



# TERAPET

Next Generation Imaging Technology

Terapet SA together with their clinical partner Inselspital Department of Nuclear Medicine from Switzerland and R&D partners Politecnico di Milano and Nuclear Instruments from Italy are awarded EUR 1'677'000 through the Eurostars Program by the EUREKA countries and the European Commission.

Geneva, Switzerland March 6<sup>th</sup>, 2024, Terapet SA, a Geneva-based CERN spin-off developing an innovative platform technology for imaging in nuclear medicine, today proudly announced the awarding of a total of approximately EUR 1'677'000 as a non-dilutive grant from the European Commission. The grant is supported by Innosuisse – the Swiss Innovation Agency, and the Ministry for Universities and Research (MUR) and the Ministry of Enterprises and Made in Italy (MIMIT) from Italy. The combined funding supports the development of a novel Positron Emission Tomography scanner using innovative gamma ray detection technology, to be installed at Bern University Hospital's Inselspital Department of Nuclear Medicine in Switzerland.

The collaboration officially started on 01.03.2024 and will run for the coming 2.5 years.

## About Positron Emission Tomography (PET)

Positron emission tomography (PET) is a diagnostic imaging procedure in nuclear medicine that produces tomographic images of the body by making radioactively labelled substances (radiopharmaceuticals) visible. Cancerous tumours, for example, often have an intensive metabolism of sugar or express receptors that can be made visible by PET. The technique may also be applied to the diagnosis of neurodegenerative diseases, where one often sees reduced levels of sugar metabolism in the brain. Today's PET scanners are combined with a computed tomography (CT) scanner, which can visualize anatomical structures, such as bones and tissue, thus enabling the PET signal to be precisely located in the body.

## About Eurostars

[The Eurostars program](#) is a funding and support program, aimed at R&D-performing SMEs that wish to exploit the benefits that result from international collaboration. Eurostars applications pass through a highly competitive selection process, being scrutinized by a panel of international research and business experts to ensure that only the best business ideas and strongest partnerships get the support they need.

This funding is used for the development of a novel Positron Emission Tomography (PET) scanner by using innovative gamma ray detection technology developed by Terapet with the support from Politecnico di Milano and Nuclear Instruments, to be installed at Bern University Hospital's Inselspital Department of Nuclear Medicine in Switzerland.

## About [Terapet SA](#)

Terapet SA, a CERN MedTech spin-off, has developed an innovative platform technology: a novel gamma ray detection system for imaging in nuclear medicine. Terapet develops, manufactures, and

sells medical devices for nuclear imaging. Their products will be used in hospitals, research centers, ion therapy facilities and the pharmaceutical industry.

#### About Bern University Hospital's [Inselspital Department of Nuclear Medicine](#)

The **Inselspital**, also named the University Hospital of Bern, located in Bern, is one of the five university hospitals of Switzerland.

The Inselspital Department of Nuclear Medicine installed the world's first whole-body PET/CT scanner and will provide expertise for technical and clinical benchmarking. Inselspital's experience in long field-of-view PET-scanners is invaluable for defining user-oriented and clinically and commercially relevant use cases, objectives and requirements for the collaboration.

#### About The Politecnico di Milano – [Dipartimento di Elettronica, Informazione e Bioingegneria \(DEIB\)](#)

The **Politecnico di Milano** is one of the best scientific-technological universities in the world according to the prestigious QS World University Rankings. Founded in 1863, it is the oldest of Milan's universities and Italy's largest school of Architecture, Design and Engineering with three main centers in Milan and five Campuses.

The **Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB)** is one of the largest European ICT departments. With nearly 1000 members, researchers, collaborators, PhD students, technical and administrative staff, the Department is a vital institution capable of promoting education, fundamental and applied research, and technology transfer to companies. Politecnico di Milano will provide its more than 25 years of experience in the development of custom electronics and ASICs for specialized gamma ray detectors to the collaboration.

#### About [Nuclear Instruments](#)

**Nuclear Instruments** is an innovative Italian SME. The company is active in the development of electronic equipment to support scientific research, particularly in the field of nuclear physics. Their products consist both of custom solutions and catalog items, such as high-resolution and high-speed digitizers for setups that require a large number of channels, Time to Digital Converters (TDC) for high-resolution time measurements, Multi-channel Analyzers (MCA) for measuring the energy of radiation and discriminating particle type. Nuclear Instruments brings its decades of experience into the collaboration to support the partners in their customized electronics design.

#### **Company Contacts:**

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Photo taken at Bern University Hospital's Inselspital Department of Nuclear Medicine: from Left to Right: [Prof. Dr. ing. Kuangyu Shi](#) (Chief Medical Physicist from Inselspital – Department Nuclear Medicine), Sébastien Delgado (Mechanical Engineer from Terapet), Philippe Guerville (Senior Software Engineer from Terapet), Dr. Marcus Palm (CTO from Terapet), Dr. Christina Vallgren (CEO from Terapet), Dr. Ben Brunt (Senior Data Scientist from Terapet), Dr. Rosalinde Pots (QMS manager from Terapet), Robin Chappuis (Mechanical Engineer from Terapet) and [Prof. Dr. med. Axel Rominger](#) (Chairman and Head from Inselspital – Department of Nuclear Medicine)



Photo taken at The Politecnico di Milano – Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB) from Left to Right: [Prof. Marco Carminati](#), [Prof. Carlo Fiorini](#), Dr. Michael Betz (Senior Electrical Engineer from Terapet) and Dr. Christina Vallgren (CEO from Terapet)