Project Information

**SAM**
Grant agreement ID: 891084

**Funded under**
EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

**Total cost**
€ 203 149,44

**EU contribution**
€ 203 149,44

**Coordinated by**
UNIVERSITE DE Fribourg
+ Switzerland

**Project terminated on 7 January 2022**

**Start date**
1 March 2021

**End date**
28 February 2023

Project description

**Muscle-inspired materials with improved properties**

Muscles are characterised by an unparalleled combination of adaptability, mechanical resistance and softness at the same time. Synthetic materials inspired by natural muscles are expected to find many applications in robotics and medicine. Scientists of the EU-funded SAM project will develop such materials from stimuli-responsive hydrogels (SRHs) that have the ability to change their volume in response to light or temperature. To overcome poor mechanical resistance issues associated with SRHs, researchers will combine these polymers with colloidal particles offering a
directional expansion and contraction capacity. The project will generate a platform for the synthesis of inexpensive and biocompatible materials.

Fields of science

natural sciences > chemical sciences > polymer sciences

engineering and technology > nanotechnology > nano-materials > nanocrystals

engineering and technology > electrical engineering, electronic engineering, information engineering > electronic engineering > robotics

engineering and technology > materials engineering > nanocomposites

engineering and technology > materials engineering > liquid crystals

Keywords

SAM

Programme(s)

H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

H2020-EU.1.3.2. - Nurturing excellence by means of cross-border and cross-sector mobility

Topic(s)

MSCA-IF-2019 - Individual Fellowships

Call for proposal

H2020-MSCA-IF-2019

See other projects for this call

Funding Scheme

MSCA-IF - Marie Skłodowska-Curie Individual Fellowships (IF)
UNIVERSITE DE Fribourg

Net EU contribution
€ 203 149,44

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Avenue de l'Europe 20
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Region
Schweiz/Suisse/Svizzera > Espace Mittelland > Fribourg / Freiburg

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding
€ 0,00

EC signature date 10 December 2020
Last update: 24 July 2023

Permalink: https://cordis.europa.eu/project/id/891084

European Union, 2023