

The Italian – Australian Dialogue on Hadron Therapy

10 October 2013

Embassy of Italy

Canberra

Programme Chair, Prof Richard Banati, ANSTO

- 10:00 Welcome and Safety Brief
Prof Oscar Moze
Scientific Attache, Embassy of Italy
- 10:05 Welcome and the Australian Hadron Therapy Collaboration
Dr Adi Paterson
CEO, Australian Nuclear Science and Technology
Organisation (ANSTO)
- 10:15 Hadron Therapy: rationale and clinical results
Prof Roberto Orecchia
Scientific and Medical Director, CNAO
- 10:50 Hadron Therapy: technology status and future vision
Prof Sandro Rossi
General Manager and Technical Director
Centro Nazionale di Adroterapia Oncologica (CNAO)
- 11:25 The Australian need for Hadron Therapy and current treatment
options
A/Prof Michael Penniment
Acting Director, Department of Radiation Therapy
Royal Adelaide Hospital
- 12:00 An Overview of the Research Opportunities arising from a proton
and carbon Hadron Therapy Centre in Australia
Dr Mark Reinhard, ANSTO
- 12:25 ANSTO Signing of CNAO-ANSTO MOU
- 12.30 General Discussion
- 13:00 Buffet lunch in Residence hosted by Ambassador of Italy
HE Gianludovico De Martino Di Montegiordano

Dr Adrian (Adi) Paterson

Chief Executive Officer

Australian Nuclear Science and Technology Organisation (ANSTO)

Dr Adrian (Adi) Paterson commenced a five year appointment as Chief Executive Officer of Australian Nuclear Science and Technology Organisation (ANSTO) on 1 March 2009. Since his arrival at ANSTO, Dr Paterson's diverse career experience, understanding of and exemplary skills in science, engineering, policy development and business have allowed him to drive positive change and growth. Staff numbers have increased, from approximately 920 to over 1100, and a number of major engineering projects have been initiated, including the Centre for Accelerator Science and the next suite of neutron beam instruments.

He has focused on the interrelation between public spending and practical innovation. He demonstrates a fundamental understanding of the need to put science and technology to work, creating wealth and enhancing quality of life. He is regarded as a trusted voice by government officials and invited to regularly and repeatedly to speak by business and scientific organisations on the nexus between science, innovation and business, nuclear science and technology issues and the international aspects of nuclear power.

Dr Paterson has also served on a number of councils and boards, including as Chair of the South African Innovation Fund and as member of the South African National Advisory Council on Innovation. In the nuclear domain, he served on the advisory board of South Africa's cyclotron organisation iThembaLABS and played a role in reviewing and restructuring the Nuclear Energy Corporation of South Africa.

Dr Paterson was elected a Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE) in 2009 and elected a Fellow of Engineers Australia in October 2012. He is a member of the Academy of Science of South Africa and the South African Academy of Engineering. He holds a BSc in Chemistry and a PhD in Engineering from the University of Cape Town.

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PERSONAL INFORMATION

Roberto Orecchia

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Sex M |

Date of birth 19.09.1952 |

Nationality Italian

C.F.: RCCRRT52P19L219H

WORK EXPERIENCE

Current position

- Full Professor of Radiation Oncology, University of Milan – Italy
- Head of the Residency Program of Radiation Oncology University of Milan - Italy
- Head of the Faculty for Radiology Technician - University of Milan - Italy
- Chairman of the Department of Radiation Oncology European Institute of Oncology Milan – Italy
- Scientific Co – Directorate of the European Institute of Oncology Milan – Italy
- Scientific Directorate of the CNAO Foundation (Italian National Centre for Hadrontherapy) Pavia – Italy.
- Professor of Radiology, Radiobiology and Radiotherapy, Faculty of Medicine University of Milan
- Professor of Radiobiology, Faculty of Biotechnology, Milan
- Professor of Radiology and Radiotherapy, School of Radiology Technician Faculty of Medicine University of Milan
- Professor of Radiology and Radiotherapy of the Residency program of Radiology, Nuclear Medicine, Oncology, Gynaecology and Obstetrics, Maxillo-Facial Surgery, ENT, Haematology, Thoracic Surgery and Medical Physics
- Teacher at the University Master of the University of Milan and Siena
- Lecturer for ESTRO (European Society of Therapeutic Radiation and Oncology) and ESO (European School of Oncology) teaching courses
- Teaching expert for the IAEA (International Atomic Energy Agency)
- Instructor for Bioengineer Fellows of the University Politecnico of Milan

