



GUT Virus BBrain Axis Technology In OrgaNoid Science

Fact Sheet

Project Information

GUTVIBRATIONS

Grant agreement ID: 953201

[Project website](#)

DOI

[10.3030/953201](https://doi.org/10.3030/953201)

Project closed

EC signature date

18 February 2021

Start date

1 April 2021

End date

31 March 2025

Funded under

INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies – Nanotechnologies

Total cost

No data

EU contribution

€ 6 061 375,00

Coordinated by

STICHTING AMSTERDAM UMC



Netherlands

Project description

Complex organ-on-a-chip system for biomedical research

Organoid technology has achieved a breakthrough in biomedicine, with high potential for viral pathogenesis and antiviral research. The EU-funded GUTVIBRATIONS project will combine expertise in microfabrication, organoid technology, virology, immunology, and bioengineering to create an organ-on-a-chip system as a modular human gut-brain axis multi-organ model. This system will be built by combining 3D-printed scaffold technology with human gut and brain organoids. It will include a gut epithelial layer, immune cells, a blood-brain barrier and a brain organoid, connected by vertical stacking. The extracellular matrix (ECM) scaffold called Biosilk, a

recombinant spider silk protein, will result in an in vivo like microenvironmental niche. The project aims to assess the system's commercialisation by a market analysis and a business plan.

Fields of science (EuroSciVoc)

[natural sciences](#) > [biological sciences](#) > [microbiology](#) > **[virology](#)**

[medical and health sciences](#) > [health sciences](#) > **[infectious diseases](#)**

[medical and health sciences](#) > [basic medicine](#) > **[immunology](#)**

[medical and health sciences](#) > [basic medicine](#) > **[physiology](#)**

[engineering and technology](#) > [other engineering and technologies](#) > [microtechnology](#) > **[organ on a chip](#)**



Keywords

[Gut-brain axis](#)

[virology](#)

[antivirals](#)

[organoids](#)

Programme(s)

[H2020-EU.2.1.2. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies – Nanotechnologies](#)

MAIN PROGRAMME

[H2020-EU.2.1.3. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Advanced materials](#)

Topic(s)

[DT-NMBP-23-2020 - Next generation organ-on-chip \(RIA-LS\)](#)

Call for proposal

[H2020-NMBP-TR-IND-2018-2020](#) 

[See other projects for this call](#)

Sub call

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



STICHTING AMSTERDAM UMC

Net EU contribution

€ 2 187 375,00

Total cost

No data

Address

DE BOELELAAN 1117

1081 HV Amsterdam

 **Netherlands** 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (6)



DANMARKS TEKNISKE UNIVERSITET

 **Denmark**

Net EU contribution

€ 971 250,00

Address

ANKER ENGELUNDS VEJ 101

2800 Kongens Lyngby 

Region

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



KATHOLIEKE UNIVERSITEIT LEUVEN

Belgium

Net EU contribution

€ 514 000,00

Address

OUDE MARKT 13
3000 Leuven

Region

Vlaams Gewest > Prov. Vlaams-Brabant > Arr. Leuven

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



UNIQUE BIOPHARMA BV

Netherlands

Net EU contribution

€ 453 750,00

Address

PAASHEUVELWEG 25
1105BP Amsterdam 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

No data



BIOLAMINA AB

 Sweden

Net EU contribution

€ 377 500,00

Address

LOFSTROMS ALLE 5A
172 66 Sundbyberg 

SME 

Yes

Region

Östra Sverige > Stockholm > Stockholms län

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

No data



STEMCELL TECHNOLOGIES UK LTD

 United Kingdom

Net EU contribution

€ 967 500,00

Address

**BUILDING 7100 CAMBRIDGE RESEARCH PARK BEACH DRIVE WATERBEACH
CB25 9TL Cambridge** 

SME 

Yes

Region

East of England > East Anglia > Cambridgeshire CC

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



KUNGLIGA TEKNISKA HOEGSKOLAN

 Sweden

Net EU contribution

€ 590 000,00

Address

**BRINELLVAGEN 8
100 44 Stockholm** 

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](#) 

Total cost

No data

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European Union, 2025

