Curriculum Vitae

Simon Ho, DPT, CCS

Assistant Professor, Department of Physical Therapy and Rehabilitation Science

University of Maryland School of Medicine

**Date** Aug 15, 2023

**Contact Information**

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**Education**

2006–2010 B.S., Clinical Health Studies, Ithaca College (Cum Laude)

2010–2012 D.P.T., Ithaca College

2018–2019 Certificate, Applied Biostatistics, University of Washington

**Certifications**

2015 Credentialed Clinical Instructor, American Physical Therapy Association

2017 Advanced Cardiac Life Support, American Heart Association

2018 Board-Certified in Cardiovascular & Pulmonary Physical Therapy, American Board of Physical Therapy Specialties

**Physical Therapy Licensures**

2013 Inactive, New York

2013 Inactive, District of Columbia

2019 Active, Maryland

**Employment History**

**Academic Appointments**

2019–present Assistant Professor, Department of Physical Therapy and Rehabilitation Science, University of Maryland School of Medicine

**Other Employment**

2013–2019 Acute Care Physical Therapist (Clinician III), MedStar Washington Hospital Center, Washington, DC

**Professional Society Membership**

2013-2019 American Physical Therapy Association, District of Columbia Chapter

2014-present American Physical Therapy Association Acute Care

2015-present APTA Academy of Cardiovascular & Pulmonary Physical Therapy

2019-present American Physical Therapy Association, Maryland Chapter

2021-present American Physical Therapy Association Oncology

2023–present American Thoracic Society

2023–present American Physiological Society

**Honors and Awards**

2012 Professional Excellence Award, Ithaca College, awarded to individuals who demonstrate service and leadership to the physical therapy program of Ithaca College

2022 Best Poster, APTA Academy of Cardiovascular & Pulmonary Physical Therapy at Combined Sections Meeting

2023 Outstanding Presenter Award, University of Maryland, Baltimore Graduate Research Conference

**Clinical Activities**

Acute Care

2013-2019 Acute care staff physical therapist performing evaluation and treatment of neurologic, orthopedic, cardiac, surgical, and general medical patient populations at the bedside and in the intensive care units.

2015-2019 Developed new and updated cardiac team competencies for physical and occupational therapists and related educational materials in collaboration with the PT Clinical Supervisor.

Served as Chair of the Education Committee in the Department of Physical Medicine & Rehab at MedStar Washington Hospital Center.

Helped create a structure for the Education Committee to address departmental needs and to follow the mission of fostering continued professional growth for all staff.

Created process for accessing and updating electronic educational and resource materials while meeting organizational standards for encryption and security.

Assisted staff physical therapists in completing basic and advanced cardiac competencies (open heart surgery, heart transplant, LVAD, ICU) through regular mentoring and co-treatments.

**Clinical Expertise**

Board-Certified Clinical Specialist in Cardiovascular and Pulmonary Physical Therapy by the American Board of Physical Therapy Specialties

**Scope of Clinical Practice:**

2013-2019 MedStar Washington Hospital Center

Acute Care Physical Therapist – Clinician III

~1800 patient encounters per year

Clinical role

2014-2018 MedStar Washington Hospital Center

 Clinical Instructor for Physical Therapy Students

2015-2019 MedStar Washington Hospital Center

 Mentor to Cardiac Team and New Hires

**Development of Clinical Programs:**

2015-2016 Served as a member of the Physical Medicine & Rehab department’s Education Committee “5S” Process Improvement Project

Focused on organizing and revitalizing paper educational materials for patients.

Project resulted in an organized method for accessing and updating paper educational handouts for rehab therapists as well as elimination of outdated and unnecessary materials.

Served as member of the Physical Medicine & Rehab department’s Open Heart Surgery Standard of Care Work Group.

Major role in formulating the problem statement, goal statement, and data collection.

Key contributions in collating, analyzing, and presenting data that was collected for this project.

