

Sungpil Han, M.D./Ph.D.

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EDUCATION

M.D. 2007 - 2015
School of Medicine, Pusan National University Pusan, Korea

- Physician-Scientist Training Program (full tuition and a stipend)

Ph.D., Molecular Cell Biology and Genetics 2009 - 2013
School of Medicine, Pusan National University Pusan, Korea

- Thesis: Sungpil Han (2012) *Comprehensive Flow Cytometric Immunophenotyping of Peripheral Blood and Cerebrospinal Fluid Cells in Patients with Neuroimmunological Diseases* PDF
- Dissertation research performed through NIH Graduate Partnership Program, 2010 - 2013
- Molecular Imaging and Cancer Research Lab, School of Medicine, Pusan National University, 2009 - 2010

B.S., Electrical Engineering 2000 - 2007
College of Engineering, Korea University Seoul, Korea

- Exchange Student, Department of Computer Science, University of London, Royal Holloway, United Kingdom 2005 - 2006
- Military Service at the Korean Air Force, 2002 - 2004

CLINICAL EXPERIENCES

Resident in Clinical Pharmacology and Therapeutics Mar 2016 - Present
Asan Medical Center, University of Ulsan Seoul, Korea

Intern Mar 2015 - Feb 2016
Asan Medical Center, University of Ulsan Seoul, Korea

Clinical and Research Elective in Neuropathology Feb 2009 - Apr 2009
School of Medicine, Johns Hopkins University Baltimore, MD

- Advisor : Charles Eberhart, M.D./Ph.D. and Eric H. Raabe, M.D./Ph.D.
- Investigated the developmental relationship between human neural stem cells and pediatric brain tumors

Clinical Elective in Neurosurgery and Pathology Aug, 2008
School of Medicine, Kyushu University Fukuoka, Japan

CLINICAL TRIALS INVOLVED

Duration	Role	Study	Therapeutic area/Phase
Jul 2017 -	Sub-investigator	SIT	CPT/Phase I (Dermal fibrosis treatment drug)
Mar 2017 -	Sub-investigator	SIT	CPT/Phase I (GH deficiency treatment drug)
Feb 2017 -	Sub-investigator	SIT	CPT/Phase I (Osteoporosis treatment drug)
Feb 2017 -	Sub-investigator	IIT	CPT/Retrospective (Vancomycin TDM)
Jan 2017 -	Sub-investigator	SIT	CPT/Phase I (BPH treatment drug)
Aug 2016 -	Sub-investigator	SIT	CPT/Phase I (Tuberculosis treatment drug)
Apr 2016 -	Sub-investigator	SIT	CPT/Phase I (BPH treatment drug)
Mar 2016 -	Sub-investigator	SIT	CPT/Phase I (Endometriosis treatment drug)
Mar 2016 -	Sub-investigator	SIT	CPT/Phase I (Osteoporosis treatment drug)
Mar 2016 -	Sub-investigator	SIT	CPT/Phase I (Anti-platelet agent)
Mar 2010 - Dec 2012	Researcher	IIT	NR/Phase I (Zinbryta, MS treatment mAb)

RESEARCH EXPERIENCES

Sub-Investigator

Asan Medical Center, University of Ulsan

Mar 2016 - Present

Seoul, Korea

- Advisor: Kyun-Seop Bae, M.D.,Ph.D., Hyeong-Suk Lim, M.D.,Ph.D.
- Plan, conduct, and report clinical trials
- Develop statistical softwares using R
- Perform population modeling and simulation, and design model-based drug development

Predoctoral Fellow

Neuroimmunology branch, NINDS, National Institutes of Health

Jan 2010 - Dec 2012

Bethesda, MD

- Advisor: Bibiana Bielekova, M.D.
- Participated in phase I clinical trial of DAC HYP for multiple sclerosis patients (Anti-IL-2-receptor alpha chain antibody : Biogen Idec, Inc.)
- Investigated the mechanism of action of DAC HYP by observing surface cell phenotype, cell signaling, microarray data, and transcription factors
- Probed the immune response in MS patients' cerebrospinal fluid(CSF) by means of 12-color flow cytometry technique

Research Assistant

Pusan National University, School of Medicine

Jan 2009 - Dec 2009

Pusan, Korea

- Advisor: Saeock Oh, M.D., Ph.D.
- Investigated a role of Epithelial-Mesenchymal Transition(EMT)-related transcription factor, Snai1 in metastatic potential of glioblastoma multiforme

PUBLICATIONS

[Link to Google Scholar](#)

Han, S, H. Y. Choi, Y. H. Kim, and Ji Yeon Nam, G. S. Song, and Hyeong-Seok Lim, and K. Bae (2019). "Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of Single and Multiple Oral Doses of Tegoprazan (CJ-12420), a Novel Potassium-Competitive Acid Blocker, in Healthy Male Subjects". In: *TBD*. DOI: (Accepted).

