
BIOGRAPHICAL SKETCH

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NAME Yunbo Ke, PhD	POSITION TITLE Research Assistant Professor		
eRA COMMONS USER NAME yunboke			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Huazhong Normal University The Ohio State University	BS PhD	1978-1982 1990-1995	Biology Biochemistry

Positions held

- 09/1983-09/1984 Graduate School, Tulane Medical School, Tulane University, Department of Biochemistry . Research topic: Catabolism of glycoproteins and glycolipids
- 10/1984-10/1986 Teacher of High School, No. 2 High School of Shayang, Hubei, P. R. China
- 10/1986-08/1990 Research Scientist, Agriculture Institute of Shayang, Hubei, P.R. China
- 09/1990-09/1995 PhD, The Ohio State Biochemistry Program, Ohio State University.
Dissertation studies: Regulation of mouse thymidylate synthase gene expression in fibroblasts. Supervisor Lee F. Johnson, professor and Chairman
- 10/1995-06/1998 Postdoctoral Research Associate, University of Chicago, Section of Cardiology . Focus of research: Gene Therapy of Duchenne Muscular Dystrophy , Supervisor: Jeffrey M. Leiden, Professor and Chief
- 07/1998-08/2003 Postdoctoral Research Associate, Department of Physiology and Biophysics, University of Illinois at Chicago, Focus of research: Regulation of myosine II and myofilament proteins in by P21 activated kinase-1 in endothelial cells and in cardiac myocytes. Program Director, R. J. Solaro
- 08/2003-present Research Assistant Professor, Department of Physiology and Biophysics, University of Illinois at Chicago. Focus of Research: Regulation of phosphatase PP2A by P21 activated kinase-1 in myocardium

Publications (since 2002)

1. Solaro RJ, Montgomery DE, Wang Lynn, Burkart EM, Ke Y, Vahebi S, Buttrick P. Integration of pathways that signal cardiac growth with modulation of myofilament activity. (2002) J Nuc Cardiol 9:523-533. PMID: 12003851
 2. Ke, Y. Wang, L. Pyle, W. G. De Tombe, P. P. Solaro, R. J. Intracellular Localization and Functional Effects of P21-Activated Kinase-1 (Pak1) in Cardiac Myocytes, (2004) Circ Res. (2004 Feb 6) 94:194-200. PMID: 14670848
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3. Fernando A.L. Dias, Lori A. Walker, Grace M. Arteaga, John S. Walker, Kalpana, Vijayan, James R. Pena, Yunbo Ke, Rosalvo T.H. Fogaca, Atsushi Sanbe, Jeffrey Robbins, Beata M. Wolska. The effect of myosin regulatory light chain phosphorylation on the frequency-dependent regulation of cardiac function. *Journal of Molecular and Cellular Cardiology* 41 (2006) 330-339. PMID: 16806259
 4. Yunbo Ke, Lei M, Collins TP, Rakovic S, Mattick PA, Yamasaki M, Brodie MS, Terrar DA, Solaro RJ. Regulation of L-type calcium channel and delayed rectifier potassium channel activity by p21-activated kinase-1 in guinea pig sinoatrial node pacemaker cells. *Circ Res.* 2007 May 11;100(9):1317-27. Epub 2007 Apr 5. PMID: 17413045
 5. Ke Y, Lum H, Solaro RJ. Inhibition of endothelial barrier dysfunction by P21-activated kinase-1. *Can J Physiol Pharmacol.* 2007 Mar-Apr;85(3-4):281-8. PMID: 17612635
 6. Sheehan KA, Yunbo Ke, Solaro RJ. P21 Activated Kinase-1 and its Role in Integrated Regulation of Cardiac Contractility. *Am J Physiol Regul Integr Comp Physiol.* 2007 Jul 3; PMID: 17609315
 7. Lei M, Yunbo Ke, Solaro RJ, Pak1: steps towards understanding the regulatory mechanisms of pacemaker function of the heart. *Future Cardiology*, Sept. (2007) 3(5), 473-476. Invited article (Editorial).
 8. Yunbo Ke and Solaro RJ, Use of a decoy peptide to purify p21 activated kinase-1 in cardiac muscle and identification of ceramide related activation, *Biologics: Target and Therapy* (2008), (In press and Online).
 9. Sheehan, K. A., Ke, Y., Wolska, B. M. and Solaro, R. J. (2009) Expression of active p21-activated kinase-1 induces Ca²⁺ flux modification with altered regulatory protein phosphorylation in cardiac myocytes. *Am J Physiol Cell Physiol* **296**, C47-58.
 10. Yunbo Ke, Lei M. and Solaro RJ, Regulation of Cardiac Excitation-contraction Coupling by p21 activated kinase-1. Review in *Progress in biophysics and Molecular Biology*. Invited review (In press and Online)

