

Curriculum Vitae –

Professor Damijan Miklavčič, Ph.D., dr.h.c.

University of Ljubljana, Faculty of Electrical Engineering,
Trzaska 25, SI-1000 Ljubljana
Slovenia

Email: damijan.miklavcic@fe.uni-lj.si

Google Scholar: <https://scholar.google.com/citations?user=DxETKggAAAAJ&hl=en>

Personal webpage: <http://lbk.fe.uni-lj.si/en/damijan-en/>

Damijan Miklavčič is a world leading expert in the field of electroporation. He has authored or co-authored over 1.500 publications, including over 473 original articles in scientific journals. His work has been cited over 15.597 times (without self-citations) with h-index 76 according to Web of Science, and 33.817 times with h-index 100 according to Google Scholar (January 9, 2024). He is co-inventor on 5 granted international patents, additional 3 are pending.

In the past 30 years Damijan Miklavčič has contributed alone and in collaboration with a number of collaborators and groups around the world to better understanding of the phenomenon of electroporation on the membrane, cellular and tissue level. He built and is successfully leading a large interdisciplinary team of biomedical engineers, electronics engineers, chemists, physicists, biologists, and medical doctors, who respect each other and have developed a common language necessary for success in such a diverse and rapidly growing field. His commitment has always been to investigate and develop new treatments for the benefit of the patient. He has been involved in basic research, in demonstrating on preclinical level (in vitro and in vivo) the improved efficacy of selected anticancer drugs by electroporation, in developing new electrodes and devices for electroporation, and in providing numerical modelling approaches towards treatment planning. He has been involved in the development of irreversible electroporation technology for cardiac ablation, which holds great promise and lends itself as a gamechanger in cardiac electrophysiology. He has been involved in and has substantially contributed to the first device approved by the FDA for treatment of atrial fibrillation by electroporation. During the past 15 years he has also been devoted to improving DNA delivery to cells by electroporation in vitro and in vivo, for cell and gene-based therapies.

Since its inception in 2003 he has been the Chair and organiser of the Electroporation Based Technologies and Treatments Scientific Workshop and Postgraduate Course (www.ebtt.org), which celebrated 20 years of continuous tradition in 2023. He also edited the Handbook of Electroporation, published in August 2017 by Springer. The handbook contains 157 chapters on 2998 pages.

Personal Data, Education, Academic and Scientific Research Title

- 1963: born in Ljubljana, Slovenia;
- 1987: B.Sc. degree, University of Ljubljana, Faculty of Electrical Engineering, Slovenia;
- 1991: M.Sc. degree, University of Ljubljana, Faculty of Electrical Engineering, Slovenia;

- 1993: Ph.D. degree, University of Ljubljana, Faculty of Electrical Engineering, Slovenia;
- 1995-1996: Postdoctoral position, CNRS-Institut Gustave Roussy, Villejuif, France;
- 1997: Visiting researcher, Babraham Institute, Cambridge, UK.

Employment

- 1994-1997: Assistant Professor, University of Ljubljana, Slovenia;
- 1997-2002: Associate Professor, University of Ljubljana, Slovenia;
- 2002-present: Full Professor, University of Ljubljana, Slovenia.

Management functions and skills

- 1998-2019: Head of Laboratory of Biocybernetics at the University of Ljubljana Faculty of Electrical Engineering (UL-FE);
- 1998-present: Research Programme Leader, Laboratory of Biocybernetics, UL-FE;
- 2007-2015: Head of the Department of Biomedical Engineering, UL-FE;
- 2003-2007: Vice-Dean for research at UL-FE.

Organization of scientific meetings (selected)

- 2024: Chair of the 9th European Congress on Medical and Biological Engineering (Slovenia);
- 2020: Chair of the 8th European Congress on Medical and Biological Engineering (Slovenia);
- 2019: Member of the International Organising Committee, 3rd World Congress on electroporation (France), 460 participants;
- 2018: BioEM, Portorož, Slovenia – LoC with Peter Gajšek
- 2017: Member of the International Organising Committee, 2nd World Congress on electroporation (USA), 360 participants;
- 2015: Founder and Chair of the 1st World Congress on Electroporation (Slovenia), 400 participants;
- 2003-2020: Director of the Postgraduate Course and International Scientific Workshop Electroporation Based Technologies and Treatments (Ljubljana, Slovenia), with 60-70 participants per year;

Work in expert committees, domestic and international

- Member of the Scientific Council of the Slovenian Research Agency (2007-2010);
- Member of the Council of Science and Technology of the Republic of Slovenia (2010-2013);
- Member of the Slovenian National Awards Committee for Science (2018-2022);
- He gave 62 invited lectures and seminars over the last 10 years; on average 5-7 per year;
- He serves as reviewer in more than 60 different IF Journals (including New England Journal of Medicine, Nature Communications, EBiomedicine, Scientific Reports, IEEE Medical Imaging, etc.);
- He served as a Guest/Special Issue Editor for the following publications: Current Gene Therapy; Bioelectrochemistry; Innovative Food Science and Emerging Technologies; Journal of Membrane Biology; Biomedical Engineering Online; Medical

& Biological Engineering & Computing; Radiology & Oncology; Frontiers in Bioengineering and Biotechnology;

- 2019-2000: Member of various PhD committees at ETH Zurich, Switzerland; TU Delft, the Netherlands; Pompeu Fabra University Barcelona, Spain; and at other universities.
- 2009-2023: Editor/Member of Editorial Board of Slovenian Medical Journal;
- 2007-present: Member of the Editorial Board of Radiology & Oncology;
- 2011-2014: External Evaluator of the Research performance at the University of Reykjavik, Iceland;
- 2002-2014: Associate Editor IEEE Transactions on Biomedical Engineering;
- 2004-2013: Associate Editor IEEE Transactions on Nanobiosciences;
- 2007-2010: Member of the Scientific Council of the Slovenian Research Agency,
- 2005-2007: Associate Editor of the Bioelectromagnetics Journal.

Awards and Honors

- 1995: Award of the Republic of Slovenia for Scientific and Research Achievements (highest award given in Slovenia);
- 2003: Ambassador of the Republic of Slovenia in Science;
- 2008: Knight of the Order of Academic Palms of the French Republic;
- 2012: Rector's Award for Innovations of the University of Ljubljana - 1st Prize;
- 2012: Vladimir Zworykin Award International Federation for Medical&Biological Engineering;
- 2014: Golden Plaque of the University of Ljubljana;
- 2015: Elected Fellow of the European Alliance for Medical and Biomedical Engineering&Science;
- 2019: Honorary Doctorate awarded by the University of Buenos Aires, Argentina;
- 2021: Rector's Award for Innovations of the University of Ljubljana - 1st Prize.

Damijan Miklavčič was the lead proposer and chaired the **COST TD1104 “European network for development of electroporation-based technologies and treatments”** project, which involved 581 individual researchers from 243 different research institutions and 28 industrial partners from 43 countries. After the end of the project, the established network founded the International Society for Electroporation-Based Technologies and Treatments (<http://www.electroporation.net>).