Curriculum Vitae

Kay-Pong Daniel Yip Ph.D.

Business Address

Department of Molecular Pharmacology & Physiology
College of Medicine
University of South Florida
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Education

1980-1984	Chinese University of Hong Kong B.S. Biology (Honors)
1984-1986	Chinese University of Hong Kong M.Phil. Biology
1986-1991	University of Southern California Ph.D. Physiology and Biophysics
1992	Complex Systems Summer School Santa Fe Institute, New Mexico

Honors and Awards

1992	Clifford and Evelyn Cherry Fellowship Award American Heart Association -Greater Los Angeles Affiliate
1992-1993	American Heart Association Postdoctoral Fellowship
1994-1996	National Kidney Foundation Young Investigator Grant

Appointments

1991-1992	Postdoctoral Fellow Department of Physiology & Biophysics University of Southern California (USC)
1992-1993	Postdoctoral Fellow Department of Medicine Division of Nephrology University of California Los Angeles (UCLA)
1993-1999	Research Assistant Professor Department of Molecular Pharmacology, Physiology & Biotechnology Brown University
1999-2003	Assistant Professor Department of Physiology and Biophysics University of South Florida
2003-2013	Associate Professor Department of Molecular Pharmacology & Physiology University of South Florida
2013-present	Professor Department of Molecular Pharmacology & Physiology University of South Florida

Fields of Scientific Interest

Pressure natriuresis and hypertension
Regulation of intracellular pH, Ca^{2+} , and exocytosis in intact renal tubules
Integrin signal transduction in smooth muscle cells of renal arterioles
Nonlinear phenomena in renal hemodynamic
Cancer mechanobiology

Societies Membership

American Physiological Society
American Society of Nephrology

National Agency Assignments

Member, NIH NIDDK Special Emphasis Panel, Kidney Research Center Grants, 2001
Ad Hoc Member, NIH NIDDK Study Section of Cell and Molecular Biology of Kidney, 2004
Member, NIH NIDDK Special Emphasis Panel, Kidney Research Center Grants, 2007
Member, American Heart Association Peer Review Committee, Cardiorenal Region II 2007
Ad Hoc Member, NIH NIDDK Study Section of Cell and Molecular Biology of Kidney, 2008
Member, American Heart Association Peer Review Committee, Cardiorenal Region II 2008
Member, NIH, NCRR, INBRE Special Emphasis Panel 2009
Member, American Heart Association Peer Review Committee, Cardiorenal Region II 2009
Abstract Reviewer, American Society of Nephrology 2011
Member, NIH NIDDK Special Emphasis Panel, Program Project grants 2012
Member, American Heart Association Peer Review Committee, Cardiorenal 2 2013-2017

Editorial Assignments

Editorial Board :

American Journal of Physiology - Renal Physiology	2004-2005
American Journal of Physiology - Renal Physiology	2005-2006
American Journal of Physiology - Renal Physiology	2006-2007
American Journal of Physiology - Renal Physiology	2007-2008
American Journal of Physiology - Renal Physiology	2008-2009
Frontiers in Physiology : Renal & Epithelial Physiology	2012-present

Ad Hoc Reviewer:

American Journal of Physiology - Cell Physiology
American Journal of Physiology - Heart and Circulatory Physiology
American Journal of Physiology - Regul. Integr. Comp. Physiology
Biochemical and Biophysical Research Communications
Bulletin of Mathematical Biology
Cancers
Cellular Physiology and Biochemistry
Circulation Research
Hypertension
Kidney International
Physiological Reports

University of South Florida Services

University-wide

2004, 2005	Reviewer, Internal Award Program Division of Research Grants

Morsani College of Medicine

1999-2003	Academic Computing Committee
2003-2005	Research Committee
2005	Search Committee for Biomedical Science Faculty
2006-2008	Core Facilities Committee
2006	Graduate Medical Science Education and Graduate Student Affairs Committee
2007-present	Secretary, Graduate Medical Science Education and Graduate Students Affairs Committee
2010-present	Imaging Core Facility Advisory Committee
2011-2013	Chair, College of Medicine Research Committee
2011-2013	Executive and Management Committee - Research (EMC-R)
2015-present	Faculty Council Department Representative

