







# AISHWARYA KOUJALGI

## Human Movement Scientist

I recognize the urgent need to address the healthcare challenges posed by the society. I am seeking a dynamic role that allows me to advance my scientific knowledge and contribute towards research in health and lifestyle.

### CONTACT

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 [Aishwarya Koujalgi](#)  
 [Lab to Lotus](#)  
 [aishwaryakoujalgi](#)

### LANGUAGES

English ● ● ● ● ●  
Dutch ● ● ● ● ●  
Hindi ● ● ● ● ●  
Kannada ● ● ● ● ●  
Sanskrit ● ● ● ● ●

### ANALYTICAL SKILLS

RStudio ● ● ● ● ●  
SPSS ● ● ● ● ●  
Python ● ● ● ● ●  
Matlab ● ● ● ● ●

### SOFT SKILLS

- Critical Thinking
- Scientific Writing
- Collaboration
- Problem-Solving
- Leadership

### EDUCATION

#### Master in Human Movement Sciences 09/2021 - 08/2023 Rijksuniversiteit Groningen, Netherlands

*Specialisation:* Motor Control and Cognition in Healthy Aging (120 ECTS)

*Courses:* Mechanisms and Interventions in Healthy Aging, 3D Movement Analysis, Neuromechanics, Clinical Mobility lab, Motor Control, Advanced Statistics.

*Thesis:* The association between executive function and life-space mobility among healthy community-dwelling older adults residing in different neighbourhoods of Northern Netherlands.

#### Honours Master 09/2022 - 08/2023 Rijksuniversiteit Groningen, Netherlands

*Specialisation:* Leadership: Making a difference! (15 ECTS)

*Thesis:* "Lab to Lotus": Yoga channel on YouTube

#### Bachelor in Physiotherapy 09/2014 - 09/2018 Rajiv Gandhi University of Health Sciences, India

*Courses:* Anatomy, Physiology, Biochemistry, Pathology, Exercise Science, Rehabilitation Sciences, Medical Sciences, Biostatistics.

*Thesis:* Efficacy of Mirror Therapy as an adjunct to Constraint-Induced Movement Therapy (CIMT) and Electrical Stimulation for motor recovery of the upper extremity following stroke.

### RESEARCH PROJECTS

#### Scientific Researcher, NEMO project, 09/2023 - 04/2024 Universiteit Medisch Centrum Groningen

Led an independent project focused on identifying atypical movement patterns in hyperkinetic movement disorders. Utilized machine learning algorithms, including K-means clustering, to analyze surface EMG (sEMG) signals, employing preprocessing techniques and signal coherence analysis to extract and interpret key EMG features. Correlated findings with clinical presentations, revealed abnormal neuromuscular activity compared to healthy controls. Actively participated in patient data collection, and interdisciplinary collaboration, and delivered regular presentations. Enhanced my proficiency in Python (pandas) for data analysis and visualisation.

*Supervisor: Dr. Marina de Koning-Tijssen, m.a.j.de.koning-tijssen@umcg.nl*

#### Master Graduation Project, LOGES, 09/2022 - 06/2023 Rijksuniversiteit Groningen, Netherlands

Master's thesis (40 ECTS) involved developing the study protocol to observe the mobility status of older adults, which includes their functional, environmental and social factors. Cognition test scores were correlated with built-environment features (GIS). Statistical analyses and data visualisation were done using SPSS and RStudio and presented findings at the Master's Symposium. My role also involved managing participant recruitment, configuring activity monitors, archiving GPS data, and supervising Bachelor's students.

*Supervisor: Dr. Erja Portegijs, e.portegijs@umcg.nl*

## INTERESTS

- Art, sketching and DIYs
- Creative writing
- Volunteering
- Yoga practitioner
- Sports and Fitness

## Mapping gait characteristics of different age groups

**Rijksuniversiteit Groningen, Netherlands**

02/2022 - 08/2022

"Dynamic Gait Stability in Healthy Adults" (10 ECTS) was an observational study exploring age-related changes in the harmonic ratio during single- and dual-task walking. This project allowed me to enhance my skills in statistical analysis and data visualization using RStudio. My key responsibilities included recruiting participants, performing gait measurements with ActiGraph, and ensuring meticulous data entry and analysis.

Supervisor: Dr. Claudine Lamothe, [c.j.c.lamothe@umcg.nl](mailto:c.j.c.lamothe@umcg.nl)

## Literature Review

**Rijksuniversiteit Groningen, Netherlands**

02/2022 - 05/2022

Conducted a scoping systematic review (5 ECTS) on "the effect of aerobic high-intensity interval training (HIIT) and moderate-intensity continuous exercise (MICE) on executive function in healthy older adults."

Supervisor: Dr. Claudine Lamothe, [c.j.c.lamothe@umcg.nl](mailto:c.j.c.lamothe@umcg.nl)

## Bachelor Graduation Project

**MS Ramaiah Medical College Hospital, India**

02/2018 - 06/2018

Conducted a scoping systematic review on "Efficacy of Mirror Therapy as an adjunct to Constraint-Induced Movement Therapy (CIMT) and Electrical Stimulation for motor recovery of the upper extremity following stroke.

Supervisor: Dr. Ramesh Debur

## CERTIFICATES

- Statistical Analysis on RStudio
- Data Visualisation on R, [Datacamp](#)
- Introduction to Python, [Datacamp](#)
- Introductory WMO GCP Course to Conduct Clinical Trials in the Netherlands, [ICH GCP \(2024\)](#)
- Manual Therapy and Kinesiotaping, [Federation of Indian Manual Therapists](#).
- Yoga Teacher Training- Level I, [Yoga Alliance \(200 hours\)](#)
- Pre and post-natal yoga training, [Yoga Alliance \(140 hours\)](#)

## CLINICAL EXPERIENCE

### Clinical Physiotherapist

**Bengaluru Hand Centre, India**

02/2020 - 05/2021

Provided hand rehabilitation following sports and musculoskeletal injuries. Specialised clinic of neurological rehabilitation for Obstetric Brachial Plexus Injury (OBPI) leading an observation study on postoperative recovery of upper limb motor control.

Supervisor: Dr Bharath Kadadi, [bkadadi@yahoo.com](mailto:bkadadi@yahoo.com)

### Volunteer Physiotherapist

**National Institute of Mental Health and Neurosciences, India**

09/2019 - 12/2019

Specialised in Neurological Rehabilitation. Part of a multidisciplinary team containing clinicians in neurology, surgical and psychiatric for individualised treatment in the ICU through tertiary-level care. Hosted regular cases, presentations and innovative rehab strategies. Actively participated in speciality services for Duchenne Muscular Dystrophy and mental health camps.

Supervisor: Dr Pradnya Dhargave, [physio@nimhans.in](mailto:physio@nimhans.in)

### Clinical Physiotherapist

**Ashraya Hospital, India**

04/2019 - 10/2019

Focused on Orthopedic and Sports rehabilitation and post-surgical rehab. Collaboration with clinicians and nurses to develop individual training protocols. Provided home service for patients with Level 1 mobility.

Supervisor: Dr Naveenkumar

### Internship

**MS Ramaiah Medical College Hospital, India**

10/2018 - 05/2019

Experience spans from intensive care to tertiary care rehabilitation in Musculoskeletal, Neurology, Neurosurgery, Geriatrics, Oncology, Obstetrics, Cardiopulmonary, and Community-Based Rehabilitation. Organised health camps for children and adults.

Supervisor: Dr Savita Ravindran, [savitaravi@gmail.com](mailto:savitaravi@gmail.com)