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Key Words Dendritic cells, Immune regulation, Host response to stress, Viral vector-based CTL vaccine

Research Area

I am interested in following three research fields:

1) As a first project, we have been focusing on the molecular differentiation of DC subsets from bone marrow progenitor cells and their immunogenicity and immune regulation.
2) Second project is the study on the role and functions of p53 and PKR under stress conditions, such as HIV-1 infection, genotoxic stresses, inflammatory stresses etc.
3) Third project is a development of mucosalCTL vaccines using poliovirus vector system.

Education

• 1991	PhD	University of Calgary Faculty of Medicine, Canada
• 1983	MSc	Seoul National University, Korea
• 1981	BSc	Seoul National University, Korea

Experience

• 2004 Mar – present	Professor, Sungkyunkwan University, Korea
• 1993 Sep – 2003 Feb	Professor, Hannam University, Daejeon, Korea
• 1991 Sep – 1993 Sep	Post-Dr, Department of Pathology, Harvard Medical School, USA
• 1990 Dec – 1991 Aug	Post-Dr, Julia McFalane Diabetes Research Center, Canada
• 1984 May – 1986 Aug	Researcher, Korea Tuberculosis Research Institute, Seoul, Korea

Publication (selected)

- A phase I/IIa study of adjuvant immunotherapy with tumour antigen-pulsed dendritic cells in patients with hepatocellular carcinoma. ***British J. Cancer*** **113(1):** 1666-1676 (2015)
- Development of oral CTL vaccine using a CTL-integrated Sabin 1 poliovirus-based vector system., ***Vaccine*** **33(38): 4827-2836 (2015)**
- 4-1BB Signaling Enhances Primary and Secondary Population Expansion of CD8(+) T Cells by Maximizing Autocrine IL-2/IL-2 Receptor Signaling, ***PLoS One*** DOI:10.1371/0126765 (2015)
- DC-Based Immunotherapy Combined with Low-Dose Methotrexate Effective in theTreatment of Advanced CIA in Mice. ***J Immunology Research*** http://dx.doi.org/10.1155/2015/834085 (2015)
- p53-Derived Host Restriction of HIV-1 Replication by Protein Kinase R-Mediated Tat Phosphorylation and Inactivation. ***J Virology*** 89(8): 4262-4280, (2015).
- Azasugar-Containing Phosphorothioate Oligonucleotide (AZPSON) DBV-2198 Inhibits Human Immunodeficiency Virus Type 1 (HIV-1) Replication by Blocking HIV-1 gp120 without Affecting the V3 Region***Mol. Cell.*** 38(2): 122-129, (2015)
- Dab2, a negative regulator of DC immunogenicity, is an attractive molecular target for DC-based immunotherapy. ***OncoImmunol.*** 4(1): e984550-1-15, (2015).
- Celastrol ameliorates HIV-1 Tat-induced inflammatory responses via NF-kB and AP-1 inhibition and heme oxygenase-1 induction in astrocytes, ***Toxicol Appl Pharmacol.*** 280(1):42-52. (2014)
- Dendritic cell-based therapeutic cancer vaccines: past, present and future.***Clin Exp Vaccine Res*** 3(2):113-116 (2014).
- Egr2 induced during DC development acts as an intrinsic negative regulato of DC immunogenicity. ***Eur. J. Immunol.*** 43(9): 2484–2496 (2013).
- Regulation of DC development and DC-mediated T-cell immunity via CISH ***Oncoimmunol.*** 2(3): 2:3, e23404 (2013)
- 12th International Dendritic Cell Symposium, Oct 7-11, 2012; Daegu, Korea. ***Oncoimmunol.***2(2): e23245 (2013).
- Adenovirus Expressing Both Thymidine Kinase and Soluble PD1 Enhances Antitumor Immunity by Strengthening CD8 T-cell Response. ***Mol Ther.*** 21(3) 688-695. (2013).
- Photodynamic therapy-mediated DC immunotherapy is highly effective for the inhibiton of established solid tumors. ***Cancer Letters*** 324(1):58-65 (2012)
- CISH is induced during DC development and regulates DC-mediated CTL activation, ***Eur.J. Immunol. 42(1)*:58-68 (2012)**
- New Cdc2 Tyr-4 Phosphorylation by dsRNA-activated protein kinase triggers Cdc2 polyubiquitination and G2 arrest under genotoxic stresses. ***EMBO Rep.*** **11(5):**393-399 (2010)**.**
- PKR, a novel p53 target gene, plays a crucial role in the tumor-suppressor function of p53***Proc Natl Acad Sci. USA.*** **106(19):** 7852-7857 (2009).