

Curriculum Vitae

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Kyuho Kang, Ph.D.

Assistant Professor

Department of Biology, College of Natural Sciences,
Chungbuk National University
1, Chungdae-ro, Seowon-gu, Cheongju-si,
Chungcheongbuk-do, 28644, Republic of Korea

Email: kangk@cbnu.ac.kr

bioaio@gmail.com

Phone: +82-10-4701-2013 / +82-43-261-2295

ORCID ID: <http://orcid.org/0000-0003-3448-5336>

https://www.researchgate.net/profile/Kyuho_Kang

EDUCATION

- Aug 2010 – May 2016* **Cornell University, Weill Cornell Graduate School of Medical Sciences**
Ph.D., Immunology (Advisor: Prof. Lionel B. Ivashkiv)
New York City, United States of America
- Feb 2004 – Feb 2006* **Gwangju Institute of Science and Technology (GIST)**
M.S., Life Science – Immunology (Advisor: Prof. Sin-Hyeog Im)
Gwangju, South Korea
- Mar 2000 – Feb 2004* **Sogang University**
B.S., Life Science
Seoul, South Korea

RESEARCH EXPERIENCE

- Sep 2018 – current* **Assistant Professor**
Department of Biology, College of Natural Sciences, Chungbuk National University
- Dec 2017 – Aug 2018* **Senior Research Scientist**
Korea Institute of Science and Technology (KIST), Institute of Natural Products
- May 2016 – Dec 2017* **Postdoctoral Fellow** (Advisor: Prof. Lionel B. Ivashkiv)
Hospital for Special Surgery, the David Z. Rosensweig Genomics Research Center
- Nov 2009 – Jun 2010* **Researcher**
Samsung Medical Center, Obstetrics and Gynecology, Seoul, South Korea
- Dec 2007 – May 2009* **Researcher**
MOGAM Institute for Biomedical Research, Green Cross, Yongin, South Korea
- Mar 2006 – Nov 2007* **Researcher**
JW CreaGene Inc., R&D, Seongnam, South Korea

PUBLICATIONS (Recent 3 years)

1. **Kyuhoo Kang***, Mahesh Bachu, Sung Ho Park, Keunsoo Kang, Seyeon Bae, Kyung-Hyun Park-Min and Lionel B. Ivashkiv*: IFN- γ selectively suppresses a subset of TLR4-activated genes and enhancers to potentiate macrophage activation. *Nature Communications*. 2019 July 25;10(1):3320. ***Co-corresponding author**
2. Upneet K. Sokhi, Mark P. Liber, Laura Daar, Sungho Park, **Kyuhoo Kang**, Tania Pannellini, Baohong Zhao, Rada Norinsky, Lionel B. Ivashkiv and Shiaoqing Gong: Dissection and Function of Autoimmunity-associated TNFAIP3 (A20) Gene Enhancers in Humanized Mouse Models. *Nature Communications*. 2018 Feb 13;9(1):658
3. Sung Ho Park, **Kyuhoo Kang**, Eugenia Giannopoulou, Yu Qiao, Keunsoo Kang, Geonho Kim, Kyung-Hyun Park-Min and Lionel B. Ivashkiv: Type I IFNs and TNF Cooperatively Reprogram the Macrophage Epigenome to Promote Inflammatory Activation. *Nature Immunology*. 2017 Oct;18(10):1104-1116.
4. **Kyuhoo Kang**, Sung Ho Park, Janice Chen, Yu Qiao, Eugenia Giannopoulou, Karen Berg, Adedayo Hanidu, Jun Li, Gerald Nabozny, Keunsoo Kang, Kyung-Hyun Park-Min and Lionel B. Ivashkiv: Interferon- γ Represses M2 Gene Expression in Human Macrophages by Disassembling Enhancers Bound by the Transcription Factor MAF. *Immunity*. 2017 Aug 15;47(2):235-250.