Department of Molecular Pharmacology & Physiology

Committee Service

2002-2011	Graduate Education Committee
2006	Search Committee for Department Chair
2006-2008	Faculty Search Committee
2006-2008	Appointment, Promotion, and Tenure Committee
2012-present	Education Committee
2012-present	Faculty Search Committee
2015-present	Appointment, Promotion, and Tenure Committee

Course Directing

2001-2006	Course Director, Physiology Seminar Series
2006-2007	Co-Director, Molecular Pharmacology and Physiology Seminar Series
2009-2010	Co-Director, Principles of Pharmacology
2009-2010	Co-Director, Systemic Physiology and Pharmacology
2007-present	Course Director, Molecular Pharmacology and Physiology Graduate Seminar
2008-present	Course Director, Directed Research
2009-present	Course Director, Advance Concepts in System Physiology
2011	Course Director, Physiology and Pharmacology for Ph.D students
2012-present	Course Director, Basic Medical Physiology for Ph.D students
2015-present	Course Director, Basic Medical Physiology for MSP3 students

Research Support

Active :

Department of Defense Ovarian Cancer Research Program
OC 160457 Yip (PI) 5/01/2017-4/30/2020

"*The role of mesothelial omentin in ovarian cancer progression.*"
The major goals of this project are to study the how the increase expression of omentin in mesothelium of omentum suppresses the progression of ovarian cancer by using traction force microscopy, live cell subcellular calcium imaging, Electric Cell-substrate Impedance Sensing.
Role : Principal Investigator

R01 DK099276 Liu (PI)
9/01/2014-5/31/2018
"*Primary cilia and modulation of the renal microcirculation.*"
The major goals of this project is to study role of primary cilia on macula densa cells on the regulation of renal blood flow autoregulation.
Role : Co-investigator

Completed:

Principal Investigator

American Heart Association Grant-in-Aid, Greater SouthEast
07/01/12-06/30/15
"*Novel signaling pathways of aquaporin-2 trafficking and apical exocytosis in kidney collecting duct."*

*Fl*orida Center of Excellence in Bimolecular Identification and Targeted Therapeutics Pilot grant 01/01/09-12/31/11
"A novel technique in manipulation of Na/K pumps and its therapeutic application in kidney"

American Heart Association Grant-in-Aid, Greater SouthEast
07/01/08-12/31/10
"*Integrin-mediated mechanotransduction in renal blood flow autoregulation"*

NIH R01 DK 60501 07/01/03-06/30/08
"*Regulation of aquaporin-2 trafficking in collecting duct"*

NIH R01 HL 59156 08/01/98-07/31/02
"*Mechanisms of pressure natriuresis in proximal tubules"*

American Heart Association Grant-in-Aid, Florida/Puerto Rico Affiliate
07/01/01-06/30/03
"*Role of intracellular calcium in regulating water permeability in kidney inner medullary collecting duct"*

National Kidney Foundation Young Investigator Grant 07/01/94-06/30/96
"Cellular mechanisms of pressure natriuresis in rat proximal tubules "

Co-Investigator (P.I. in subcontract to USF)

NIH R01 R01CA142832-01 (P.I. : Birrer, Massachusetts General Hospital)
03/22/10-01/31/15
"Novel biomarkers in ovarian cancer"

NIH R01 HL 69629 (P.I. : K. H. Chon, SUNY, Stony Brook)
08/01/02-07/31/06
"*Decoupling of the principal renal autoregulatory mechanisms"*

Sponsor

American Heart Association Pre-doctoral Fellowship 07/01/05-06/30/07
"*Role of integrins in renal circulation"*

