

UNIVERSITÀ CAMPUS BIO-MEDICO DI ROMA ENGINEERING DEPARTMENT

Research Units of Intelligent Technologies for Health and Wellbeing: Sustainable Design, Management and Evaluation

# Innovations at the Intersection of Neuroengineering, Medical Imaging, and AI: A Translational Journey from Research to Social and Clinical Impact

## Prof. Paolo Gargiulo, Ph.D.

Founder and Director Institute for Biomedical and Neural Engineering *Reykjavik University* 

### Biography:

Paolo Gargiulo earned his PhD from TU Wien in 2009 and is a full professor at Reykjavik University, focusing on medical imaging, neuroengineering and 3D printing. He set up a 3D-printing service at Landspítali that has aided over 300 surgeries. He leads the Institute of Biomedical and Neural Engineering, which houses EEG, postural-control, VR and additive-manufacturing labs. He has published over 100 papers, led several EU projects and won Reykjavik University's 2023 Scientist of the Year plus an Icelandic research excellence award. He co-founded Heilalabs and in 2024 helped create MeiboMetrics, an AI tool for meibomian-gland screening.

### Abstract:

This seminar will explore Paolo's translational work that bridges academic innovation with clinical application. Highlights include the development of a 3D printing service at Landspítali University Hospital, supporting over 500 surgical procedures, and his leadership of the Institute of Biomedical and Neural Engineering, a hub for high-density EEG, postural control analysis, and virtual reality applications in neuroscience. Prof. Gargiulo will also discuss his recent collaborations and entrepreneurial initiatives, including the startup Heilalabs which aim is to redefine brain aging diagnostics using predictive biomarkers for neurodegenerative conditions. The seminar will provide a comprehensive view of how interdisciplinary research—spanning neuroengineering, machine learning, and personalized medicine—can directly inform and transform clinical practice, with case studies from EU-funded projects such as RESTORE, P4FIT, and SINPAIN.

## 8 Luglio 2025 - ore 11:30-12:30 Aula R2 - PRABB

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