

Curriculum Vitae

Personal Details and contact

Name: Prof. Dr. Claudine JC Lamoth

Professional Address:

University Medical Centre Groningen, (UMCG), dep. of Human Movement Sciences (HMS)

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Academic position

- 2020 - current:** Full Professor "Movement Analysis, Smart Technology in Ageing", UMCG
Group leader: Motor Function and Cognition in Healthy Ageing
- 2021 – 2024:** General Scientific Director research center of excellence SPRINT (Smart Prevention, Rehabilitation & INtervention Technologies; Personalized Technology for more healthy years).
- 2015 - 2020:** Associate Professor, Principal Investigator UMCG
dep. of Human Movement Sciences, UMCG, University of Groningen.
- 2008 - 2014:** Assistant Professor, dep. of Human Movement Sciences, UMCG
- 2003 - 2008** post-doctoral research
Faculty of Behavioral and Movement Sciences, dep. of Human Movement Sciences, Section Coordination Dynamics, VU university Amsterdam
- 2004-04-01** PhD degree - faculty of Human Movement Sciences, VU university & Department of Orthopedics

Publication Summary

International Scientific journals: #145
see: [<https://www.rug.nl/staff/c.j.c.lamoth/research>]
Conference & Proceedings & Keynotes: >115
H-index: #48

Research description

My research focuses on understanding the mechanisms of gait and postural control to prevent and treat age- and lifestyle-related disorders. My theoretical work intersects dynamical systems theory, biomechanics, (neuro)physiology, and behavioral sciences. This multidisciplinary approach has led to collaborations with medical departments, biomedical technology, data science, artists, and industries on projects for prevention, personalized interventions, and early risk detection. Part of this research involves

developing, testing, and validating sensing and monitoring technology that can assess, remotely monitor, and provide personalized services to individuals in their natural (home) environment. A consistent feature of my research is the use of sensor technology and AI/data science.

Supervision:

- Since 2004 I supervised 16 Ph.D. students successfully
- Currently supervision of 13 Ph.D. students with different backgrounds and from different countries.
- > 25 PhD assessments/examination committee
- Supervision of a > 100 of undergraduate (Master and Bachelor) thesis and research projects of students from Human Movement Sciences, Psychology, Medical Sciences, Biomedical Engineering, Physical therapy and exercise therapy.

Associate Editor/Journal Editorial board/Review Activities:

- Section Editor Journal Human Movement Sciences
- Guest reviewer of different journals
- Reviewer for national grants (NWO) and EU grant applications
- Review the application for renewal of the Interdisciplinary Research Programme "The Gerontopole Brussels - Centre of expertise for Gerontology at the Vrije Universiteit Brussel" - Central theme: Active & Healthy Ageing (2022)
- 2018 & 2019 Member of the ACTIVAGE open Call review Board, an EU funded initiative under Horizon2020 framework program with the main objective to develop evidence of the positive impact of IoT based technology and solutions on improving the quality of life, health and autonomy and enhancing the sustainability of health and social systems in Europe.

Board /committee memberships:

- 2024 – current UMCG research institute PRECISION, theme Innovation technologies for diagnostics, treatment and transplantation, Program leader: Digital Health Care
- 2024 – current Member innovation committee, theme "Health Science and Technology Campus", UMCG
- 2024 – current Invited Member knowledge Committee Entrepreneurial in lifestyle
- 2023 –2024 Health Technology Research & Innovation Cluster, MT

2022 – 2024 KOLFF institute program leader: Digital Health – Sensing and Monitoring

2022 – current Chair Sensing & monitoring workgroup UMCG

2022 – current CareTech management team: CareTech originated in the beginning of 2022 as a merger of Centers of Research Excellence of IMDI (Innovative Medical Device Initiative) SPRINT and NeuroControl.

2022 – 2023 Member AI Hub NN – React project – Health and Care

2022 – 2024 Member NL AIC – Health and Care

2022 – 2023 Scientific Committee World Conference on Science and Football, Groningen.

2019 – 2023 Chair Board of Examiners Human Movement Sciences, UMCG

2011 – 2018 Chair of the Local Ethical Committee of the dep. of HMS

2018 – 2021 Management team research center of excellence SPRINT

2017 – 2022 Equipment committee of dep. Of Human Movement Sciences

2015 – 2022 Jury for the best thesis award of the Dutch Society for Human Movement Sciences (VvBN; annual)

2018 – current Scientific Content Committee International Society for Posture and Gait Research (ISPGR)

2019 – 2023 Scientific Committee International Conference on Ambulatory Monitoring of Physical Activity and Movement.