Courses taught

Professional :

1. School of Medicine , Brown University, BIO 117 Medical Physiology (1994, 1996)

2. Morsani College of Medicine, USF

BMS 6500 Medical Physiology	1999 - 2010
BMS 6020 Medical Neuroscience	2000 - 2002
BCC 8190 Critical Care Senior Clerkship	2005
Undergraduate Medical Education Course 4	2012 - 2013

Graduate : Department of Molecular Pharmacology & Physiology , USF

1.	GMS 6494 Introduction of Physiology Research	1999 - 2004
2.	GMS 7910 Directed Research	1999 - present
3.	GMS 6410 Cardiovascular Regulation	2001 - present
4.	GMS 6433 Membrane Biology	2001 - 2015
5.	GMS 7939 Graduate Seminar	2001 - present
6.	GMS 7930 Cell and Molecular Physiology	2002 - 2003
7.	GMS 6431 Cell Physiology	2002 - 2003
8.	GMS 6512 Ion Channel Disease & Pharmacology	2002 - present
9.	GMS 6401 Kidney, Fluids and Electrolytes	2002 - present
10.	GMS 6001 Foundation in Biomedical Sciences	2004 - present
11.	GMS 6461.001 Physiology and Pharmacology	2003 - present
12.	GMS 7931 Advanced Concepts in System Physiology	2005 - present
13.	GMS 6942 Laboratory Rotations in MBS Research	2004 - Present
14.	GMS 6513 Principles of Pharmacology	2009 - 2011
15.	GMS 6440.003 Basic Medical Physiology (MS)	2011- Present
16.	GMS 6440.004 Basic Medical Physiology (Ph.D.)	2011 - present

Post-Doctoral Fellows

NAME	INSTITUTION OF ORIGIN	
Wah-Lun Chan Ph.D.	Chinese University of Hong Kong	1997-1998
Guangsheng Xiang M.D.	Wurzburg University, Germany	2000-2001
Abu Ahmed Ph.D.	Kyushu University, Japan	2000-2002

Graduate Students

Lavanya Balasubramanian	Department of Physiology & Biophysics USF	2002-2007

Doctoral Dissertation Committees

Zhi Li — Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University, 1996-2000

Christopher Thanos — Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University, 1997-2001

Qingli Zhang — Department of Physiology & Biophysics, USF, 1999-2003

Patrick Stocker — Department of Physiology & Biophysics, USF, 1999-2005

Cristina Jaen — Department of Physiology & Biophysics, USF, 1999-2006

Lavanya Balasubramanian (Major Professor)
Department of Physiology & Biophysics, USF, 2001-2007

Daniel Opp — Department of Physics, USF,
2007 – 2009

Sarah Norring — Department of Molecular Pharmacology & Physiology, USF,
2006 – 2010

Timetria Bonds — Department of Molecular Pharmacology & Physiology, USF,
2008 – 2011

Anthony Gebhard (Co-Major Professor)
Department of Molecular Pharmacology & Physiology, USF,
2010 – 2013

Chinda Hernavanh
Department of Molecular Pharmacology & Physiology, USF
2012-2014

Clausell Mathis — Department of Physics, USF
2012-2014

Diana Hernandez-Ontiv
Department of Molecular Pharmacology & Physiology, USF,
2011 – 2015

Adam Behensky	Department of Molecular Pharmacology & Physiology, USF 2013-2015
Wei Deng	Department of Molecular Pharmacology & Physiology, USF 2012-2016
Zhang Xun	Department of Molecular Pharmacology & Physiology, USF 2013-present
Jin Wei	Department of Molecular Pharmacology & Physiology, USF 2014-present
Jie Zhang	Department of Molecular Pharmacology & Physiology, USF 2014-present
Drew Rideout	Department of Molecular Pharmacology & Physiology, USF 2017-present

