



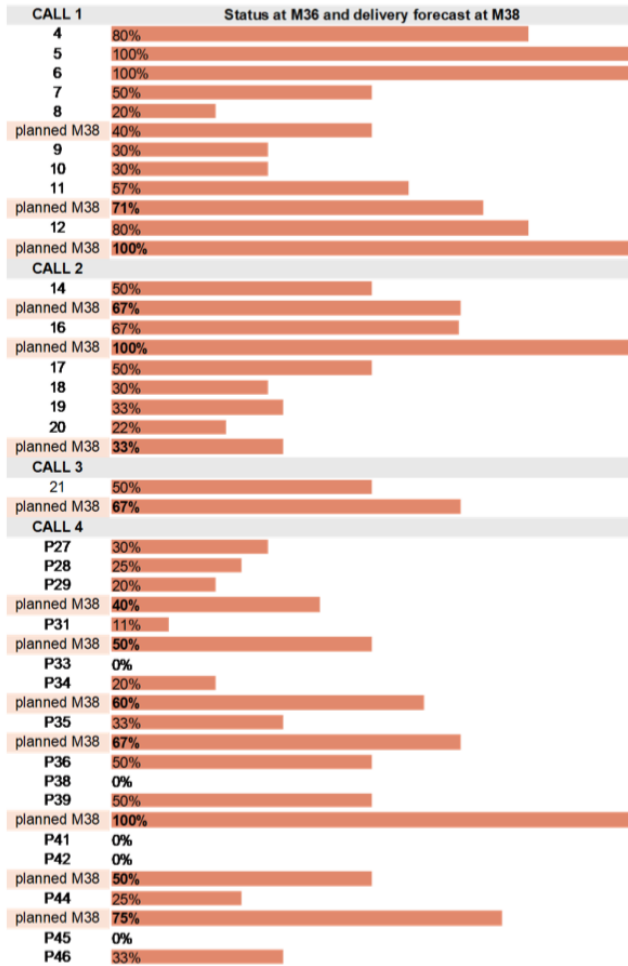
FUTURE OF PRISMAP : PRISMAP PLUS



Thierry STORA, CERN

What's new in PRISMAP

User projects*



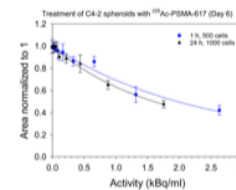
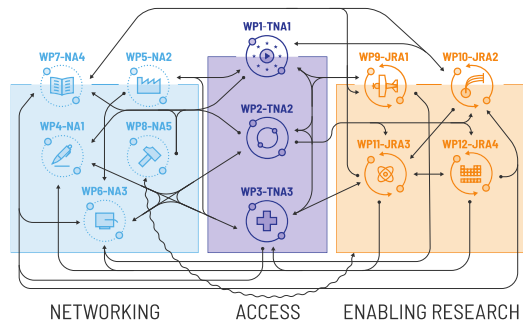
The European medical *radionuclide* programme: Production of high purity isotopes by mass separation



*Hired C. Duchemin as technical manager

The development of the services

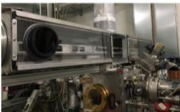
CCRI-RTWG Consultative Committee for Ionising Radiation - Radionuclide Therapy and Quantitative Imaging Working Group,



GSI	GSI Helmholtzzentrum für Schwerionenforschung GmbH	FAIR	Universitetet i Oslo	UiO
CHUV	Centre hospitalier universitaire vaudois	AGORA	Medizinische Universität Innsbruck	MUI
SCIPROM	SCIPROM Sàrl		Danmarks Tekniske Universitet	DTU
SCK CEN	Studiecentrum voor Kernenergie / Centre d'étude de l'énergie nucléaire	BR2, NURA, MYRRHA	European Spallation Source ERIC	ESS
KULeuven	Katholieke Universiteit Leuven		Latvijas Universitāte	LU
NPL	National Physical Laboratory		Klinikum rechts der Isar der Technischen Universität München	TUM
GANIL	Grand Accélérateur National d'Ions Lourds	SPIRAL 2	Narodowe Centrum Badań Jądrowych	NCBJ
ARRONAX	Groupement interet public ARRONAX	ARRONAX	Entwicklungs- und Betriebs-gesellschaft MedAustron GmbH	MedAustron
CERN	European organization for nuclear research	MEDICIS	Istituto Nazionale di Fisica Nucleare	INFN
ILL	Institut Max von Laue - Paul Langevin	RHF	Joint Research Centre - European Commission	JRC
IST-ID	Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento		Paul Scherrer Institut	PSI
			Commissariat à l'énergie atomique et aux énergies alternatives	CEA

