

**In-San Kim, M.D., Ph.D.**

Position : Principal research scientist/ Professor  
 Department : Biomedical Research Institute/KU-KIST school  
 Affiliation : Korea Institute Science & Technology/Korea University  
 Office : Hwarangro 14gil-5, Seongbuk-gu, Seoul, Korea  
 E-mail : iskim14@kist.re.kr  
 Homepage : <http://kist-ims.com/>

**Education**

1986-1989 **D. Med. Sci (Ph.D)** Kyungpook National University, Korea  
 1984-1986 **M. Med. Sci (MS)** Kyungpook National University, Korea  
 1978-1984 **B. Med (MD) in School of Medicine** Kyungpook National University, Korea  
 1997-1997 **Visiting assistant professor**, Department of Molecular Genetics  
 University of Texas M. D. Anderson Cancer Center  
 1994-1996 **Research Associate**, Department of Molecular Genetics,  
 University of Texas M. D. Anderson Cancer Center  
 1993-1993 **Research fellowship**, Department of Dermatology, Jefferson Medical College

**Professional Experience**

2015-present Professor, KU-KIST school, Korea University  
 2014-Present Principal research scientist, Korea Institute Science & Technology  
 1989-2014 **Professor**, Department of Biochemistry & Cell Biology, School of Medicine,  
 Kyungpook National University  
 2012-Present **Health Technology Policy Committee**, Ministry of Health & Welfare  
 2011-Present **Advisory board**, Korea National Institute of Health  
 2011-Present **Bio-Health division**, National Science & Technology Commission  
 2010-2011 **Director**, KNU Industry-Academic Cooperation Foundation & Research Affair

**Featured Publications for 5 years**

Yoosoo Yang, Yeonsun Hong, Gi-Hoon Nam, Jin Hwa Chung, Eunee Koh, and In-San Kim, Virus-mimetic fusogenic exosomes for direct delivery of integral membrane proteins to target cell membranes. **Advanced Materials**, in press  
 Eunee Koh, Eun Jung Lee, Gi-Hoon Nam, Yeonsun Hong, Eunji Cho, Yoosoo Yang, and In-San Kim, Exosome-SIRP $\alpha$ , a CD47 blockade increases cancer cell phagocytosis. **Biomaterials**, in press  
 Lee EJ, Lee NK, Kim IS. Bioengineered protein-based nanocage for drug delivery. *Adv Drug Deliv Rev.* 2016 Mar 16. [Epub ahead of print]  
 Seung-Yoon Park, Youngeun Yun, Jung-Suk Lim, Mi-Jin Kim, Sang-Yeop Kim, Jung-Eun Kim, & In-San Kim, The phosphatidylserine (PS) receptor stabilin-2 modulates the efficiency of myoblast fusion during myogenic differentiation and muscle regeneration. *Nat Comm.* 2016 Mar 14;7:10871.  
 Taslim A. Al-Hilal, SeungWooChung, Jeong-ukChoi, FarzanaAlam, JoohoPark, SeongWhoKim, FakhruAhsan, Sang Yoon Kim, In-San Kim\*, Youngro Byun\*. Prion-like protein "Doppel" is a selective therapeutic target for tumoral angiogenesis. *J. Clin. Invest.* 2016 Apr 1;126(4):1251-66. \*co-corresponding.  
 Wonhwa Lee, Junyoung Seo, Soyoung Kwak, Eun Ji Park, Dong Hee Na, Soyoun Kim, You Mie Lee, In-San Kim\*, and Jong-Sup Bae\* A double-chambered protein nanocage loaded with thrombin receptor agonist peptide (TRAP) and  $\gamma$ -carboxyglutamic acid of protein C (PC-Gla) for sepsis treatment. *Advanced Materials* 2015, 27 (42), 6637-6643. \*co-corresponding  
 Lee GY, Kim JH, Choi KY, Yoon HY, Kim K, Kwon IC, Choi K, Lee BH, Park JH, Kim IS. Hyaluronic Acid Nanoparticles for Active Targeting Atherosclerosis. *Biomaterials.* 2015 Jun;53:341-8.  
 Jong-Sup Bae, Wonhwa Lee, Ju-Ock Nam, Jung-Eun Kim, Shin-Woo Kim and In-San Kim, Transforming growth factor  $\beta$ -induced protein promotes severe vascular inflammatory responses, *American Journal of*

