



# WOSMIP2011

Workshop on Signatures of Medical and Industrial Isotope Production  
Pacific Northwest National Laboratory

**Castello di Strassoldo di Sopa • Udine, Friuli-Venezia Giulia • Italy**

June 13-17, 2011

## Working Agenda

*Sunday*, June 12, 2011 • Castello di Strassoldo

1530h	Shuttle transfer from hotel to castle	
1600h	Registration and Reception	Gabriella di Strassoldo, <i>Italy</i> Laura Wilhelm, <i>USA</i>
2200h	Shuttle transfer from castle to hotel	

*Monday*, June 13, 2011 • Castello di Strassoldo

830h	Shuttle transfer from hotel to castle	
<b>INTRODUCTORY SESSION</b>		
0915h	Welcome	Paul Saey <i>IAEA</i>
0930	Introductions and Overview of WOSMIP	Ted Bowyer <i>PNNL, USA</i>
0945	WOSMIP 2009 – Overview of the Previous Workshop	Murray Matthews <i>New Zealand</i>
<b>POLICY OVERVIEW – CHAIR: TED BOWYER</b>		
1000h	<b>KEYNOTE</b> – Overview of Medical Isotope Production	Ed Bradley <i>IAEA</i>
1040h	<b>KEYNOTE</b> – Why Medical Isotope Production is Relevant to the Policy Community	Randy Bell <i>DOE/NNSA, USA</i>
1120h	<b>Break</b>	
1150h	<b>KEYNOTE</b> – Overview of the Comprehensive Nuclear-Test-Ban Treaty Verification Regime	Matthias Auer <i>CTBTO</i>
<b>EMISSION AND BACKGROUND REDUCTION– CHAIR: JUDAH FRIESE</b>		
1230h	Minimization of Fission Nuclide Release from Large-Scale Mo-99 Production Facilities by Combining Processing and Off Gas Handling Technology	A.A. Sameh <i>Germany</i>
1255h	Impact of Medical Isotope Production on IMS Radionuclide Stations and Mitigation Considerations	Fitz Carty <i>General Dynamics, USA</i>
1320	<b>Lunch</b>	
1450h	Noble Gas Emissions from Mo-99 production at ANSTO and impact of Subsequent Increase in Production	Emmy Hoffmann <i>ANSTO, Australia</i>

1515h	Overview of the Radioxenon Emissions from a Large Radiopharmaceutical Mo-99 Production Facility	Damien Braekers <i>SCK-CEN, Belgium</i>
1540h	The Detection of I-131 and Tc-99m at RNO1 IMS Station – A Challenge to the Verification Regime	Eduardo Quintana <i>ARN, Argentina</i>
1605h	<b>Break</b>	
1635h	Roundtable Discussion	
1735	End of Day 1 Technical Program	
<b>EVENING SOCIAL EVENT</b>		
1745h	Drive or Walk (10 min.) to Local Osteria San Gallo for a Dinner with Wine Tasting; Shuttle Transfer to Hotel after Dinner	

*Tuesday*, June 14, 2011 • Castello di Strassoldo

830h	Shuttle transfer from hotel to castle	
<b>RECENT AND PLANNED ACTIVITIES AT PRODUCTION FACILITIES – CHAIR: A.A. SAMEH</b>		
0915h	Current Experience and Operations at ANSTO	Michael Druce <i>ANSTO, Australia</i>
0940h	Medical Isotope Production in Iran: Past and Present	Mohammad Sabzian <i>Shahid Beheshti University, Iran</i>
1005h	Mo-99 Production from LEU Foil Target	Budi Briyatmoko <i>National Atomic Energy Agency, Indonesia</i>
1030h	New Method to Produce High Specific Activity Medical Isotopes Using Alternate Neutron Sources	Greg Piefer <i>SHINE Med. Technologies, USA</i>
1055	<b>Break</b>	
<b>EXPERIENCE IN MONITORING MEDICAL ISOTOPE PRODUCTION FACILITIES – CHAIR: PAUL SAEY</b>		
1125h	Characterisation of Noble Gas Releases at ANSTO's Mo-99 facility via NaI and HPGe gamma spectrometry	Emmy Hoffmann <i>ANSTO, Australia</i>
1150h	Issues and Experience in Emission Quantification at Nordion Inc.	Richard DeCaire <i>Nordion Inc., Canada</i>
1215h	High Resolution Monitoring System for IRE Stack Releases	Benoit Deconninck <i>IRE-Elit, Belgium</i>
1240h	<b>Lunch</b>	
1410h	Spectrometry Systems Used as Stack Monitors	Michel Rotty <i>Canberra</i>
1435h	Use of Xenon Emission Data to Calculate the Effect of Pharmaceutical Facilities on CTBT Xenon Detections	Mika Nikkinen <i>CTBTO</i>
1500h	Medical Isotopes Studies	Judah Friese <i>PNNL, USA</i>
1525h	<b>Break</b>	
1555	Roundtable Discussion	
1655	End of Day 2 Technical Program	

