

CURRICULUM VITAE

NAME Min Kyung Jung, Ph.D.

PRESENT POSITION Research Fellow
Center for Viral Immunology,
Korea Virus Research Institute
Institute for Basic Science (IBS)

CONTACT INFORMATION 55, Expo-ro, Yuseong-gu,
Daejeon 34141, Republic of Korea
E-mail) mkjungnc@gmail.com

EDUCATION

1999-2003	B.S., Departments of life science, Sookmyung women's university, Seoul, Korea
2003-2005	M.S. (in Immunology, Advisor: Daeho Cho), Departments of life science, Sookmyung women's university, Seoul, Korea
2007-2010	Ph.D. (in Immunology, Advisor: Daeho Cho), Departments of life science, Sookmyung women's university, Seoul, Korea. Thesis topic: The immune modulation of skin diseases by regulating angiogenesis

CAREER

2009-2014	Senior researcher, SIS immunological research center, Sookmyung women's University, Seoul, Korea
2010-2014	Research assistant professor, Sookmyung women's University, Seoul, Korea
2014-2021	Research assistant professor, Graduate School of Medical Science and Engineering, KAIST, Daejeon, Korea
2018.11- 2020	Research fellow, Immunology Section, Liver Diseases Branch, NIDDK, National Institutes of Health, Bethesda, MD, USA
2020.12-present	Research fellow, Center for Viral Immunology, Korea Virus Research Institute, Institute for Basic Science (IBS), Daejeon, Korea

RESEARCH INTERESTS

Viral immunology, Infection Immunology, Human immunology

PUBLICATIONS (ORIGINAL ARTICLES; FIRST OR CO-FIRST/ CORRESPONDING AUTHOR)

1. Jeong HW, Kim SM, **Jung MK***, Noh JY, Yoo JS, Kim EH, Kim YI, Yu K, Jang SG, Gil J, Casel MA, Rare R, Choi JH, Kim HS, Kim JH, Um J, Kim C, Kim Y, Chin BS, Jung S, Choi JY, Song KH, Kim YD, Park JS, Song JY, Shin EC, Choi YK. Enhanced antibody responses in fully vaccinated individuals against pan-SARS-CoV-2 variants following Omicron breakthrough infection. *Cell Rep Med*. 3:100764, 2022 (*; co-first author)
2. **Jung MK**, Jeong SD, Noh JY, Kim DU, Jung SM, Song JY, Jeong HW, Park SH, Shin EC. BNT162b2-induced memory T cells respond to the Omicron variant with preserved polyfunctionality. *Nat Microbiol*. 7:909-917, 2022
3. Park HN, Jung JH, **JungMK#**, Shin EC, Ro SW, Park JH, Kim DY, Park JY, Han KH#. Effects of transarterial chemoembolization on regulatory T cell and its subpopulations in patients with hepatocellular carcinoma. *Hepato Int* 14:249-258, 2020 (*; co-corresponding author)
4. Youn JC*, **Jung MK***, Yu HT, Kwon JS, Kwak JE, Park SH, Kim IC, Park MS, LEE SK, Choi SW, Han S, Ryu KH, Kang SM, Shin EC. Increased frequency of CD4+CD57+ senescent T cells in patients with newly diagnosed acute heart failure: exploring new pathogenic mechanisms with clinical relevance. *Sci Rep* 9:12887, 2019 (*; co-first author)
5. Choi YS*, **Jung MK***, Lee J, Choi SJ, Choi SH, Lee HW, Lee JJ, Kim HJ, Ahn SH, Lee DH, Kim W, Park SH, Huh JR, Kim HP, Park JY, Shin EC. Tumor necrosis factor-producing T-regulatory cells are associated with severe liver injury in patients with acute hepatitis A. *Gastroenterology* 154:1047-1060, 2018 (*; co-first author)
6. Lee JH*, **Jung MK***, Park H, Kim KE, and Cho DH. Erdr1 suppresses murine melanoma growth via regulation of apoptosis. *Int J Mol Sci* 17:107, 2016 (*; co-first author)
7. **Jung MK**, Ha S, Huh SY, Park SB, Kim S, Yang Y, Kim D, Hur DY, Jeong H, Bang SI, Park H, Cho DH. Hair-growth stimulation by conditioned medium from vitamin D3-activated preadipocytes in C57BL/6 mice. *Life Sci* 128:39-46, 2015
8. **Jung MK**, Houh YK, Ha S, Yang Y, Kim D, Kim TS, Yoon SR, Bang SI, Cho BJ, Lee WJ, Park H, Cho DH. Recombinant Erdr1 suppresses the migration and invasion ability of human gastric cancer cells, SNU-216, through the JNK pathway. *Immunol Lett* 150:145-151, 2013
9. **Jung MK**, Ha S, Son J, Song JH, Houh YK, Cho E, Chun JH, Yoon SR, Yang Y, Bang SI, Kim M, Park H, Cho DH. Polyphenon-60 displays a therapeutic effect on acne by suppression of TLR2 and IL-8 via down-regulating the ERK1/2 pathway. *Arch Dermatol Res* 304:655-663, 2012
10. **Jung MK**, Park Y, Song SB, Cheon SY, Park S, Houh Y, Ha S, Kim HJ, Park JM, Kim TS, Lee WJ, Cho BJ, Bang SI, Park H, Cho DH. Erythroid differentiation regulator 1, an interleukin 18-regulated gene, acts as a metastasis suppressor in melanoma. *J Invest Dermatol* 131:2096-2104, 2011
11. **Jung MK**, Hur DY, Song SB, Park Y, Kim TS, Bang SI, Kim S, Song HK, Park H, Cho DH. Tannic acid and quercetin display a therapeutic effect on atopic dermatitis via suppression of angiogenesis and TARC expression in Nc/Nga mice. *J Invest Dermatol*

