

CURRICULUM VITAE

Hyun-Soo Kim, B.S.S.

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Clothing and Omnicare for Thermoregulation (COM:FORT) Laboratory

Department of Textiles, Merchandising and Fashion Design

College of Human Ecology, Seoul National University

Building #222-Room #332, 1 Gwanak-ro, Gwanak-gu, Seoul, 08826, Republic of Korea

EDUCATION

B.S.S., Sport Science (Ranked 1st in the Class of 2021)

School of Kinesiology, Yeungnam University

2021

Gyeongsan, Korea

PROFESSIONAL EXPERIENCE

Research Assistant, COM:FORT Laboratory

College of Human Ecology, Seoul National University

2022

Seoul, Korea

Research Assistant, Department of Kinesiology

Graduate School, Yeungnam University

2021

Gyeongsan, Korea

Student Researcher, Research Institute of Human Ecology

College of Human Ecology & Kinesiology, Yeungnam University

2021

Gyeongsan, Korea

Undergraduate Research Assistant, Neuromuscular Control Laboratory

School of Kinesiology, Yeungnam University

2020

Gyeongsan, Korea

Undergraduate Research Internship, Physiology Laboratory

Department of Physiology, College of Medicine, Yeungnam University

2019

Daegu, Korea

RESEARCH INTERESTS

My research interests are centered on biomechanics, motor control, motor variability, and neuroimaging, which deal with the neural control of human movement. My ultimate goal as a graduate student is to understand the theoretical/experimental basis of biomechanics, motor control, and motor variability in order to do both valid and creative research for developing optimal rehabilitation strategies for motor disorders.

Biomechanics

Biomechanical traits of motor disorders that are undergoing stroke, essential tremor, Parkinson's disease, etc.

Motor Control

Fine motor control studies of motor disorders based on the dynamic systems paradigm

Motor Variability

Oscillations in the neuromuscular systems during voluntary motor tasks (force control, etc) of motor disorders

Neuroimaging

Structural changes in the central nervous system according to fine motor rehabilitation of motor disorders

RESEARCH PUBLICATIONS

1. Lim, G.Y., Stenkina, M., **Kim, H.S.**, Salsabila, S., Lee, S.Y., Lee, J.Y. Comparison of core body temperature for 24 hours during various daily activities and sleep: rectal temperature and telemetry pill. (In Progress)
2. Stenkina, M., Lim, G.Y., Ghim, Y.J., Salsabila, S., **Kim, H.S.**, Lee, J.Y. Relationships between arm morphology and heat extraction during three exercise modes. (In Progress)
3. Lee, H.L., **Kim, H.S.**, Kim, S.S., Shin, D.I., Lee, J.Y. Comprehensive relative cardiovascular burden of firefighters when working repeatedly in a hot and humid environment: the effects of age. (In Progress)
4. **Kim, H.S.**, Stenkina, M., Lim, G.Y., Ghim, Y.J., Kim, D.H., Lee, J.Y. (2022). Relationships between hand morphology and heat flow from the hand during exercise and passive heating. *Journal of Korean Living Environment System*, 29(5):465-477.
5. Shin, S., **Kim, H.S.** (2021). Overview of blood flow restriction and exercise. *Clinical Lymphology and Lymphedema*, 6(2):40-44.

CONFERENCE PROCEEDINGS & ABSTRACTS

1. Cho, Y.S., **Kim, H.S.**, Lee, B.H., Lee, J.Y. Evaluation of thermal performance of personal protective clothing against cold focused on physiological effects of heated body regions: a pilot study. The 2022 Autumn Annual Conference of the Korean Society of Living Environment System (2022). Seongnam, Korea.
2. Lee, H.L., **Kim, H.S.**, Lee, B.H., Lee, J.Y. The cardiovascular burden on firefighters when wearing personal protective equipment and station uniform in a hot and humid environment: the effect of age. The 2022 Autumn Annual Conference of the Korean Society of Living Environment System (2022). Seongnam, Korea.
3. **Kim, H.S.**, Stenkina, M., Lim, G.Y., Ghim, Y.J., Kim, D.H., Lee, J.Y. Correlation between heat flow from the hand and hand morphology through a water-perfused glove during various types of human body heating. The 2022 Fall Conference of the Society of Fashion & Textile Industry (2022). Seoul, Korea.
4. Lee, H.L., **Kim, H.S.**, Lee, B.H., Salsabila, S., Cho, Y.S., Kim, M.S., Lee, J.Y. The cardiovascular burden on firefighters when wearing personal protective equipment and station uniform in a hot and humid environment: the effect of age. The 2022 Fall Conference of the Society of Fashion & Textile Industry (2022). Seoul, Korea.
5. Lee, H.L., **Kim, H.S.**, Salsabila, S., Lee, C.E., Moon, J.H., Ghim, Y.J., Cho, Y.S., Kim, M.S., Lee, J.Y. Firefighters' thermal and immune-inflammatory responses in a hot and humid environment. The 74th Annual Meeting of the Korean Physiological Society (2022). Seoul, Korea.
6. Stenkina, M., Lim, G.Y., **Kim, H.S.**, Lee, J.Y. Relationships between arm morphology and heat extraction during running, cycling and arm exercise. The 2nd International Mini-Symposium on Environmental Ergonomics and Physiological Anthropology in the Thermal Environment (2022). Kyushu, Japan.
7. Stenkina, M., Lim, G.Y., **Kim, H.S.**, Lee, J.Y. Relationships between arm morphology and heat extraction during three exercise modes. 19th International Conference on Environmental Ergonomics (2022). Ontario, Canada.
8. Lee, Y., Chung, C.M., **Kim, H.S.**, Shin, S. Lower extremity isometric muscle strength and contractile properties in older adults. 1st Sport Taekwondo International Convergence Conference (2021). Muju, Korea.