Clinical, teaching and intensive scientific activity with more than 300 publications on national and international reviews (more than 220 reviewed on Pub Med), chapters and books, and other teaching materials on the following topics: integration between radiotherapy and medicine or drugs, hyperthermia, brachytherapy, high precision radiotherapy techniques (radiotherapy in 3D-conformal, stereotactic, intraoperative, IMRT and hadrontherapy). Main interests are: breast cancer, prostate cancer and head and neck cancer.

Coordinator and participant in several research collaborations with other Universities funded by different institutions as CNR, MURST, Italian Ministry of Health, Italian Association of Cancer Research (AIRC), American Italian Cancer Foundation (AICF), European Commission. At present coordinator of a 8 mln euros of a EU project involving 20 European countries (ULICE Project). Involved in other two EU Projects, PARTNER and ALLEGRO.

EDUCATION AND TRAINING

1980

Graduate in Medicine, University of Turin – Italy, cum laude

1984

Certified in Radiation Oncology, Radiology and Oncology

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient	Proficient	Proficient	Proficient	Proficient
Replace with name of language certificate. Enter level if known.					
French	Independent	Independent	Independent	Independent	Independent

Communication skills ▪ excellent communication skills gained through the experience as teacher, lecturer in international congresses, international team working

Computer skills ▪ good command of Microsoft Office™ tools

Driving licence ▪ B

ADDITIONAL INFORMATION

- Past President of AIRO (Italian Association of Radiation Oncology)
- Past Board Member ESTRO (European Association of Radiotherapy)
- Board Member of LUVI Foundation for research and palliative care (in collaboration with the Floriani Foundation)
- Honorary Member of GLAC/RO (Latin-American Group of Oncologic Radiotherapy) and Associate Professor of La Plata University of Argentina.
- Past President of the International Society of Intraoperative Radiation Therapy (ISIORT).
- Board Member of EUSOMA (European Society of Mastology).
- President of AIRB (Italian Association of Radiobiology).

Milano, 12.9.2013



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CURRICULUM VITAE OF SANDRO ROSSI

Date of birth and place: January 23, 1964 in Zurich, Switzerland

Nationality: Italian

Education: degree in Physics (1989) at the State University of Milan, Italy

Civil status: married, with four children

Address: via Bozzente, 7 – 22070 Binago (Como), Italy

Mobile: + 39 335 7845132

Email: sandro.rossi@cnao.it

Experience

Soon after the university, Sandro Rossi continued the thesis work in the field of high-energy physics and obtained a contract at CERN in Geneva (Switzerland) for the development of the electromagnetic calorimeter HPC of the DELPHI experiment.

From 1992 to September 2003 Sandro Rossi was a staff of the TERA Foundation, not-for-profit institute acknowledged by the Italian Minister of Health, having development research goals in the biomedical sector. From December 1997 he was appointed in the Board of the TERA Foundation as Technical Director. From 1996 to 1999 at CERN he has lead the TERA group (10 people) participating in the Proton Ion Medical Machine Study (PIMMS) and has also obtained a 18 months contract as CERN Scientific Associate. The PIMMS project at CERN was conceived to define the green-field characteristics of the optimal machine for treating tumours with hadron beams (protons, carbon ions and other species). PIMMS involved CERN, TERA, the Austrian project Med-Austron and the GSI laboratory in Darmstadt (Germany). Within the PIMMS project, Sandro Rossi contributed to define the theoretical bases of the accelerator and to the conception and design of a number of high-technology components suited for treatments and for researches in hadrontherapy.

