

SGSMP / SGBT Annual Meeting 1999 in Zürich : detailed programme

Thursday 23rd September 1999

From 9:30

Registration, coffee and industrial exhibition

10:00 - 10:15

Opening of the meeting (Grosser Hörsaal)

by *J.-F. Germond (President SGSMP), D. Meier (President SGBT),
and U.M. Lütolf (Chairman, Department of Radiology, USZ)*

10:15 - 13:15

Plenary Session : Bio-compatible Materials (Grosser Hörsaal)

Chair : *J.-F. Germond (La Chaux-de-Fonds), D. Meier (Zürich)*

10:15 - 10:55

Biopolymer and biomimetic gels in the promotion of healing

Prof. Jeffrey Hubbell (University & ETH Zurich)

10:55 - 11:35

Design of surfaces for biomaterial and biosensor applications

Dr. Marcus Textor (ETH Zurich)

11:35 - 11:55

Coffee break and industrial exhibition

Chair : *J. Hubbell (Zürich)*

11:55 -12:35

Specific immunostimulation with biodegradable microspheres

Dr. Bruno Gander (ETH Zurich)

12:35 - 13:15

Biomaterials as an enabler technique for cell and gene therapy

Prof. Patrick Aebischer (CHUV Lausanne)

13:15 - 14:30

Lunch at the ETH restaurant and industrial exhibition

14:30 - 15:50

Parallel Session : Bio-compatible Materials (Kursraum 307)

Chair : *P. Bösiger (Zürich)*

14:30 - 14:50

Mechanical stimulation of cell cultures via scaffolds

Dr. Bert Müller (ETH Zurich)

14:50 - 15:10

Ceramic cell carriers preparing hepatocyte and cardiomyocyte transplants

Dr. Ludwig Eckert (ETH Zurich)

15:10 - 15:50

Surface fonctionnalisation of biomaterials: application to Titanium and Polyurethane

Prof. Pierre Descouts (University of Geneva)

15:50 - 16:30

Coffee and industrial exhibition

14:40 - 16:00

Parallel Session : Diagnostics (Grosser Hörsaal)

Chair : *H.W. Roser (Basel)*

14:40 - 14:53

Premiers résultats de l'enquête sur les fréquences des examens de radiodiagnostic en Suisse
A. Aroua¹, J.P. Vader², B. Burnand², J.-F. Valley¹ (¹ Institut de radiophysique appliquée, Lausanne; ² Institut universitaire de médecine sociale et préventive, Lausanne)

14:53 - 15:06

Mesure objectives de la qualité d'image an radiodiagnostic - La problématique du spectre de Wiener

M. Pachoud¹, F.R. Verdun¹, F. Bochud¹, R. Moeckli¹, C. Hessler², J.-F. Valley¹ (¹ Institut universitaire de médecine sociale et préventive, Lausanne; ² Service de Radiodiagnostic et de Radiologie Interventionnelle, CHUV, Lausanne)

15:06 - 15:19

Synchrotronstrahlung für die Mammographie?

Ch. Markovits, H.W. Nemeč, J. Roth, G. Bongartz (Abteilung Radiologische Physik, Kantonsspital/Universitätskliniken Basel)

15:19 - 15:32

Appréciation objective de la qualité d'image et de la dose lors d'un examen mammographique par rayonnement synchrotronique

R. Moeckli¹, F.R. Verdun¹, M. Pachoud¹, S. Fiedler², C. Hessler³, J.-F. Valley¹ (¹ Institut de radiophysique appliquée, Lausanne; ² European Synchrotron Radiation Facility, Grenoble, F; ³ Service de Radiodiagnostic et de Radiologie Interventionnelle, CHUV, Lausanne)

15:32 - 15:45

Wie sinnvoll ist eine Bleigummiabdeckung der Patientin bei der Mammographie?

