

The 1st Romanian Society of Hadrontherapy (RSH) Workshop

“RADIOTHERAPY WITH NEUTRON AND PROTON BEAMS INTER- AND MULTI- DISCIPLINARY R&D”

PREDEAL, ROMANIA
FEBRUARY 27th - March 1st, 2009

PROGRAM

. Opening speech Professor Dr. Nicolae Victor Zamfir,
Member of Romanian Academy

2. Speech of Nuclear Agency Romania

Fig. 1 Professor Dr. Nicolae Victor Zamfir, Member of Romanian Academy
Session 1: “History and geography” of Hadron-therapy

Chairmen: Prof. Sorin Comorosan, MD, PhD (Honorary
President of the Scientific Committee), Romania, Prof. Erik Blomquist, MD, PhD,
Sweden



Figură 2 Prof. Erik Blomquist, MD, PhD, Sweden

- 1) (The opening lecture): ENLIGHT, position and role in Europe, M. Dosanjh
- 2) “Proton therapy at PSI: More than 20 years of experience”, R. Schneider
- 3) ”Romania, a new country in the European and international orbit of Hadron therapy”, N. Verga



*Fig. 3 Prof. Sorin Comorosan, MD, PhD
(Honorary President of the Scientific Committee)*

Session 2: Proton therapy and neutron therapy, what is necessary and sufficient?



Fig. 4 Chairmen: Prof. Manjit Dosanjh, PhD, Chair of ENLIGHT++ Scientific Steering Committee, Phys. Constantin Paunoiu PhD, Romania.

- 1) A Proton Therapy facility; large or small? , F. Vernimmen,
- 2) "Extreme Light Infrastructure (ELI) and Hadron Therapy", D. C. Dumitras

- 3) Dosimetry and Quality Assurance Tools for Particle Therapy - Radu A. Vasilache,
- 4) "Absolute and relative dosimetry of proton and carbon ion beams on active and passive particle facilities", L. Raffaele

Session 3: Inter disciplinary and multi disciplinary R&D I

Chairmen: Dr. R. Schneider MD, PhD, Switzerland, Prof. Phys. Alexandru Jipa PhD, Romania

- 1) „Monte Carlo simulation for hadron-therapy”, M. Grazia Pia
- 2) “Quantifying the Depth-Dose curve in Hadron Therapy: a computational approach”, D.Sardari
- 3) “Computer codes ALICE, SRIM, and TRIM, their application in Hadron Therapy”, P. Saidi
- 4) “MC simulations of energy losses of protons and heavy ions”, Sergey P. Merts

Session 4: Inter disciplinary and multi disciplinary R&D II

Chairmen: Phys. Radu A. Vasilache, PhD, Romania, Prof. eng. Dan Dumitras, PhD, Romania

- 1) “Specific research projects in the framework of ENLIGHT: PARTNER, ULICE and ENVISION”, M. Dosanjh
- 2) “Radiobiology of Radio surgery”, F. Vernimmen,
- 3) “In-vivo proton beam shaping using static magnetic field”, D.Sardari
- 4) “Calculation method for effective dose and ambient dose equivalent using particle fluence”, Florea Scarlat, A. Scarisoreanu, E. Badita, E. Mitru, N. Verga
- 5) “Investigation of Bragg peak tail in Carbon ion therapy”, P. Saidi

Session 5: Proton Therapy and Neutron Therapy: clinical and economical aspects

I

Chairmen: Professor Manjit Dosanjh, PhD, Chair of ENLIGHT++ Scientific Steering Committee, Professor F. Vernimmen, MD, PhD, South Africa

- 1) "Proton Conformal Radiation Therapy of Intracranial Targets: Dubna Experience", E. Luchin
- 2) “Long term results of Proton Radio surgery for AVM’s, Meningiomas, and Acoustic Neuromas”, F. Vernimmen,

3) “Salivary Gland Tumours Treated With Fast Neutron Therapy At Ithemba Labs, Faure, South Africa”, Clare Stannard, F. Vernimmen, D. Jones, E. de Kock, E. Mills, V. Levin, S. Fredericks, J. Hille, A. Hunter.

4) “Secondary effects in Hadron Therapy”, N. Verga, Mitrica Radu-Iulian

5) Education in Medical Physics and Nuclear Physics at the Faculty of Physics, University of Bucharest Alexandru Jipa

Session 6: Proton Therapy and Neutron Therapy: clinical and economical aspects

II



Fig. 5 Chairmen: Nicolae I. Verga MD, PhD, Romania, Evgheniy Luchin, Md, PhD, Russian Federation

1) “Proton treatment of meningiomas or other tumors at the skull base”, E. Blomquist,

2) “The results of neutron therapy on several small series of patients with: advanced breast cancer, endometrial sarcoma, irresectable neck nodes and maxillary sinus carcinomas”, C. Stannard,

Stannard,

3) “Investigations on the concept “Complementary alternative medicine” (photodynamic therapy) and nuclear medicine”, R. M. Ion, R.C. Fierascu, I. Dumitriu

4) “Radiation Therapy: Past, Present and the Future”, A. Arbabi

Session 7: Round table & Concluding remarks