ZHENYU LI

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EDUCATION

INSTITUTE	DEGREE	YEARS	FIELD OF STUDY
Nantong University	M.D. (eqv.)	1984-1989	Medicine
Nantong University	Master	1991-1994	Hematology
Soochow University	PhD	1994-1997	Hematology
University of Illinois at Chicago	Post-doc	1999-2003	Pharmacology

POSITION AND HONORS

Positions and Employment

1989-1991 Medical Residency, Internal Medicine, Zhenjiang the Second Hospital
1997-1999 Instructor in Hematology, Zhenjiang the Second Hospital
1999-2003 Postdoctoral Research Fellow in Pharmacology, University of Illinois at Chicago
2003-2008 Research Assistant Professor in Pharmacology, University of Illinois at Chicago
2008- Assistant Professor, Department of Medicine, University of Kentucky

Other Experience and Professional Memberships

2004 Member, Society of Cell Biology
2007 Member, American Heart Association
2007 Member, American Society of Hematology
2009 Member, International Society of Thrombosis and Hemostasis (ISTH)
2007 Reviewer (selected): Blood; JBC, JTH, Stroke, TH, Platelets, Plos One, etc.
2011- Reviewer, Thrombosis-Basic Science & Clinical/Translational Study Section, American Heart Association

Honors

1996 Upjohn Suzhou Pharmaceutical Co. Upjohn Prize
2000 ASH (The American Society of Hematology) Travel Award
2001 ASH (The American Society of Hematology) Travel Award
2001~2003 AHA Midwest Affiliate Postdoctoral Fellowship Award
2003-2007 Scientist Development Grant, National
2009 Kenneth M. Brinkhous Young Investigator Prize in Thrombosis (Finalist)

SELECTED PEER-REVIEWED PUBLICATIONS

1. Bodnar RJ, Gu M, **Li Z**, Englund GD, Du X. The cytoplasmic domain of the platelet Glycoprotein Ib alpha is phosphorylated at serine 609. **J Biol Chem. 1999, 274: 33474-33479**.

2. Englund GD, Bodnar RJ, **Li Z**, Ruggeri ZM, and Du X. Regulation of von Willebrand Factor Binding to the Platelet Glycoprotein Ib-IX by a Membrane Skeleton-dependent Inside-out Signal. **J. Biol. Chem., 2001 276: 16952-16959.**

3*. **Li Z**, Xi X, and Du X. A Mitogen-activated Protein Kinase-dependent Signaling Pathway in the Activation of Platelet Integrin $\alpha_{IIb}\beta_3$. **J. Biol. Chem. 2001, 276: 42226-42232**.

4. Bodnar RJ, Xi X, **Li Z**, Berndt MC, and Du X. Regulation of Glycoprotein Ib-IX-von Willebrand Factor Interaction by cAMP-dependent Protein Kinase-mediated Phosphorylation at Ser 166 of Glycoprotein Ibβ. **J. Biol. Chem., 2002, 277: 47080-47087.**

5*. **Li Z**, Ajdic J, Eigenthaler M, and Du X. A predominant role for cAMP-dependent protein kinase in the cGMP-induced platelet inhibition and phosphorylation of vasodilator-stimulated phosphoprotein in human platelets. **Blood 2003, 101: 4423-4429**. Highlighted as the subject of an "Inside Blood" commentary.

6*. **Li Z**, Xi X, Gu, M, Feil R, Ye RD, Eigenthaler M, Hofmann F, and Du X. A stimulatory role for cGMP-dependent protein kinase in platelet activation. **Cell 2003, 112: 77-86**.

7*. **Li Z**, Zhang, G, Le Breton G, Gao X, Malik AB, and Du X. Two waves of platelet secretion induced by thromboxane A2 receptor, and a critical role for phosphoinositide 3-kinases. **J. Biol. Chem. 2003, 278: 30725-30731.**

8. Xi X, Bodnar RJ, **Li Z**, Lam S, and Du X. A critical role for the NITY sequence of the integrin β_3 cytoplasmic domain in inside-out signaling and its regulation by calpain. **J. Cell. Biol. 2003, 162: 329-339**.

