Partner Search Form
Horizon Europe
Health

HNN 3.0
HEALTH-NCP-NET

Date   July 1st 2024   Deadline …   …

CONTACT

Organisation	University of Bern	**Department**	ARTORG Center for Biomedical Engineering Research
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Organisation type

Research organisation type	☒ Research Organisation ☒ University ☐ Company ☐ Other	**Is your company a Small and Medium Sized Enterprise (SME*)?** **Number of employees:**	☐ YES ☒ NO

Your enterprise is an SME if:
- it is engaged in **economic activity**
- it has **less than 250 employees**
- it has either an **annual turnover not exceeding €50M**, **or an balance sheet total not exceeding €43M**
- it is **autonomous**
For the definition of SMEs, look at: http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

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Short introduction of key areas of institute's research:

The ARTORG Center at the University of Bern is a Center of Excellence for Biomedical Engineering Research, making significant strides in computational methods, artificial intelligence, biomechanics, sensor technology, surgical instruments, and biomicrofabrication. The center has educated over 500 Master's students, supported 143 PhD candidates, and has fostered numerous postdoctoral careers. ARTORG's interdisciplinary research focuses on innovative approaches that advance patient care, evidenced by its multiple MedTech Awards. The center's research groups specialize in areas such as cardiovascular engineering, medical image analysis, AI in health and nutrition, computational bioengineering, gerontechnology, and rehabilitation, as well as hearing research and organs-on-chip technologies.

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Former participation in an FP European project?	☒ YES ☐ NO
Project title / Acronym: **Activities performed:**	*EU-COST "A Comprehensive Network Against Brain Cancer" (Net4Brain)* *EU-FP7-ICT Computational Horizons In Cancer: "Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology" (CHIC)* *EU-FP7-HEALTH "High-resolution image-based computational inner ear modelling for surgical planning of cochlear implantation" (HEAR-EU)* *EU-FP7 "Clinically oriented translational cancer multilevel modelling" (ContraCancrum)* Activites performed: Research and development of Machine Learning and AI based technologies for brain tumor image analysis and cochlear microCT imaging (HEAR-EU project).

Expertise / Commitment offered

Description of your expertise:	The Medical Image Analysis group develops advanced medical image analysis technologies, and related translational biomedical engineering technologies, to quantify, diagnose, and follow-up diseases and disorders. The group develops novel techniques for multimodal image segmentation and analysis of brain lesions, presently including glioblastoma multiforme, brain metastases, and related conditions. The results of these developments are aimed at advancing the discovery of innovative non-invasive imaging biomarkers used to characterize disease and guide the decision-making process, as well as in radio-therapy, neuro-surgery, drug-development, etc. A special focus is to develop algorithms and methodologies to improve the robustness and interpretability of AI-based solutions for medical image analysis. The developments revolve around the vision of scalable, adaptable and time-effective algorithms developed with a strong focus on clinical applicability.
Keywords specifying your expertise:	Artificial Intelligence, Medical Image Analysis, Explainable AI, Translational Research

Commitment offered:	☒ Research ☐ Demonstration ☒ Training ☒ Technology ☐ Dissemination ☐ Other:

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Interested in participation in project types:	☒ Research & Innovation Action	☒ Innovation Action	☐ EIC Pathfinder

Work Programme research areas: indicate your interest

Cancer Missions

Call topic(s): e.g. HORIZON-JU-IHI-2024-06-02-two-stage:

Cancer Missions:

HORIZON-MISS-2024-CANCER-01-01: Use cases for the UNCAN.eu research data platform
HORIZON-MISS-2024-CANCER-01-06.- An information portal for the European Cancer Patient Digital Centre

Do you have other partners for this topic (which partners/country)?

Clinical Oncology related partners in Switzerland, Poland, Bulgaria, Romania

Profile of partner sought

Role	☒ technology development	☒ research	☒ training
	☐ dissemination	☒ demonstration	☐ other _____

Country /region	☐

Expertise required

I agree with the publication of my contact data: ☒ YES   ☐ NO