Associative mechanisms linking a defective minipuberty to the appearance of mental and nonmental disorders: infantile NO replenishment as a new therapeutic possibility

Fact Sheet

Project Information

miniNO
Grant agreement ID: 847941

DOI
10.3030/847941

Funded under
SOCIETAL CHALLENGES - Health, demographic change and well-being

Total cost
€ 6 487 770

EU contribution
€ 6 487 770

Coordinated by
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE
France

Project description

For better treatment of those born prematurely
Objective

The miniNO project aims to identify the key causative mechanisms of the lifelong multimorbidity associated with preterm birth. Prematurity is associated with alterations in the maturation of the hypothalamic-pituitary-gonadal axis, and specifically with its transient activation during infancy, known as minipuberty. miniNO will study for the first time the association between premature birth and alterations in minipuberty and infantile nitric oxide (NO) signaling in the brain, and comorbidities that appear later on in life. The project is based on robust preclinical data and previous clinical studies, and will exploit data concerning premature birth and minipuberty in existing cohorts as well as newly created cohorts. We will identify the molecular association between NO deficiency, altered minipuberty and multimorbidity combining mental (e.g. autism, social cognition, learning and memory impairments) and non-mental disorders (e.g. anosmia, hearing loss, metabolic abnormalities, cardiovascular impairments and infertility) as well as gender, environmental and lifestyle factors. For this, we have assembled a unique interdisciplinary consortium of renowned basic scientists (neuroscientists) and clinicians (pediatric and adult endocrinologists, psychiatrists, geneticists) and an SME to implement the project results. By validating the causative mechanisms of the multimorbidity related to preterm birth, we will propose and develop novel diagnostic and preventive tools, including screening tests for biomarkers and newly identified genetic factors, for altered minipuberty, thus paving the way to personalized treatment and new therapeutic options very early in life. miniNO is expected to improve the quality of life of millions of prematurely born individuals and reduce the financial and societal burdens they impose.

Programme(s)

H2020-EU.3.1. - SOCIETAL CHALLENGES - Health, demographic change and well-being

H2020-EU.3.1.1. - Understanding health, wellbeing and disease

Topic(s)
SC1-BHC-01-2019 - Understanding causative mechanisms in co- and multimorbidities combining mental and non-mental disorders

Call for proposal

H2020-SC1-BHC-2018-2020

See other projects for this call

Sub call

H2020-SC1-2019-Two-Stage-RTD

Funding Scheme

RIA - Research and Innovation action

Coordinator

INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE

Net EU contribution
€ 943 750,00

Address
Rue De Tolbiac 101
75654 Paris
France

Region
Ile-de-France

Activity type
Research Organisations

Links
Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00
Participants (11)

BIOGAZELLE NV

Belgium

Net EU contribution
€ 499 000,00

Address
Technologiepark 82
9052 Zwijnaarde

SME
Yes

Region
Vlaams Gewest > Prov. Oost-Vlaanderen > Arr. Gent

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

Links
Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00

CENTRE HOSPITALIER REGIONAL ET UNIVERSITAIRE DE LILLE

France

Net EU contribution
€ 742 188,75

Address
Avenue Oscar Lambret 2
59037 Lille

Region
Hauts-de-France > Nord-Pas de Calais > Nord

Activity type
Higher or Secondary Education Establishments
CENTRE HOSPITALIER UNIVERSITAIRE VAUDOIS

Switzerland

Net EU contribution

€ 1 338 243,75

Address

Rue Du Bugnon 21
1011 Lausanne

Region

Schweiz/Suisse/Svizzera > Région lémanique > Vaud

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

INSERM TRANSFERT SA

France

Net EU contribution

€ 390 992,50

Address

Rue Watt 7
75013 Paris

Region

Ile-de-France > Ile-de-France > Paris
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links
Contact the organisation Website Participation in EU R&I programmes H2020 collaboration network

Non-EU contribution
€ 0,00

---

QUEEN MARY UNIVERSITY OF LONDON
United Kingdom
Net EU contribution
€ 578 332,50

Address
327 Mile End Road
E1 4NS London

Region
London → Inner London — East → Tower Hamlets

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation Website Participation in EU R&I programmes H2020 collaboration network

Non-EU contribution
€ 0,00

---

UNIVERSITE DE LILLE
France
Net EU contribution
€ 466 300,00

Address
42 Rue Paul Duez
59000 Lille
THIRD-PARTY
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS
France
Net EU contribution
€ 73 305,00
Address
Rue Michel Ange 3
75794 Paris
Region
Ile-de-France > Ile-de-France > Paris
Activity type
Research Organisations
Links
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 0,00

UNIVERSITE DE GENEVE
Switzerland
Net EU contribution
€ 347 750,00
Address
Rue Du General Dufour 24
1211 Geneve

Region
Schweiz/Suisse/Svizzera > Région lémanique > Genève

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation Website Participation in EU R&I programmes H2020 collaboration network

Non-EU contribution
€ 0,00

EREVNIQUITKO PANEPISTIMIAKO INSTITUTOMELETIS KE ANTIMITOPISIS
GENETIKONKE KAKOETHON NOSIMATON TIS PEDIKISILIKIAS

Greece
Net EU contribution
€ 626 882,50

Address
8 Levadias Street
115 27 Athina

Region
Κεντρικός Τομέας Αθηνών > Αττική > Αττική

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

Links
Contact the organisation Participation in EU R&I programmes H2020 collaboration network

Non-EU contribution
€ 0,00

UNIVERSITAET zu LUEBECK

Germany
Net EU contribution
 Universitätsklinikum Würzburg - Klinikum der Bayerischen Julius-Maximilians-Universität

**Germany**

**Net EU contribution**: € 169,945,00

**Address**: Josef-schneider-strasse 2, 97080 Wurzburg

**Region**: Bayern > Unterfranken > Würzburg, Kreisfreie Stadt

**Activity type**: Higher or Secondary Education Establishments

**Links**: Contact the organisation, Website, Participation in EU R&I programmes, H2020 collaboration network

**Non-EU contribution**: € 0,00