

HORIZON
2020

Unlocking Precision Gene Therapy

Fact Sheet

Project Information

UPGRADE

Grant agreement ID: 825825

DOI

[10.3030/825825](https://doi.org/10.3030/825825) 

Project closed

EC signature date

4 December 2018

Start date

1 January 2019

End date

30 June 2024

Funded under

SOCIETAL CHALLENGES - Health, demographic change and well-being

Total cost

€ 14 996 955,00

EU contribution

€ 14 995 830,00

Coordinated by

FONDAZIONE TELETHON ETS



Project description

Advanced gene-editing tools for safer gene therapy

Gene therapy offers a promising approach to treat incurable diseases by silencing, activating or recoding specific genes. In addition to conventional gene transfer strategies, newly emerged gene-editing technologies provide the potential for precise manipulation of the genome. The EU-funded UPGRADE project aims to address certain gene therapy limitations associated with insertional mutagenesis, off-target effects, or limited efficiency. Researchers will develop disruptive new technologies for precision gene and epigenome editing, as well as for gene insertion. Following stringent validation, the project will lead to advanced medicinal products and versatile tools that could be used for a number of diseases.

Fields of science (EuroSciVoc)

[medical and health sciences](#) > [medical biotechnology](#) > [genetic engineering](#) > **[gene therapy](#)**

[medical and health sciences](#) > [clinical medicine](#) > **[ophthalmology](#)**

[natural sciences](#) > [biological sciences](#) > [genetics](#) > **[genomes](#)**



Keywords

[Precision gene therapy](#)

[targeted gene](#)

[epigenome editing](#)

[viral and non-viral vectors](#)

[advanced medicinal products](#)

[hematopoietic stem cells](#)

[muscle wasting](#)

[retinal degeneration](#)

[liver diseases](#)

Programme(s)

[H2020-EU.3.1. - SOCIETAL CHALLENGES - Health, demographic change and well-being](#)

MAIN PROGRAMME

[H2020-EU.3.1.3. - Treating and managing disease](#)

Topic(s)

[SC1-BHC-09-2018 - Innovation platforms for advanced therapies of the future](#)

Call for proposal

[H2020-SC1-BHC-2018-2020](#) 

[See other projects for this call](#)

Sub call

H2020-SC1-2018-Single-Stage-RTD

Funding Scheme

Coordinator



FONDAZIONE TELETHON ETS

Net EU contribution

€ 3 412 968,75

Total cost

€ 4 952 968,75

Address

VIA VARESE 16/B
00185 Roma



Region

Centro (IT) > Lazio > Roma

Activity type

Research Organisations

Links

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

Participants (10)

THIRD-PARTY

INNOVAVECTOR SRL



Net EU contribution

€ 110 000,00

Address

VIA CAMPI FLEGREI 34
80078 Pozzuoli



SME

Yes

Region

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

 THIRD-PARTY

OSPEDALE SAN RAFFAELE SRL

 Italy

Net EU contribution

€ 1 365 625,00

Address

VIA OLGETTINA 60
20132 Milano 

Region

Nord-Ovest > Lombardia > Milano

Activity type

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

Links

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

Total cost

No data

 THIRD-PARTY

NEXT GENERATION DIAGNOSTIC SRL

 Italy

Net EU contribution

€ 64 375,00

Address

VIA CAMPI FLEGREI 34
80078 Pozzuoli 

SME 

Yes

Region

Sud > Campania > Napoli

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



UNIVERSIDAD POMPEU FABRA

 Spain

Net EU contribution

€ 2 767 377,50

Address

PLACA DE LA MERCE, 10-12
08002 Barcelona 

Region

Este > Cataluña > Barcelona

Activity type

Higher or Secondary Education Establishments

Links

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

Total cost

€ 2 767 377,50



UNIVERSITA DEGLI STUDI DI TRENTO



Italy

Net EU contribution

€ 1 333 798,75

Address

VIA CALEPINA 14

38122 Trento 

Region

Nord-Est > Provincia Autonoma di Trento > Trento

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 1 333 798,75



TECHNISCHE UNIVERSITAET DRESDEN



Germany

Net EU contribution

€ 1 107 000,00

Address

HELMHOLTZSTRASSE 10

01069 Dresden 

Region

Sachsen > Dresden > Dresden, Kreisfreie Stadt

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 1 107 000,00



VRIJE UNIVERSITEIT BRUSSEL

 Belgium

Net EU contribution

€ 1 328 412,50

Address

PLEINLAAN 2

1050 Bruxelles / Brussel 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 1 328 412,50



NANTES UNIVERSITE

 France

Net EU contribution

€ 1 182 500,00

Address

1 QUAI DE TOURVILLE

44000 Nantes 

Region

Pays de la Loire > Pays de la Loire > Loire-Atlantique

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#) 

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

Total cost

€ 1 182 500,00



LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN

 Germany

Net EU contribution

€ 1 106 062,50

Address

GESCHWISTER SCHOLL PLATZ 1
80539 MUNCHEN 

Region

Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 1 107 187,50



THE GENERAL HOSPITAL CORPORATION

 United States

Net EU contribution

€ 1 217 710,00

Address

FRUIT STREET 55
02114 Boston Ma 

Activity type

Other

Links

[Contact the organisation](#) 

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

Total cost

€ 1 217 710,00

Last update: 17 February 2025

Permalink: <https://cordis.europa.eu/project/id/825825>

European Union, 2025