PROGRAMME

March 15, 2011 (Tuesday)

13:00 *Lunch*

15:00 *Workshop opening*

BIO-DECONTAMINATION AND MEDICAL APPLICATIONS **Chair:** Yu. Akishev

15:20	**K.D. Weltmann:** Prospects, problems and chances of the use of plasmas in life-sciences
16:00	**R. Pothiraja:** Sterillization using pulsed corona microplasma jet
16:20	**D. Lacoste:** Biocidal effects of nanosecond repetitively pulsed discharges
16:40	**T. von Woedtke:** Plasma-liquid-interactions: chemistry and antimicrobial effects

17:00 *Coffee break*

FOOD SECURITY AND DECONTAMINATION **Chair:** J. Kolb

17:20	**G. Shama:** The prospects for atmospheric gas plasmas in the food industry
18:00	**P. Pedrow:** Atmospheric pressure cold plasma processing of bio-active packaging applied directly to …
18:20	**K. Keener:** Decontamination of *Bacillus subtilis* spores in a sealed package using a non-thermal plasma …
18:40	**Z. Machala:** Plasma agents in water and surface decontamination

19:20 *Dinner*

20:00 *Welcome reception*

March 16, 2011 (Wednesday)

PLASMA INTERACTION WITH CELLS AND DNA **Chair:** G. Shama

8:20	**A. Mizuno:** Damages of biological components in bacteria and bacteriophages exposed to atmospheric …
9:00	**D. O'Connell:** Plasma interactions with plasmid DNA
9:20	**J. S. Sousa:** DNA oxidation by reactive oxygen species produced by atmospheric pressure microplasmas
9:40	**E. Odic:** Investigations of bacterial inactivation and DNA fragmentation induced by flowing …

10:00 *Coffee break*

WOUND HEALING AND MEDICAL APPLICATIONS **Chair:** K.D. Weltmann

10:20	**A. Fridman:** Plasma medicine
11:00	**I. Topala:** Helium atmospheric pressure plasma jet: diagnostics and application for burned wounds healing
11:20	**Y. Creyghton:** SDBD plasma jet for skin disinfection
11:40	**C. Bender:** Synergistic effects of tissue tolerable plasma and polihexanide to promote healing in chronic…
12:00	**G. Isbary:** Cold atmospheric plasma for clinical purposes - promising results in patiens and future …

12:40 *Lunch*

WOUND HEALING AND MEDICAL APPLICATIONS **Chair:** E. Robert

14:00	**J. Lademann:** Antisepsis of the skin by treatment with tissue-tolerable plasma (TTP): Risk assessment …
14:40	**S. Kuo:** Non-equilibrium air plasma for wound bleeding control
15:00	**S. Ermolaeva:** Plasma effects on chronic infection models
15:20	**D. Dobrynin:** Experimental study and mechanisms of plasma assisted wound healing
15:40	**P. Lukeš:** Generator of focused shock waves in water for biomedical applications

16:00 *Coffee break*

ELECTRIC FIELDS AND PLASMA SOURCES **Chair:** V. Tsiolko

16:20	**J. Kolb:** Biological effects of ultrashort pulsed electric fields
17:00	**R. Brandenburg:** Characterization of an intermittent negative dc-corona discharge in argon designed …
17:20	**O. Petrov:** Low temperature atmospheric argon plasma: Diagnostics and medical applications
17:40	**G. El-Aragi:** Experimental study and sterilizing application of non-thermal plasma technology
18:00	**V. Chernyak:** Organic compound destruction in dynamic plasma-liquid systems

19:00 *Dinner*

20:00	**POSTER SESSION** (for details, see the next page)

PROGRAMME

March 17, 2011 (Thursday)

MEDICAL APPLICATIONS — **Chair:** J. Lademann

8:20	**V. Vasilets:** Nitric oxide plasma sources for bio-decontamination and plasma therapy
9:00	**E. Robert:** First achievements and opportunities for cancer treatment approach using non thermal plasma

9:40 *Coffee break*

BIOFILMS — **Chair:** A. Mizuno

10:00	**G. Brelles-Marino:** Bacterial biofilm inactivation by gas discharge plasma: Overview and future…
10:20	**C. Jiang:** A sub-microsecond pulsed plasma jet for endodontic biofilm disinfection
10:40	**E. Kobzev:** Inactivation of microorganisms in model biofilms by atmospheric pressure non-thermal plasma
11:00	**Q. Yu:** Non-thermal plasma treatment of dentin surface for bacterial disinfection and improved …

11:40 *Lunch*

12:20 *Skiing/Excursions*

19:00 *Banquet*

March 18, 2011 (Friday)

UV IRRADIATION AND EXCILAMPS — **Chair:** V. Vasilets

8:40	**V. Tarasenko:** Excilamps and atmospheric pressure plasma and their applications in biology and medicine
9:20	**V. Tsiolko:** Features of the sterilization by UV irradiation of low-pressure discharge plasma
10:00	**M. Guivan:** Xenon iodide exciplex lamp as an efficient source for the UV surface cleaning and water …
10:20	**J.W. Lackmann:** Characterization of bacterial and bio-macromolecule damage by (V)UV and particle…

10:40 *Coffee break*

Chair: A. Fridman

11:00	**PANEL DISCUSSION**

11:40 *Closing remarks*

12:00 *Lunch*

POSTER SESSION
A. Berardinelli: Resistive barrier discharge device to generate gas plasma for food decontamination
B. Denis: Determination of effective UV/VUV radiation of a low pressure inductively coupled plasma for …
I. Filatova: Fungicidal and bactericidal effect of plasma and radiowave treatment on biological and medical …
F. Fumagalli: Biomaterials etching in low pressure inductively coupled discharge
J.L. Hueso Martos: Optical emission spectroscopic evaluation of different microwave discharges and its …
I. Koban: Could the addition of agents exceed anti-biofilm plasma efficacy?
A.R. Lupu: Importance of oxidative processes induced in normal and tumoral cell monolayers exposed to the …
J. Mizeraczyk: Low-temperature microwave microplasma for bio-sterilization
A.V. Nastuta: Time and space evolution of plasma bullets in APPJ applied for human tissue treatment
J. Pawlat: Ozone soil conditioning and decontamination
M. Pelach: Comparison of direct and indirect effects of cold air plasma on bacteria contaminated surfaces
J. Rahel: DBD plasma assisted silver functionalization of surgical meshes
V. Scholtz: Comparison of various types and parameters of corona discharges for decontamination of surfaces …
Z. Sipoldova: Bio-decontamination of plastic and dental surfaces with atmospheric pressure air DC discharges
M. Soliman: The effect of ionizing gas plasma as apoptosis promoter in some cancer cell lines
J.S. Sousa: Generation of reactive oxygen species in kHz-driven atmospheric pressure plasma jets for …
H. Souskova: The fungal spores survival under the low-temperature plasma
E. Spetlikova: Decontamination of biological suspensions by pulsed corona discharges: Role of UV radiation, …
B. Tarabova: Water bio-decontamination by spraying through cold air DC discharge plasma
D. Vujosevic: Oxygen plasma inactivation of *Staphylococcus aureus*
W. Zhu: Treatment of clinical dermatosis and candida biofilms using a DC atmospheric-pressure cold plasma …