H.W. Nemeč, J. Roth, R. Sander (Abteilung Radiologische Physik, Kantonsspital/Universitätskliniken Basel)

15:45 - 15:58

Programme d'assurance de qualité pour le dépistage mammographique dans le canton de Vaud - aspect techniques

F.R. Verdun, G. Bucher, M. Pachoud, R. Moeckli, C. Hessler, J.-F. Valley (Institut de radiophysique appliquée, Lausanne)

16:00 - 16:30

Coffee and industrial exhibition

16:30 - 18:00

Separate Annual General Meetings of

SGSMP (Grosser Hörsaal)

and SGBT (Kursraum 301)

19:00 - 22:00

Boat trip on Lake Zurich with welcome drink, buffet dinner and musical accompaniment by the Hot Stones, Blues and Dixie Band of Kloten

Friday 24th September 1999

9:00 - 9:40

Plenary Session : Miscellaneous (Grosser Hörsaal)

Chair : *S. Klöck (Münsterlingen)*

9:00 - 9:12

Microarchitecture of the Human Radius Assessed with in vivo 3D-QCT

A. Laib, P. Rüegsegger (Institute for Biomedical Engineering, University and ETH Zürich)

9:12 - 9:24

Vectorized therapy with MRI compatible microtube

E. Hildebrand¹, H. Mehier², T. Binzoni¹ (¹ Department of Radiology, University Hospital of Geneva; ² INOL Lyon, France)

9:24 - 9:36

Etalonnage de chambres d'ionisation au rayonnement d'une source d'iridium-192

M. Grecescu, T. Buchillier, J.-F. Valley (Institut de radiophysique appliquée, Lausanne)

9:40 - 10:30

Plenary Session : Quality assurance (Grosser Hörsaal)

Chair : *F. Ionescu (Chur)*

9:40 - 9:52

How a quality assurance program can improve treatment

E. Egger, T. Böhringer, W. Roser (Division of Radiation Medicine, Paul Scherrer Institute, Villigen)

9:52 - 10:04

Quality assurance at the spot scanning gantry

E. Egger, T. Böhringer, A. Coray, G. Goitein, M. Grossmann, S. Lin, T. Lomax, E. Pedroni, W. Roser, O. Stadelmann, L. Wisser (Division of Radiation Medicine, Paul Scherrer Institute, Villigen)

10:04 - 10:16

Quality assurance of treatment planning systems in Swiss radio-oncology departments

V. Ionescu, F. Ionescu-Farca (Raetisches Kantonsspital, Radio-Onkologie, Chur)

10:16 - 10:28

Nine years of dosimetry intercomparisons in Switzerland - a short review

B. Reiner, P. Fässler, J.B. Davis (Universitätsspital Zürich)

10:30 - 11:00

Coffee and industrial exhibition

11:00 - 12:30

Plenary Session : Radiobiology (Grosser Hörsaal)

Chair : *N. Crompton (Villigen)*

11:00 - 11:45

Invited Lecture : Boron Neutron Capture Synovectomy

J.C. Yanch (Massachusetts Institute of Technology, Cambridge, Massachusetts, USA)

11:45 - 12:15

Invited Lecture : The TESLA Accelerator Institute

S. Pajovic (Belgrade, Yugoslavia)

12:15 - 12:30

Rational design of molecular radio-sensitizers

S. Bodis, M. Pruschy (Universitätsspital Zürich)

12:30 - 13:50

Lunch at the ETH restaurant and industrial exhibition

13:50 - 16:00

Plenary Symposium : Conformal therapy (Grosser Hörsaal)

Chair : *L. Cozzi (Bellinzona)*

13:50 - 14:35

Invited Lecture : Physical Considerations of conformal 3-D Radiotherapy

A. Hounsell (Christie Hospital NHL Trust, Manchester, UK)

14:35 - 14:55

Helical Tomotherapy: The future of 3D conformal therapy?

H. Keller, G. Olivera, T. Rock Mackie (University of Wisconsin, Madison, WI)

14:55 - 15:10

The role of Intensity Modulation in prostate cancer radiotherapy

L. Cella¹, A. Lomax², R. Miralbell² (¹ University Hospital, Geneva; ² Paul Scherrer Institut, Villigen)

15:10 - 15:25

A comparison of dose distribution of proton and conformal stereotactic photon beams for irradiation of brain lesions

B. Baumert^{1,2}, A. Lomax³, V. Miltchev², J.B. Davis² (¹ Neuro-oncology Unit of Radiotherapy and Oncology, Institute of Cancer Research, The Royal Marsden NHS Trust Sutton, Surrey UK; ² Radiation Oncology, University Hospital, Zurich; ³ Division of Radiation Medicine, Paul Scherrer Institute, Villigen)

15:25 - 15:40

3D conformal radiosurgery - How to quantify the degree of conformality?

