

Curriculum Vitae

Won-Ju Kim, Ph.D.

Division of Hematology/Oncology in the Department of Pediatrics,
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EDUCATION

- 2012-2019 **Ph.D., Life Science, Hanyang University**
Dissertation: T-cell protein tyrosine phosphatase in regulating cytokine and TcR signaling for inflammatory skin disease therapy (Supervised by Prof. Je-Min Choi)
- 2008-2012 **B.S. Life Science, Hanyang University**
Department of Life Science, Hanyang University

RESEARCH EXPERIENCE

- 2016 – 2017 Postgraduate Fellow (under Exchange Research Program)
Dept. of Immunobiology
Yale School of Medicine
New Haven, CT
(Prof. Alfred L. M. Bothwell)

POSITIONS

- 2019 – 2021 Postdoctoral Fellow in Life Science, Hanyang University (Prof. Je-Min Choi)
- 2021 – Present Postdoctoral Fellow in Hematology-Oncology, Pediatrics
Stanford School of Medicine
(Prof. Robbie Majzner)

PUBLICATIONS

Summary (4 first author papers, 7 co-author papers)

	Role	Published year	Journal	Impact Factor
1	First author	2021	Pharmaceutics	6.321
2	First author	2021	Advanced Science	16.806
3	First author	2018	Journal of Allergy and Clinical Immunology	10.793

4	First author	2015	Nature Communications	14.919
5	Co-author	2021	eLife	8.140
6	Co-author	2018	International Journal of Molecular Sciences	5.923
7	Co-author	2014	Molecular Biology Reports	2.316
8	Co-author	2014	PLoS One	3.240
9	Co-author	2014	Immune Network	6.303
10	Co-author	2013	Journal of Biological Chemistry	5.157
11	Co-author	2012	Molecules and Cells	5.304

1. **Kim WJ**, Kim GR, Cho HJ, Choi JM (2021). The Cysteine-Containing Cell-Penetrating Peptide AP Enables Efficient Macromolecule Delivery to T Cells and Controls Autoimmune Encephalomyelitis. *Pharmaceutics*. 13(8), 1134. [Link](#).
2. Kim GR*, **Kim WJ***, Lim S*, Lee HG, Koo JH, Nam KH, Kim SM, Park SD, Choi JM (2021). In Vivo Induction of Regulatory T Cells Via CTLA - 4 Signaling Peptide to Control Autoimmune Encephalomyelitis and Prevent Disease Relapse. *Advanced Science*. 5;8(14):2004973. (*Co-first authors). [Link](#).
3. **Kim WJ**, Koo JH, Cho HJ, Lee JU, Kim JY, Lee HG, Lee S, Kim JH, Oh MS, Suh M, Shin EC, Ko JY, Sohn MH, Choi JM (2018). Protein tyrosine phosphatase conjugated with a novel transdermal delivery peptide, astrotactin 1-derived peptide recombinant protein tyrosine phosphatase (AP-rPTP), alleviates both atopic dermatitis-like and psoriasis-like dermatitis. *Journal of Allergy and Clinical Immunology* 141: 137-51. [Link](#).
4. Lim SH*, **Kim WJ***, Kim YH, Lee SH, Kim HM, Park HJ, Koo JH, Lee HG, Yoon HS, Kim DH, Lee JA, Kim JY, Shin JH, Kim LK, Doh JS, Kim H, Bothwell AB, Lee SK, Suh M, Choi JM (2015). dNP2 is a blood-brain barrier-permeable peptide enabling ctCTLA-4 protein delivery to ameliorate experimental autoimmune encephalomyelitis. *Nature Communications* 6: 8244 (*Co-first authors). [Link](#).
5. Kim DH, Kim HY, Cho S, Yoo SJ, **Kim WJ**, Yeon HR, Choi K, Choi JM, Kang SW, Lee WW (2021) Induction of the IL-1RII decoy receptor by NFAT/FOXP3 blocks IL-1beta-dependent response of Th17 cells. *eLife*. 28;10:e61841. [Link](#).
6. Koo JH, Yoon H, **Kim WJ**, Cha D, Choi JM (2018). Cell-Penetrating Function of the Poly (ADP-Ribose) (PAR)-Binding Motif Derived from the PAR-Dependent E3 Ubiquitin Ligase Iduna. *International Journal of Molecular Sciences* 34: 577-82. [Link](#).
7. Koo JH, Yoon H, **Kim WJ**, Lim S, Park HJ, Choi JM (2014). Cell membrane penetrating function of the nuclear localization sequence in human cytokine IL-1 α . *Molecular Biology Reports* 41: 8117-26. [Link](#).

