

## Education

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**London School of Hygiene and Tropical Medicine** · (London, UK) Nov 2022 – Present

- Visiting researcher at International Centre for Evidence on Disability
- AT2030: Pilot study to implement population-based survey App to estimate impairments, functioning and related need for services, including rehabilitation and assistive products in LMICs in ages 2+ years old.

**Imperial College London, Global Health Service Stream** · (London, UK) Oct 2021 – Oct 2022

- Faculty of Medicine, Master of Public Health: Merit
- Dissertation Project: The SHINE project, a mixed method study shining spotlight on the inclusion of disabled participants in clinical trials (Funded by the EDI Seed Fund).

**International University of Health and Welfare** · (Kanagawa, Japan) Apr 2013 – Mar 2017

- Department of Physical Therapy, BSc Physical Therapy
- A Scholarship Student S: Full exemption of tuition fees for four years
- Student Council, Deputy President of Club & Society

## Research Experience

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**London School of Hygiene and Tropical Medicine** (London, UK) Nov 2022 – Present

- Joined the AT2020 project under the supervision of Prof. Sarah Polack at the International Center for Evidence on Disability.
- Pilot study: implementation/evaluation of mobile App use for screening for disability in children in Uganda.
- Identifying the unmet needs of Assistive Technology in LMICs, the prevalence of functional disability and use/unmet needs of rehabilitation services with quant/qual data.
- Creating training materials (Functional Needs Assessment Tool) for community care workers/mothers.

**Imperial College London, Master of Public Health** (London, UK) Oct 2021 – Oct 2022

- Joined the SHINE project at Imperial Clinical Trials Unit under the supervision of Dr. Henock Taddese
- Prepared documents for funding and ethical approval.
- Collected primary data (quant/qual) from the disabled, their families, and clinical trial staff to identify the potential obstacles people living with disability participating in clinical trials and how clinical trials could be more inclusive.
- Created online survey questionnaires and facilitated focus group discussions.
- Analyzed quant/qual data with Excel Spread Sheet, and NVivo.
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**Juntendo University Shizuoka Hospital, Research Team Member** (Shizuoka, Japan) Apr 2017- Mar 2020

- Collected primary data: The effect of early rehabilitation on patients undergoing early tracheostomy in ICU.
- Analyzed data with SPSS: How interprofessional collaboration in the ICU affects the length of the hospitalization.
- Gathered and analyzed primary data with R: motor skills of children living with disabilities, regression analysis.
- Created data sets: high school baseball players for the prevention of shoulder injuries (primary data, n=250).

**International University of Health and Welfare** (Kanagawa, Japan) Apr 2013- Mar 2017

- Supervisor: Prof. Junji Katsuhira
- Investigated effective bridge exercises for the transversus abdominis muscle approaches in clinical practice.
- Recruited 26 participants for examination of the thickness of the transversus abdominis muscle using ultrasound echo & closed-ended questionnaire to generate numerical counts and pie charts.
- Analyzed with three-way ANOVA/One-way ANOVA, the effect of different types of bridge movements on the transversus abdominis muscle thickness.

## Publications / Conferences

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- J.Katsuhira, S.Nakamura, H.Matsudaira, **Y.Sakuma**, M.Sakita, M.Takahashi, “Verification of the influence on the muscle thickness of the abdominal transverse muscle in the different types of bridge exercises”, The 52<sup>nd</sup> Congress for Japanese Physical Therapy Association, 2017.
  - **Y. Sakuma**, D.Watanabe, Intervention with COPD patients hospitalized with pneumonia, setting appropriate loading amount using DDR, The 28<sup>th</sup> Annual Meeting of the Japan Society for Respiratory Care and Rehabilitation, 2019.

## Clinical / Teaching Experience

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**Juntendo University Shizuoka Hospital: Physiotherapist, Rehabilitation Department** Apr 2017 – Mar 2020

- Trained in emergency University hospital: ICU, emergency medicine, orthopedic diseases.
- Organised workshops and conferences (perinatal and postnatal rehabilitation, therapeutic decompression of the toes in diabetes mellitus, preventive rehabilitation for high school baseball players, support sports competition for children living with disabilities).
- Supervised physical therapist students in clinical internship.

## Scholarships

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**Marronnier Scholarship** Oct 2021 - Oct 2022

International University of Health and Welfare, The Marronnier Alumni Association

**International University of Health and Welfare Scholarship Program** April 2013 - Mar 2017

Scholarship Student S: Full exemption of tuition fees

## Awards

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**The Best Research Award for graduate thesis / International University of Health and Welfare** Mar 2017

Graduation thesis: "Verification of the influence on the muscle thickness of the abdominal transverse muscle in the different types of bridge exercises".

**Award for Academic Excellence / International University of Health and Welfare** Mar 2017

The 52nd National Physiotherapist Examination, First place in the faculty

## Training

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**University of Michigan / Programming (U.S)** Oct 2021 – Present

Online training program for Python

**Imperial College London / Global Master of Public Health (UK)** Oct 2021 - Oct 2022

Online Training Program Global Disease Masterclass: Global Disease Distribution

**London Applied & Spatial Epidemiology Research Group (UK)** July 2021 – Sept 2022

Online Training: GIS basic training

**National Center for Global Health and Medicine (Japan)** July 2021

Online Training Program: International Health Challenges Course

"Technical Cooperation in the Field of Quality and Safety of Health Care in Low- and Middle-Income Countries"

**London School of Hygiene and Tropical Medicine (UK)** June 2021

Online Course: Global Disability Research and Evidence

**London School of Hygiene and Tropical Medicine (UK)** Mar 2021

Online Course: Global Health and Disability

## Skills

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Clinical Assessment: Ultrasound Echo, Spinal Mouse, Stabilometry, CYBEX, KS Measure, Biodex, 3D motion analysis

Software: SPSS, Python, R, NVivo, QGIS, ArcGIS, Qualtrics

Language: Japanese (Native), English (Fluent), French (Beginner), Mandarin (Intermediate)