27 EU

PRISMAP

Medical Radionuclides

PRISMAP RADIOLANTHANIDES WORKSHOP

3-5 September 2024

Useful Information:

How to get to the conference site:

The conference will take place in the PSI Auditorium lecture hall, 5232 Villigen PSI, Forschungsstrasse 111. The site can easily be reached by public transport. It takes around 30 min to get there from Brugg or Baden. For timetables see: The SBB online portal for trains and public transport.

Catering:

During the workshop, coffee, tea, water, and light snacks will be provided during the coffee breaks.
Lunch buffets will be served in the tent nearby the auditorium on Tuesday and Wednesday.
On Thursday, every participant will get a Lunch box with a sandwich before PSI large facility visits.

Workshop dinner:

The workshop dinner is scheduled for Wednesday evening at Röstifarm Restaurant. A bus transfer will be provided from PSI to restaurant and from the restaurant to Brugg Train station.

The aperitif and dinner will be generously sponsored. Please note that beverages during dinner, aside from water, will be at the attendees' expense.

Presentations:

All speakers are kindly requested to send their presentations **one day before their scheduled talk to** radiolanthanides_workshop@psi.ch

Each speakers have a time slot of 20 min including discussion; please try to be on time to avoid delays in the schedule.

Internet:

WLAN access will be provided for the entire duration of the conference. The username and passcode will be given at the registration desk.

Program

Day 1 –Tuesday, 3 September 2024

CET		Speakers
08:30	Reception	PSI Auditorium
09.00	Welcome address	Michel Steinmetz (PSI) & Maria Fernandes Marques (PSI)
	Session 1 – Chair: Thierry Stora	
09.10	Production and application of radiolanthanides at TRIUMF	Paul Schaffer (TRIUMF)
09:30	Studies of different production paths of ^{155}Tb on Gd targets: from target manufacturing to Tb/Gd separation	Thomas Sounalet (Arronax)
09:50	Cross-section measurements towards an optimized production of theranostic radionuclides at the Bern Medical Cyclotron	Saverio Braccini (Bern University)
10:10	Nuclear data measurement of lanthanides	Frédéric Juget (IRA)
10:30	*Coffee break*	
11:00	Decay data: the importance and impact of metrology	Sean Collins (NPL)
11:20	Advancing Auger electron therapy: Developing methods for high-resolution spectral characterization of radioisotopes	Emilio Andrea Maugeri (PSI)
11:40	***Poster Pitches***	
12:30	*Lunch break and poster session*	
	Session 2 – Chair: Daniela Kiselev	
14:00	Tb radionuclides for imaging and therapy: How far have we progressed?	Nick van der Meulen (PSI)
14:20	Production and radiochemical processing of medical radiolanthanides	Michiel Van de Voorde (SCK CEN)
14:40	Production of novel medically relevant radiolanthanides at Paul Scherrer Institute	Zeynep Talip (PSI)
15:00	*Coffee break*	
15:30	Mass separation of stable and radioactive lanthanide isotopes	Ulli Köster (ILL)
15:50	Impact-TATTOOS-Novel radionuclides production in Switzerland: A design status report	Robert Eichler (PSI)
16:10	High-purity radionuclides at ISOL@MYRRHA	Lucia Popescu (SCK CEN)
16:30	CERN-MEDICIS: Experience of mass-separation with radiolanthanides towards their clinical translation	Thierry Stora (CERN)
16:50	**End of day 1**	