9*. **Li Z**, Zhang G, Marjanovic JA, Ruan C, and Du X. A platelet secretion pathway mediated by cGMP-dependent protein kinase. **J. Biol. Chem. 2004, 279: 42469-42475**.

10. Du, X, Marjaanovic JA, **Li Z**. On the roles of cGMP and glycoprotein Ib in platelet activation. **Blood 2004, 103: 4371-4372**.

11. Marjanovic JA, **Li Z**, Stojanovic A, and Du X. Stimulatory roles of nitric oxide synthase 3 and guanylyl cyclase in platelet activation. **J. Biol. Chem. 2005, 280: 37430-37438**.

12*. **Li Z**, Zhang G, Feil R, Han J, and Du X. Sequential activation of p38 and ERK pathways by cGMP-dependent protein kinase keading to activation of the platelet integrin $\alpha_{IIb}\beta_3$. **Blood 2006, 107: 965-972.** Highlighted as the subject of an "Inside Blood" commentary.

13. Yin H, Liu J, **Li Z**, Berndt MC, Lowell CA, Du X. Src family tyrosine kinase Lyn mediates VWF/GPIb-IX-induced platelet activation via the cGMP signaling pathway. **Blood 2008, 112(4):**

1139-1146.

14. Welch EJ, Naikawadi RP, **Li Z**, Lin P, Ishii S, Shimizu T, Tiruppathi C, Du X, Subbaiah PV, Ye RD. Opposing Effects of Platelet-activating Factor and Lyso-Platelet-activating Factor on Neutrophil and Platelet Activation. **Mol Pharmacol. 2009, 75 (1): 227-234.**

15*. Flevaris P, **Li Z**, Zhang G, Liu J, Zheng Y, and Xiaoping Du. Two distinct roles of mitogen-activated protein kinases in platelets and a novel Rac1-MAPK-dependent integrin outside-in retractile signaling pathway. **Blood 2009, 113: 891-901**. **(Co-first author)**

16*. Zhang G, Han J, Welch E, Ye R, Voyno-Yasenetskaya T, Malik AB, Du X, and **Li Z**. LPS stimulates platelet secretion and promotes platelet aggregation via TLR4/MyD88 and the cGMP-dependent protein kinase pathway. **J. Immunol. 2009, 182:7997-8004. (**NIHMSID: NIHMS157576). Highlighted as the subject of an "Inside This Issue" commentary.

17*****. **Li Z**, Zhang G, Liu G, Stojanovic A, Ruan C, Lowell C, and Du X. An important role of Src family kinases in platelet secretion. **J. Biol. Chem. 2010, 285:12559-70. (Corresponding author).**

18*. Xiang B, Zhang Z, Liu J, Morris AJ, Smyth SS, Gartner TK, **Li Z**. A G_i-independent mechanism mediating thrombin receptor induced Akt phosphorylation in platelets. **J. Thromb. Haemost. 2010, 8: 2032-2041.**

19. Feng H, Guo L, Song Z, Gao H, Wang D, Fu W, Han J, **Li Z**, Huang B, Li XA. Caveolin-1 protects against sepsis by modulating inflammatory response, alleviating bacterial burden, and suppressing thymocyte apoptosis. **J. Biol. Chem. 2010, 285:25154-60. (**PMID: 20534584)

20*. **Li Z**, M. Keegan Delaney, Kelly A. O'Brien and Xiaoping Du. Signaling during platelet adhesion and activation. (Review article) **Arterioscler. Thromb. Vasc. Biol. 2010; 30(12):2341-2349. (**PMID: 21071698)

21*. **Li Z**, Yang F, Dunn S, Gross AK, and Smyth SS. Platelets as immune mediators: their role in the host defense responses and sepsis. (Review article) **Thromb. Res. 2011, 127(3):184-8. (**PMID: 21075430)

