enterprise europe network

Partnering Opportunity

Profile status : Published

Research Development Request

H2020-DT-2018-1: Partners in the field of tissue manufacturing using bioprinting to apply to the call DIH-HERO.

Summary

A Spanish company, expert in electrospinning, is willing to develop a bioprinting equipment for tissue engineering integrating nanofiber manufacturing technologies with the usual ones in bioprinting. They are looking for a partner with experience in tissue manufacturing using bioprinting for applying to the call DIH-HERO (H2020-DT-2018-1). The partner sought should participate in the definition of the equipment specifications, the manufacturing process and in the validation.

Creation Date	28 May 2020
Last Update	28 May 2020
Expiration Date	08 June 2020
Reference	RDES20200528001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/805276c3-65c8-440c-842f-3e5ce7c3debe

Details

Description

A Spanish company has deep expertise in manufacturing scientific equipment and industrial process scaling. They have experience with equipment to manufacture advanced materials made of aligned and random ultrafine fibers. In those machines, electrospinning and melt-electrowriting techniques are applied. Electrospinning allows depositing layers of random ultrafine fibers. Melt-electrowriting allows the creation of 3D structures of ultrafine fibers reproducing predesigned patterns.

European Commission

The objective of the project is to develop automatic bioprinting equipment for nanocomposite materials with ultrafine fibers, specific to the tissue engineering sector. The nanocomposites printed structures will combine materials already used in bioprinting, such as hydrogels and bio-inks, with ultrafine fiber structures. For this, traditional bioprinting technologies will be integrated with those of "electrospinning" and "melt-electrowriting". According to the scientific literature, these types of fibrous nanocomposites are very attractive and promising in the field of tissue engineering. This is because they allow to precisely mimic the extracellular matrix favoring tissue regeneration. Some of the advantages described in the scientific literature are vascularization, growth orientation, cell migration, proliferation, and differentiation.

Digital Innovation Hub Healthcare Robotics (DIH-HERO) is an independent and sustainable platform for all those who are active in the healthcare ecosystem. Its mission is to create a sustaining network that connects players in the healthcare sector and to support small and medium sized enterprises. Its aim is to speed up innovation and reduce time-to-market with a pan-European network.

The company is looking for a partner in the tissue engineering sector with experience in tissue manufacturing using the latest technologies in bioprinting. The partner will participate in the definition of the equipment specifications. In addition, they will define the manufacturing process of a fabric in which all the functionalities of the equipment are used and will proceed to validate the fabric following scientific standards. The results must be published in scientific magazines for divulgation. The process property will belong to the process developer. The partner may have one of the created machines to continue developing its products.

Official deadline for the call: 15th June 2020
Deadline for expressions of interest: 08/06/2020
Anticipated duration of the project: 9 months

Stage of development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Keywords

Technology

01002002	3D printing
02002002	Coatings
02002016	Microengineering and nanoengineering
02007020	Biobased materials

Market

05004001	Electromedical and medical equipment
08001007	Coatings and adhesives manufactures

NACE

C.26.1.2	Manufacture of loaded electronic boards

C.27.9.0 Manufacture of other electrical equipment

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

Zebrowski Pawel

Phone number

+48 91 449 43 64

Email

pzebrowski@zut.edu.pl

Open for EOI: Yes

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2011

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
French
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:
Partner working in the field of engineering sector.

- Specific area of activity of the partner:
Engineering sector with experience in tissue manufacturing using the latest technologies in bioprinting.

- Task to be performed:
The partner will participate in the definition of the equipment specifications, will define the manufacturing process of a fabric in which all the functionalities of the equipment are used and will proceed to validate the fabric following scientific standards.

- EU / International project experience:
Not required.

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Digital Innovation Hubs in Healthcare Robotics (DIH-HERO): H2020-DT-2018-1

Coordinator required

No

Duration

39 days

Deadline for EOI

08 Jun 2020

Deadline of the Call

15 Jun 2020

Weblink to the call

https://dih-hero.eu/

Attachments