Invited Addresses and Seminars

1. UCLA, Department of Medicine, Division of Nephrology : *Bifurcation of kidney dynamics in hypertension*, 1992
2. Brown University, Department of Physiology : *Bifurcation of kidney dynamics in hypertension,* 1994
3. University of Florida, Department of Physiology : *Cellular mechanisms of proximal tubule pressure natriuresis*, 1998
4. University of South Florida, Department of Physiology and Biophysics : *Cellular mechanisms of proximal tubule pressure natriuresis*, 1998
5. Johns Hopkins University, Department of Medicine, Division of Pulmonary Care : *Application of confocal fluorescence microscopy in perfused renal arterioles and tubules*, 2000
6. NIH Laboratory of Kidney and Electrolyte Metabolism : *Application of confocal fluorescence microscopy in perfused renal arterioles and tubules,* 2000
7. 2001 Experiment Biology symposium **invited speaker** : *Application of optical methods in the study of proximal tubule pressure natriuresis,* 2001

8. 2001 FASEB Summer Research Conference **invited speaker**: *Novel techniques applied to kidney - Optical methods for measuring blood flow and tubular reabsorption in single nephron,* 2001

9. University of Southern California, Department of Physiology and Biophysics : *Coupling of vasopressin induced Ca^{2+} mobilization and apical exocytosis in rat inner medullary collecting duct,* 2001

10. 2003 Experimental Biology Satellite Symposium **invited speaker**: *Nephron and Numbers : The Past and Future of Renal Systems Biology,* 2003

11. 2004 FASEB Summer Research Conference **invited speaker**: *Flash photolysis of caged nitric oxide inhibits proximal tubular fluid reabsorption in free flow nephron,* 2004

12. University of Florida, Department of Medicine Division of Nephrology : *Bifurcation of renal hemodynamics and pressure natriuresis,* 2005

13. Mathematical Biosciences Institute of Ohio State University, Workshop : *The Kidney: Cellular, Tubular, and Vascular Physiology,* 2007

14. The 5th International Conference of Aquaporin (Nara, Japan) **invited speaker** : *Calcium signaling in aquaporin trafficking,* 2007

15. Microscopy Society of America annual meeting : Microscopy and Microanalysis 2007 **invited speaker** : *Calcium signaling and Aquaporin-2 trafficking in kidney collecting duct,* 2007

16. Chinese University of Hong Kong, Department of Physiology : *Trafficking of aquaporin-2 in kidney inner medullary collecting duct,* 2007

17. 2008 Experiment Biology symposium **invited speaker** : *Integrin-mediated mechanotransduction in myogenic response of afferent arterioles,* 2008

18. University of Mississippi Medical Center, Department of Physiology and Biophysics: *Integrin activation and myogenic response in renal vascular smooth muscle cells,* 2010.

19. M.D. Anderson Cancer Center, Department of Gynecologic Oncology and Reproductive Medicine : Traction force induced by MAGP-2 in ovarian cancer cells. 2013.

Publications **(** 3,038 citations, *h*-index 32 in Google scholar, kay-Pong Daniel Yip)

Peer Reviewed papers

1. Tam, S.C., **K.P. Yip**, K.P. Fung, and S.T. Chang. Hypotensive and renal effects of the edible mushroom, Pleurotus sajor-caju. Life Sci. 38:1155-1161, 1986.

2. **Yip, K.P.**, N.-H. Holstein-Rathlou, and D.J. Marsh. Chaos in blood flow control in genetic and renovascular hypertensive rats. Am. J. Physiol. 261 (Renal Fluid Electrolyte Physiol.30): F400-F408, 1991.

3. Marsh, D.J., **K.P. Yip**, O. Kallskog, and N.-H. Holstein-Rathlou. Oscillations and more complex dynamics in tubuloglomerular feedback. Kidney Int. 39: (Suppl.32) S94-S97, 1991.