Abstracts

Yunbo Ke, Lynn Wang, R. John Solaro Intracellular Localization and Functiona Effects of Pak1 in Cardiac Myocytes. 47th Annual Meeting. March 1-5, 2003. San Antonio. Texas. *Biophysical Journal* (supplement) V84

Katherine Sheehan, Yunbo Ke and R. John Solaro. Cardiac P²¹ activated kinase-1 effects on excitation – contraction coupling (E-CC). Post presentation in 48th biophysics meeting (Feb. 15th-18th, 2004). *Biophysical Journal* (supplement)

Yunbo Ke, Katherine Sheehan, and R. John Solaro. Activation of P21 activated kinase-1 in cardiac myocytes. Post presentation in 48th Biophysics Meeting (Feb. 15th-18th, 2004). *Biophysical Journal* (supplement)

Katherine Sheehan, Yunbo Ke, and R. John Solaro. Cardiac P²¹ activated kinase-1 effects on elementary events of Ca²⁺ released Ca²⁺ waves. Post presentation in 49th Biophysics Meeting, Long Beach, CA. *Biophysical Journal* (supplement)

Yunbo Ke, Ming Lei and R. John Solaro Functional Effects of P²¹ activated kinase-1 in Guinea-Pig Sino-Atrial (SA) Node. Post presentation in 49th Biophysics Meeting, Long Beach, CA. *Biophysical Journal* (supplement)

E. Eroume A Egom, Elly Cartwright, Y. Ke, R. J. Solaro, M. Lei Novel sphingosine 1-phosphate signaling through activation of P²¹ Activated Kinase in rat cardiac myocytes. 2008, BHF meeting.

Nicole D. Glaser, Yunbo Ke, Weizhong Zhu, Aizhi Zhao, R, John Solaro, Edward G. Lakatta, Rui-Ping Xiao PKA Constitutes a Novel Activator of Cardiac Protective Pak1 Signaling. Post presentation to AHA Scientific Sessions 2008, New Orleans, LA.

Patent (pending): Activation of p21 activated kinase-1 by C₂ /C₆ ceramides and their analogues as a novel therapeutics alternative to β-blockers for systolic heart failure and ischemic heart diseases (through UIC Office of technology management)

ACADEMIC VISITOR

University Department of Physiology, Oxford University, Oxford, UK. From Feb. 20-March 18, 2005.
Collaborative study

Reviewer

American Journal of Physiology-Cell Physiology, Arch Biochem Biophys

Invited presentation

1. May, 2005. Department of Pharmacology, Rush Medical College. Title: Activation of phosphatase PP2A by p21 activated kinase-1: What does it mean in cardiovascular diseases
 2. Nov, 2005. Department of Medicine, Northwestern University Feinberg School of Medicine. Title: Pak1 function in cardiovascular cells
 3. June, 2006. Cardiovascular research group, NIA. Title. Function of p21 activated kinase-1 in Endothelial and Sino-atrial Nodal Cells.
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