** Highlighted in the same issue of Immunity (2017 Aug 15;47(2):209-211)*

– Preview: “We Can Still Be Friends: IFN- γ Breaks Up Macrophage Enhancers”

5. Yu Qiao*, **Kyuhoo Kang***, Eugenia Giannopoulou, Celeste Fang and Lionel B. Ivashkiv: IFN- γ Induces Histone 3 Lysine 27 Trimethylation at a Small Subset of Promoters to Stably Silence Gene Expression in Human Macrophages. *Cell Reports*. 2016 Sep 20;16(12):3121-9. ***Co-first author**

PUBLICATIONS (2004 - 2014)

1. Ji-Sun Kwon, Jungsoon Yoon, Yeon-Jung Kim, **Kyuhoo Kang**, Sunje Woo, Dea-Im Jung, Man Ki Song, Eun-Ha Kim, Hyeok-il Kwon, Young Ki Choi, Jihye Kim, Jeewon Lee, Yeup Yoon, Eui-Cheol Shin, Jin-Won Youn: Vaccinia-based influenza vaccine overcomes previously induced immunodominance hierarchy for heterosubtypic protection. *European journal of immunology*. 2014; 44(8):2360-9.
2. Jeong-Won Lee, Young-Ae Park, Young-Jae Cho, **Kyu-Ho Kang**, Jung-Joo Choi, Yoo-Young Lee, Tae-Joong Kim, Chel Hun Choi, Byoung-Gie Kim, Duk-Soo Bae: The effect of surgical wound on ovarian carcinoma growth in an animal model. *Anticancer research*. 2013; 33(8):3177-84.
3. Partha S Biswas, **Kyuhoo Kang**, Sanjay Gupta, Govind Bhagat, Alessandra B Pernis: A Murine Autoimmune Model of Rheumatoid Arthritis and Systemic Lupus Erythematosus Associated with Deregulated Production of IL-17 and IL-21. *Methods in molecular biology* (Clifton, N.J.). 2012; 900:233-51.
4. Choong-Gu Lee, **Kyu-Ho Kang**, Jae-Seon So, Ho-Keun Kwon, Jun-Seock Son, Min-Kyung Song, Anupama Sahoo, Hwa-Joong Yi, Ki-Chul Hwang, Toshifumi Matsuyama, Katsuyuki Yui, Sin-Hyeog Im: A distal cis-

regulatory element, CNS-9, controls NFAT1 and IRF4-mediated IL-10 gene activation in T helper cells. *Molecular immunology*. 2009; 46(4):613-21.

5. **Kyu-Ho Kang**, Sin-Hyeog Im: Differential Regulation of the IL-10 Gene in Th1 and Th2 T Cells. *Annals of the New York Academy of Sciences*. 2005; 1050:97-107.

6. Sin-Hyeog Im, Axel Hueber, Silvia Monticelli, **Kyu-Ho Kang**, Anjana Rao: Chromatin-level Regulation of the IL10 Gene in T Cells. *The Journal of biological chemistry*. 2004; 279(45):46818-25.

SKILLS & EXPERTISE

Skills & Expertise Immune profiling, Epigenomics, Immunology, Epigenetics, Genomics, Monocytes-Macrophages, T helper cells, RNA-seq, Chromatin Immunoprecipitation (ChIP), ChIP-seq, Cytokines, Bioinformatics, Next Generation Sequencing (NGS), Transcriptomics, Precision Medicine, Transcriptional Regulation, Gene Expression, Functional Genomics, Macrophage Activation

HONORS AND AWARDS

April 2018 Young Investigator Award, the Korean Association of Immunologists (KSIMM)

Feb 2006 Excellent Graduate Student Award, Gwangju Institute of Science and Technology (GIST)

Jan 2003 – Feb 2003 Winter Undergraduate Research Fellowship, POSTECH

PATENTS

Patent Number: US20100235932 A1, Issued September 16, 2010

Title: Animal models carrying tumors expressing human liver cancer-specific antigen and method for analyzing prevention and treatment efficacy of dendritic cells-derived immunotherapeutics using the above

- Method for analyzing prevention and treatment efficacy of dendritic cells-derived immunotherapeutics

Inventors: Yong-Soo Bae, Hyun-Soo Lee, Mi-Kyung Min, Cheol-Woong Jeong, **Kyuhoo Kang**