8. Park HJ, Kim DH, Choi JY, **Kim WJ**, Kim JY, Senejani AG, Hwang SS, Kim LK, Tobiasova Z, Lee GR, Craft J, Bothwell AL, Choi JM (2014). PPAR γ negatively regulates T cell activation to prevent follicular Helper T cells and germinal center formation. *PLoS One* 9: e99127. [Link](#).
9. Park HJ, Kim DH, Lim SH, **Kim WJ**, Youn J, Choi YS, Choi JM (2014). Insights into the role of follicular Helper T cells in autoimmunity. *Immune Network* 14: 21-9. [Link](#).
10. Cho HJ, Oh YJ, Han SH, Chung HJ, Kim CH, Lee NS, **Kim WJ**, Choi JM, Kim H (2013). Cdk-1-mediated phosphorylation of receptor associated protein 80 (RAP80) serine 677 residues modulate DNA damage-induced G2/M checkpoint and cell survival. *The Journal of Biological Chemistry* 288: 3768-76. [Link](#).
11. Lim S, **Kim WJ**, Kim YH, Choi JM (2012). Identification of a novel cell-penetrating peptide from human phosphatidate phosphatase LPIN3. *Molecules and Cells* 34: 577-82. [Link](#).

FELLOWSHIP

1. Postdoctoral Fellowship Program (Nurturing Next-generation Researchers) of National Research Foundation of Korea (2021 – 2023)
2. Global Research Fund of Hanyang University Industry Digital Park (2016 – 2017).
3. Master and Doctoral integrated course support program of Hanyang University Industry Digital Park (2012 – 2015).

HONORS & AWARDS

1. **Milstein Travel Award:** International Cytokine and Interferon Society. Oct. 2019. Wien, Austria
2. **Excellence Ph.D. dissertation award:** Hanyang University. Aug. 2019. Seoul, Korea
3. **Young Investigator Award:** the Korean Dendritic Cell Academic Society. Mar. 2019. Seoul, Korea
4. **Graduate student Excellent article award:** the Research Institute for Natural Sciences, Hanyang University. Feb. 2019. Seoul, Korea
5. **Outstanding oral presentation:** International Conference of the Korean Association of Biological Sciences. Aug. 2018. Pyungchang, Korea
6. **The grand prize:** Hanyang LINC+ Analytical Equipment Center. Dec. 2017. Seoul, Korea
7. **Excellent Poster Awards:** International Conference of the Korean Society for Molecular and Cellular Biology. Sep. 2017. Seoul, Korea
8. **Outstanding oral presentation:** Spring Conference of the Korean Association of Immunologists. Apr. 2017. Seoul, Korea
9. **Best poster award:** Winter Conference of the Korean Society for Molecular and Cellular Biology. Jan. 2017. Yongpyong, Korea

10. **Best poster award:** the International Conference of the Genetics Society of Korea. Dec. 2015. Seoul, Korea

ORAL PRESENTATIONS

1. **2019** Cytokines, International Cytokine and Interferon Society, Wien, Austria
“Investigation of T-cell protein tyrosine phosphatase in regulating cytokine and TcR signaling for inflammatory skin disease therapy”
2. **2018** Annual Conference of the Korean Association of Biological Sciences, Pyungchang, Korea.
“Therapeutic T cell protein tyrosine phosphatase (TC-PTP) in atopic dermatitis and psoriasis”
3. **2017** Spring Conference of the Korean Association of Immunologists, Seoul, Korea.
“ Protein Tyrosine Phosphatase Conjugated with A Novel Transdermal Delivery Peptide, AP-rPTP Alleviates both Atopic Dermatitis- and Psoriasis-Like Inflammatory Skin Diseases.”

PATENTS

1. Development of Cell Permeable Peptide Sequence derived from Human Protein NLBP (NP2) (Republic of Korea, 2016).
2. Development of human derived cell penetrating peptide from ASTN1 protein and enhance delivery efficiency into cells and skin tissue through cysteine (Republic of Korea, 2018).
3. Cell penetrating peptide and method for delivery of biologically active materials using it (Republic of Korea, 2018; U.S., 2018; China, 2020; Europe, 2020; France ,2020; Germany, 2020)
4. Skin penetrating peptide and method of use thereof (Republic of Korea, 2019).