Candidate for the ESMRMB Board 2026

President Elect

Prof. Ileana JELESCU, PhD

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Letter of Intention – Candidacy for President-Elect of ESMRMB

I have been actively involved in the ESMRMB over the past years, serving on the committees of Preclinical MRI and Microstructural MRI pre-congress days – both as committee member and Chair – since 2021. I have also taught in the joint ESR-ESMRMB educational workshops. In parallel, I am actively involved in multiple scientific societies: I serve on the Diffusion Study Group committee of the ISMRM, on the ISMRM Annual Meeting Program Committee, and organize the Gordon Research Conference on Tissue Microstructure Imaging (Vice-chair in 2025, Chair in 2027). I find these roles highly rewarding and important for shaping the future of our research.
Importantly, I have witnessed the exciting and timely growth of the European MRI community around the ESMRMB Annual Meeting and would be truly thrilled and honored to enable us to continue on this successful path. For these reasons, I have decided to run for the position of President-Elect of the ESMRMB. I believe my experience as basic scientist in the Radiology Department of a University Hospital gives me a useful perspective on both methodological MR developments and their translation to patients and adoption in everyday clinical practice. I am committed to building an ever-stronger European MR community through research and education, encompassing clinicians, scientists and radiographers. I also aim to strengthen our ties with other European and non-European societies.

Biosketch

Ileana Jelescu is an Assistant Professor of Radiology at the Lausanne University Hospital, in Switzerland, where she leads the Microstructure Mapping Lab. She obtained a PhD in Physics from Université Paris-Saclay (France), working on functional and diffusion MRI microscopy at single neuron-level in Aplysia. She then completed postdoctoral work at the NYU School of Medicine (USA) and at the Center for Biomedical Imaging of the EPFL (Switzerland). In 2021, she joined the Lausanne University Hospital as Assistant Professor of Radiology, funded by an Eccellenza Professorial Fellowship of the Swiss National Science Foundation and an ERC Starting Grant.
Her vision is to turn the MRI scanner into a quantitative in vivo microscope. On the path of bringing microstructure quantification from whiteboard to bedside, her research spans theoretical biophysical modeling, experimental design, preclinical validation, and clinical translation to neurodegenerative and psychiatric diseases, as well as abdominal cancers.

Scientific appointments and honors

Prof. Jelescu serves on the Swiss National Science Foundation Life Science Panel

(since 2023), on the Faculty Council of the University of Lausanne School of Biology and Medicine (since 2023), on the ISMRM Diffusion Study Group committee (2025 – 2029) and the ISMRM Annual Meeting Program Committee (2026 – 2029). She is a member of the Editorial Board of *Imaging Neuroscience* and *NMR in Biomedicine*. She previously served as Chair of the Preclinical MRI pre-congress day of the ESMRMB (2023 – 2024), and as Vice-Chair (2025) and now Chair (2027) of the GRC on Tissue Microstructure Imaging. She received the Outstanding Teacher Award from the ISMRM (2017) and was the 'NIBIB New Horizons' plenary named lecturer at the 2024 ISMRM Annual Meeting.

Contributions to (open) science and education

Brain research has been Prof. Jelescu's focus for many years, with foundational contributions to date: white and gray matter microstructure quantification and white matter functional MRI. On the front of brain microstructure, her pioneering work has been pivotal to the current state-of-the-art: providing a robust tool that can disentangle between axonal injury, axonal loss and demyelination in <10 minutes on a clinical MRI system. On the front of functional MRI, her ambitious 'FIREPATH' project enables a first-of-its-kind comprehensive mapping of brain activity in gray and white matter, which was so far completely out of reach with any other technology. The benefits of advanced diffusion MRI in the body are equally important. To address this current limitation, Prof. Jelescu is invested in abdominal imaging of liver disease, esophageal cancer and prostate cancer, at 3T and 0.55T.
Through her diverse international training, Prof. Jelescu has first-hand experience in the full experimental MRI research pipeline, from building coils and sequence programming, to developing robust and open-source data processing pipelines. She has worked on: clinical and ultra-high field pre-clinical MRI systems (overall ranging 0.55T to 17T); applications to pathology from both human and animal model perspectives; and multi-modal studies.
She also led two large "guidelines" initiatives in diffusion MRI (clinical 'ESR Essentials' and pre-clinical 'ISMRM endorsed'), contributed to MRI white papers on functional MRI and diffusion MRS, authored invited review papers and a book chapter. She has given numerous scientific and educational invited talks. She is a strong advocate of open science, heavily contributing to open-source toolboxes and public datasets.