Han, S, Y. H. Kim, H. Y. Choi, and Dong-Jun Soh, J. Kim, J. Nam, J. Kim, K. Bae, and and Hyeong-Seok Lim (2019). "First-in-human evaluation of the safety, tolerability, and pharmacokinetics of a neuroprotective poly (ADP-ribose) polymerase-1 inhibitor, JPI-289 in healthy volunteers". In: *Drug Design, Development and Therapy*. DOI: (Accepted).

PUBLISHED PROCEEDINGS

Han, S, Y. Kim, H. Y. Choi, D. Soh, J. Kim, J. Nam, J. Kim, K. Bae, and H. Lim (2017). "Safety, Tolerability, and Pharmacokinetics of Single and Multiple Dose JPI-289, A Novel Poly (ADP-Ribose) Polymerase-1 Inhibitor in First-In-Human Study of Healthy Volunteers". In: *Clinical Therapeutics* 39.8, p. e48. DOI: 10.1016/j.clinthera.2017.05.148.

Han, S, H. Y. Choi, Y. H. Kim, W. J. Kim, K. Bae, and H. Lim (2017). "Pharmacokinetic and Pharmacodynamic Modeling and Simulation Analysis of CTB-001, Recently Developed Bivalirudin". In: *Clinical Therapeutics* 39.8, p. e54. DOI: 10.1016/j.clinthera.2017.05.169.

Han, S, H. Y. Choi, Y. H. Kim, J. Y. Nam, G. S. Song, H. Lim, and K. Bae (2017). "Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of Escalating Single and Multiple Oral Doses of CJ-12420 (Tegoprazan), A Novel Potassium-Competitive Acid Blocker (P-CAB) in Healthy Male Subjects". In: *Clinical Therapeutics* 39.8, pp. e97-e98. DOI: 10.1016/j.clinthera.2017.05.306.

Han, S, K. Lim, S. Cho, J. Kim, S. Choe, J. Jung, J. Ghim, H. Jeong, T. Yoo, S. Kim, and others (2016). "Effects of single oral administration of SKI2670, gonadotropin-releasing hormone (GnRH) antagonist, in healthy premenopausal women". In: *Fertility and Sterility* 106.3, p. e273. DOI: 10.1016/j.fertnstert.2016.07.785.

Han, S, A. D. Salgado, E. Romm, and B. Bielekova (2012). "Comprehensive monitoring of intrathecal immune cells in patients with multiple sclerosis by 12-color flow cytometric immunophenotyping". In: *Journal of Neuroimmunology* 253.1-2, pp. 98-98. DOI: 10.1016/j.jneuroim.2012.10.001.

Han, S, J. S. Perry, Q. Xu, L. B. Kennedy, and B. Bielekova (2012). "Inhibitory effects of CD25 blockade on development of pro-inflammatory innate lymphoid cells is associated with decreased intrathecal inflammation in MS". In: *Journal of Neuroimmunology* 253.1-2, pp. 67-67. DOI: 10.1016/j.jneuroim.2012.10.001.

Han, S, A. Salgado, T. Alfahad, and B. Bielekova (2012). "Flow Cytometric Immunophenotyping of the Blood and CSF of Patients with Multiple Sclerosis". In: *Neurology* 78.1 Supplement, pp. P02-081.

Wuest, S, **S. Han, J. Martin, D. Maric, and B. Bielekova (2011).** "Daclizumab Inhibits Expansion of Antigen (Ag)-Specific T Cells by Blocking IL-2 Transpresentation by Dendritic Cells". In: *Neurology* 76.9, pp. A240-A240.

Han, S, I. Cortese, and B. Bielekova "Effects of Long-Term (> 5 Years) Daclizumab Therapy on Lymphocyte Subpopulations - Comparison of Immediate Ex-Vivo Immunophenotyping with Commercially-Available Assay". English. In: *NEUROLOGY* 76.9, 4. 63rd AAN Annual Meeting, Honolulu, HI, APR 09-16, 2011, pp. A239-A240. ISSN: 0028-3878.

Perry, J, **S. Han, L. B. Kennedy, and B. Bielekova** "Opposing regulation between lymphoid tissue inducer cells and immunoregulatory CD56bright NK cells underlies therapeutic benefit of daclizumab in MS". English. In: *JOURNAL OF NEUROIMMUNOLOGY* 228.1-2, SI. 10th Congress of the International-Society-of-Neuroimmunology (ISNI), Sitges, SPAIN, OCT 26-30, 2010, pp. 111-112. ISSN: 0165-5728. DOI: 10.1016/j.jneuroim.2010.08.001.

