

# MEDICAL PHYSICS IN THE BALTIC STATES 9 (2011)

## CONFERENCE & WORKSHOP PROGRAM

Thursday, 13 October 2011

### BRACHYTHERAPY SEMINAR

**10.00-10.30** Registration of participants at **Klaipėda University Hospital, Liepojos 41, Klaipėda**

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**10.30-11.00** Welcome to the Klaipeda University Hospital (*Head of Klaipeda University Hospital prof. Vinsas Janušonis*)

**11.00-11.15** Rasa Dagienė. Brachytherapy in Klaipeda University Hospital.

**11.15-11.30** Romas Vilkas, M.Laurikaitis, V.Andrijaitienė. QA in Brachytherapy.

**11.30-12.00** Lena-Marie Lundberg, N.Pettersson. Description of treatment with brachytherapy at Sahlgrenska University Hospital, Göteborg, Sweden.

**12.00-12.15** Karolis Jakštas, M.Šniurevičiūtė, D.Adlienė. Dosimetric evaluation of prostate brachytherapy using I-125 seeds.

**12.15-12.30** Aista Plieskienė. Presentation of Radiotherapy department at Klaipeda University Hospital.

**12.30-13.30** Visit to the Radiotherapy department (*Head of department dr. A.Plieskienė*)

## Friday, 14 October 2011

09.00-10.00 Registration of participants at **Kaunas University of Technology**,  
Studentų g.50–325F, Kaunas

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10.00-10.15 Conference opening: **Representative of Kaunas University of Technology**  
*Vytautas Janilionis, Dean of the Faculty of Fundamental Sciences, Giedrius Laukaitis, Head of Physics Department, Sören Mattsson, Lund University, Skåne University Hospital Malmö, Diana Adlienė, Kaunas University of Technology*

### Session 1. Chair: prof. Peter Sharp

- 10.15-10.45 Sören Mattsson. Radiation protection of the patient in diagnostic radiology and nuclear medicine. – Are we doing enough?
- 10.45-11.00 Svetlana Sarycheva, V. Golikov, M. Balonov, A. Bratilova, S. Kalnitsky, I. Shatsky, V. Vodovatov. Studies of patient doses from radiological examinations in St.Petersburg and the Leningrad region.
- 11.00-11.15 Neringa Vaičiūnaitė, M.Laurikaitis, J.Laurikaitienė, R.Čerapaitė-Trušinskienė, G.Adlys. Verification of lead equivalent for protective aprons used in radiology.
- 11.15-11.30 Christian Bernhardsson, Ch.L. Rääf, S. Mattsson. Radiation exposure of inhabitants in Russia and Belarus due to fall out from the Chernobyl reactor.
- 11.30-11.45 Irina Zvonova. Radionuclide diagnostics in St. Petersburg, Russia.
- 11.45-12.00 Andrej Rožkov, R.Jerenkevič. Von GAHLEN nuclear medicine and hot laboratory radiation protection solutions.

### **Coffee break 12:00-12:15**

### Session 2. Chair: prof. Yuri Dekhtyar

- 12.15-12.30 Pernilla Peterson, S.Månsson. MR for quantitative fat imaging.
- 12.30-12.45 Jaroslav Denkovskij, E.Bernotienė, G. Kirdaitė, G. Streckytė, R.Rudys, S.Bagdonas. Surface markers of synovial mesenchymal stem cells: refinement of flow cytometric analysis.
- 12.45-13.00 R.Kubiliūtė, Akvilė Šlėktaitė, M.Burkanas, R.Grigienė, R.Rotomskis. Gold nanoparticles as a contrast agent for X-ray imaging.
- 13.00-13.15 J.Dadonienė, A.Cypienė, Diana Karpec, R.Rugienė, S.Stropuvienė, A.Laucevičius. Application of physical methods for determination of functional parameters of arteries in rheumatic patients.

### **Time for the lunch 13:15 – 14:15**

### Session 3. POSTER SESSION, Chair: dr. Judita Puišo

- P01 V. Nevulis-Obuchovska, E. Jakubovskij, A. Miller. Radiotherapy treatment planning methods comparison for pediatric retroperitoneal tumors: case report.
- P02 V.Rudžianskas, A.Inčiūra, E.Juozaitytė, R.Kubilius, S.Vaitkus, M.Zeniauskaitė. Interstitial high-dose-rate brachytherapy for recurrent and previously irradiated cervical lymphadenopathy from head and neck.
- P03 M.Gedvilas, B.Gricienė, N. Medvedevas. Assessment of ionising radiation doses delivered to cardiologists during interventional procedures.

- P04** *B.Gricienė, A.Urbonienė.* Individual monitoring of external exposure for medical, industry and research workers in Lithuania.
- P05** *J.Stonkutė, I.Prosyčėvas, J.Puišo, J.Laurikaitienė, D.Adlienė.* Low dose irradiation impact on stability of the FBX chemical dosimeter.
- P06** *L. Bumbure, Yu.Dekhtyar, T.Kirsanova, S.Bumbure.* Brightness histogram vs. visual evaluation in digital radiography- the final stage.
- P07** *Rita Plaipaitė-Nalivaiko, A.Meškauskas, D.Adlienė, S.Mačiulaitienė, A.Jotautis.* Radiation impact on properties of layered PE/PA structures.
- P08** *V.Minialga, K.Martinaitytė.* Reading errors in through window infrared temperature measurements.

