



# Korean Cancer Association

<b>Curriculum Vitae</b>	
Full name	Heung Kyu Lee
Current Position	Professor
Department	Graduate School of Medical Science and Engineering
Affiliation	Korea Advanced Institute of Science and Technology (KAIST)
Country	Korea
	
<b>Education</b>	
2009	Ph.D. in Immunobiology, Yale University, New Haven, CT, USA
1998	M.S. in Biotechnology, Yonsei University, Seoul, Korea
1995	B.E. in Food Science and Technology, Dongguk University, Seoul, Korea
<b>Professional Experience</b>	
<b><u>Positions and Employment</u></b>	
Mar/2022 - present	Professor, Graduate School of Medical Science and Engineering (GSMSE), KAIST, Daejeon, Korea
Mar/2022 - present	Affiliated Professor, Dept. Biological Sciences, KAIST, Korea
Apr/2017 - present	Affiliated Professor of KAIST Institute for Health Science and Technology, KAIST, Daejeon, Korea
Feb/2017 - Mar/2021	Chair, Institutional Animal Care and Use Committee of KAIST
Mar/2018 - Feb/2022	Associate Professor (tenured) of GSMSE, KAIST, Daejeon, Korea
Nov/2009 - Feb/2018	Assistant and Associate Professor of GSMSE, KAIST, Korea
Mar/2009 - Jan/2010	Post-doctoral Associate of Immunobiology, Yale University, New Haven, CT (Mentor: Ruslan Medzhitov, Ph.D.)
Sep/2004 - Feb/2009	Graduate Research Assistant of Immunobiology, Yale University, New Haven, CT (Mentor: Akiko Iwasaki, Ph.D.)
<b><u>Awards and Honors</u></b>	
2022	Top 100 National R&D Excellence Performance in 2022 by Ministry of Science and ICT.
2020	Samgsung Humantech Gold Awardee Mentoring Award by Samsung Electronics Co.
2017	Best Paper Award by Korean Association of Immunologists
2017	KAIST's TOP10 Research Achievements of 2016 Award by KAIST
2016	26 <sup>th</sup> KOFST Best Paper Award by The Korean Federation of Science and Technology Societies (KOFST)



## **Publications (10 selected)**

1. Kim HJ, Park JH, Kim HC, Kim CW, Kang I, **Lee HK**. Blood monocyte-derived CD169+ macrophages contribute to the antitumor immunity against glioblastoma Nature Communications 13, 6211. 2022.
2. Park JH, Kang I, Kim HC, Lee Y, Lee SK, **Lee HK**. Obesity enhances antiviral immunity in the genital mucosa through a microbiota-mediated effect on  $\gamma\delta$  T cells. Cell Reports. Vol. 41, 6, 111594, Nov. 08, 2022
3. Kim J, **Lee HK**. Potential Role of the Gut Microbiome In Colorectal Cancer Progression. Frontiers in Immunology. 2022 Jan 7;12:807648.
4. Park JH, **Lee HK**. Function of  $\gamma\delta$  T cells in tumor immunology and their application to cancer therapy. Experimental & Molecular Medicine. 2021 Mar;53(3):318-327.
5. Park JH, Kim HJ, Kim CW, Kim HC, Jung Y, Lee HS, Lee YA, Ju YS, Oh JE, Park SH, Lee JH, Lee SK, **Lee HK**. Tumor hypoxia represses  $\gamma\delta$  T cell-mediated antitumor immunity against brain tumors. Nature Immunology. 2021 Mar;22(3):336-346.
6. Oh DS\*, Park JH\*, Kim HJ, **Lee HK**. Autophagic protein ATG5 controls anti-viral immunity via glycolytic reprogramming of dendritic cells against respiratory syncytial virus infection. Autophagy. 2020 August 28;1-17.
7. Kim HC, Oh DS, Park JH, Kim HJ, Seo YB, Yoo HJ, Jang HS, Shin J, Kim CW, Kwon MS, Jin HT, Lee SK, Oh JE, **Lee HK**. Multivalent DNA vaccine protects against genital herpes by T-cell immune induction in vaginal mucosa. Antiviral Research. 2020 Feb 26.
8. Oh DS, **Lee HK**. Autophagy protein ATG5 regulates CD36 expression and anti-tumor MHC class II antigen presentation in dendritic cells. Autophagy. 2019. Dec;15(12):2091-2106. epub Apr 6
9. Oh JE, Oh DS, J HE, **Lee HK**. A mechanism for the induction of type 2 immune responses by a protease allergen in the genital tract. Proc. Natl. Acad. Sci. U. S. A. 2017 Feb 14;114(7):E1188-E1195.
10. Oh JE, Kim B, Chang DH, Kwon M, Lee SY, Kang D, Kim JY, Hwang I, Yu JW, Nakae S, **Lee HK**. Dysbiosis-induced IL-33 contributes to impaired antiviral immunity in the genital mucosa. Proc. Natl. Acad. Sci. U. S. A. 2016 Feb 9;113(6):E762-71.