



Frank E. Rademakers
KU Leuven

Frank E. Rademakers is emeritus professor at KU Leuven, the University Hospitals Leuven (Belgium), of which he retired from his managerial position in 2020, where he had served for 15 years in the management committee of the hospital as Chief Medical Officer and Chief Medical Technology and Innovation Officer. During his tenure, he always showed a keen interest in putting the patient's needs and expectations central while involving the patients themselves as active participants in their path towards optimal health: maximising the health potential of every person in our care.

He did his medical studies at the University of Antwerp (Belgium), where he graduated magna cum laude in 1979. He then went for specialty training in Cardiology and started to work in 1984 in the cardiology department of the University Hospital Antwerp. From 1988 to 1991, he did his PhD at the Johns Hopkins University, Baltimore, MD, USA. From 1991, on he was parttime at UZ Leuven where he moved fulltime in 1998 in the cardiology department. From 2005, he entered the management committee of UZ Leuven until his retirement in 2020, first as CMO, later as CMIO. In that capacity he was responsible among others for Quality, ICT and Pharmacy.

His main research is on cardiac function using different imaging techniques, including echocardiography and Cardiac Magnetic Resonance (CMR) which he introduced in Belgium after performing his PhD on cardiac mechanics defined with CMR tagging at Johns Hopkins University, Baltimore, MD in 1991. Being responsible for quality management in the hospital as well as ICT, his research also moved into quality and process management in health care and Artificial Intelligence use in medicine; he presently co-promotes 2 PhD students working on AI applications as medical decision support tools and is the task lead in the EU CORE-MD consortium for the implementation of the EU Medical Device Regulation with respect to AI applications.

He sits on several boards and committees of hospitals and research institutes as external expert.

Presently he prepares a KU Leuven broad project on Medical Digital Twins which will include not only researchers from the Biomedical Sciences but also from the Humanities and Social Sciences and from the Science, Engineering and Technology groups. Medical Digital Twins using and incorporating much more information than only available in the hospital environment but also from the person's daily life, including wearables, social media, environmental and behavioural data, will enable us to better guide prevention, diagnosis and treatment of individuals. Many challenges with respect to privacy, ethics, legal and technical issues need to be overcome which requires a collaboration between many researchers and stakeholders including the final users, health care professionals, patients and citizens.