

HORIZON
2020

Application of combined gene and cell therapy within an implantable therapeutic device for the treatment of severe hemophilia A

Fact Sheet

Project Information

HemAcure

Grant agreement ID: 667421

[Project website](#) 

DOI

[10.3030/667421](https://doi.org/10.3030/667421) 

Project closed

EC signature date

9 December 2015

Start date

1 November 2015

End date

31 October 2018

Funded under

SOCIETAL CHALLENGES - Health, demographic change and well-being

Total cost

€ 5 564 395,00

EU contribution

€ 5 564 395,00

Coordinated by

UNIVERSITAETSKLINIKUM
WUERZBURG - KLINIKUM DER
BAYERISCHEN JULIUS-
MAXIMILIANS-UNIVERSITAT



Germany

Objective

The main objective of the HemAcure project is to develop and refine the tools and technologies for a novel ex vivo prepared cell based therapy to treat the bleeding disease haemophilia A (caused by genetic deficiency in clotting factor VIII (FVIII)) that should ultimately lead to improved quality of life of the patients. The concept is a

further development of our approach, established during the FP7 ReLiver project led by Medicyte. From the very beginning, we balance two important goals, maximizing the product's efficacy and safety profile on one side and minimizing production cost on the other by enhancing the product's manufacturability. HemAcure relates to the work program as we focus on the refinement of all steps and tools of our ex vivo gene therapy approach. These steps involve 1) isolation and culture of cells from patients' blood, 2) manipulation of patient cells to repair its genetic defect by ex vivo introducing the correct genetic copy of FVIII (mutations in this gene lead to hemophilia A), 3) automation of cell expansion in a novel and passage-less scalable bioreactor, 4) continuously monitoring of cells during and after expansion with respect to their safety profile and functionality, 5) cell implantation into a worldwide unique medical device for targeted delivery of therapeutic Factor VIII and 6) proof-of-concept and safety studies in appropriate haemophilia A animal models. The aim of adapting the proof-of-concept to GMP requires a risk based approach, by means of a clear understanding of the whole process from design to production of the therapeutic cells and a systematic way to identify and prevent risks that are not acceptable for the patient. All steps will be designed and conducted according to European GMP-regulations to ensure that the product will fully comply to the requirements for quality of the European authorities.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [mechanical engineering](#) > [manufacturing engineering](#)

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

[medical and health sciences](#) > [basic medicine](#) > [pharmacology and pharmacy](#) > [pharmaceutical drugs](#)

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

[medical and health sciences](#) > [medical biotechnology](#) > [cells technologies](#)



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)

[PHC-16-2015 - Tools and technologies for advanced therapies](#)

Call for proposal

[H2020-PHC-2014-2015](#) 

[See other projects for this call](#)

Sub call

H2020-PHC-2015-two-stage

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



**UNIVERSITAETSKLINIKUM WUERZBURG - KLINIKUM DER BAYERISCHEN
JULIUS-MAXIMILIANS-UNIVERSITAT**

Net EU contribution

€ 1 714 513,00

Total cost

€ 1 714 513,00

Address

JOSEF-SCHNEIDER-STRASSE 2

97080 Wurzburg



Germany



Region

Bayern > Unterfranken > Würzburg, Kreisfreie Stadt

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Participants (7)



GRUNEWALD JURGEN 

 Germany

Net EU contribution

€ 179 845,34

Address



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

€ 179 845,34



UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO

 Italy

Net EU contribution

€ 1 400 000,00

Address

DUOMO 6

13100 Vercelli 

Region

Nord-Ovest > Piemonte > Vercelli

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 1 400 000,00



LOUGHBOROUGH UNIVERSITY

 United Kingdom

Net EU contribution

€ 983 280,00

Address

ASHBY ROAD

LE11 3TU Loughborough 

Region

**East Midlands (England) > Leicestershire, Rutland and Northamptonshire > Leicestershire
CC and Rutland**

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 983 280,00



SERNOVA CORP.

 Canada

Net EU contribution

€ 944 177,50

Address

700 COLLIP CIRCLE SUITE 114

N6G4X8 LONDON ONTARIO 

SME 

Yes

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
€ 944 177,50



GABO:MI GESELLSCHAFT FUR ABLAUFORGANISATION:MILLIARIUM MBH & CO
KG

Germany

Net EU contribution

€ 34 237,00

Address

OSKAR VON MILLER RING 29

80333 Muenchen

SME

Yes

Region

Bayern > Oberbayern > München, Kreisfreie Stadt

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

€ 34 237,00



ARTTIC

France

Net EU contribution

€ 150 000,00

Address

39 RUE DES MATHURINS

75008 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](#) 

[HORIZON collaboration network](#) 

Total cost

€ 150 000,00



GRUNEWALD VERWALTUNGS GMBH

 Germany

Net EU contribution

€ 158 342,16

Address

**SPESSARTSTRASSE 2
64646 HEPPENHEIM** 

Region

Hessen > Darmstadt > Bergstraße

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

€ 158 342,16

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Permalink: <https://cordis.europa.eu/project/id/667421>

European Union, 2025