The Italian Ministry of Health decided in 2001 to create the CNAO Foundation and financed the realization of the National Centre of Oncological Hadrontherapy, a centre of excellence for the cure of tumours with protons and light ions to be built in Pavia, a town located in the northern part of Italy. In 2003, the Board and the President of CNAO offered Sandro Rossi the position of Technical Director and since 2008 also the role of General Manager of the Foundation, being in charge of the coordination of some 100 people among physicians, administrative, physicists, engineers and technical personnel. The coordination included numerous agreements with Entities and Institutions both Italian and foreign that contributed to the realization of CNAO. From 2005 to 2010 the design and the construction of the centre were completed. More than 600 firms participated to the construction and were coordinated by CNAO, 15 European tenders and 1000 orders were issued, more than 70 authorisation procedures were obtained for an overall investment above 120 million euro. The beam commissioning started in 2010 and in September 2011 the first patient was treated with protons; in November 2012 the first patient was cured with carbon ions. At present about

more than 150 patients have completed successfully the therapy, 70 with protons and the rest with carbon ions and the CNAO got the first CE certifications of the system. This achievement closes the first phase of CNAO and from 2014 shall start the new phase characterized by patient treatments in the framework of the National Health System and research activities finalized to improving hadrontherapy.

In the last decade Sandro Rossi had the opportunity to complete a unique experience as a physicist and as a manager and to deal with all the aspects related to the construction of a innovative hadrontherapy clinical facility: from components construction to beam commissioning, from business plan to procurements and contracts with firms, from resource management to setup of collaboration agreements with institutions in Italy and abroad, from integration of high-tech to facility start-up dealing with physicians and patients, from reporting to the National Health authorities to fund raising with banks and private investors.

In 2004 Sandro Rossi obtained a teaching appointment by the State University of Milano Bicocca, for the course of Applications of Physics to Medicine. During twenty years of activity in the field of hadrontherapy, Sandro Rossi has published tens of articles on various national and international reviews, he is often an invited speaker in conferences and is member of various committees.

Milano, 11 September 2013

In faith,



Sandro Rossi

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A/Prof Michael Penniment MBBS, FRANZCR, MBA

Acting Director of Radiation Oncology
Royal Adelaide Hospital

and

Visiting Radiation Oncologist
Alan Walker Cancer Care Centre

A/Prof Michael Penniment is a Senior Radiation Oncologist with interests in the application of new technologies in radiotherapy and the provision of services to rural and remote areas. He was a foundation consultant at the North Queensland Oncology service and then planned and established the Alan Walker Cancer Care Centre (AWCCC) in Darwin.

He was involved in Australia's first National Proton Advisory Committee and has since lead the SA Government team looking to establish a centre in the new Adelaide health precinct. The government supported his MBA studies, completed during a period where his team were involved in evaluating new efficient synchrotron proton therapy solutions. He has held key positions in the College (RANZCR) such as Government and Regulatory Affairs Committee (2003-2010), Faculty Board member (2006-2011), Education Board (1997-2006, 2011-2013), National Services and Workforce Planning Committee (ongoing since 2007), and is currently the Acting Director of Radiation Oncology at the Royal Adelaide Hospital and Director of Alan Walker Cancer Care Centre in Darwin.

He is involved in a number of national and international research projects, in particular in the areas of business planning for new radiation facilities, improving indigenous cancer care, and quality of life in cancer treatment.

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Dr Mark Reinhard

Programme Leader

Australian Nuclear Science and Technology Organisation

Dr Reinhard is the leader of the Nuclear Security Research programme at ANSTO. In this role Dr Reinhard manages ANSTO's Detector Lab, the Nuclear Forensics Research Facility and the Activity Standards Laboratory. Dr Reinhard obtained his doctoral thesis from the University of Wollongong following a study on radiation effects on silicon based microelectronics. He has also obtained a Masters in science and technology commercialisation from the University of Adelaide. He currently holds academic appointments with the University of Sydney where he lectures in the Masters in Medical Physics degree and with the University of Wollongong where he has provided industrial supervision of over 20 early career researchers during the past 15 years. Dr Reinhard is the Australian delegate to the Consultative Committee on Ionising Radiation part II Activity of Radionuclides under the auspices of the Metre Convention, and the Australian delegate to the Technical Committee on Ionising Radiation of the Asian Pacific Metrology Program.

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List of Participants

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