Production facility Translation facility Future facility

10 kW high power target for At-211




EMA/237605/2023 European Medicines Agency

ITF Briefing meeting report PRISMAT The European Medical Radioisotope Program



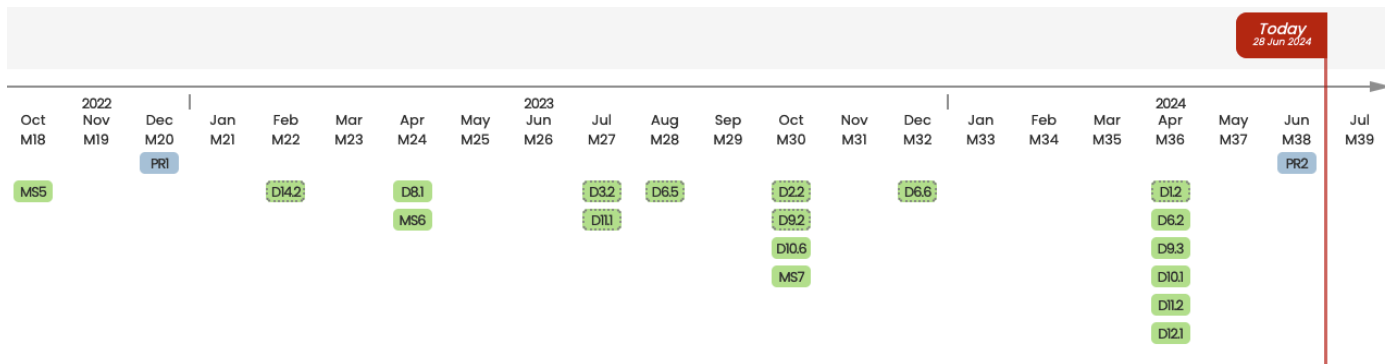
Subject: [All] SPES FASE1 (M38)
Date: 2024-06-03 14:28
From: Direttore LNL <direttore_infn@lnl.infn.it>
To: all@lnl.infn.it

Cari colleghi,

sono felice di condividere la mia soddisfazione e quella di tanti nostri colleghi che hanno contribuito in modo decisivo alla ripartenza del ciclotrone e alla fornitura e utilizzo di un primo fascio di protoni per un esperimento dedicato allo studio della produzione del radioisotopo 67Cu.

Most of our KPI's have been met, some are exceeded

- to provide at least 10 emerging radionuclides at Day 1
 - 16 to be delivered**
- 4 calls / year and the radionuclide production and their medical translation scheduled
 - 4+1 calls, 2 users projects to the clinics**
- Access to at least 20 teams across Europe. Fund 50 (25) :
 - 32 projects granted**
- Centralised through platform+USP, capacity to react to the requests & managed by the Coordination Team
 - 4 additional radionuclides offered**
- Radionuclides for use in early-stage research. For more advanced research also supported by specific research grants or industrial financial schemes
 - PRISMAP+, accelerate.EU in IHI call**



D8.1	Proceedings book workshop 1	WP8	INFN	INFN, NPL	Report	PU	M24		M24	delivered
D3.2	WP3-TNA3 summary report 1	WP3	CHUV		Report	CO	M25		M27	delivered
D11.1	Nuclear data for Day-1 radionuclides	WP11	NPL	CHUV, KUL	Report	PU	M24		M27	delivered
D6.5	MOOC on the basis of In the Heart of Medical Radioactivity	WP6	ARRONAX	CERN	Websites, patents filling, etc.	PU	M16		M28	delivered
D2.2	WP2-TNA2 summary 1 of isotopes provided	WP2	ILL		Report	CO	M25		M30	delivered
D9.2	Compliant and efficient transportation	WP9	DTU		Report	PU	M24		M30	delivered
D10.6	Report on precursor synthesis	WP10	CERN		Report	PU	M30		M31	delivered
D6.6	Information portal on standards and best practices in Europe	WP6	IST-ID		Websites, patents filling, etc.	PU	M30		M32	delivered
D1.2	Standardised access procedures	WP1	SCK CEN		Report	PU	M24		M36	delivered
D10.1	Report on Gd target production.	WP10	ARRONAX		Report	PU	M36		M36	delivered
D11.2	Traceability for radionuclides	WP11	NPL		Report	PU	M36		M36	delivered
D12.1	149Tb, 155Tb and 161Tb cross-section measurements	WP12	ARRONAX		Report	CO	M36		M36	delivered
D6.2	Workshops for senior researchers	WP6	KULeuven		Report	PU	M36		M37	delivered
D9.3	Database of packages, documents, approvals	WP9	DTU		Websites, patents filling, etc.	PU	M36		M37	delivered

5. Ensure the long-term sustainability of PRISMAP

2 projects aim at performing first-in-human and phase-0 pilot clinical trials, 1 radionuclide (Ra-224/Pb-212) from MEDICIS

P4

Towards ^{161}Tb -PSMA cell targeting treatment of prostate cancer biochemical recurrence: Comparison with ^{177}Lu -PSMA	Tb-161	Dr. M. Kirienko	Italy
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P31

$^{203}\text{Tl}/^{212}\text{Pb}$ -mcp-D-PSMA for an improved tumor therapy: Preclinical evaluation, automatization and translation to clinical application	Pb-212/Pb- 203	Dr. M. Pretze	Germany
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Future of PRISMAP : PRISMAP-Plus

Ask extension of PRISMAP by 8 months until Dec 2025 to launch last call and complete the clinical parts of the projects

