



Newsletter No. 83

The 1st Slovene congress on electroporation
Bled, Slovenia, February 17 and 18, 2023

Newsletter by: Samo Mahnič-Kalamiza and Damijan Miklavčič, University of Ljubljana, Slovenia
samo.mahnic-kalamiza@fe.uni-lj.si, damijan.miklavcic@fe.uni-lj.si

It is a pleasure to report on the organization of the 1st Slovene congress on electroporation that was held at one of the most picturesque Slovene event venues suitable for all seasons – the lake Bled. Participants were welcomed by the Rikli Balance Hotel, which oversees the lake from an inclined hillside just above the waterline, with a wonderful view of the iconic island in the middle of the lake. It was the perfect venue to be contemplating difficult but interesting research questions in the field of electroporation, and discussing new collaborations over the course of the two-day event.

The Congress – which is the first ever organised in Slovenia dedicated exclusively to electroporation – welcomed 65 participants, 30 of whom were also lecturers at the event, with an additional 21 poster presenters, the majority of whom were PhD students working on electroporation in Slovenia. The Programme started off Friday morning with a session on basic mechanisms and preclinical research on electroporation, which featured an introductory keynote lecture by Gregor Serša on biomedical applications of electroporation, followed by four 15-minute talks covering basic mechanisms of electroporation, thresholds and models, vascular effects, and cell response to various pulse forms. The session continued after the coffee break with preclinical talks mostly dedicated to electrochemotherapy (ECT) and gene electrotransfer (GET). The session broke off to lunch upon closure.

After lunch, the session on gene transfer was opened by the Slovene minister of higher education, science, and innovations, Igor Papič, after which the audience enjoyed four talks on gene therapy in cancer treatment, plasmid vectors for GET, a systematic review of GET-relevant biological parameters, and plasmid evaluation in preparation of a clinical trial.

The GET session was followed by excellent PhD student presentations as part of the “flash” presentations session, during which every poster presenter had 1-2 minutes to “sell” their poster to the audience in an oral presentation accompanied by a slide or two. These were well received by the audience as the enthusiasm of the presenters (and the short attention span required) imbued the moment with more than a mere hint of nostalgia, especially as the more seasoned members of the audience were briefly reacquainted with the sense of wonder and eager pursuit of knowledge that is so characteristic of students just embarking on an academic career.

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9th School on Pulsed Electric Field Applications in Food and Biotechnology
Vienna, Austria 4 – 8 September, 2023



International Society
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Newsletter Editor

Damijan Miklavčič
University of Ljubljana, Slovenia
damijan.miklavcic@fe.uni-lj.si

Newsletter Technical Editor and Website Administrator

Samo Mahnič-Kalamiza
University of Ljubljana, Slovenia
samo.mahnic-kalamiza@fe.uni-lj.si

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The Friday scientific programme concluded with a 2½-hour session devoted to clinical ECT featuring a keynote by Aleš Grošelj on ECT of head and neck tumours, followed by 7 oral presentations covering primarily clinical experience in treating hepatocellular carcinoma, but also ECT and immunotherapy, treatment planning, gynaecological applications, and non-melanoma skin cancer.

Friday concluded with a convivial dinner at the Hotel, whereby, through the effect of delicious food and Slovene wines, both a prodigious and fruitful discussion among the participants on electroporation as well as quality networking were most assuredly stimulated.

On Saturday morning, the Programme kicked off with a session on veterinary applications and biotechnology. This somewhat chimerical session was opened with a keynote delivered by Nataša Tozon, who summarised what we have learned through clinical experience in veterinary ECT, and was followed by two talks from the field of veterinary applications. One of the two talks was especially new to the audience and garnered a lot of attention, as it dealt with anaesthetising of domesticated pigs used in experiments and featured a number of videos of the cute animals. The session continued with talks presenting some of the areas or applications more exotic to the general theme of the Congress; i.e., pulsed magnetic field electroporation, mass transport in food applications, and the impact of electroporation on antimicrobial activity of antibiotics.

After the coffee break, the last session of the event on cardiac ablation and other opportunities featured 5 talks on S-HEK cells, on how to get an electroporation device onto the (medical) market, on treatment of vascular malformations by ECT, on cell death markers in electroporated cardiac cells, and on muscle contractions and pain due to pulse application. The session was closed by a keynote lecture delivered by Damijan Miklavčič on electroporation for cardiac ablation and other opportunities for collaboration in Slovenia.

In the end, both the Chairs of the Congress, Gregor Serša and Damijan Miklavčič, as well as participants agreed that this event should only stand as the first in a series of events dedicated to electroporation to be organised in Slovenia in the coming years. Thus, we are already looking forward to meeting again at the Second Slovene congress sometime in the near future.

The event was jointly organised by the Ljubljana Institute of Oncology and the Faculty of Electrical Engineering of the University of Ljubljana, and was made possible by sponsorship of the ISEBTT, along with 9 other sponsors from the industry, to whom we are very grateful for enabling us to hold the 1st Slovene congress on electroporation.

Forthcoming events

6th Veterinary workshop on electroporation-based treatments

Ljubljana, April 25 – 26, 2023

<https://www.electroporation.net/event/6th-veterinary-workshop/>

17th interdisciplinary postgraduate course and international workshop Electroporation Based Technologies and Treatments (EBTT)

Ljubljana, November 12 – 18, 2023 (*on-site* and *on-line* event)

<http://www.ebtt.org>

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The iconic Bled lake with its island in focus. This winter seasonal landscape photo courtesy of Franci Ferjan was obtained from the www.slovenia.info media library.

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