

PARK Seok Hee

**Professor/ Chairman
Department of Biological Sciences**



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Key Words TGF-beta signaling pathway, Inflammation, Cancer Biology, Protein modification

Research Area TGF-beta is a pivotal cytokine which is involved in a variety of cellular functions. Our group has been focused on the signaling pathways mediated by TGF-beta superfamily cytokines regarding cancer progression and anti-inflammation during the past decade. Our current research focuses on the identification of novel mechanism of TGF-beta or BMP-mediated tumorigenesis and metastasis. In addition, we are also doing the studies about how specific signaling pathways in the inflammation and cancer biology are regulated by ubiquitination and deubiquitinating mechanism. Through these diverse approaches, the final goal in our group is to understand the molecular mechanisms regarding cancer and inflammation and subsequently to identify therapeutic target proteins to treat cancer and inflammation.

Education

- 1998 PhD Seoul National University, Korea
- 1991 MSc Seoul National University, Korea
- 1989 BSc Seoul National University, Korea

Experience

- 2007 Mar - Present Professor, Department of Biological Sciences, Sungkyunkwan University
- 2003 Mar - 2007 Feb Assistant Professor, Inha University College of Medicine
- 2001 May - 2003 Feb Senior Principle Investigator, National Cancer Center, Research Institute
- 1998 Aug - 2001 April National Cancer Institute, National Institute of Health, USA

Position

- 2015 Sep - Present Chairman, Department of Biological Sciences

Selected Publication

- "Inhibition of lethal inflammatory responses through targeting of membrane-associated Toll-like receptor 4 signaling complexes with a Smad6-derived peptide" *EMBO Mol. Med.* 2015, 7, 577-92
- "Smad6 inhibits non-canonical TGF- β 1 signalling by recruiting the deubiquitinase A20 to TRAF6" *Nat. Commun.* 2013, 4, 1-16
- "Activin receptor-like kinase5 inhibition suppresses mouse melanoma by ubiquitin degradation of Smad4, thereby derepressing eomesodermin in cytotoxic T lymphocyte" *EMBO Mol. Med.* 2013, 5, 1720-39
- "Smad6-specific recruitment of Smurf E3 ligases mediates TGF- β 1-induced degradation of MyD88 in TLR4 signaling" *Nat. Commun.* 2011, 2, 1-15
- "Smad7 binds to the adaptors TAB2 and TAB3 to block recruitment of the kinase TAK1 to the adaptor TRAF2" *Nat. Immunol.* 2007, 8, 504-513
- "Smad6 negatively regulates interleukin-1 receptor-Toll-like Receptor signaling through direct interaction with the adaptor Pellino-1" *Nat. Immunol.* 2006, 7, 1057-65

Others

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