4. Buchanan, T.A., G.F. Sipos, S. Gadalah, **K.P. Yip**, D.J. Marsh, W. Huseh, and R.N. Bergman. Glucose tolerance and insulin action in rats with renovascular hypertension. Hypertension 18:341-347, 1991.

5. **Yip, K.P.**, N.-H. Holstein-Rathlou, and D.J. Marsh. Dynamics of TGF-initiated nephron-nephron interactions in normotensive rats and SHR. Am. J. Physiol. 262 (Renal Fluid Electrolyte Physiol.31): F980-F989, 1992.

6. **Yip, K.P.**, N.-H. Holstein-Rathlou, and D.J. Marsh. Mechanisms of temporal variations of single nephron blood flow in rat. Am. J. Physiol. 264. (Renal Fluid Electrolyte Physiol.33): F427-F434, 1993.

7. Smedley, G.T., **K.P. Yip**, A.J. Wagner, S. Dubovitsky, and D.J. Marsh. A laser doppler velocimetry instrument for in-vivo measurements of blood flow in single renal arteriole. IEEE Trans. Biomed. Eng. 40:290-297, 1993.

8. **Yip, K.P.**, D.J. Marsh, and N.-H. Holstein-Rathlou. Evidence of low dimensional chaos in renal blood flow in genetic and experimental hypertension. Physica D 80: 95-104, 1995.

9. Chen, Y.M., **K.P. Yip**, D.J. Marsh and N.-H. Holstein-Rathlou. Magnitude of TGF-initiated nephron-nephron interactions is increased in SHR. Am. J. Physiol. 269 (Renal Fluid Electrolyte Physiol. 38): F198-F204, 1995.

10. **Yip, K.P.** and I. Kurtz. NH_3 permeability of principal cells and intercalated cells measured by confocal fluorescence imaging. Am. J. Physiol. 269 (Renal Fluid Electrolyte Physiol. 38): F545-F550, 1995.

11. **Yip, K.P.** and N.-H. Holstein-Rathlou. Chaos and nonlinear phenomena in renal vascular control. Cardiovas. Res. 31:359-370, 1996.

12. Zhang, Y, A.K. Mircheff, C.B. Hensley, C.E. Magyar, D.G. Warnock, R. Chambrey, **K.P. Yip**, D.J. Marsh, N.-H. Holstein-Rathlou, and A.A. McDonough. Rapid

redistribution of renal sodium transporter during natriuresis induced by acute hypertension. Am. J. Physiol. 270 (Renal Fluid Electrolyte Physiol. 39): F1004-F1014, 1996.

13. **Yip, K.P.** and D.J. Marsh. $[Ca^{2+}]_i$ in rat afferent arteriole during constriction measured with confocal fluorescence microscopy. Am. J. Physiol. 271 (Renal Fluid Electrolyte Physiol. 40): F1004-F1011,1996.

14. Yong, S.J., J.S. Jacob, **K.P. Yip**, G. Gardner, E. Seitelman, M. Whitney, S. Montgomery, and E. Mathiowitz. Controlled release of plasmid DNA. J. Control Release 47:123-134,1997.

15. **Yip, K.P.** and D.J. Marsh. An Arg-Gly-Asp peptide stimulates constriction in rat afferent arteriole. Am. J. Physiol. 273 (Renal Physiol. 42) : F768-F776, 1997.

16. Sun, A.M., Y. Liu, L.D. Dworkin, C.M. Tse, M. Donowitz, and **K.P. Yip**. Na^+/H^+ exchanger isoform (NHE2) is expressed in the apical membrane of the medullary thick ascending limb. J. Memb. Biol. 160: 85-90, 1997.

17. Quayle, A.J., E. Porter, A.A. Nussbaum, Y.M. Wang , C. Brabec, , **K.P. Yip** and S.C. Mok. Gene expression, immunolocalization, and secretion of human defensin-5 in human female reproductive tract. Am. J. Path. 152:1247-1258, 1998.