#### **Session 4. Chair: prof.Soren Mattsson**

- 14.15-14.30** *Yuri Dekhtyar.* Emission of weak electrons towards nanodosimetry.
- 14.30-14.45** *Birute Gricienė.* Lymphocyte chromosomal aberration assay in radiation biodosimetry.
- 14.45-15.00** *Henrik Svensson, S.Ceberg, S.Å.J.Bäck.* An investigation of a potential multi-purpose readout modality for two and three dimensional dosimetry using optical CT scanners.
- 15.00-15.15** *Artjoms Smakovs, A.Meijers, S.Plaude, S.Popovs, O.Utehina.* Evaluation of radiochromic films' post-exposure optical density changes.
- 15.15-15.30** *Donatas Limantas.* The OSL technology- new possibilities for personal dosimetry.

#### **Coffee break 15:30-15:45**

#### **Session 5. Chair: prof. Diana Adliene**

- 15.45-16.15** *Tony Svahn.* Breast tomosynthesis or digital mammography for breast cancer screening?
- 16.15-16.30** *Irena Kuzmickienė, E.Aleknavičius, K.P.Valuckas, V.Ostapenko, V.Atkočius, A.Burneckis.* Incidence of cardiovascular disease following breast radiation therapy.
- 16.30-16.45** *Ernestas Šileika, E.Aleknavičius, A.Burneckis, E.Jakubovskij, A.Ivanauskas.* Retrospective analysis of treatment management of patients with glioblastoma in Oncology institute of Vilnius University.
- 16.45-17.00** *Sandija Plaude, A.Meijers, D.Purina, A.Trans, S.Popovs, O.Utehina.* Hypofractionated stereotactic body radiation therapy for primary liver cancer and liver metastasis.
- 17.00-17.15** *Arturs Meijers, S.Plaude, O.Utehina, S.Popovs.* Quality assurance procedure for SRS and SRT treatments.
- 17.15-17.30** *N. Spizhenko, Sergii Luchkovskiy, I. Kadenko.* Risk assessment in radiation therapy of patients using probabilistic safety analysis of radiotherapy devices.
- 17.30-17.45** *Ulf Koscheda.* New laser technologies for virtual simulation.
- 17.45-18.00** *Peter Sharp, S.Christofides, C.Caruana, Wil van der Putten, R.Padovani, H.Bosmans, A.Torresin, J.Hand, P.Allisy-Roberts, K.-U.Kasch.* The role of EFOMP in European Medical Physics.
- 18.00-19.00** Meeting of Lithuanian Association of Medical Physicists and Biomedical Engineers, Medical physicists Society in Lithuania and Lithuanian Society of Radiation Therapy

#### **19:30-22:00 Get-together party**

**Saturday, 15 October 2011**

**09.30-10.00** Registration of participants at **Kaunas University of Technology, Studentų g.50-325F, Kaunas.**

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**Session 6. Chair: Niclas Pettersson**

- 10.00-10.15** **Kalle Kepler, A.Vladimirov.** Half value layer and AEC receptor dose compliance survey in Estonia.
- 10.15-10.30** **Nikolajus Medvedevas, I.Rutkauskaitė, D.Adlienė, J.Laurikaitienė.** Application of GAFCHROMIC films for the evaluation of lead eye shielding efficiency during superficial X-ray treatment.
- 10.30-10.45** **Sigita Ponelytė, A.Guobienė, J.Puišo, I.Prosyčėvas, R.Naujokaitis.** Bioadaptive polymers for active sensor elements in medical applications.
- 10.45-11.00** **Yaroslav Kmetyuk, H.Rabosh, I.Mikhnitskiy.** PET experience in Ukraine: commissioning and perspectives at All-Ukrainian Center for Radiosurgery.

**Coffee break 11:00 -11.30**

**Session 7. Chair: Dr. Kalle Kepler**

- 11.30-11.50** **Niclas Pettersson.** Clinical radiobiology for brachytherapy.
- 11.50-12.00** **Jurgita Laurikaitienė, D.Adlienė, K.Jakštas, I.Cibulskaitė, G.Adlys, A.Andrejaitis.** IMRT and Brachytherapy for head and neck cancer patients.
- 12.00-12.15** **Marius Laurikaitis, R.Vilkas, V.Andrijaitienė.** QA in brachytherapy.
- 12.15-12.30** **Andrius Ivanauskas, E.Aleknavičius, A.Burneckis, A.Miller.** Dosimetric options and possibilities of prostate LDR brachytherapy with permanent I-125 implants.
- 12.30-13.00** Final remarks (*prof. Sören Mattsson*)