OTHER PROCEEDINGS

Sungpil Han (2018), TBD, PAGE 2018, Switzerland

Sungpil Han (2016), First-in-human Study Assessing Safety, Tolerability, and Pharmacokinetics of JPI-289, a Novel Poly (ADP-ribose) Polymerase-1 (PARP-1) Inhibitor in Healthy Male Volunteers, Korean Society of Clinical Pharmacology and Therapeutics Fall Symposium, 2016, Jeonju, Korea

Simone Wuest, SungPil Han, Jayne Martin, Dragan Maric, Bibiana Bielekova (2011) "Anti-CD25 Antibody Inhibits Antigen-specific T cell Expansion by Blocking IL-2 Transpresentation by Dendritic Cells", Federation of Clinical Immunology Societies 2011, Washington DC

Justin Perry, SungPil Han, Lucy Kennedy, Bibiana Bielekova (2011) "Opposing Developmental Regulation Between Lymphoid Tissue Inducer Cells and Immunoregulatory CD56bright NK Cells Contributes to Therapeutic Benefit of Daclizumab in Multiple Sclerosis", Federation of Clinical Immunology Societies 2011, Washington DC

SungPil Han, Justin Perry, Kory Johnson, Bibiana Bielekova (2011) "Signaling Through High- versus Intermediate-affinity Interleukin-2 (IL-2) Receptor Provides Qualitatively Different Signals to T cells", Annual conference of National Institute of Neurological Disorders and Stroke 2011, VA

Simone Wuest, Jayne Martin, SungPil Han, Justin Perry, Thomas Waldmann, Bibiana Bielekova (2011) "Important role for IL-2 transpresentation in the induction of antigen-specific T cell responses by dendritic cells.", Keystone Symposia on Molecular and Cellular Biology: Dendritic cells and the initiation of adaptive immunity. Santa Fe, NM

SungPil Han, Bibiana Bielekova (2010) "Comprehensive investigation of the mechanism of action of CD25-blocking Ab DAC-HYP in multiple sclerosis", Annual Bioscience and Engineering Symposium 2010, Bethesda, MD

ACADEMIC PRESENTATIONS

The 13th Congress of EACPT Prague, Czech | Jun 2017
Young Clinical Pharmacologists Session: *Safety, Tolerability, and Pharmacokinetics of Single and Multiple Dose JPI-289, a Novel Poly (ADP-ribose) Polymerase-1 Inhibitor in First-in-human Study of Healthy Volunteers*

Expert Meeting, KFDA Seoul, Korea | Apr 2017
ICH E18: Guideline on Genomic Sampling and Management of Genomic Data

EDISON Conference 2017 Daejeon, Korea | Mar 2017
Monte Carlo Simulation of Plasma Caffeine Concentration by Using Population Pharmacokinetic Model

Korean Society of Clinical Pharmacology and Therapeutics Symposium Jeonju, Korea | Oct 2016
Effects of Single Oral Administration of SKI2670, Gonadotropin-releasing Hormone (GnRH) Antagonist: A Randomized, Double-blind, Placebo-controlled, First-in-human Study in Healthy Pre-menopausal Women

NIH Neuroimmunology Branch Seminar Bethesda, MD | 2012
Comprehensive Investigation of Mechanism of Action of DAC HYP in Patients with Multiple Sclerosis

Annual Bioscience and Engineering Symposium Vienna, VA | Nov 2011
Neuroimmunological findings from patients with multiple sclerosis by flow cytometric immunophenotyping of cerebrospinal fluid and blood

NIH Neuroimmunology Branch Seminar Bethesda, MD | Jun 2011
Immunological findings from DAC HYP Clinical Trial (10-N-0125): Comprehensive ex vivo investigation of DAC HYP in MS patients

PNU Research Festival Gyeongju, Korea | Dec 2009
Genome-wide identification of Gliz direct target genes during neurodevelopment

STATISTICAL SOFTWARES

Han, S. (2018). *caffsim: Simulation of Plasma Caffeine Concentrations by Using Population Pharmacokinetic Model*. R package version 0.2.4.9000. URL: <https://github.com/asancpt/caffsim>.

Han, S. (2019). *puresas: A SAS Script Generator To Convert CSV To XPT and SAS7BDAT files*. R package version 0.1.0.

