Intact SynaPtic Imaging in REal-time

Fact Sheet

Project Information

InSpIRe

Grant agreement ID: 101002490

Funded under
EXCELLENT SCIENCE - European Research Council (ERC)

DOI
10.3030/101002490

Total cost
€ 2 380 000,00

EU contribution
€ 2 380 000,00

Start date
1 January 2023

End date
31 December 2027

Coordinated by
KUNGliga TEKNISKA
HOEGSKOLAN
Sweden

Project description

Fast and precise shots of synaptic activity

Incompatible optical and probe requirements in current technologies are blocking studies of fast dynamics with intra-synaptic precision. This is a major challenge for the real-time functional imaging of brain activities. The EU-funded InSpIRe project will address this challenge. It will develop an optical platform that allows real-time volumetric imaging of brain tissues with an intra-synaptic level of details thanks to a new optical scheme coupled to the photoswitching properties of recently engineered red-shifted probes. It will take advantage of rsFusionRed, a new palette of reversibly switching fluorescent proteins. As a proof of principle, it will study the dynamics of the
endoplasmic reticulum, which are little known in synapses, and could show these with precision.

**Fields of science**

natural sciences > biological sciences > biochemistry > biomolecules > proteins
natural sciences > physical sciences > optics > microscopy
humanities > arts > modern and contemporary art > cinematography
natural sciences > mathematics > pure mathematics > geometry

**Programme(s)**

H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council (ERC)  

**Topic(s)**

ERC-2020-COG - ERC CONSOLIDATOR GRANTS

**Call for proposal**

ERC-2020-COG

See other projects for this call

**Funding Scheme**

ERC-COG - Consolidator Grant

**Coordinator**

KUNGLIGA TEKNISKA HOEGSKOLAN
Net EU contribution
€ 2 380 000,00

Address
Brinellvagen 8
100 44 Stockholm
Sweden

Region
Östra Sverige > Stockholm > Stockholms län

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

Beneficiaries (1)

KUNGLIGA TEKNISKA HOEGSKOLAN
Sweden

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