

PROGRAM

7th International Bioelectrics Symposium

June 24-26, 2010, Norfolk, VA, USA

Thursday evening 5:00 -9:00 p.m.

5:00	Registration	IRP2*: Lobby
6:00	Welcome reception	IRP2: Lobby/Conferencing Center

Friday morning 8:30 a.m. -12:00 p.m.

8:00 -	Breakfast	University Theatre**: Lobby
8:30	SESSION 1	University Theatre: Theater

Chair: *Richard Heller, Old Dominion University, USA*

8:30	Richard Heller	Opening remarks
	John Broderick	Welcome from the President of Old Dominion University
8:45	Hidenori Akiyama	Keynote: Medical and Environmental Applications in the field of Bioelectrics
9:30	Andrei Pakhomov	Fluorescent imaging of TI ⁺ uptake for detection of membrane nanopores
9:45	Kate Broderick	Prototype development and pre-clinical immunogenicity analysis of a novel minimally invasive electroporation device
10:00		Coffee Break University Theatre: Lobby
10:30	SESSION 2	University Theatre: Theater

Co-Chairs: *Karl Schoenbach, Old Dominion University, USA*

Bennett Ibey, Air Force Research Laboratory, USA

10:30	Wolfgang Frey	Responses on plant cells and tissue on nsPEFs
11:00	Michele Warmund	Enhanced germination and seedling growth of triploid watermelon after exposure to a low frequency magnetic field
11:15	Karl Schoenbach	Picosecond pulses and high-power microwaves expand frontiers in bioelectrics
11:35	Bennett Ibey	Lethality of ultrashort electrical pulse exposure across multiple cell lines
11:50	Ye Ai	DNA nanoparticle translocation through a nanopore
12:05		Lunch (provided)

Friday afternoon 1:00 -5:15 p.m.

1:00 POSTERS University Theatre: Side Room

2:30 SESSION 3 University Theatre: Theater

Chair: *Lluís Mir, Institut Gustave-Roussy, France*

2:30	Gregor Sersa	Keynote: Anti-vascular effects of electropermeabilization and electrochemotherapy
3:15	Sunao Katsuki	Response of HeLa cells to narrow band intense pulsed electric fields
3:30	Richard Nuccitelli	Nanosecond pulsed electric field therapy that causes skin tumors to self-destruct with a single treatment

3:45 Break University Theatre: Lobby

4:00 SESSION 4 University Theatre: Theater

Chair: *Stephen Knisley, Old Dominion University, USA*

4:00	Thomas Vernier	Nanoelectropermeabilization "everywhere"
4:30	Stephen Beebe	Apoptosis initiation and angiogenesis inhibition: cancer targets and multiple programmed cell death mechanisms with nanosecond pulsed electric fields
4:45	Ken-ichi Yano	Identification of the intracellular signaling pathway that is activated by nanosecond pulsed electric fields in human cells

Friday evening 5:45-9:00 p.m.

Dinner at Chrysler Museum

5:45 Buses depart for Chrysler Museum from Springhill Suites and IRP2

9:10 Buses depart for Springhill Suites and IRP2 from Chrysler Museum

Saturday morning 8:00 -12:00 p.m.

8:00 Breakfast University Theatre: Lobby

8:30 SESSION 5 University Theatre: Theater

Co-Chairs: *Justin Teissie, Institut de Pharmacologie et de Biologie Structurale, France*

Stephen Beebe, Old Dominion University, USA

8:30	Justin Teissie	Keynote: Present knowledge on kinetics of electric field effects on cell membranes
9:15	Marie-Pierre Rols	Multicellular spheroids as a new tool to unravel the mechanisms of <i>in vivo</i> molecules delivery by electrotransfer
9:30	Gintautas Saulis	Electroporation threshold for electric pulses from 95 ns to 20 μ s
9:45	Rafael Davalos	Non-thermal irreversible electroporation for intracranial disorders

10:00 Coffee Break University Theatre: Lobby

10:30 **SESSION 6** University Theatre: Theater

Chair: *Juergen Kolb, Old Dominion University, USA*

10:30	Klaus-Dieter Weltmann	Keynote: Atmospheric Pressure Plasma Sources - Critical Parameters for Biomedical Applications
11:15	S. H. R. Hosseini	Compact therapeutic shock wave generators using magnetic pulse compression circuits
11:30	Carl Baum	A random-rotation scaling law for bioelectric effects of nanosecond pulses

11:45 Lunch (provided)

Saturday afternoon 12:45 -5:00 p.m.

12:45 **POSTERS** University Theatre: Side Room

2:15 **SESSION 7** University Theatre: Theater

Co-Chairs: *Christopher Osgood, Old Dominion University, USA*

Olga Pakhomova, Old Dominion University, USA

2:15	Gale Craviso	Nanosecond stimulation of adrenal chromaffin cells
2:45	Olga Pakhomova	Comparative cytotoxicity of nano- and microsecond electric pulses
3:00	Keisuke Abe	Effect of pulsing sequence of nanosecond pulsed electric fields on HeLa S3 cells and mature fat cells
3:15	Petr Lukes	Prospects of focused tandem shock waves to enhance antitumor efficiency of chemotherapeutic drugs
3:30	Yasushi Minamitani	Investigation of frequency response characteristics of effect for HeLa cell by high intense burst pulse electric field

3:45 Break University Theatre: Lobby

4:00 **SESSION 8** University Theatre: Theater

Chair: *Andrei Pakhomov, Old Dominion University, USA*

4:00	X. Nancy Xu	New green techniques for sustaining and culturing of undifferentiated embryonic stem cells
4:15	Shu Xiao	Biological cells response to high power electromagnetic pulses
4:30	POSTER AWARDS	Graduate and postdoctoral studies
4:45	Richard Heller	Closing remarks

* IRP2: Innovation Research Park Building 2, located on the corner of the 43rd street and Monarch Way

** University Theatre: located on the corner of the 47th Street and Hampton Blvd