18. Cutaia, M.V., N. Parks, J. Centracchio, S. Rounds, **K.P. Yip**, and A. Sun. The effect of hypoxia exposure on Na/H antiport activity, isoform expression, and cell membrane localization in pulmonary endothelial cells. Am. J. Physiol. 275 (Lung Cell. Mol. Physiol. 19) : L442-L451, 1998.

19. **Yip, K.P.**, C.-M. Tse, A.A. McDonough, and D.J. Marsh. Redistribution of Na^+/H^+ exchanger isoform NHE3 in proximal tubules induced by acute and chronic hypertension. Am. J. Physiol. 275 (Renal Physiol. 44) : F565-F575, 1998.

20. Pushkin, A, **K.P. Yip**, I. Clark, N. Abuladze, T.-H. Kwon, S. Tsuruoka, G. J. Schwartz, S. Nielsen, and I. Kurtz. NBC3 expression in rabbit collecting duct: colocalization with vacuolar H^+-ATPase . Am. J. Physiol. 277 (Renal Physiol. 44) : F974-F981, 1999.

21. **Yip, K.P.**, A. J. Wagner, and D. J. Marsh. Detection of Na^+/H^+ exchanger activity inhibition in proximal tubules induced by acute hypertension. Am. J. Physiol. Regulatory Integrative Comp. Physiol. 279 : R1412-R1419, 2000.

22. Chou, C.-L., **K.P. Yip,** L. Michea, K. Kador, J. Ferraris, J.B. Wade, and M.A. Knepper. Regulation of aquaporin-2 trafficking by vasopressin in renal collecting duct: roles of ryanodine-sensitive Ca^{2+} stores and calmodulin. J. Biol. Chem. 275:36839-36846, 2000.

23. Chon, K.H., **K.P. Yip**, B.M. Camino, D.J. Marsh, and N.-H. Holstein-Rathlou. Modeling nonlinear determinism in short time series from noise driven discrete and continuous systems. Int. J. Bifurcation Chaos 10 : 2745-2766, 2000.

24. Chan W.L, N.-H. Holstein-Rathlou, and **K.P. Yip**. Integrin mobilizes intracellular Ca $^{2+}$ in renal vascular smooth muscle cells. Am. J. Physiol. Cell Physiol. 280 : C593-C603, 2001.

25. Holstein-Rathlou, N-H., **K.P. Yip**, O.V. Sosnovtseva, and E. Mosekilde. Synchronization phenomena in nephron-nephron interaction. Chaos 11: 417:426, 2001.

26. **Yip, K.P.** Coupling of intracellular calcium mobilization and apical exocytosis in perfused rat inner medullary collecting duct. J. Physiol. (Lond.) 538 : 891-899, 2002.

27. Zou, R., C. W.A., **K.P. Yip**, N.-H. Holstein-Rathlou, and K.H. Chon. Time-varying properties of renal autoregulatory mechanisms. IEEE Trans. Biomed. Eng. 49: 1112-1120, 2002.

28. **Yip, K.P.**, S. Tsuruoka, G.J. Schwartz, and I. Kurtz. Apical H^+/base transporters mediating bicarbonates reabsorption and pH_i regulation in the outer medullary collecting duct. Am. J. Physiol. Renal Physiol. 283 : F1098-F1104, 2002.

29. **Yip, K.P.** and I. Kurtz. Confocal fluorescence microscopy measurements of pH and calcium in living cells. Meth. Cell Bio. 70 : 417-427, 2002.

30. Zhang, W.-M., **K.P. Yip**, M.-J. Lin, L.A. Shimoda, W.-L. Li, and J. S. K. Sham. Endothelin-1 activates Ca^{2+} sparks in pulmonary arterial smooth muscle cells: local Ca^{2+} signaling between inositol triphosphate- and ryanodine-receptors. Am. J. Physiol. Lung Cell. Mol. Physiol. 285 ;L680-L690, 2003.

