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Bio

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Seoul National University (2015)
- Master of Science, Seoul National University (2011)

PATENTS

- NaYoung Ha, Nam-Hyuk Cho, Myung-Sik Choi, Ik-Sang Kim. "South Korea Patent 1016489220000 A Method and a Kit for Identification of Serotype of *Orientia tsutsugamushi*", Seoul National University
- NaYoung Ha, Nam-Hyuk Cho, Myung-Sik Choi, Ik-Sang Kim. "South Korea Patent 1020130003528 A composition and a kit for detecting specific antibodies for *Orientia tsutsugamushi*", Seoul National University
- NaYoung Ha, Nam-Hyuk Cho, Myung-Sik Choi, Ik-Sang Kim. "South Korea Patent 1020140049126 Vaccine Composition for *Orientia tsutsugamushi*", Seoul National University
- NaYoung Ha, Nam-Hyuk Cho. "South Korea Patent 1020170149837 Novel recombinant protein antigens of *Orientia tsutsugamushi* and the vaccine composition using the same", Seoul National University
- NaYoung Ha, Nam-Hyuk Cho. "South Korea Patent 120170149836 Epitope antigens of TSA56 antigens of *Orientia tsutsugamushi* and the use thereof", Seoul National University

Publications

PUBLICATIONS

- **A Type I Interferon and IL-10 Induced by *Orientia tsutsugamushi* Infection Suppresses Antigen-Specific T Cells and Their Memory Responses** *FRONTIERS IN IMMUNOLOGY*
Min, C., Kim, H., Ha, N., Kim, Y., Kwon, E., Nguyen Thi Hai Yen, Youn, J., Jeon, Y., Inn, K., Choi, M., Cho, N.
2018; 9: 2022
- **Comparative Study of Two Droplet-Based Dissolving Microneedle Fabrication Methods for Skin Vaccination.** *Advanced healthcare materials*
Lee, C., Kim, H., Kim, S., Lahiji, S. F., Ha, N. Y., Yang, H., Kang, G., Nguyen, H. Y., Kim, Y., Choi, M. S., Cho, N. H., Jung, H.
2018: e1701381
- **Diversification of *Orientia tsutsugamushi* genotypes by intragenic recombination and their potential expansion in endemic areas.** *PLoS neglected tropical diseases*
Kim, G., Ha, N., Min, C., Kim, H., Yen, N. T., Lee, K., Oh, I., Kang, J., Choi, M., Kim, I., Cho, N.
2017; 11 (3)
- **Longevity of antibody and T-cell responses against outer membrane antigens of *Orientia tsutsugamushi* in scrub typhus patients.** *Emerging microbes & infections*
Ha, N. Y., Kim, Y., Min, C. K., Kim, H. I., Yen, N. T., Choi, M. S., Kang, J. S., Kim, Y. S., Cho, N. H.
2017; 6 (12): e116
- **Generation of protective immunity against *Orientia tsutsugamushi* infection by immunization with a zinc oxide nanoparticle combined with ScaA antigen.** *Journal of nanobiotechnology*

Ha, N., Shin, H. M., Sharma, P., Cho, H. A., Min, C., Kim, H., Yen, N. T., Kang, J., Kim, I., Choi, M., Kim, Y. K., Cho, N.

2016; 14 (1): 76-?

- **Comparative and kinetic analysis of viral shedding and immunological responses in MERS patients representing a broad spectrum of disease severity** *SCIENTIFIC REPORTS*
Min, C., Cheon, S., Ha, N., Sohn, K. M., Kim, Y., Aigerim, A., Shin, H. M., Choi, J., Inn, K., Kim, J., Moon, J. Y., Choi, M., Cho, et al
2016; 6
- **Spread of Mutant Middle East Respiratory Syndrome Coronavirus with Reduced Affinity to Human CD26 during the South Korean Outbreak** *MBIO*
Kim, Y., Cheon, S., Min, C., Sohn, K. M., Kang, Y. J., Cha, Y., Kang, J., Han, S. K., Ha, N., Kim, G., Aigerim, A., Shin, H. M., Choi, et al
2016; 7 (2)
- **Inhibition of eukaryotic translation by tetratricopeptide-repeat proteins of *Orientia tsutsugamushi*** *JOURNAL OF MICROBIOLOGY*
Bang, S., Min, C., Ha, N., Choi, M., Kim, I., Kim, Y., Cho, N.
2016; 54 (2): 136-144
- **Epidemiological trends of scrub typhus : Global incidence and vector distribution** *Rickettsiales*
Ha, N., Cho, N.
2016
- **Urbanization of Scrub Typhus Disease in South Korea** *PLOS NEGLECTED TROPICAL DISEASES*
Park, S., Ha, N., Ryu, B., Bang, J. H., Song, H., Kim, Y., Kim, G., Oh, M., Cho, N., Lee, J.
2015; 9 (5)
- **Immunization with an Autotransporter Protein of *Orientia tsutsugamushi* Provides Protective Immunity against Scrub Typhus** *PLOS NEGLECTED TROPICAL DISEASES*
Ha, N., Sharma, P., Kim, G., Kim, Y., Min, C., Choi, M., Kim, I., Cho, N.
2015; 9 (3)
- **Multiple *Orientia tsutsugamushi* Ankyrin Repeat Proteins Interact with SCF1 Ubiquitin Ligase Complex and Eukaryotic Elongation Factor 1 alpha** *PLOS ONE*
Min, C., Kwon, Y., Ha, N., Cho, B., Kim, J., Kwon, E., Kim, Y., Choi, M., Kim, I., Cho, N.
2014; 9 (8)
- **Active Escape of *Orientia tsutsugamushi* from Cellular Autophagy** *INFECTION AND IMMUNITY*
Ko, Y., Choi, J., Ha, N., Kim, I., Cho, N., Choi, M.
2013; 81 (2): 552-559
- ***Orientia tsutsugamushi* Subverts Dendritic Cell Functions by Escaping from Autophagy and Impairing Their Migration** *PLOS NEGLECTED TROPICAL DISEASES*
Choi, J., Cheong, T., Ha, N., Ko, Y., Cho, C., Jeon, J., So, I., Kim, I., Choi, M., Kim, I., Cho, N.
2013; 7 (1)
- **Molecular Characterization of sca Genes Found in *Orientia tsutsugamushi* Genome** *Journal of Bacteriology and Virology*
Ha, N., Cho, N.
2013
- **Detection of Antibodies against *Orientia tsutsugamushi* Sca Proteins in Scrub Typhus Patients and Genetic Variation of sca Genes of Different Strains** *CLINICAL AND VACCINE IMMUNOLOGY*
Ha, N., Kim, Y., Choi, J., Choi, M., Kim, I., Kim, Y., Cho, N.
2012; 19 (9): 1442-1451
- **An Autotransporter Protein from *Orientia tsutsugamushi* Mediates Adherence to Nonphagocytic Host Cells** *INFECTION AND IMMUNITY*
Ha, N., Cho, N., Kim, Y., Choi, M., Kim, I.
2011; 79 (4): 1718-1727