S. Scheib, N. Lomax (Klinik im Park, Gamma Knife Zentrum Zürich)

15:40 - 15:55

Dosimetric Validation for Segmented Multileaf Modulation in photon radiation therapy

L. Cozzi¹, A. Fogliata Cozzi¹, L. Weber² (¹ Istituto Oncologico della Svizzera Italiana, Bellinzona; ² Helax AB, Uppsala)

16:00 - 16:20

Coffee break and industrial exhibition

16:20 - 17:20

Plenary Session : Treatment planning (Grosser Hörsaal)

Chair : *P. Nouet (Geneva)*

16:20 - 16:35

Ein auf MC-Daten basierendes 3D Pencil-Beam-Modell für die Photon-Therapie-Planung

W. Ulmer (Varian International AG, Zug)

16:35 - 16:50

Dose calculation accuracy in proton treatment planning

A. Lomax, B. Schaffner, A. Tourovski, E. Pedroni (Division of Radiation Medicine, Paul Scherrer Institut, Villigen)

16:50 - 17:05

CT treatment planning based on a simulator-CT-option: comparison between calculation and measurements using TLD in a humanoid phantom

M. Dorth^{1,2}, W. Seelentag², P. Cossmann², H. Schiefer² (¹ Department of Biomedical Physics and Bioengineering, Aberdeen University, UK; ² Klinik für Radio-Onkologie, Kantonsspital St. Gallen)

17:05 - 17:20

First Experience with an Integrated CT-Simulator-Treatment Planning System

J.-F. Germond, J.-M. Haefliger (Service d'Oncologie-Radiothérapie, Hôpital communal, La Chaux-de-Fonds)

17:30

End of the meeting

Posters (Viewing area is in the exhibition hall)

Patients with increased toxicity to radiotherapy displayed reduced apoptosis

*G.C. Emery¹, Y.-Q. Shi¹, H. Blattmann¹, M. Ozsahin², N.E.A. Crompton¹
(¹ Radiation Medicine, Biosciences, Paul Scherrer Institute, Villigen; ² Departement of
Radiation Oncology, CHUV, Lausanne)*

Tissue lesions caused by microplanar beams of synchrotron-generated x-rays in *Drosophila melanogaster*

*P.M. Schweizer¹, P. Spanne(+)², M.Di Michiel², U. Jauch³, H. Blattmann⁴, J.A. Laissue⁵
(¹ Institute of Medical Radiobiology, University of Zurich; ² European Synchrotron
Radiation Facility, Grenoble F; ³ Institute of Plant Biology, University of Zurich; ⁴ Paul
Scherrer Institute, Villigen; ⁵ Institute of Pathology, University of Bern)*

EPID patient setup verification of a conformal therapy on neck treatment with five photon fields

S.Presilla, A. Foglita, L. Cozzi (Medical Physics, Osp. S. Giovanni, Bellinzona)

ATM-/- Lymphoblastoid cells display high levels of radiation-induced apoptosis

*N.E.A. Crompton¹, Y.-Q. Shi¹, O. Sana², H. Blattmann¹ (¹ Biosciences, Paul Scherrer
Institute, Villigen; ² Hacettepe University, Children's Hospital, Ankara, Turkey)*

The p53 pathway and the ceramide pathway are two independent signal pathways leading to apoptosis induced by radiation

*Y.-Q. Shi, G.C. Emery, H. Blattmann, N.E.A. Crompton (Division of radiation Medicine,
Department of Life Science, Paul Scherrer Institute, Villigen)*

Ein TLD-Management System

*H. Gfirtner, G. Schenk, K. Madek, M. Krenner (Medizinische Physik, Klinikum Passau,
Deutschland)*