*Wednesday*, June 15, 2011 • Castello di Strassoldo

830h	Shuttle transfer from hotel to castle	
<b>MONITORING SCIENCE AND TECHNOLOGY – CHAIR: MATTHIAS AUER</b>		
0915h	Security Monitoring and Identification of Medical Radionuclides: Interruptions and False Alarms	Kurt Ungar <i>Health Canada</i>
0940h	Tracers for Radiopharmaceutical Production Facilities	Steven Biegalski <i>University of Texas/PNNL, USA</i>
1005h	Changes in Xe-133 and Xe-135 Ratio during Mo-99 and I-131 Separation Processes	Eduardo Carranza <i>CNEA, Argentina</i>
1030h	Contributions of Reactors to the Natural Background	Mohammed Javad Safari <i>Sharif University of Tech., Iran</i>
1055h	<b>Break</b>	
1125	Reach-back Support for the 2010 Vancouver Olympic Games	Kurt Ungar <i>Health Canada</i>
1150	Analysis of Krypton-Xenon Mixture Obtained as a Byproduct of Air Liquefaction for Radioxenon Content	Kirill Kh Brustalev <i>CTBTO</i>
1215h	CTBT Noble Gas Detection Network Density	Ian Hoffman <i>Health Canada</i>
1240h	<b>Lunch</b>	
1410h	Can We Estimate Unknown Sources of Atmospheric Radioactivity by Inverse Modeling?	Petra Seibert <i>University of Natural Resources and Applied Life Sciences (BOKU), Austria</i>
1435h	Atmospheric Transport Modeling for Releases from Fukushima and its Evaluation with Radionuclide Detections of the International Monitoring System	Ole Ross <i>Federal Institute for Geosciences and Natural Resources, German NDC</i>
1500	Atmospheric transport modeling on Fukushima and the implication on next gen IMS systems	Harry Miley <i>PNNL, USA</i>
1525h	<b>Break</b>	
1555h	Roundtable Discussion	
1655h	End of Day 3 Technical Program	

*Thursday*, June 16, 2011 • Castello di Strassoldo

830h	Shuttle transfer from hotel to castle	
<b>POSTER SESSION</b>		
915h	Poster Session	
	SAUNA Equipment for Low-Level Measurement of Radioactive Xenon	Helena Burglund <i>Gammadata SAUNA Systems, Sweden</i>
	PNNL Monitoring of Fukushima Reactor Incident	Harry Miley <i>PNNL, USA</i>
	Production of Radio Xenon Standards for Calibration at the Idaho National Laboratory	Robert K. Hague <i>INL, USA</i>
	<i>Preliminary activities on the measurement of noble gases at ENEA</i>	Elisabetta Nava <i>ENEA, Italy</i>
	Characterization of Radioxenon Atmospheric Discharges in Belgium	Johan Camps <i>SCK-CEN, Belgium</i>
	Measurement of isotopes at long distances from Fukushima: the case of Friuli Venezia Giulia region (NE Italy)	Giorgio Mattassi <i>ARPA FVG, Italy</i>
	Improving Detection Capability by Combining ATM and Knowledge of Radioxenon Sources	Michael Schöppner <i>University of Roma, Italy</i>
<b>AWARDS PRESENTATION</b>		
1115h	Awards Presentation	
1145h	End of Day 4 Technical Program / <b>Lunch</b>	
<b>SOCIAL EVENT—TOUR OF VENICE</b>		
1300h	Travel to Venice by Bus; Boat and Guided Walking Tour Around the Centre (San Marco), Visit the Private Palace Albrizzi, and Workshop Dinner in the Palazzo Flangini at the Canal Grande.	
2130h	Shuttle transfer to Hotels	

*Friday,* June 17, 2011 • Castello di Strassoldo

830h	Shuttle transfer from hotel to castle	
<b>FUKUSHIMA: MONITORING EXPERIENCE AND LESSONS LEARNED – CHAIR: HARRY MILEY</b>		
0915h	The 2011 Earthquake off the Pacific Coast of Tohoku and the Fukushima Daiichi NPP Accident	Paul Saey IAEA
0935	The First Days of the Fukushima Accident Seen from the Swedish Horizon	Lars-Erik De Geer FOI, Sweden
0955h	Airborne Radionuclide Concentrations in Finland Following the Fukushima Daiichi Nuclear Power Plant Accident	Aleksi Mattila STUK-Radiation and Nuclear Safety Authority, Finland
1015h	Fukushima Case Study: How National Technical Means and Other Cooperating Facilities can Supplement the Information Gained by the IMS/IDC	Ian Hoffman Health Canada
1035h	<b>Break</b>	
1105h	French Monitoring Experience after Fukushima Reactor Incident	Pascal Achim French NDC
1125h	Particle Collections of the Fukushima Reactor Accident Via Aircraft	John Lucas AFTAC, USA
1145h	Atmospheric Radioisotopes Measured in Barcelona After the Fukushima Accident	Arturo Vargas Institute of Energy Technologies, Technical University of Catalonia, Spain
1205h	Operational Experience of CTBTO Related to the Fukushima Nuclear Accident	Mika Nikkinen CTBTO
1225h	<b>Lunch</b>	
1400h	Roundtable: Fukushima Lessons Learned	
<b>SUMMARY OF WORKSHOP</b>		
1500h	Roundtable: Next Steps for WOSMIP	
1600h	End of WOSMIP 2011	