Day 1 – Poster Pitches

		Speakers
Production of Radiolanthanides – Chair: Zeynep Talip		
P1	Fabrication and characterization of Gd targets for the production of terbium radionuclides for nuclear medicine	Vanessa Rhoden (Subatech)
P2	Thin lanthanide sources for Auger electron spectroscopy	Noemi Chiarina Cerboni (PSI)
P3	Cross-section measurements of ^{155}Gd(p,n)^{155}Tb with highly (> 99.98%) enriched ^{155}Gd targets : problematic of ^{156}Tb production	Morgane Bouteculet (IJLab/CNRS)
P4	Production of medically relevant holmium radioisotopes for targeted radionuclide therapy	Edoardo Renaldin (PSI)
P5	Production, separation, and labelling of ^{149}Pm for medical applications	Xiuyun Chai (Bern University)
P6	Development of a rapid purification method for medical radionuclides: ^{165}Er,^{165}Tm and ^{149}Gd	Mohamud Hibaaq (NPL)
P7	Production of radiolanthanides ^{135}La and ^{165}Er	Kristina Pedersen (DTU)
P8	Scalable production of ^{155}Tb as part of theragnostics using terbium radioisotopes	Anzhelika Moiseeva (PSI)
P9	Separation of high specific activity ^{161}Tb and ^{155}Tb from proton irradiated ^{nat}Dy	Michael Chimes (Brookhaven National Laboratory)
P10	^{161}Tb production of a high potential radionuclide for radioligand therapy	Ken Verguts (SCK CEN)
P11	Paving the way to provide the therapeutic radionuclide ^{161}Tb for clinical studies: challenges and lessons learned	Pascal Grundler (PSI)
P12	The question for terbium: challenges and opportunities of molecular extraction	Wictoria Wojtaczka (KU Leuven)

Day 2 –Wednesday, 4 September 2024

CET	Item	Speakers
	Session 3 – Chair: Martin Behe	
09:30	Dosimetric comparison of the radiolanthanides ^{177}Lu and ^{161}Tb for cancer therapies with radiopharmaceuticals	Peter Bernhardt (Gothenburg University)
09:50	^{161}Tb a promising radionuclide for early TRT: absorbed doses compared to ^{177}Lu in micrometastases, cell clusters, and single tumour cells	Elif Hindié (CHU-Bordeaux)
10:10	Dose-response effects of the additional Auger and IC electrons of ^{161}Tb-vs ^{177}Lu-labelled agonists and antagonists	Michel Koole (KU Leuven)
10:30	*Coffee break*	
11:00	Development of ^{161}Tb and ^{153}Sm based radiopharmaceuticals	Maarten Ooms (SCK CEN)
11:20	Preclinical studies of subcellular targeted ^{161}Tb-complexes for cancer radiotheranostics	Antonio Rocha Paulo (IST-ID)
11:40	***Poster Pitches***	
12:30	*Lunch break and poster session*	
	Session 4 – Chair: Ulli Köster	
14:00	Production of Radiolanthanides for medical applications in the USA	Paul A. Ellison (University of Wisconsin)
14:20	Hybrid hydroxypyridinone-macrocyclic chelators for coordination of lanthanide and actinide radionuclides	Michelle Ma (King's College London)
14:40	^{161}Tb therapies for clinical trials-experiences	David E. Schmid (PSI)
15:00	*Coffee break*	
15:30	Radiolanthanides in the pharmaceutical regulatory framework in Europe	Clemens Decristoforo (MUI)
15:50	A regulator perspective on clinical trials using new radionuclides	Anna C. Senn (FOPH)
16:10	tbd	Samer Ezziddin (Saarland University Medical Center)
16:30	*Group photo and information*	
17:00	**End of day 2**	
17:00	**Bus (Villigen - Röstifarm Restaurant)**	
23:00-23:20	**Bus (Röstifarm Restaurant - Brugg Train Station)**	

