
- Field Cancer biology
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## Educational background

- 2005 The Department of Biochemistry, Yonsei University (Doctor of Science)
- 1997 The Department of Biochemistry, Yonsei University (Master of Science)
- 1995 The Department of Biochemistry, Yonsei University (Bachelor of Science)

## Major careers

- 2014 - present Assistant professor of the Department of Biomedical Science, Hallym University
- 2013 - 2014 The Severance Biomedical Science Institute, the College of Medicine, Yonsei University (Research Professor)

2011 - 2013 Department of Pathology, Microbiology &Immunology, Vanderbilt University (Research Instructor)
2006 - 2011 Department of Pathology, Microbiology &Immunology, Vanderbilt University (Research Fellow)

- 2005 - 2006 The Institute for Medical Sciences, Hallym University (Research Lecturer)

## Studies & Books


mTOR kinase leads to PTEN-loss-induced cellular senescence by phosphorylating p53 (2018) Oncogene. Epub ahead of print

Expression of Lrig1, a negative regulator of EGFR, is dynamically altered during different stages of gastric carcinogenesis (2018) Am J Pathol. Epub ahead of print

Gomisin G suppresses the growth of colon cancer cells by attenuation of Akt phosphorylation and arrest of cell cycle progression (2018) Biomol Ther. Epub ahead of print

PEP-1-PEA15 suppresses inflammatory responses by regulation of MAPK in macrophages and animal models (2018) Immunobiology. Epub ahead of print.

PEP-1-glutaredoxin 1 protects against hippocampal neuronal cell damage from oxidative stress via regulation of MAPK and apoptosis signaling pathway (2018) Mol Med Rep. 18:2216-2228

Gomisin G inhibits the growth of triple-negative breast cancer cells by suppressing AKT phosphorylation and decreasing cyclin D1 (2018) Biomol Ther. 36:322-327

B cell-intrinsic mTORC1 promotes germinal center-defining transcription factor gene expression, somatic hypermutation, and memory B cell generation in humoral immunity. (2018) J Immunol. 200:2627-2639.

CD11b regulates antibody class switching via inducing AID (2017) Mol Immunol. 87:47-59

Tat-HSP22 inhibits oxidative stress-induced hippocampal neuronal cell death by regulation of the mitochondrial pathway (2017) Mol Brain. 10:1

Tat-PRAS40 prevent hippocampal HT-22 cell death and oxidative stress induced animal brain ischemic insults (2016) Free Radic Biol Med. 97:2501262

Overexpression of HDAC6 induces pro-inflammatory responses by regulating ROS-MAPK-NF-kB/AP-1 signaling pathways in macrophages (2016) Free Radic Biol Med. 97:14-23

Aronia melanocarpa Concentrate Ameliorates Pro-Inflammatory Responses in HaCaT Keratinocytes and 12-O-Tetradecanoylphorbol-13-Acetate-Induced Ear Edema in Mice (2016) J Med Food. 19:654-662

Tat-ATOX1 inhibits streptozotocin-induced cell death in pancreatic RINm5F cells and attenuates diabetes in a mouse model (2016) Int J Mol Med. 38:217-224

Extracellular release of CD11b by TLR9 stimulation in macrophages (2016) PLoS One. 11:e0150677

Rapamycin-resistant and torin-sensitive mTOR signaling promotes survival and proliferation of leukemic cells (2016) BMB Rep. 49:63-68

Monoclonal antibodies against the human respiratory syncytial virus obtained by immunization with epitope peptieds and CpG-DNA-liposome complex (2015) Monoclon Antib Immunodiagn Immunother. 34:101-109

Tat-antioxidant 1 protects against stress-induced hippocampal HT-22 cells death and attenuate ischaemic insult in animal model (2015) J. Cell. Mol. Med. 19:1333-1345

Effect of respiratory syncytial virus on hepatocellular carcinoma cell lines (2015) BMB Rep. 48:565-570

Regulation of endothelial cell proliferation and vascular assembly through distinct mTORC2 signaling pathways (2015) Mol. Cell. Biol. 35:1299-1313

microRNA-mediated regulation of mTOR complex components facilitates discrimination between activation and anergy in CD4 T cells (2014) J. Exp. Med. 211:2281-2295.

Immune response and the tumor microenvironment: how they communicate to regulate gastric cancer (2014) Gut Liver. 8: 1-9

Crosstalk between Akt and p38α pathways in macrophages downstream of Toll-like receptor signaling (2013) Mol. Cell. Biol. 33: 4152-4156

Requirement for Rictor in homeostasis and function of mature B lymphoid cells (2013) Blood. 122: 2369-2379

Cdc42 promotes host defenses against fatal infection (2013) Infect. Immun. 81:2714-2723

STAT4 and T-bet are required for the plasticity of IFN-γ expression across Th2 ontogeny and influence changes in Ifng promoter DNA methylation (2013) J. Immunol. 191:678-687

Murine dendritic cell rapamycin-resistant and rictor-independent mTOR controls IL-10, B7-H1 and regulatory T cell induction (2013) Blood. 121:3619-3630

Effects of cancer-associated Epha3 mutations on lung cancer (2012) J. Natl. Caner Inst. 104:1083-1098

Vital roles of mTOR complex 2 in Notch-driven thymocyte differentiation and leukemia (2012) J. Exp. Med. 209:713-728

A "Tsc, Tsc" keeps the kids quie(scen)t and holds off ROS (2011) Nat. Immunol. 12:811-812

Control of macrophage responses on hydrophobic and hydrophilic carbon nanostructures (2011) Carbon. 49:2092-2103

Mammalian target of rapamycin protein complex 2 regulates differentiation of Th1 and Th2 cell subsets via distinct signaling pathways (2010) Immunity. 32: 743-753

## Others

■ 주요연구주제
- PI3K/mTOR signaling networks and immunity
- Immunoediting factors and tumor microenvironment
- Immunophenotyping and pathogen infection service of genetically engineered mice

■ 학회활동
- 생화학분자생물학회 운영위원회
- 한국실험동물학회 학술위원회
- American Association of Immunology 회원