

Professional Biography

Prof. Dr. Ron M.A. Heeren is one of the pioneers in mass spectrometry driven imaging and spatial omics. After a PhD degree in technical physics in 1992 he started to work on molecular imaging instrumentation and its application as a research group leader at FOM-AMOLF, Amsterdam. He pioneered several SIMS innovations in miroscope mode and the introduction of tandem mass spectrometry in SIMS. He was professor at the chemistry faculty of Utrecht University (2001-2019) and was appointed as distinguished professor at Maastricht University in 2014. He is the founder and scientific director of M4I, the Maastricht MultiModal Molecular Imaging institute on the Brightlands Maastricht Health campus where SIMS and MALDI are applied to applied biological and biomedical studies. He was awarded the 2019 Physics Valorization prize by the Dutch organization for scientific Research, NWO, the 2020 Thomson medal of the international mass spectrometry foundation and the 2026 Karger medal of the Barnett institute. He has organized many scientific conferences among which the 2022 IMSC (1500 delegates) which was held in the Maastricht Exhibition and Congress Centre. He is a member of the Royal Dutch Academy of Sciences, KNAW (2021), a fellow of the Netherlands Academy of Engineering (2025) and member of the Koninklijke Hollandsche Maatschappij der Wetenschappen (2026) the oldest academic society in the Netherlands. He is the current president of the International Mass Spectrometry Foundation (IMSF) where he actively focusses on strengthening the international MS community. He was appointed at the Technical University Munich as a Hans Fischer Senior fellow (2019-2023) and was named TUM ambassador in 2024 for his academic and collaborative accomplishments. His academic research interests are mass spectrometry based translational research, SIMS based molecular imaging technologies, high-throughput bioinformatics and the development and validation of innovative molecular analytical imaging techniques across the scientific disciplines.

Short motivation:

This candidacy for the SIMS International Committee (IC) is based on my interests in building communities and increasing the impact of ion beam based molecular imaging technologies across the sciences. My previous experiences in the executive board of the (IMSF) provides me with substantial international community building experience and expertise around scientific meetings. My combined pioneering scientific achievements in SIMS detector technology and structural analysis technologies, demonstrated leadership in these international scientific societies such as the IMSF, and perspective on integrative multimodal imaging and SIMS role in this domain motivates the candidature as one of the European representatives in the IC. If appointed to the SIMS IC I hope to strengthen its global representation, champion innovations in surface imaging, and foster international collaboration across disciplines and communities. As a member of several distinguished academic societies I am well connected with global scientific developments and research domains that will assist in these endeavors.