31. Walstead C. and **K.P. Yip** Acute arterial hypertension inhibits proximal tubular fluid reabsorption in normotensive rat but not in SHR. Am. J. Physiol. Regulatory Integrative Comp. Physiol. 286 : R726-R733, 2004.

32. Lin, M.-J.,G. P. H. Leung, W.-M. Zhang, X.-R. Yuang, **K.P. Yip**, C.-M. Tse, and J.S.K. Sham. Chronic hypoxia-induced upregulation of store-operated and receptor-operated Ca^{2+} channels in pulmonary arterial smooth muscle cells-a novel mechanism of hypoxic pulmonary hypertension. Circ. Res. 95: 496-505, 2004.

33. Thanos, C.G., **K.P. Yip**, and E. Mathiowitz. Intestinal uptake of polymer microspheres in the rabbit studies with confocal microscopy. J. Bioactive Compatible polymers 19 :247-266, 2004.

34. Chon, K.H., R. Raghavan, Y.-M. Chen, D.J. Marsh, and **K.P. Yip**. Interactions of TGF-dependent and myogenic oscillations in tubular pressure. Am. J. Physiol. Renal Physiol. 288 : F298-F307, 2005.

35. Marsh, D.J., O. Sosnovtseva, A.N. Pavlov, **K.P. Yip**, and N.-H. Holstein-Rathlou. Frequency encoding in renal blood flow regulation. Am. J. Physiol. Regulatory Integrative Comp. Physiol. 288 : R1160-R1167, 2005.

36. Ditlevsen, S**., K.P. Yip**, and N.-H. Holstein-Rathlou. Parameter estimation in a stochastic model of the tubuloglomerular feedback mechanism in a rat nephron. Math Biosci. 194 : 49-69, 2005.

37. **Yip, K.P.** Flash photolysis of caged nitric oxide inhibits proximal tubular fluid reabsorption in free flow nephron. Am. J. Physiol. Regulatory Integrative Comp. Physiol. 289: R620-R626, 2005.

38. Yang, X.-R., M.-J Lin, **K.P. Yip**, L. H. Jeyakumar, S. Fleischer, G. P. H. Leung, and J. S. K. Sham. Multiple ryanodine receptor subtypes and heterogeneous ryanodine receptor-gated Ca^{2+} stores in pulmonary arterial smooth muscle cells. Am. J. Physiol. Lung Cell. Mol. Physiol. 289 :L338-L348, 2005.

39. Leong, P.K., A. Devillez, M.B. Sandberg, L.E. Yang, **D.K.Yip**, J.B. Klein, and A.A. McDonough. Effects of ACE inhibition on proximal tubule sodium transport. Am. J. Physiol. Renal Physiol. 290: F854-F863, 2006.

40. Raghavan, R., X. Chen, **K.P. Yip**, D.J. Marsh, K.H. Chon. Interactions between TGF-dependent and myogenic oscillations in tubular pressure and whole kidney blood flow in both SDR and SHR. Am. J. Physiol. Renal Physiol. 290 : F720-F732, 2006.

41. Leong, P. K.K., L.E. Yang, C.S. Landon, A.A. McDonough, and **K.P. Yip**. Phenol injury-induced hypertension stimulates proximal tubule Na^+/H^+ exchanger activity. Am. J. Physiol. Renal Physiol. 290 : F1543-F1550, 2006.

42. **Yip, K.P.** Epac mediated Ca^{2+} mobilization and exocytosis in inner medullary collecting duct . Am. J. Physiol. Renal Physiol. 291 ;F882-F890, 2006.

43. Umesh, A., M.A. Thompson, E.N. Chini, **K.P. Yip**, J.S.K. Sham. Integrin ligands mobilize Ca^{2+} from ryanodine-receptor gated stores and lysosome-related acidic organelles in pulmonary arterial smooth muscle cells. J. Biol. Chem. 281 : 34312-34323, 2006.