ORAL PRESENTATIONS

1. **Li Z**, Xi X, Gu G, Ye R, and Du X. The glycoprotein Ib-IX-induced activation of the platelet integrin $a_{iib}b_3$ is mediated via the cGMP-dependent protein kinase pathway. **XVIIIth International Society of Thrombosis and Hemostasis. July, 2001. Paris.**

2. **Li Z**, Xi X, Gu, M, Feil R, Ye RD, Eigenthaler M, Hofmann F, and Du X. A stimulatory role for cGMP-dependent protein kinase in platelet activation. Activation of the platelet integrin via cGMP-dependent protein kinase pathway. **American Heart Association Annual Meeting. November, 2001, Anaheim, CA**

3. **Li Z**, Ajdic J, Eigenthaler M, and Du X. A predominant role for cAMP-dependent protein kinase in the cGMP-induced platelet inhibition and phosphorylation of vasodilator-stimulated phosphoprotein in human platelet1s. cAMP-dependent protein kinase plays a predominant role in the cGMP-stimulated phosphorylation of vasodilator-stimulated phosphorylation. **American Heart Association Annual Meeting. November, 2002. Chicago, IL**

4. **Li, Z,** Zhang, G, Le Breton G, Gao X, Malik AB, and Du X. Two waves of platelet secretion induced by thromboxane A_2 receptor, and a critical role for phosphoinositide 3-kinases. **4th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology. May, 2003 Washington DC**

5. **Li Z**, Zhang G, Yin H, Feil R, Hofmann F, and Du X. Impaired Platelet Aggregation and Secretion in cGMP-Dependent Protein Kinase II Deficient Mice. **American Society of Hematology Annual Meeting. December, 2005, Atlanta**

6. Zhang G, Feil R, Hofmann F, Du X, and **Li Z.** LPS promotes platelet activation via the cGMP-dependent protein kinase II pathway. **Invited Speaker at 11th Midwest Platelet Conference. October, 2006. Chicago**.

7. Zhang G, Welch E, Hofmann F, Du X, and **Li Z**. LPS promotes platelet activation via the TLR4 and cGMP-dependent protein kinase pathway. **Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference. April, 2007, Chicago**

8. Zhang G, Han J, Welch E, Ye RD, Voyno-Yasenetskaya TA, Malik AB, Du X, and **Li Z** LPS Stimulates Platelet Secretion and Potentiates Platelet Aggregation via TLR4/MyD88 and the cGMP-Dependent Protein Kinase Pathway. **Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference. April, 2009, Washington DC**

9. Zhang G, Xiang B, Skoda RC, Daugherty A, Smyth SS, Du X, and **Li Z**. A stimulatory role of soluble guanylyl cyclase in platelet activation. **13th Midwest Platelet Conference. October, 2010. Chaptel Hill**.

10. Zhang G, Xiang B, Skoda RC, Daugherty A, Smyth SS, Du X, and **Li Z**. Biphasic roles for soluble guanylyl cyclase in platelet activation in mice. **American Society of Hematology Annual Meeting. December, 2010, Orlando.**

C. Research Support

Ongoing Research Support

1. NIH P20RR021954-01 Lisa Cassis (PI) 07/1/2008-06/30/2013
COBRE "Center of Biomedical Research Excellence (COBRE) in Obesity and Cardiovascular Disease"
Project 4 "Platelet activation with obesity promotes atherothrombotic vascular events"
The *goal of this project* is to define the role of platelets in the inflammatory response in mice with diet-induced obesity.
Role: Co-Investigator

Completed Research Support

1. Grant-in-Aid AHA 0855698G Li (PI) 07/01/2008-06/30/2010
Title: The role of platelets in sepsis
The objective of this proposal is to delineate the molecular mechanisms of LPS-induced platelet activation and to investigate the role of platelets in sepsis.
Role: PI

2. Scientist Development Grant AHA 0430095N Li (PI) 01/01/04-12/31/07
AHA
Title: The Roles of cGMP/PKG Pathway in Thromboxane A2-Induced Platelet Activation.
The goal of this project is to investigate the biphasic roles of cGMP/PKG pathway in thromboxane A2-induced platelet secretion and aggregation.
Role: PI.