- 130:1459-1463, 2010
12. **Jung MK**, Song SB, Cheon SY, Park Y, Park H, Kim C, Cho B, Lee WJ, Bang JW, Bang SI, Cho DH. Botulinum toxin enhances the implantation effect of adipocytes in C57/BL6 mice. *Aesthetic Plast Surg* 33:722-729, 2009
 13. **Jung MK**, Song HK, Kim KE, Hur DY, Kim T, Bang S, Park H, Cho DH. IL-18 enhances the migration ability of murine melanoma cells through the generation of ROI and MAPK pathway. *Immunol Lett* 107:125-130, 2006

PUBLICATIONS (REVIEW ARTICLES OR COMMENTARIES)

1. **JungMK**, Shin EC. Phenotypes and Functions of SARS-CoV-2-Reactive T Cells. *Mol Cells* 44:401-407, 2021
2. **Jung MK**, Lee JS, Kwak JE, Shin EC. Tumor Necrosis Factor and Regulatory T Cells. *Yonsei Med J* 60:126-131, 2019
3. **Jung MK**, Shin EC. Aged T cells and cardiovascular disease. *Cell Mol Immunol* 14:1009-1010, 2017
4. **Jung MK**[#], Kwak JE, Shin EC[#]. IL-17A-producing foxp3⁺ regulatory T cells and human diseases. *Immune Netw* 17:276-286, 2017 ([#]; co-corresponding author)
5. **Jung MK**[#], Shin EC[#], Regulatory T cells in hepatitis B and C virus infections. *Immune Netw* 16:330-336, 2016 ([#]; co-corresponding author)

PUBLICATIONS (OTHER ORIGINAL ARTICLES)

1. Kefalakes H, Horgan XJ, **Jung MK**, Amanakis G, Kapuria D, Bolte FJ, Kleiner DE, Koh C, Heller T, Rehermann B. Liver-resident bystander CD8⁺ T cells contribute to liver disease pathogenesis in chronic hepatitis D virus infection. *Gastroenterology* accepted, 2021
2. Kwon Y, Lee KW, Kim YM, Park H, **Jung MK**, Choi YJ, Son JK, Hong J, Park SH, Kwon GY, Yoo H, Kim K, Kim SJ, Park JB, Shin EC. Expansion of CD45RA - FOXP3 ++ regulatory T cells is associated with immune tolerance in patients with combined kidney and bone marrow transplantation. *Clin Transl Immunology* E pub, 2021
3. Kim KE, Jeon SW, Song JS, Kim TS, **Jung MK**, Kim MS, Park SY, Park SB, Park JM, Park HJ, Cho DH. The Novel Synthetic Peptide AESIS-1 Exerts a Preventive Effect on Collagen-Induced Arthritis Mouse Model via STAT3 Suppression. *Int J Mol Sci* 21:378, 2020
4. Kim HD, Song GW, Park S, **Jung MK**, Kim MH, Kang HJ, Yoo C, Yi K, Kim KH, Eo S, Moon DB, Hong SM, Ju YS, Shin EC, Hwang S, Park SH. Association between expression level of PD1 by tumor-infiltrating CD8⁺ t cells and features of hepatocellular carcinoma. *Gastroenterology*. 155:1936-1950, 2018
5. Youn JC, Kim JY, **Jung MK**, Yu HT, Park SH, Kim IC, Lee SK, Choi SW, Han S, Ryu KH, Park S, Shin EC, Analysis of cytomegalovirus-specific T-cell responses in patients with hypertension: comparison of assay methods and antigens. *Clin Hypertens* 24:5, 2018
6. Kim J, Chang DY, Lee HW, Lee H, Kim JH, Sung PS, Kim KH, Hong SH, Kang W, Lee J,