Destination INFRASERV - Research infrastructures services to support health research, accelerate the green transition and the digital transformation, and advance frontier knowledge (2025)

Access to novel radionuclides and facilities

ERVI roadmap process : PRISMAP Plus defined as project 4 (in a total of 6)

A white paper has been prepared to prepare a PRISMAP-Plus programme

DOI [10.5281/zenodo.11448841](https://doi.org/10.5281/zenodo.11448841)

Key points

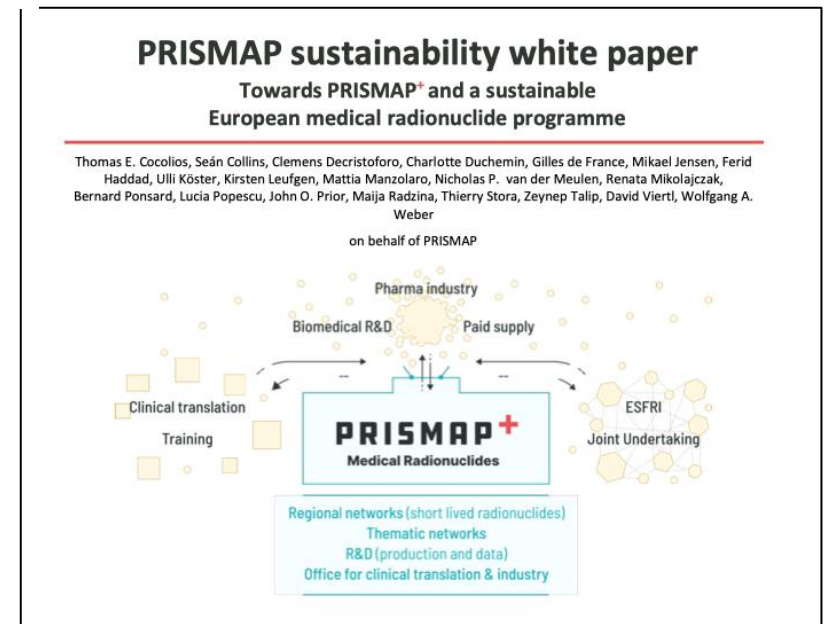
Inclusion criteria

Which radionuclides?

User access

Training and R&D

International context



A dedicated meeting is elaborated in Nantes on 19th Sept 2024 (after Prisma CM)

CERN as coordinator of PRISMAP, and MEDICIS as a mass separation facility for medical radionuclides, propose to support Sciprom for 10'000CHF to prepare the consortium for a foreseen targeted call.

Reserve



1. Provide access to new radionuclides and new purity grades for medical research

Different abstracts submitted at congress
EANM 2024

Imaging and Pathology
KU Leuven

Radiopharmaceutical Cancer Research
Dresden (/CZ)

Radiochemistry
Hopital Frederic Joliot
Orsay

Fondazione IRCCS
Istituto Nazionale dei Tumori
Milano

Dep Molecular Biotechnology Health Sciences,
Torino

Radiochemistry unit,
Hospital Gregorio Marañón
Madrid

Biomedical Engineering and Imaging Science
London

Preclinical Evaluation of GRPR Antagonists Labeled with
Terbium-161 and Lutetium-177: a Comparative Study, Dr.
Guenther et al, J Nucl Med /2023/266233



32 projects

33 Research Teams

14 Countries

Last call #5 in 2024

	Call #1	Call #2	Call #3	Call #4
submitted projects	12	8	5	20
Success rate	75%	75%	20%	85%

<https://www.prismap.eu/access/user-projects/>

2. Create a common entry port and web interface for the starting research community

User forum becomes the PRISMAP Community – Chair K. Muylle – Scientific secretary S. de Schepper



Deliverable D1.2
Standardised access procedures

Call #	Project	Country of origin & TNA3 Node
1	Selective oncological theragnostic based on radioactively labeled exosomes (TheragnEso)	Spain TUM (Germany)
1	Dual 152Tb/149Tb radiolabeling and preclinical validation of an AAZTA-FAPi ligand for diagnostic and theranostic applications	Italy TUM (Germany)
2	ScandAL: Scandium-43 Antibody-fragment Labelling	France CHUV (Switzerland)
3	In vitro and in vivo validation of new chelators for Ac-225 targeted alpha-therapy	Italy TUM (Germany)
4	Impact of Tb-156 pollution on image quality and quantitative accuracy of gamma camera imaging with Tb-155	France CHUV (Switzerland)
4	Tb-155-immunoSPECT, Metallation kinetics, Complex stability, N,O-ligands, Ligand topology, SK-BR-3 cells	France CHUV (Switzerland)

3. Enhance clarity and regulatory procedures to promote research with radiopharmaceuticals



Deliverable D9.2

Compliant and efficient transportation



Deliverable D11.2

Traceability for radionuclides



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH


EMA/237805/2023
European Medicines Agency

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PRISMAP The European Medical Radioisotope Program

4. Unlock the biomedical research through better data on radionuclides

Other ongoing activities, eg in WP12-JRA4



Deliverable D11.1

Nuclear data for day-1 radionuclides

