Immune Synapse and Cell Therapy Laboratory

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Education

1996 : Ph.D. in Immunology, Kyungpook National Univ.
1992 : M.S. in Biology, Kyungpook National Univ.
1990 : B.S. in Kyungpook National Univ.

Experience

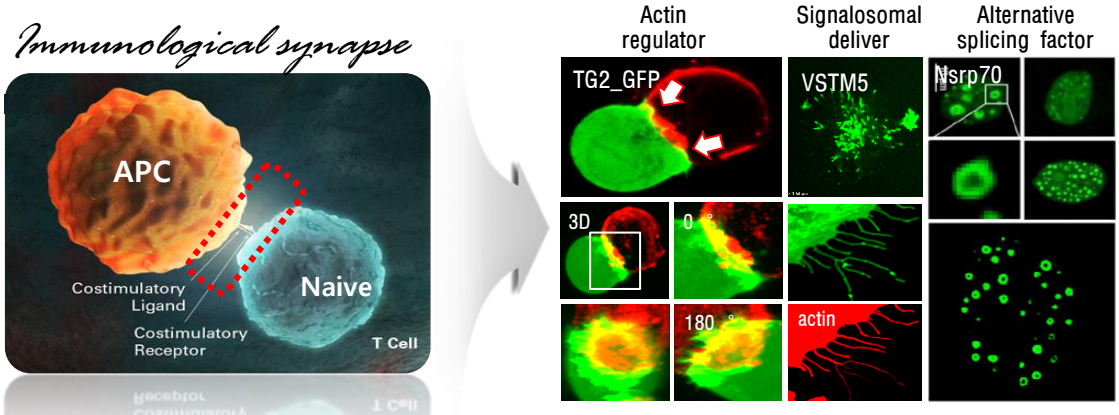
2015~present : Director. Bio Imaging Research Center ,GIST
2010~present : Director. Immune Synapse Research Center , GIST
2006~present : Professor, School of Life Sciences, GIST

Fact sheet

2005~2006 : Associate Professor, Dept. of Physiology, School of Medicine, Kyungpook National Univ.
1998~2001 : Visiting Professor, Harvard Medical School, The Center for Blood Research, USA
1996~2005 : Full-time Instructor-Associate Professor, Dept. of Microbiology, School of Medicine, Wonkwang Univ.

Research Topics

The immune synapse (IS) plays an important role in the initiation and maintenance of immune responses against a wide range of pathogens and deranged host cells. If the IS is not properly controlled, the host is susceptible to infection or tumor escape at one extreme and autoimmunity at the other. The IS is a highly sophisticated device for communication between immune cells, exchanging molecular information through the contact area. During IS formation, however, activated T cells also exchange materials to distant cells through different structures, such as exosomes and microvesicles. First, we are working with a new structure for the exchange of signaling materials—namely the microvilli-originated extracellular vesicles (MoEV)—through the IS and/or to distant cells as an advanced mode of cell-to-cell communication. Second, researches of IS are now entering a new era from basics to bedside. I propose novel strategies for targeting recently identified elements in IS to improve the efficacy of T/NK–cell immunotherapy as a cancer treatment.



Selected publications

- Nuclear Speckle-related Protein 70 Binds to Serine/Arginine-rich Splicing Factors 1 and 2 via an Arginine/Serine-like Region and Counteracts Their Alternative Splicing Activity. Kim CH, Kim YD, Choi EK, Kim HR, Na BR, Im SH, **Jun CD**. *J Biol Chem.* 2016 Mar 18;291(12):6169-81.

- TAGLN2 regulates T cell activation by stabilizing the actin cytoskeleton at the immunological synapse. Na BR, Kim HR, Piragyte I, Oh HM, Kwon MS, Akber U, Lee HS, Park DS, Song WK, Park ZY, Im SH, Rho MC, Hyun YM, Kim M, **Jun CD**. *J Cell Biol*. 2015 Apr 13;209(1):143-62.

- IGSF4 is a novel TCR ζ-chain-interacting protein that enhances TCR-mediated signaling. Kim HR, Jeon BH, Lee HS, Im SH, Araki M, Araki K, Yamamura K, Choi SC, Park DS, **Jun CD**. *J Exp Med*. 2011 Nov 21;208(12):2545-60.

- NSrp70 is a novel nuclear speckle-related protein that modulates alternative pre-mRNA splicing in vivo. Kim YD, Lee JY, Oh KM, Araki M, Araki K, Yamamura K, **Jun CD**. *Nucleic Acids Res*. 2011 May;39(10):4300-14.

- Recycling and LFA-1-dependent trafficking of ICAM-1 to the immunological synapse. Jo JH, Kwon MS, Choi HO, Oh HM, Kim HJ, **Jun CD**. *J Cell Biochem*. 2010 Dec 1;111(5):1125-37.

PUBMED AUTHOR INFORMATION

https://www.ncbi.nlm.nih.gov/pubmed/?term=Chang-Duk+Jun