Han, S. (2017) *pkershiny: Noncompartmental Analysis using pkr R package Shiny application*. URL: <https://asan.shinyapps.io/pkrshiny>

Han, S. (2016) *vtdm: Vancomycin TDM Shiny application*. URL: <https://asan.shinyapps.io/vtdm>

Han, S. (2016) *caff: Monte Carlo Simulation of Caffeine Shiny application*. URL: <https://asan.shinyapps.io/caff>

Han, S. (2016) *noncompart: Noncompartmental Analysis using noncompart R package Shiny application*. URL: <https://asan.shinyapps.io/noncompart>

GRANTS AND AWARDS

Research Prize of EDISON Conference 2017 2017
Minister of Ministry of Science, ICT and Future Planning Daejeon, Korea

Outstanding Research Abstract 2016
KSCPT Seoul, Korea

Outstanding Resident of Asan Global Standard 2016
Asan Medical Center Seoul, Korea

Physician-Scientist Training Program Fellowship 2008 - 2015
National Research Foundation, Korea Daejeon, Korea

Intramural Research Fellowship 2010 - 2012
National Institutes of Health Bethesda, MD

Travel Award 2011
Annual Bioscience and Engineering Symposium Bethesda, MD

Hanmi Travel Award 2011
Baltimore/Washington Metropolitan Area Life Science Association (BLSA) Bethesda, MD

Global Internship Fellowship 2010
National Research Foundation, Korea - Brain Korea 21

Graduate Student Fellowship 2007, 2008
National Research Foundation, Korea - Brain Korea 21

Scholarship of Academic Achievement 2007, 2008
Pusan National University

Scholarship for Exchange Student to University of London 2005, 2006
Korea University

Scholarship of Academic Achievement
Korea University

2001

TEACHING EXPERIENCES

Lecturer and Teaching Assistant
College of Medicine, University of Ulsan

Spring 2017
Seoul, Korea

- WA5493: R Programming

Lecturer and Mentor
College of Medicine, University of Ulsan

2016, 2017, 2018
Seoul, Korea

- Clinical Elective in Clinical Pharmacology, Asan Medical Center

Lecturer and Mentor
NINDS, National Institutes of Health

Summer 2010, 2011, 2012
Bethesda, MD

- Mentoring college students for the summer through NINDS Summer Internship
- *Comprehensive Investigation on Mechanism of CD25-blocking Antibody in human*

Lecturer and Mentor Spring, Fall 2009 *School of Medicine, Pusan National University*

Pusan, Korea

- Mentoring Jangyoungsil Science High School students through "Creativity" Project, National Research Foundation of Korea
- *Mechanism of Action of siRNA*

SCIENTIFIC SOCIETY AND CONSORTIA MEMBERSHIP

Member
European Association of Clinical Pharmacology and Therapeutics (EACPT)

2017 - Present

Member
Population Approach Group in Korea (PAGK)

2016 - Present

Member
Korean Society of Clinical Pharmacology and Therapeutics (KSCPT)

2016 - Present

Member
The Korean Society for Reproductive Medicine

2016 - Present

Member
Federation of Clinical Immunology Societies (FOCIS)

2011 - Present

Member
Korean-American Scientists and Engineers Association (KSEA)

2010 - Present

REFERENCES

Professor **Kyun-Seop Bae, M.D., Ph.D.**
Department of Clinical Pharmacology of Therapeutics
School of Medicine, Asan Medical Center, Seoul, University of Ulsan
Tel : +82-2-3010-4645, E-mail : ksbae@amc.seoul.kr

Professor **Hyeong-seok Lim, M.D., Ph.D.**
Chief of Department of Clinical Pharmacology of Therapeutics
School of Medicine, Asan Medical Center, Seoul, University of Ulsan
Tel : +82-2-3010-4613, E-mail : mdlhs@amc.seoul.kr

Senior Investigator **Bibiana Bielekova, M.D.**
Chief of Neuroimmunological Diseases Section
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, USA.
Tel : (240) 669-2724, E-mail : Bibi.Bielekova@nih.gov

Professor **Charles G. Eberhart, M.D./Ph.D.**
Departments of Pathology, Ophthalmology, and Oncology

School of Medicine, Johns Hopkins University, Baltimore, Maryland, USA.
Tel : (410) 955-3455, E-mail : ceberha@jhmi.edu

Professor **Saeock Oh, M.D., Ph.D.**

Department of Anatomy

School of Medicine, Pusan National University, Mulgeum-Eup, Beomeo-Ri, Yangsan, South Korea 626770

Tel : +82-51-510-8045, E-mail : hedgehog@pusan.ac.kr

The up-to-date CV is available here.