- Respiratory and Critical Care Medicine, 2014 Apr 1;189(7):779-86
- Cho YW, Kim SY, Kwon IC, Kim IS. Complex adaptive therapeutic strategy (CATS) for cancer. *J Control Release*. 2014 Feb 10;175:43-7.
- Jeon JO, Kim S, Choi E, Shin K, Cha K, So IS, Kim SJ, Jun E, Kim D, Ahn HJ, Lee BH, Lee SH, Kim IS. A Designed Nanocage Displaying Ligand-Specific Peptide Bunches for High Affinity and Biological Activity. *ACS Nano*. 2013 Sep 24;7(9):7462-71.
- Son HN, Nam JO, Kim S, Kim IS. Multiple FAS1 domains and the RGD motif of TGFBI act cooperatively to bind  $\alpha\beta 3$  integrin, leading to anti-angiogenic and anti-tumor effects. *Biochim Biophys Act-Molecular Cell Research*. 2013 Oct;1833(10):2378-88.
- Kim W, Kim SY, Kim T, Kim M, Bae DJ, Choi HI, Kim IS, Jho E. ADP-ribosylation factors 1 and 6 regulate Wnt/ $\beta$ -catenin signaling via control of LRP6 phosphorylation. *Oncogene*. 2013 Jul 11;32(28):3390-6.\*co-corresponding
- Nam JO, Son HN, Jun E, Cha K, Lee BH, Park RW, Kim IS. FAS1-domain protein inhibits VEGF165-induced angiogenesis by targeting the interaction between VEGFR-2 and  $\alpha\beta 3$  integrin. *Mol Cancer Res*. 2012 Aug;10(8):1010-20.
- Kim S, Park SY, Kim SY, Bae DJ, Pyo JH, Hong M, Kim IS. Cross-talk between engulfment receptors, stabilin-2 and integrin  $\alpha\beta 5$  orchestrates engulfment of phosphatidylserine exposed erythrocytes, *Mol Cell Biol*. 2012 Jul;32(14):2698-708.
- Park SY, Bae DJ, Kim MJ, Piao ML, Kim IS. Extracellular low pH modulates phosphatidylserine-dependent phagocytosis in macrophages by increasing stabilin-1 expression. *J Biol Chem*. 2012 Mar 30;287(14):11261-71.
- Kim JH, Bae SM, Na MH, Shin H, Yang YJ, Min KH, Choi KY, Kim K, Park RW, Kwon IC, Lee BH, Hoffman AS, Kim IS. Facilitated intracellular delivery of peptide-guided nanoparticles in tumor tissues. *J Control Release*. 2012 Feb 10;157(3):493-9.
- Lee GY, Kim JH, Oh GT, Lee BH, Kwon IC, Kim IS. Molecular targeting of atherosclerotic plaques by a stabilin-2-specific peptide ligand. *J Control Release*. 2011 Oct 30;155(2):211-7.
- Wang K, Na MH, Hoffman AS, Shim G, Han SE, Oh YK, Kwon IC, Kim IS, Lee BH. In situ dose amplification by apoptosis-targeted drug delivery. *J Control Release*. 2011 Sep 25;154(3):214-7. \*co-corresponding
- Lee SJ, Park SY, Jung MY, Bae SM, Kim IS. Mechanism for phosphatidylserine-dependent erythrophagocytosis in mouse liver. *Blood*. 2011 May 12;117(19):5215-23.
- Wang K, Pruthodam S, Lee JY, Na MH, Park H, Oh SJ, Park RW, Park JY, Lee EB, Cho BC, Song MN, Baek MC, Kwak W, Yoo J, Hoffman AS, Oh YK, Kim IS, Lee BH. In vivo imaging of tumor apoptosis using histone H1-targeting peptide. *J Control Release*. 2010 Dec 20;148(3):283-91. \*co-corresponding
- Kim S, Bae DJ, Hong M, Park SY, Kim IS. The conserved histidine in Epidermal Growth Factor-like domains of Stabilin-2 modulates pH dependent recognition of phosphatidylserine in apoptotic cells. *Int J Biochem Cell Biol*. 2010 Jul;42(7):1154-63.
- Park SY, Jung MY, Lee SJ, Kang KB, Gratchev A, Riabov V, Kzhyshkowska J, Kim IS. Stabilin-1 mediates phosphatidylserine-dependent clearance of cell corpses in alternatively activated macrophages. *J Cell Sci*. 2009 Sep 15;122(Pt 18):3365-73.
- Ha-Jeong Kim, Pan-Kyung Kim, Sang Mun Bae, Hye-Nam Son, Thoudam Debraj Singh, Jung-Eun Kim, Byung-Heon Lee, Rang-Woon Park, In-San Kim, Transforming growth factor-beta-induced protein (TGFB1p/beta ig-h3) activates platelets and promotes thrombogenesis. *Blood*. 2009 Dec 10;114(25):5206-15.