2 – Poster Pitches

		Speakers
Medical Application of Radiolanthanides – Chair: Nick van der Meulen		
P1	Effects of the conjugation method on the stability of a ^{161}Tb-labeled antibody	Camille Van Laere (KU Leuven, SCK CEN)
P2	Tolerability of [^{161}Tb]Tb-SIBUDAB in healthy mice	Korbinian Krieger (PSI)
P3	Comparison of the therapeutic efficacy of ^{161}Tb and ^{177}Lu-labeled somatostatin analogues	Avni Mehta (PSI)
P4	Surface Engineering core-shell ^{161}Tb radiolabeled nanoparticles targeting the FOLR1a receptor	Tom Lemaitre (SCK CEN)
P5	Comparison of the biological performance of ^{111}In and ^{161}Tb radiocomplexes as prostate cancer radiotherapeutics	Joana Filipa da Silva Santos (IST-ID)
P6	Dual-targeting strategy for the nuclear delivery of trivalent radiometals to prostate cancer cells	Joana Filipa da Silva Santos (IST-ID)
P7	Nonadentate Bispidine chelator for radiopharmaceutical applications with lanthanides	Ina Kopp (HZDR)
P8	Preclinical investigation of biomolecules labeled with stable and radioactive lanthanides	Avni Mehta (PSI)
P9	Internal vectorised radiotherapy	Mohammed Hussein (CNRS)
P10	^{149}Tb for Targeted Alpha Therapy: Comparison of Radiolabeled Somatostatin Analogues [^{149}Tb]Tb-DOTATATE and [^{149}Tb]Tb-DOTA-LM3	Ana Katrina Mapanao (PSI)
P11	The ISOLPHARM Collaboration	Aurora Leso (INFN)

Day 1-2 – TATTOOS Posters

		Speakers
T1	Development of the TATTOOS target	Sven Jollet
T2	Design of the 590 MeV Proton Beamline for the Proposed TATTOOS Isotope Production Target at PSI	Marco Hartmann
T3	Machine Protection System for the Proposed TATTOOS Beamline at HIPA	Jochem Snuverink
T4	Isotope Production by the 590 MeV TATTOOS Target at PSI	Alexandar Ivanov
T5	TATTOOS' ion beam line	Stuart Warren
T6	TATTOOS' laser ion source	Maryam Mostamand
T7	Targeted Alpha Tumour Therapy and Other Oncological Solutions (TATTOOS) as part of PSI's IMPACT large facilities project	Nick van der Meulen

Day 3 –Thursday, 5 September 2024

Panel: Clinical translation of Tb-161 - lessons learned –Chair: Roger Schibli			
09:30	Preclinical development of ^{161}Tb-based pharmaceuticals for radionuclide therapy	Cristina Müller (PSI)	
10:00	Targeted beta-particle plus Auger/conversion electron therapy with ^{161}Tb compound-prognostics and beta plus study	Damian Wild (University Hospital Basel)	
10:30	*Coffee break*		
11:00	Introduction to panel discussion	Roger Schibli	
11:15	**Moderator:** Roger Schibli (PSI)		
	Panellists: Damian Wild (University Hospital Basel)		
	Niklaus Schaefer (CHUV)		
	Samer Ezziddin (Saarland University Medical Center)		
	Cristina Müller (PSI)		
	Clemens Decristoforo (MUI)		
	Myriam Vincent (Novartis)		
	Carina Dirks Fandrei (ITM)		
	Stuart Koelewijn (TerThera)		
12:30	*Lunch break*		
PSI Large Research Facility Visit			
13:30	Paul Scherrer Institute	David Meer	PSI Auditorium
14:00	Picking badges and dosimeters		PSI West Entrance
Group 1 guide: Djordje Cvjetinovic			
14:30	PSI accelerator facilities and SINQ	Patrick Steinegger and Alex Vögele	SINQ Sector 60
15:00	Proton therapy	David Meer	Proton Therapy Showroom
15:30	IP2 Target Station	Alex Sommerhalder and Pascal Grundler	IP2
Group 2 guide: Anzhelika Moiseeva			
14:30	IP2 Target Station	Alex Sommerhalder and Pascal Grundler	IP2
15:00	PSI accelerator facilities and SINQ	Patrick Steinegger and Alex Vögele	SINQ Sector 60

15:30	Proton therapy	David Meer	Proton Therapy Showroom
Group 3 guide: Noemi Chiarina Cerboni			
14:30	Proton therapy	David Meer	Proton Therapy Showroom
15:00	IP2 Target Station	Alex Sommerhalder and Pascal Grundler	IP2
15:30	PSI accelerator facilities and SINQ	Patrick Steinegger and Alex Vögele	SINQ Sector 60
16:15	**End of day 3**		


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