



## Laboratory of Developmental Genetics



**Prof. Suk-Won Jin**

**E-mail.** sukwonjin@gist.ac.kr

**Tel.** +82-62-715-3561

**Web** <https://life.gist.ac.kr/dv/>

### Education

1995~2000 : Ph.D. in Developmental Biology,  
University of Michigan, Ann Arbor, MI

1993~1995 : M.S. in Biology,  
Yonsei University, Seoul, Korea

1989~1993 : B.S. in Biology,  
Yonsei University, Seoul, Korea

1990~1992: Program in Biological Sciences,  
University of California, Los Angeles, CA

### Experience

2014~present : Associate Professor,  
School of Life Sciences, GIST, Gwangju, Korea

2010~present: Assistant and Associate Professor,  
Yale Cardiovascular Research Center, Yale University,  
New Haven, CT

2006~2010: Assistant Professor,  
McAlister Heart Institute, University of North Carolina,  
Chapel Hill, NC

2001~2005: Postdoctoral Fellow,  
Dept. of Biochemistry and Biophysics, University of  
California, San Francisco, CA



## Research Topics

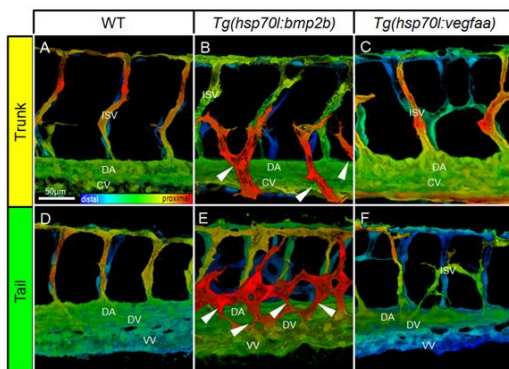
The main scientific interest of the laboratory is to understand molecular and cellular mechanisms that modulate specification and maintenance of the vasculature. In particular, we are interested in the following areas of research.

**I. Bone Morphogenetic Protein (BMP) signaling in vascular development and homeostasis**

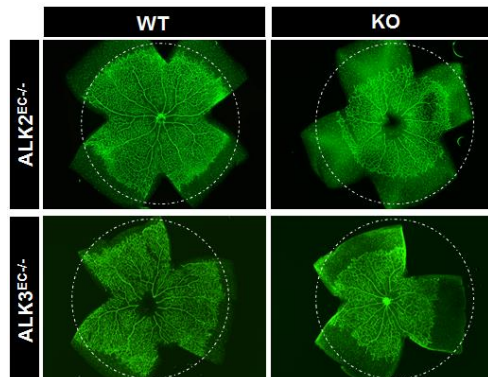
**II. Genome editing based analyses on novel modulators for cardiovascular development**

**III. Signaling integration during vascular development and homeostasis**

**IV. Specification and differentiation of vascular lineages**



Wiley et al, 2011



Lee et al, in press

## Selected publications

- [Mouillesseaux, K.P.<sup>†</sup>, Wiley, D.S.<sup>†</sup>, Saunders, L.M., Kushner, E.J., Wylie, L.A., Chong, D.C., Citrin, K.X., Barber, A.T., Park, Y., Kim, J.D., Samsa, L.A., Kim, J., Liu, J., \*\*Jin, S.W.\\*\*\*, and Bautch, V.L.\\* \(2016\) Notch Regulates BMP Responsiveness and Lateral Branching in Vessel Networks via SMAD6, \*Nat. Comm.\*, 11:13247 \(†: Co-first author; \\*: Co-corresponding authors\)](#)
- [Dunworth, W.P., Cardona-Costa, J., Cagavi, E., Kim, J.D., Fischer, J.C., Meadows, S., Wang, Y., Cleaver, O., Qyang, Y., Ober, E.A., and \*\*Jin, S.W.\*\* \(2014\) Bone Morphogenetic Protein 2 Signaling Negatively Modulates Lymphatic Development in Vertebrate Embryos, \*Circ. Res.\* 114: 56-66.](#)
- [Kim, J.-D., Kang, H., Larrivée, B., Lee, M.Y., Mettlen, M., Schmid, S.L., Qyang, Y., Eichmann, A. and \*\*Jin, S.W.\*\* \(2012\) Context Dependent Pro-Angiogenic Function of Bone Morphogenetic Protein Signaling is Mediated by Disabled Homolog 2, \*Dev. Cell\*, 23:441-44.](#)
- [Wiley, D.M., Kim, J.D., Hao, J, Hong, C.C., Bautch, V.L.\\*, and \*\*Jin, S.W.\\*\*\* \(2011\) Distinct Signaling Pathways Regulate Sprouting Angiogenesis from the Dorsal Aorta and Axial Vein, \*Nat. Cell. Biol.\* 13:686-92. \(\\*: Co-corresponding authors\)](#)
- [Lee, C.Y\\*, Vogeli, K.M.\\*, Kim, S.H., Chong, S.W., Jiang, Y.J., Stainier, D.Y., and \*\*Jin, S.W.\*\* \(2009\) Notch signaling functions as a cell-fate switch between the endothelial and hematopoietic lineages. \*Curr Biol.\* 19:1616-22. \(\\*: Co-first author\)](#)

### PUBMED AUTHOR INFORMATION

<https://www.ncbi.nlm.nih.gov/pubmed/?term=Suk-Won+Jin>