

Neutrons for Therapy

Satellite Symposium to NEUDOS-11 at iThemba LABS, Cape Town,
Monday 12 October 2009



Programme and Abstracts

Acknowledgments

The organizers wish to thank the organizers of NEUDOS-11 for the opportunity to run this satellite symposium.

Special thanks also to the Cyclotron Trust for supporting the meeting and the International Science and Technology Center ISTC Moscow for its travel grant to Ms. Elyutina.

Neutrons for Therapy

Programme

10:20-10:30 Welcome and Introduction W. Sauerwein

Radiation Biology

Chair: A. Wittig

10:30 -10:50 Radiobiology of high-LET radiation J. Gueulette, J.P. Slabbert,
D.T.L. Jones, A. Wambersie

10:50 -11:10 Radiosensitivities of different prostate
cancer cell types to fast neutrons and
X-rays J.P. Slabbert, T.T. Sebeela,
AM Serafin, F. Vernimmen

11:10-11:30 Discussion

Fast Neutron Therapy

Chair: D. J. Grocott

11:30-11:45 Status of fast neutron therapy at the
Northern Illinois University Institute
for Neutron Therapy at Fermilab. T. Kroc

11:45-11:50 Questions

11:50-12:05 Fast neutron therapy at University
of Washington: operation and clinical
advances R. Risler, G. Laramore,
J.G. Douglas, U. Parvathaneni

12:05-12:10 Questions

12:10-12:25 Fast neutron therapy at Technische
Universität München B. Loeper-Kabasakal A. Posch,
F.M. Wagner, S. Kampfer,
P. Kneschaurek, P. Lukas, W. Petry,
M. Molls

12:25-12:30 Questions

12:30-12:45 Fast neutron therapy in Essen:
The actual situation W. Sauerwein, R. Hentschel,
L. Brualla, A. Wittig

12:45-12:50 Questions

12:50-14:00 Lunch and Poster Session A

14:00-14:15	Quo Vadis after 21 years of neutron	F. Vernimmen, C. Stannard, therapy at iThemba LABS – Faure, E. Murray, L. van Wijk, South Africa S. Fredericks, S. de Canha,
		J. Harris, Z Mohammed
14:15-14:20	Questions	
14:20-14:35	Operational aspects of fast neutron therapy at iThemba LABS	J.E. Symons, J.J. Nieto-Camero
14:35-14:50	News from Detroit	presented by W. Sauerwein
	The Fast Neutron Therapy Facility at University / Karmanos Cancer Center - Current Status and Potential Opportunities	J. Burmeister, J. Brandon, Wayne State M. Joiner, M. Snyder, L. Santanam, R. Maughan, M. Yudelev, J. Farr, A. Konski
	Intensity Modulated Neutron Radiotherapy vs. 3D Conformal Neutron Radiotherapy	JM. Snyder, J. Burmeister, M. Joiner, L. Santanam,

Poster

L.I. Musabaeva, V.A. Lisin, Zh.A. Zhogina, V.V. Velikaya:
Results of neutron and neutron-photon therapy for malignant tumors at the Cancer Research
Institute Tomsk

Round Table Discussion

14:50-15:30 **Neutron Therapy: Quo Vadis?**
Chair: F. Vernimmen

Visit

15:30-16:15 Visit to the neutron facility at iThemba LABS

BNCT

Chair: T. Kobayashi

16:15-16:30	implementation of boron neutron capture therapy (BNCT) into clinical practice	A. Wittig, A. Matsumura, Y. Nakagawa, T. Aihara, H. Joensuu, A. Zonta, P. Busse, W. Sauerwein
16:30-16:35	Questions	

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| 16:35-16:45 | The application of NCTPlan program for the dosimetry planning of Neutron Capture Therapy on MEPHI research nuclear reactor | A.S. Elyutina, W.S. Kiger III, A.A. Portnov, V.K. Sakharov, I.N. Sheino, S.T. Ivanov |
| 16:45-16:50 | Questions | |
| 16:50-17:00 | Feasibility study to treat liver metastases at the TRIGA Mainz | C. Schütz, S. Werner, G. Hampel, J.-V. Kratz, C. Grunewald, T. Nawroth, S. Altieri, S. Bortolussi, S. Minouchehr, G. Otto, H. Schmidberger, C. Brochhausen, M. Blaickner |
| 17:00-17:05 | Questions | |
| 17:05-17:20 | No technical problems for realization of best reaction to form the beam of epithermal neutrons for BNCT | S. Taskaev, |
| 17:20-17:35 | The status on the development of an accelerator-based BNCT system in Japan | T. Kobayashi |
| 17:35-17:45 | Boron Neutron Capture Enhancement of Fast Neutron Therapy at the Wayne State University / Karmanos Cancer Center Neutron Therapy Facility and at CIRCE in Essen | J. Burmeister, M. Yudelev, C. Kota, R. Maughan, A. Wittig, R. Hentschel, W. Sauerwein |
| 17:45-18:15 | Discussion: Accelerators for BNCT: the future?
Chair: W. Sauerwein | |
| 18:30- 21:00 | Barbeque at <i>iThemba LABS</i> | |