Helped the group clearly define the problem and demonstrate trends and behaviors of therapists that led to the development of solutions and a standard of care.

**Administrative Service**

**Institutional Service**

2018 Representative, MedStar Washington Hospital Center Experience Advisory Council (institution- wide council for development of strategies to improve the MedStar patient experience)

2019-present Representative, School of Medicine Council

2019-present Faculty member, PTRS DPT Program Academic Advancement Committee

2020 Faculty member, Faculty Search Committee for the Director of Student Clinical Practice

2021-present Faculty member, PTRS DPT Program Admissions Committee

2022-present Chair, PTRS DPT Program Admissions Committee

**Local and National Service**

**National Service**

2018 Member, short-term task force on revising website resource page, Cardiovascular & Pulmonary Section of APTA

**Local Service**

2013 Volunteer Physical Therapist, Little Workers of the Sacred Heart (pro bono clinic in Washington, DC)

**Teaching Service**

**Physical Therapy Student Teaching**

2014-2018 Clinical Instructor for part-time and full-time PT students, MedStar Washington Hospital Center

1-2 full-time students per year, daily contact for 8-12 weeks for each student

2019–present Lecturer for cardiovascular/pulmonary content

 Basic Sciences II Block (DPTE513)

 70, 1st year DPT students – 20 contact hours/year

2020–present Lecturer and lab lead for acute care and cardiovascular/pulmonary content

 Basic Sciences III Block (DPTE514)

 70, 1st year DPT students – 23 contact hours/year

2020–present Lecturer and lab lead for acute care and cardiovascular/pulmonary content

 Medical Issues Block (DPTE520)

 70, 2nd year DPT students – 88 contact hours/year

**Physical Therapy Clinical Teaching and Mentoring**

2015-2019 Mentor to Cardiac Team PTs and OTs in the ICU and in medically complex patients, MedStar Washington Hospital Center

2-3 mentees every 6 months, 3 hour mentor time per week

2017-2019 Educator, provider of didactic and hands-on training in mechanical circulatory support (MCS) and ventricular assist devices (VAD) for Physical Medicine & Rehab

~20 PT/OTs every 6 months, 1-2 hour individual training per PT/OT every 6 months

2018-2019 Educator, orientation and training of acute care physical therapists in preparation for outpatient cardiac rehab coverage in the Cardiac Rehabilitation Program at MedStar Washington Hospital Center

 ~4 PTs every 6 months, 1-2 hour training

**Other Teaching Service: Teaching Assistant in Continuing Education**

2018 Teaching Assistant, “If You Can’t Breathe, You Can’t Function” by Mary Massery

Cope Foundation, Cork, Ireland

28 contact hours

**Grant Support**

**Completed Grants:**

10/1/19 – 9/30/20 (PI: 5%)

“Exploring the Feasibility of Performing Inspiratory Muscle Strength Testing in Childhood Cancer Survivors”

The Dr. Gladys E. Wadsworth Physical Therapy Research Fund

Annual Direct Costs: $5147

Total Direct Costs: $5147

6/1/20 – 5/31/21 (PI: 5%)

“Collaborative Research: RAPID: Understanding and Facilitating Remote Triage and Rehabilitation During Pandemics via Visual Based Patient Physiologic Sensing”

