

DAMIJAN MIKLAVČIČ

Address:

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

Phone: +386 1 4768 456

Fax: +386 1 4264 658

E-mail: damijan@svarun.fe.uni-lj.si

URL: <http://lbk.fe.uni-lj.si/damijan.html>

Education:

1987 B.S. Electrical Engineering (University of Ljubljana)

1991 M.S. Electrical Engineering (University of Ljubljana)

1993 Ph.D. Electrical Engineering (University of Ljubljana)

Position:

1993-present Faculty of Electrical Engineering, University of Ljubljana

1993-1994 Associate Researcher

1994-1997 Assistant Professor

1995-1996 Visiting researcher at the Institute Gustave Roussy, Villejuif, France

1997-2002 Associate Professor

1998-present Head of the Laboratory of Biocybernetics

2002-present Professor

2003-2005 ViceDean for Research

Awards:

1986 Preseren Award for Students, University of Ljubljana

1989 International Award of the Maphre Foundation (Spain)

1993 National Industrial Award of Krka Pharmaceuticals

1995 Award of the Republic of Slovenia for Scientific and Research Achievements

2003 Ambassador of the Republic of Slovenia in Science

Recent bibliography:

- Sersa G, Jarm T, Kotnik T, Coer A, Podkrajsek M, Sentjurc M, Miklavcic D, Kadivec M, Kranjc S, Secerov A, Cemazar M. Vascular disrupting action of electroporation and electrochemotherapy with bleomycin in murine sarcoma. *Br. J. Cancer* 98: 388-398, 2008.
- Sersa G, Miklavcic D, Cemazar M, Rudolf Z, Pucihar G, Snoj M. Electrochemotherapy in treatment of tumours. *Eur. J. Surg. Oncol.* 34: 232-240, 2008.
- Bicek A, Turel I, Kanduser M, Miklavcic D. Combined therapy of the antimetastatic compound NAMI-A and electroporation on B16F1 tumour cells in vitro. *Bioelectrochemistry* 71: 113-117, 2007
- Corovic S, Pavlin M, Miklavcic D. Analytical and numerical quantification and comparison of the local electric field in the tissue for different electrode configurations. *Biomed. Eng. Online* 6(37): 1-14, 2007.
- Cukjati D, Batiuskaitė D, André F, Miklavcic D, Mir LM. Real time electroporation control for accurate and safe in vivo non-viral gene therapy. *Bioelectrochemistry* 70: 501-507, 2007.
- Kotnik T. Evaluation of some integrals of sums involving the Möbius function. *Int. J. Comput. Math.* 84: 469-475, 2007.
- Kramar P, Miklavcic D, Macek-Lebar A. Determination of the lipid bilayer breakdown voltage by means of a linear rising signal. *Bioelectrochemistry* 70: 23-27, 2007.

- Oblak J, Krizaj D, Amon S, Macek-Lebar A, Miklavcic D. Feasibility study for cell electroporation detection and separation by means of electroporation. *Bioelectrochemistry* 71: 164-171, 2007.
- Pavlin M, Leben V, Miklavcic D. Electroporation in dense cell suspension – Theoretical and experimental analysis of ion diffusion and cell permeabilization. *Biochim. Biophys. Acta* 1770: 12-23, 2007.
- Pavlovic I, Miklavcic D. Web-based electronic data collection system to support electrochemotherapy clinical trial. *IEEE Trans. Inform. Tech. Biomed.* 11: 222-230, 2007.
- Pavselj N, Pr at V, Miklavcic D. A numerical model of skin electropermeabilization based on in vivo experiments. *Annals Biomed. Eng.* 35: 2138-2144, 2007.
- Pucihar G, Kotnik T, Teissi  J, Miklavcic D. Electroporation of dense cell suspensions. *Eur. Biophys. J.* 36: 173-185, 2007.
- Rebersek M, Faurie C, Kanduser M, Corovic S, Teissi  J, Rols MP, Miklavcic D. Electroporator with automatic change of electric field direction improves gene electrotransfer in vitro. *Biomed. Eng. Online* 6(25): 1-11, 2007.
- Sel D, Macek-Lebar A, Miklavcic D. Feasibility of employing model-based optimization of pulse amplitude and electrode distance for effective tumor electropermeabilization. *IEEE Trans. Biomed. Eng.* 54: 773-781, 2007.
- Zupanic A, Ribaric S, Miklavcic D. Increasing the repetition frequency of electric pulse delivery reduces unpleasant sensations that occur in electrochemotherapy. *Neoplasma* 54: 246-250, 2007.

Recent projects:

- French-Slovenian Scientific Cooperation (PICS Programme): New Theoretical Models of Cell and Tissue Electropermeabilization, their Experimental Validation and Technological Applications (2005-2007)
- Croatian-Slovenian Cooperation in Science and Technology: Numerical Modeling of Electrical and Heat Phenomena Accompanying Electrochemotherapy and electrogenetherapy of Tissues (2005-2006)
- COST 281: Potential Health Implications from Mobile Communication Systems (2001-2006)
- French-Slovenian Scientific Cooperation (PROTEUS programme): Evaluation of Electrical Parameters for Effective Electrochemotherapy and Electrogene Therapy, and Design of Electrochemotherapy in Clinics (2004-2005)
- CLINIPORATOR: A New Adaptive Generator for DNA Electrotransfer In Vivo for Gene Therapy (ended in 2003)
- Croatian-Slovenian Cooperation in Science and Technology: Evaluation of Electrochemotherapy and Electrogenetherapy by Means of Bioimpedance Measurements (2003-2004)
- French-Slovenian Scientific Cooperation (PROTEUS programme): Engineering and Biophysical Approach to Understanding Cell Electropermeabilization and its Biomedical and Biotechnological Applications (2003-2004)
- ESOP: European Standard Operating Procedures for Electrochemotherapy and Electrogenetherapy (2003-2005)

Additional activities:

- Vice-President of the International Society for Bioelectromagnetism (ISBEM)
- Vice-President of the European Bioelectromagnetics Association (EBEA)
- Vice-President of the Slovenian Society for Engineering in Medicine and Biology

- Chairman of the Scientific Advisory Board of the Slovenian Forum on Non-Ionising Electromagnetic Radiation
- Associate Editor of Bioelectromagnetics
- Associate Editor of IEEE Transactions on Biomedical Engineering
- Member of the Editorial Board of IEEE Transactions on Nanotechnology
- Member of the working group for preparation of the safety standards related to non-ionising radiation at Slovenian National Standardization Office
- Referee for several SCI indexed journals