A Centre of Excellence in Computational Biomedicine

Fact Sheet

Project Information

CompBioMed
Grant agreement ID: 675451

DOI
10.3030/675451

Funded under
EXCELLENT SCIENCE - Research Infrastructures

Total cost
€ 4 938 216,25

EU contribution
€ 4 938 215,75

Coordinated by
UNIVERSITY COLLEGE LONDON
United Kingdom

Start date
1 October 2016

End date
30 September 2019

Objective

This Centre of Excellence will advance the role of computationally based modelling and simulation within biomedicine. Three related user communities lie at the heart of the CoE: academic, industrial and clinical researchers who all wish to build, develop and extend such capabilities in line with the increasing power of high performance computers. Three distinct exemplar research areas will be pursued: cardiovascular, molecularly-based and neuro-musculoskeletal medicine.

Predictive computational biomedicine involves applications that are comprised of multiple components, arranged as far as possible into automated workflows in which
data is taken, from an individual patient, processed, and combined into a model which produces predicted health outcomes. Many of the models are multiscale, requiring the coupling of two or more high performance codes. Computational biomedicine holds out the prospect of predicting the effect of personalised medical treatments and interventions ahead of carrying them out, with all the ensuing benefits. Indeed, in some cases, it is already doing so today.

The CoE presents a powerful consortium of partners and has an outward facing nature and will actively train, disseminate and engage with these user communities across Europe and beyond. Because this field is new and growing rapidly, it offers numerous innovative opportunities. There are three SMEs and three enterprises within the project, as well as eight associate partners drawn from across the biomedical sector, who are fully aware of the vast potential of HPC in this domain. We shall work with them to advance the exploitation of HPC and will engage closely with medical professionals through our partner hospitals in order to establish modeling and simulation as an integral part of clinical decision making. Our CoE is thus user-driven, integrated, multidisciplinary, and distributed; presenting a vision that is in line with the Work Programme.

Keywords

- Personalised and precision medicine
- multiscale modelling
- simulation
- high-performance computing
- community development

Programme(s)

H2020-EU.1.4. - EXCELLENT SCIENCE - Research Infrastructures

H2020-EU.1.4.1.3. - Development, deployment and operation of ICT-based e-infrastructures

Topic(s)

EINFRA-5-2015 - Centres of Excellence for computing applications

Call for proposal

H2020-EINFRA-2014-2015

See other projects for this call
Sub call
H2020-EINFRA-2015-1

Funding Scheme

RIA - Research and Innovation action

Coordinator

UNIVERSITY COLLEGE LONDON
Net EU contribution
€ 908 892,50

Address
Gower street
WC1E 6BT London
United Kingdom

Region
London > Inner London — West > Camden and City of London

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

Participants (16)

UNIVERSITEIT VAN AMSTERDAM
Netherlands
Net EU contribution
€ 508 798,75
THE UNIVERSITY OF EDINBURGH

Address
Old college, south bridge
EH8 9YL Edinburgh

Region
Scotland > Eastern Scotland > Edinburgh

Activity type
Higher or Secondary Education Establishments

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

Other funding
€ 0,25

BARCELONA SUPERCOMPUTING CENTER CENTRO NACIONAL DE SUPERCOMPUTACION
Spain
Net EU contribution
€ 372,076,25
Address
Calle Jordi Girona 31
08034 Barcelona
Region
Este > Cataluña > Barcelona
Activity type
Research Organisations
Links
Contact the organisation [🔗]  Website [🔗]
Participation in EU R&I programmes [🔗]
HORIZON collaboration network [🔗]
Other funding
€ 0,00

SURF BV
Netherlands
Net EU contribution
€ 495,950,00
Address
Moreelsepark 48
3511 EP Utrecht
Region
West-Nederland > Utrecht > Utrecht
Links
Contact the organisation [🔗]
Participation in EU R&I programmes [🔗]
HORIZON collaboration network [🔗]
Other funding
€ 0,00
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD
United Kingdom
Net EU contribution
€ 264,955,00
Address
Wellington square university offices
OX1 2JD Oxford
Region
South East (England) > Berkshire, Buckinghamshire and Oxfordshire > Oxfordshire
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

UNIVERSITE DE GENEVE
Switzerland
Net EU contribution
€ 388,225,00
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 HORIZON collaboration network
Other funding
€ 0,00
THE UNIVERSITY OF SHEFFIELD

United Kingdom
Net EU contribution
€ 456,368,75

Address
Firth court western bank
S10 2TN Sheffield

Region
Yorkshire and the Humber > South Yorkshire > Sheffield

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

CBK SCI CON LIMITED

United Kingdom
Net EU contribution
€ 277,143,75

Address
97 tottenham court road, the network building
W1T 4TP London

SME
Yes

Region
London > Inner London — West > Camden and City of London

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

Links
Contact the organisation
Participation in EU R&I programmes
**UNIVERSIDAD POMPEU FABRA**

Spain

Net EU contribution

€ 191 750,00

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

Other funding

€ 0,00

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**LIFETEC GROUP BV**

Netherlands

Net EU contribution

€ 247 987,50

Address

Kennedyplein 11
5611 ZS Eindhoven

SME  Yes

Region

Zuid-Nederland > Noord-Brabant > Zuidoost-Noord-Brabant

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**ACELLERA LABS SL**

Spain

Net EU contribution

€ 95 881,00

Address

C/ dels pinzon 19 2-4
08003 Barcelona

SME

Yes

Region

**Este > Cataluña > Barcelona**

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

Other funding

€ 0,25

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**EVOTEC AG**

Germany

Net EU contribution

€ 0,00

Address
Essener bogen 7
22419 Hamburg

Region
Hamburg > Hamburg > Hamburg

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

Other funding
€ 0,00

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BULL SAS

France

Net EU contribution
€ 138 043,75

Address
Rue jean jaures 68
78340 Les clayes sous bois

Region
Ile-de-France > Ile-de-France > Yvelines

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

Other funding
€ 0,00

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JANSSEN PHARMACEUTICA NV

Belgium

Net EU contribution
€ 93 768,75
Address
Turnhoutseweg 30
2340 Beerse
Region
Vlaams Gewest > Prov. Antwerpen > Arr. Turnhout
Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network
Other funding
€ 0,00

THIRD-PARTY

JANSSEN-CILAG
France
Net EU contribution
€ 31 256,25
Address
1 rue camille desmoulins
92787 Issy les moulineaux
Region
Ile-de-France > Ile-de-France > Hauts-de-Seine
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Contact the organisation Participation in EU R&I programmes HORIZON collaboration network
Other funding
€ 0,00

EVOTEC (UK) LIMITED
United Kingdom
Net EU contribution
€ 131 287,50
Address