enterprise europe network

Partnering Opportunity

Profile status : Published

Research Development Request

Horizon 2020 SC1-DTH-02-2020: Looking for an academic leader as coordinator in a project developing digital tools to monitor and measure fatigue objectively to better prevent, predict and treat care for improved patient outcome.

Summary

Monitoring levels of fatigue is useful in health care. A Swiss SME has developed digital tools for this purpose. A consortium planning to validate these tools in a Horizon 2020 project is seeking a coordinator for a research cooperation. Current consortium partners are several health care providers and a consultancy firm. The coordinator will formulate actions aimed at increasing health literacy among citizens and in advancing health professionals' proficiency in these digital services.

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Details

Description

A Swiss SME with expertise in digital health has developed a technology that allows monitoring levels of fatigue from the analysis of pulse wave forms. The company is applying to Horizon 2020 (SC1-DTH-02-2020) to validate

these digital diagnostics and identify optimal ways to integrate these tools to improve patient outcomes.

Partner sought for research cooperation:
An academic leader, for project coordination and with the day-to-day support of the project manager, is sought to help take a multi-disciplinary approach involving behavioural, sociological, medical and other disciplines to build scenarios for new health and care pathways. These new approaches will be based on pilot studies done using physiologically derived fatigue biomarkers to improve treatment, intervention and prevention in various health care areas where fatigue plays an important role.
Pilot studies have started among several consortium partners to validate the fatigue measurements, prove their usefulness in therapy and be used for a larger - more comprehensive - application for a Horizon 2020 call. The academic leader will help the consortium define actions aimed at increasing health literacy among citizens and health professionals in defining how these digital tools and related data can best be integrated into health care.

Pre-application activities:
European health care providers in oncology, cardiology, multiple sclerosis and geriatrics have committed to the consortium. Following each pilot study (around 20 subjects), these partners will summarise their results and their experiences using fatigue monitoring as an integral part of treatment. These collective results will then be integrated into the Horizon 2020 “Personalised early risk prediction and intervention based on Artificial Intelligence and Big Data Technologies” application (call SC1-DTH-02-2020).
The results should invite questions as to how best adopt fatigue measurements in medical treatment. How patients can best use these metrics during and after treatment to take better care of themselves will also be addressed. This pre-application collaboration will also prove the consortium’s ability to work together and help convince a partner to be a consortium leader. Several patient care organisations and a health consultancy service will be included in the consortium prior to the application bid.

Technology:
Based on 4- years of clinical studies, the app accurately correlates pulse wave forms with fatigue. Over 500 pulse wave features are examined per several pulses. The Swiss company has a large database enabling continual algorithm improvement with increasing accuracy as more data is collected. The company is unique in correlating fatigue with pulse wave analysis and currently achieves correlations well over 90%. The patent-protected methodology uses machine learning to correlate data with fatigue levels. Using raw pulse wave signals and their forms and variations, this methodology is not to be confused with heart rate frequency-based analysis prevalent in sports and fitness watches.

Planned project:
Half the partners will perform clinical work integrating objective fatigue measurements into targeted therapies and evidence their effectiveness in improving patient outcome. The other half of the consortium partners led by a university and supported by patient care organisations will explore how the digital data derived from these artificial intelligence based technologies for prediction, prevention and intervention can best be integrated into personalised health and care pathways that empower individuals to actively contribute to risk mitigation, prevention and targeted intervention.

The deadline of the call is 22 April 2020. The deadline for expression of interest is 31 January 2020. The planned project duration is 130 weeks. SC1-DTH-02-2020 is an research and innovation action. 100% of the projects costs are covered by the grant.

Keywords

Technology

06001002	Clinical Research, Trials
06001003	Cytology, Cancerology, Oncology
06001010	Gerontology and Geriatrics
06001012	Medical Research
06001014	Neurology, Brain Research

Market

05003001	Therapeutic services
05005005	Geriatrics
05005010	Cardiology
05005014	Oncology
05007006	Computer-aided diagnosis and therapy

NACE

Q.86.9.0	Other human health activities

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

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Open for EOI: Yes

Dissemination

Relevant sector groups

Healthcare

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Already Engaged in Trans-National Cooperation

No

Languages Spoken

English

Client Country

Switzerland

Partner Sought

Type and Role of Partner Sought

The specific area of activity of the partner:
A university is sought to lead the consortium (project coordinator). A consultancy firm will provide the project management and together with the innovator write the grant application. The university is expected to provide the multi-disciplinary approach to validate these models as a new care pathway for improved health care.

The tasks to be performed by the partner sought:
Using a multi-disciplinary approach, the coordinator will help identify realistic scenarios for new health and care pathways among both citizens and professionals using these digital tools for improving health prevention, prediction and intervention. The results of these pilot studies undertaken by the health provider partners will need to be analysed by the lead academic allowing the consortium to increase their knowledge of these diseases and interpret their symptoms and effects as early warning signs and medical information. The coordinator will help formulate actions at increasing health literacy using these digital solutions for citizens and health professionals.

Type and Size of Partner Sought

University

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Call title: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies
Call identifier: SC1-DTH-02-2020

Coordinator required

Yes

Duration

130 days

Deadline for EOI

31 Jan 2020

Deadline of the Call

22 Apr 2020

Attachments