



Newsletter No. 23

3rd Veterinary Workshop on Electroporation-Based Treatments

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The 3rd Veterinary workshop on electroporation-based treatments took place between 21st and 22nd of March 2018 in Ljubljana at the Veterinary faculty of the University of Ljubljana, and at the Portorož Congress Centre. It was organized by the Institute of Oncology Ljubljana, the University of Ljubljana, and the Slovene Small Animal Veterinary Association (SZVMZ). The workshop was sponsored by the ISEBTT (International Society for Electroporation-Based Technologies and Treatments). There were 10 participants of the workshop who came from Italy, UK, Sweden, Portugal, Brasil, and Slovenia. During the first day of the Workshop, lecturer Prof. Damijan Miklavčič presented the basics of electroporation of cells nad tissues. Preclinical electrochemotherapy was presented by Prof. Maja Čemazar and its use in human clinic practice by Prof. Gregor Serša. The use of electrochemotherapy in veterinary oncology was introduced by Prof. Nataša Tozon with the lecture on 20 years of experience with electrochemotherapy in dogs and cats. Assoc. Prof. Bor Kos presented numerical modelling for electroporation-based treatment of canine tumours. The lectures were followed by practical work, where the participants were divided into two groups and rotated between two rooms where electrochemotherapy on veterinary patients was performed. There were two patients with oral tumours, one with oral malignant melanoma and the other with fibrosarcoma. Additionally, the participants could attend a follow up of two dogs with mast cell tumours four weeks after electrochemotherapy. To conclude the first day, the use of electrochemotherapy in exotic pets was presented by Assist. Prof. Jožko Račnik. Two patients were presented, one gecko with two squamous cell carcinoma tumours that completely regressed and one ferret with a mast cell tumour, which was also in complete regression.

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- ▶ One-shot knowledge base on high intensity pulsed electric fields
- ▶ Regular updates and steady growing in content size
- ▶ Widespread and well-structured information from foundations to the use in biology, medicine, biotechnology, food and environmental technologies



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The second day of the workshop took place in Portorož. Firstly, Assist. Prof. Darja Pavlin presented preclinical and clinical use of gene electrotransfer. Next, Urša Lampreht Tratar presented an on-going clinical study on spontaneous tumours in dogs using electrochemotherapy in combination with gene electrotransfer of interleukin-12. After that lecture, case reports were presented by Nina Milevoj from Slovenia, Filippo Torrigiani from Italy, and Marcelo Monte Mór Rangel from Brazil. Nina Milevoj and Filippo Torrigiani also presented an on-going research on bleomycin pharmacokinetics in dogs and cats and invited the participants to participate in their research. The workshop ended with a round table where vivid discussion about the practical use of electrochemotherapy in veterinary medicine took place.

The participants showed great enthusiasm about the electrochemotherapy and the results of this treatment. Moreover, according to the survey which was organized after the workshop, participants were satisfied with the lectures and the practical work organized. Altogether, the 3rd Veterinary workshop on electroporation-based treatments was a successful event.



Forthcoming events

5th School on Pulsed Electric Field Applications in Food and Biotechnology

Quakenbrück, May 14 – 18, 2018

<https://goo.gl/6oKCKH>

Fundamental & Applied Bioelectrics Workshop

Norfolk, July 9 – 12, 2018

<https://goo.gl/nFujgn>

International Nonthermal Processing Workshop and Short Course

Sorrento, September 25 – 26, 2018

<http://nonthermal.prodalricerche.com>

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*Above: Day 1 – Open discussion
after all the lectures.*

*Left: Day 1 – Practical work,
electrochemotherapy of oral
malignant melanoma in dog.*

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