44. Ditlevsen, S., **K.P. Yip**, D.J. Marsh, and N.-H. Holstein-Rathlou. Parameter estimation of feedback gain in a stochastic model of renal hemodynamics: differences between spontaneously hypertensive rats and Sprague-Dawley rats**.** Am J Physiol Renal Physiol. 292: F607-F616, 2007.

45. Balasubramanian, L., A. Ahmed, C.M. Lo, J. S.K. Sham, and **K.P. Yip**. Integrin-mediated mechanotransduction in renal vascular smooth muscle cells: activation of calcium sparks. Am. J. Physiol. Regulatory Integrative Comp. Physiol. 293: R1586-R1594, 2007.

46. Sosnovtseva,O.V., A.N. Pavlov, E. Mosekilde, **K.P. Yip**, and N.-H. Holstein-Rathlou, and D.J. Marsh. Synchronization among mechanisms of renal autoregulation is reduced in hypertensive rats. Am J Physiol Renal Physiol. 293: F1545-F1555, 2007.

47. Balasubramanian, L., J. S.K. Sham, and **K.P. Yip**. Calcium signaling in vasopressin-induced aquaporin-2 trafficking. Pfugers Arch. 456 :747-754, 2008.

48. Balasubramanian, L., **K.P. Yip**, T.-H. Hsu, and , C.M. Lo. Impedance analysis of renal vascular smooth muscle cells. Am. J. Physiol. Cell Physiol. 295: C954-C965, 2008.

49. Mok S.C. , T. Bonome, V. Vathipadiekal, A. Bell, M.E. Johnson, K.K. Wong , D.C. Park, D.K. Hao, **D.K. Yip**, H. Donninger, L. Ozbun L, G. Samimi, J. Brady, M. Randonovich, C.A. Pise-Masison, J.C. Barrett, W.H. Wong , W.R. Welch, R.S. Berkowitz, M.J. Birrer. A gene signature predictive for outcome in advanced ovarian cancer identifies a survival factor: microfibril-associated glycoprotein 2. Cancer Cell 16(6): 521-32, 2009.

50. **Yip, K.P.** and J.S.K. Sham. Mechanisms of vasopressin-induced intracellular Ca^{2+} oscillations in rat inner medullary collecting duct. Am. J. Physiol. Renal Physiol. 300: F531-F539, 2011.

51. **Yip, K.P.** and J.S.K. Sham. Tracking stars : automated two-dimensional analysis of Ca^{2+} events. Am. J. Physiol. Cell Physiol. 303:C233-C235, 2012.

52. Balasubramanian, L., Chun-Min Lo, J.S.K. Sham, and **K.P. Yip**. Remanent traction force in renal vascular smooth muscle cells induced by integrin-mediated mechanotransduction. Am. J. Physiol. Cell Physiol. 304:C382-391, 2013.

53. **Yip, K.P.** and C.M. Tse. Modulation of Na^+/H^+ exchanger 3 trafficking and activity in rat proximal tubule. Acta Physiol. 210 :458-459, 2014. PMID: 24438082

54. Leung, C.S., T.L. Yeung, **K.P.Yip**, S. Pradeep, L. Balasubramanian, J. Liu, K.K.Wong , S. Mangala, N. Armaiz-Pena, G. Lopez-Berestein, A. K. Sood, M.J. Birrer, and S.C. Mok. Calcium dependent FAK/CREB/TNNC1 signaling mediates the effect of stromal MFAP5 on ovarian cancer metastatic potential. Nature Comm, 5:5092. 2014 DODO, 10.1038/ncomms6092.

55. Chen, K., **K.P. Yip**, and H. Yang. Two-Phase Greedy Pursuit Algorithm for Automatic Detection and Characterization of Transient Calcium Signaling. IEEE Journal of Biomedical and Health Informatics. 19:687-697, 2015. PMID: 25751845

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