2018 – 2020 Advising committee UC- Leuven, Belgium. Project: Active Ageing and Healthy Living. Project Dementia, Move!

2016 – 2018 Advising committee UC – Leuven, Belgium. Project Exergaming for older adults.

2016 Appointment advisory committee for two Associate Professor positions in medicine (HMS) at The Norwegian University of Science and Technology. 01.10.16 – 01.01.2017

Conference/seminars (Co)organization:

(Co)organizing numerous workshops for researchers, professionals, and industry with respect to, gait analysis postural control, sensor technologies, applied

gaming, development, and evaluation of interventions. Both national and international.

Research funding:

Funded grants over the last 10 year as (Co) Principal investigator ~€18 M,-

2025: BIO-COMPaSS (BIOlogical age-driven, COMmunal, Personalized System for Sustainable health promotion) , NWA-route (Dutch research agenda) €6.8 M Role: Co-applicant, member steering committee.

2024: Working with a long breath, the development of a health tracker. Partners: industry, UG (FSE), UMCG (HMS, clinical depts. €4.6M from the Just Transition Fund (JTF). Role: Co-applicant.

2024: Empowering citizens to adopt healthy lifestyle habits: a data-enabled community-based citizen science approach. ERA4Health Joint Transnational Research project. Partners: University of Southern Denmark, Riga Stradiņš University (Latvia), and UMCG [€1M], Role: Collaborator

2023: Improving patient care through advanced bio-monitoring solutions. Partners: Research (UG (FSE), UMCG, Hanze UAS (Research Centre Biobased Economy). €1.8M from JTF. Role: Co-applicant.

2023: Continuous blood pressure measurement through bio-impedance. Partners: UMCG, UG (FSE), and SME, €1.1m from EFRO-OpZuid. Role: Co-applicant.

2023: Parkinson Vibrating Socks is a German-Netherlands collaboration project. UMCG, University of Munster, UTwente, industry and SME, €4.2M from InterReg VI A, Role: Co-applicant.

2022: NWO KIC-Call: Lifestyle & living environment. Healthy Living as a Service ~€3M – multidisciplinary consortium. Role: Main applicant - project leader.

2022: NWO – Human-centred AI-research in ELSA Labs: awarded ELSA-Lab NN ~€2.5M. Role: co-applicant/WP-leader, board member.

2019 – 2022 InteReg Va: SMOVE: Smart device for clinically validated MOVEMENT assessment and monitoring at home and in the clinic. Role: Co-applicant: ~€1.1M

2017 – 2020: Horizon2020: MSCA-ITN-ETN Title: Industrial Academic Initial Training Network towards specific diagnosis and treatment of age-related gait and balance deficits Keep

Control # 721577; Role: Co-Applicant/WP leader. ~€3 M (265 K UMCG)

2019 – 2022 Smart device for clinically validated MOVEment assessment and monitoring at home and in the clinic (SMOVE). InterRegVA-grant; Role: Co-applicant; €1,1M

2014- 2017 Programme d'Investissements d'Avenir. Institut de Recherche Technologique Nanoelec – Programme Usages des technologies de Liaison et Soutien aux Entreprises (PULSE) University of Grenoble Alpes, France Role: PI : 166K (joint-PhD-University of Grenoble)

2011-2014 InterRegIVa, Telemedicine & Personalized Care, Fall prevention
Sensor technologies and fall prevention. EU-crossborder program Co-applicant. Role:PI-€536K

2011- 2015 - Exergaming for unsupervised balance training of older adults at home. Role: European regional grant: SNN Tender #211 Role: PI €651K

Teaching activities

Educational activities include contributions to curriculum development and departmental educational policy, contributions to academic workplace/learning communities, evaluation of curriculum goals, course coordination, and student supervision. Teaching responsibilities included the Bachelor course Movement-related Pathology (2008 – 2020) and master's courses, Clinical Lessons and Movement (2008-2020), and Clinical Mobility Lab (2020-2021), coaching scientific writing (PhD course). Experience includes supervising over 110 bachelor's students and more than 100 undergraduate thesis and research projects from students in Human Movement Sciences, Psychology, Medical Sciences, Biomedical Engineering, Physical Therapy, and Exercise Therapy.