- Shin SY, Yu HT, You S, Choi YS, Oh I, Lee DH, Lee DH, **Jung MK**, Suh KS, Hwang S, Kim W, Park SH, Kim HJ, Shin EC. Innate-like cytotoxic function of bystander activated CD8⁺ T cells is associated with liver injury in acute hepatitis A. *Immunity* 48:161-173, 2018
7. Yang Y, Cheon S, **Jung MK**, Song SB, Kim D, Kim HJ, Park H, Bang SI, Cho DH. Interleukin-18 enhances breast cancer cell migration via down-regulation of claudin-12 and induction of the p38 MAPK pathway. *Biochem Biophys Res Commun* 459:379-386, 2015
 8. Choi YS, Lee J, Lee HW, Chang DY, Sung PS, **Jung MK**, Park JY, Kim JK, Lee JI, Park H, Cheong JY, Suh KS, Kim HJ, Lee JS, Kim KA, Shin EC. Liver injury in acute hepatitis A is associated with decreased frequency of regulatory T cells caused by Fas-mediated apoptosis. *Gut* 64:1303-1313, 2015
 9. Park Y, **Jung MK**, Yoon SY, Lee HR, Hur DY, Kim D, Yang Y, Tae, Kim TS, Kim S, Yoon SR, Park HJ, Bang SI, Cho DH. The combination of DHEA, histamine, and insulin increases adipogenic differentiation and enhances tissue transplantation outcome in mice. *Biotechnol Appl Biochem* 60:356-364, 2013
 10. Cheon S, Song SB, **Jung MK**, Park Y, Bang JW, Kim TS, Park H, Kim C, Yang Y, Bang SI, Cho DH. Sphingosine kinase inhibitor suppresses IL-18-induced interferon-gamma production through inhibition of p38 MAPK activation in human NK cells. *Biochem Biophys Res Commun* 374:74-78, 2008
 11. Kim MH, Kim I, Kim SH, **Jung MK**, Han S, Lee JE, Nam JS, Lee SK, Bang SI. Cryopreserved human adipogenic-differentiated pre-adipocytes: a potential new source for adipose tissue regeneration. *Cytotherapy* 9:468-476, 2007

ORAL PRESENTATIONS AT CONFERENCES

1. **Jung MK**, COVID-19 mRNA vaccine-induced memory T cells: strong preserved immune responses to Omicron. Virus Research Forum, Daejeon, Korea, 2022
2. **Jung MK**, Updated methodology in human immune monitoring. Korean Society for transplantation, Sokcho, Korea, 2022
3. **Jung MK**, Investigation of TNF-producing Treg Cells in Hepatitis Viral Infection. International Meeting of the Federation of Korean Microbiological Societies, Seoul, Korea, 2018
4. **Jung MK**, Immunological techniques in the study of human T cells. MSIO (multidisciplinary study group for immuno oncology) fall symposium, Seoul, Korea, 2018
5. **Jung MK**, Choi YS, Park SH, Park JY, Shin EC. TNF-producing Regulatory T Cells in Patients With Acute Hepatitis A. The Korean Association of Immunologists (KAI) international meeting, Seoul, Korea, 2017
6. **Jung MK**, KANG SM, SHIN EC. The role of regulatory T cells in nontuberculosis mycobacterial lung disease. 16th International congress of Immunology, Melbourne, Australia, 2016