2002.
60. Peti-Peterdi, J, S Morishima, PD Bell, and Y Okada. Two-Photon excitation fluorescence imaging of the kidney juxtaglomerular apparatus. *Am. J. Physiol. Renal Physiol.* 283: F197-F201, 2002.
61. Hwang, EF, G Kovacs, J Peti-Peterdi, B Siroky, WC Rice, EM Schwiebert, MT Unlap, and PD Bell. Impaired ability of Na<sup>+</sup>:Ca<sup>2+</sup> exchanger from the Dahl/Rapp salt sensitive rat to regulate cytosolic calcium. *Am. J. Physiol. Renal Physiol.* 284: F1023-F1031, 2003.
62. Zsembery, A, AT Boyce, L Liang, J Peti-Peterdi, PD Bell, and EM Schweibert. Sustained calcium entry through P2X nucleotide receptor channels in human airway epithelial cells. *JBC* 278: 13398-13408, 2003.
63. Bell, PD, J-Y Lapointe, R Sabirov, S Hayashi, J Peti-Peterdi, K Manabe, G Kovacs, and Y Okada. Macula densa cell signaling involves ATP release through a maxi anion channel. *PNAS* 100: 4322-4327, 2003.
64. Lapointe, J-Y, PD Bell, RZ Sabirov, and Y Okada. Calcium-activated non-selective cation channel in macula densa cells. *Am. J. Physiol. Renal Physiol.* 285: F275-280, 2003.
65. Unlap, T, E Bates, P Komlosi, I Williams, B Siroky, G Kovacs, and PD Bell. Enhanced sensitivity of a salt sensitive Na<sup>+</sup>/Ca<sup>2+</sup> exchanger isoform to oxidative stress. *Hypertension* 42: 363-368, 2003.
66. Peti-Peterdi, J, P Komlosi, A Fuson, Y Guan, A Schneider, Z Qi, R Redha, L Rosivall, MD Breyer, and PD Bell. Luminal NaCl delivery regulates basolateral prostaglandin E<sub>2</sub> release from macula densa cells. *J. Clin. Invest.* 112: 76-823, 2003.
67. Fuson, A, P Komlosi, MT Unlap, PD Bell, and J Peti-Peterdi. Immunolocalization of a microsomal prostaglandin E synthase in rabbit kidney. *Am. J. Physiol. Renal Physiol.* 285: F558-64, 2003.
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