RESEARCH FUNDING

LG Household & Health Care Research Park (Research Service)

Project Title: Study on psychological and physiological changes of middle-aged women by fragrance

Role: Research Assistant at Neuromuscular Control Laboratory, Yeungnam University

Date: 2020-2021 (Principal Investigator: Chan-Ik Park)

Amount: ₩ 30,000,000

Ministry of Education (Key Research Institutes in Universities Program)

Project Title: Development and commercialization of interdisciplinary convergence sarcopenia diagnosis and intervention solution for a super-aging society

Role: Student Researcher at Research Institute of Human Ecology, Yeungnam University

Date: 2021-2030 (Principal Investigator: Choon Young Kim)

Amount: ₩ 6,900,000,000

Samsung Advanced Institute of Technology (Research Service)

Project Title: Clinical study of physiological parameters related to human heat transfer

Role: Research Assistant at COM:FORT Laboratory, Seoul National University

Date: 2022 (Principal Investigator: Joo-Young Lee)

Amount: ₩ 90,000,000

Ministry of Science and ICT (Mid-Career Researcher Program)

Project Title: Development of piezoelectric/photothermal hybrid foam and the design of smart protective sports gear

Role: External Researcher at Department of Fashion, Chung-Ang University

Date: 2022 (Principal Investigator: Kyung Wha Oh)

Amount: ₩ 185,762,000

Ministry of Science and ICT (Basic Research Program in Science and Engineering)

Project Title: Nanomaterials-based smart glove technology for improved hand function and protection

Role: Research Assistant at COM:FORT Laboratory, Seoul National University

Date: 2022-2025 (Principal Investigator: Byung Hee Hong)

Amount: ₩ 1,350,000,000

EXPERIMENTAL TECHNIQUES

Biomechanical Equipment: Accelerometer, Force Platform

Neuroimaging Equipment: Electroencephalography (EEG)

Statistical Software: R Programming, Statistical Package for the Social Sciences (SPSS)

Data Analysis Software: Grapher, Matlab, NeuroExplorer (NE), SigmaPlot

Official Software: Microsoft Office (MS Office)

CERTIFICATES

Senior Sports Instructor

Ministry of Culture, Sports and Tourism

2019

National Certificate

Youth Sports Instructor

Ministry of Culture, Sports and Tourism

2019

National Certificate

Life Sports Instructor Level 2

Ministry of Culture, Sports and Tourism

2018

National Certificate

AWARDS & HONORS

The Best Paper Award in the Poster Presentation Section The 2022 Autumn Annual Conference of the Korean Society of Living Environment System	2022
The Best Paper Award in the Healthcare Division The 2022 Fall Conference of the Society of Fashion & Textile Industry	2022
Graduation as 1st in the Class of 2021 School of Kinesiology, Yeungnam University	2021
Silver Prize for the 2020 Human Ecological Technology Contest College of Human Ecology & Kinesiology, Yeungnam University	2020
Citation & Excellence Award for 6th Sports 7330 Volunteer Corps Korean Sport & Olympic Committee	2019

SCHOLARSHIPS

Chunma Honors Scholarship Scholarship Team, Yeungnam University	2021
Daegu Bank Scholarship Daegu Bank Scholarship Foundation	2020
Scholarship for Academic Excellence Scholarship Team, Yeungnam University	2019-2020
OMC Scholarship Oneness Mission Club	2017-2020
National Scholarship by Korean Government Korea Student Aid Foundation, Ministry of Education	2017-2020

REFERENCES

Joo-Young Lee, Ph.D.

Position: Full Professor & Director of COM:FORT Laboratory
Institute: College of Human Ecology, Seoul National University, Seoul, Korea
E-Mail: leex3140@snu.ac.kr
Relation to Applicant: Current Advisor

Hosang Yoo, Ph.D.

Position: Full Professor
Institute: School of Kinesiology, Yeungnam University, Gyeongsan, Korea
E-Mail: hsyoo@ynu.ac.kr
Relation to Applicant: Former Advisor at Undergraduate

Jin-Ho Koh, Ph.D.

Position: Research Professor
Institute: College of Medicine, Gachon University, Incheon, Korea
E-Mail: jinhokoh@gachon.ac.kr
Relation to Applicant: Former Advisor at Undergraduate Research Internship