National Science Foundation Award #2030382. Role: Site-PI

Annual Direct Costs: $8425

Total Direct Costs: $8425

**Publications**

**Peer-reviewed journal articles**

1. **Ho S**, Betz G, Marchese V. Exploring pulmonary function and physical function in childhood cancer: a systematic review. *Crit Rev Oncol Hematol*. Published online March 11, 2021:103279. doi:10.1016/j.critrevonc.2021.103279
2. **Ho S**, York T, Marchese V. Exploring relationships between inspiratory muscle strength and functional capacity in childhood cancer survivors: a pilot study. *Pediatr Hematol Oncol*. Published online August 18, 2021:1-12. doi:10.1080/08880018.2021.1960656
3. **Ho S**, Culligan M, Friedberg J, Goloubeva O, Marchese V. Examining the impact of physical function performance in predicting patient outcomes after lung-sparing surgery for malignant pleural mesothelioma. *Disabil Rehabil*. Published online August 29, 2021:1-8. doi:10.1080/09638288.2021.1970256
4. **Ho S**, Rock K, Addison O, Marchese V. Relationships between diaphragm ultrasound, spirometry, and respiratory mouth pressures in children. *Respir Physiol Neurobiol.* 305, 103950. doi:10.1016/j.resp.2022.103950
5. **Ho, S**, Rock, K., Marchese, V., 2023. Diaphragm excursion correlates with performance and ventilation on the six‐minute walk test in children with sickle cell disease. *Pediatric Pulmonology* ppul.26373. https://doi.org/10.1002/ppul.26373
6. Mathew, J., Tian, X., Wong, C.-W., **Ho, S.**, Milton, D.K., Wu, M., 2023. Remote blood oxygen estimation from videos using neural network. *IEEE J. Biomed. Health Inform.* 1–12. https://doi.org/10.1109/JBHI.2023.3236631
7. Rock K, **Ho S**, Gray V, Addison O, York T, Wells D, DeLuca H, Marchese V. Exploring skeletal muscle properties, gross motor performance, and quality of life in children with sickle cell disease. *Pediatr Phys Ther*. (Accepted).

**Major Invited Speeches**

International

1. **Ho, S**., Assessment of Physical Function in Patients undergoing Lung-sparing Surgery for Malignant Pleural Mesothelioma, International Association for the Study of Lung Cancer, World Conference on Lung Cancer held virtually in Singapore, 2021

Local

1. **Ho S**., Contributions of Skeletal Muscle Function to the Control of Breathing During Exercise in Healthy Children, UMSOM PTRS Research Day, 2023

**Proffered Communication**

National

1. **Ho S**. Description of Early and Progressive Physical Therapy Interventions for Five Patients Supported on Axillary Intra-aortic Balloon Pump: A Case Series, APTA Combined Sections Meeting, Washington, DC, poster presentation, 2019
2. **Ho S**, Rock K, Marchese V. Reliability of Assessing Diaphragm Thickness via B-mode Ultrasound in Healthy Children and Adolescents, APTA Combined Sections Meeting, San Antonio, TX, poster presentation, 2022
3. Rock K, **Ho S**, Marchese V. Muscle Performance Impairments and Gross Motor Performance Limitations in Children with Sickle Cell Disease, APTA Combined Sections Meeting, San Antonio, TX, poster presentation, 2022
4. **Ho S**, Rock K, Marchese V. Relationships between Diaphragm Function and Ventilatory Parameters during the Six-Minute Walk Test in Children, APTA Combined Sections Meeting, San Diego, CA, platform presentation, 2023

Local

1. **Ho S**, York T, Marchese V. Exploring relationships between inspiratory muscle strength and functional capacity in childhood cancer survivors: a pilot study, University of Maryland Greenebaum Comprehensive Cancer Center 5th Annual Cancer Research Day, poster presentation, 2021
2. **Ho S**, Rock K, Marchese V. Diaphragm Thickness Correlates with Breathing Performance on the Six-Minute Walk Test in Healthy Children and Adolescents, UMB Graduate Research Conference, poster presentation, 2022
3. **Ho S**, Rock K, Marchese V. Diaphragm Function and Breathing Performance on the Six-Minute Walk Test in Children and Adolescents with Sickle Cell Disease, UMB Graduate Research Conference, poster presentation, 2023

**Simon Ho, PT, DPT**

**Explanation of Time Gap on CV**

2012-2013 Preparing for the FSBPT National Exam (NPTE) and awaiting licensure as a PT