HELIX

Project ID: 308333

Funded under: FP7-ENVIRONMENT

The Human Early-Life Exposome - novel tools for integrating early-life environmental exposures and child health across Europe

From 2013-01-01 to 2017-12-31, closed project

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 11 292 724.89</td>
<td>ENV.2012.6.4-3 - Integrating environmental and health data to advance knowledge of the role of environment in human health and well-being in support of a European exposome initiative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EU contribution:</th>
<th>Call for proposal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 8 623 939</td>
<td>FP7-ENV-2012-two-stage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coordinated in:</th>
<th>Funding scheme:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>CP - Collaborative project (generic)</td>
</tr>
</tbody>
</table>

Objective

The aim of HELIX is to exploit novel tools and methods (remote sensing/GIS-based spatial methods, omics-based approaches, biomarkers of exposure, exposure devices and models, statistical tools for combined exposures, novel study designs, and burden of disease methodologies), to characterise early-life exposure to a wide range of environmental hazards, and integrate and link these with data on major child health outcomes (growth and obesity, neurodevelopment, immune system), thus developing an "Early-Life Exposome" approach.

HELIX uses six existing, prospective birth cohort studies as the only realistic and feasible way to obtain the comprehensive, longitudinal, human data needed to build this early-life exposome. These cohorts have already collected large amounts of data as part of national and EU-funded projects. Results will be integrated with data from European cohorts (>300,000 subjects) and registers, to estimate health impacts at the large European scale.

HELIX will make a major contribution to the integrated exposure concept by developing an exposome toolkit and database that will: 1) measure a wide range of major chemical and physical environmental hazards in food, consumer products, water, air, noise, and the built environment, in pre and postnatal periods; 2) integrate data on individual, temporal, and toxicokinetic variability, and on multiple exposures, which will greatly reduce uncertainty in exposure estimates; 3) determine molecular profiles and biological pathways associated with multiple exposures using omics tools; 4) provide exposure-response estimates and thresholds for multiple exposures and child health; and 5) estimate the burden of childhood disease in Europe due to multiple environmental exposures. This integration of the chemical, physical and molecular environment during critical early-life periods will lead to major improvements in health risk and impact assessments and thus to improved prevention strategies for vulnerable populations.

Related information

Result In Brief

Building the Early Life Exposome

Report Summaries

Final Report Summary - HELIX (The Human Early-Life Exposome – novel tools for integrating early-life environmental exposures and child health across Europe)
Coordinator

FUNDACION PRIVADA INSTITUTO DE SALUD GLOBAL BARCELONA
C ROSSELLO 132 PLANTA 05
08036 BARCELONA
Spain
See on map

Activity type: Research Organisations

Administrative contact: Diana Van Gent
Tel.: +34 932147355
Fax: +34 932147301
E-mail
Contact the organisation

Participants

FUNDACIO CENTRE DE RECERCA EN EPIDEMIOLOGIA AMBIENTAL - CREAL
Calle Doctor Aiguader 88
08003 BARCELONA
Spain
See on map

Activity type: Research Organisations

Administrative contact: Mark Nieuwenhuijsen
Tel.: +34 932147330
Fax: +34 932147302
E-mail
Contact the organisation
FOLKEHELSEINSTITUTTET
LOVISENBERG GATA 8
0456 OSLO
Norway
See on map

Activity type: Research Organisations

Administrative contact: Cahtrine Thomsen
Tel.: +4721076546
E-mail
Contact the organisation

EU contribution: EUR 2 025 814,50

PANEPISTIMIO KRITIS
UNIVERSITY CAMPUS GALLOS
74100 RETHIMNO
Greece
See on map

Activity type: Higher or Secondary Education Establishments

Administrative contact: Eleni Karkanaki
Tel.: +302810393163
Fax: +302810393130
E-mail
Contact the organisation

EU contribution: EUR 402 622

INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE
RUE DE TOLBIAC 101
75654 PARIS
France
See on map

Activity type: Research Organisations

Administrative contact: Evelyne Bertino
Tel.: +33 4 72 13 88 58
Fax: +33 4 72 13 88 01
E-mail
Contact the organisation

EU contribution: EUR 677 604
BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST
Duckworth Lane
BD9 6RJ Bradford
United Kingdom
See on map

Activity type: Research Organisations

Administrative contact: John French
Tel.: +44 1274 364403
Fax: +44 1274 364857
E-mail
Contact the organisation

EU contribution: EUR 452 948,15

VYTAUTO DIDZIOJO UNIVERSITETAS
K DONELAICIO G 58
44248 KAUNAS
Lithuania
See on map

Activity type: Higher or Secondary Education Establishments

Administrative contact: Dangirute Radzевичиene
Tel.: +37037 327881
E-mail
Contact the organisation

EU contribution: EUR 342 144

IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE
SOUTH KENSINGTON CAMPUS EXHIBITION ROAD
SW7 2AZ LONDON
United Kingdom
See on map

Activity type: Higher or Secondary Education Establishments

Administrative contact: Tatjana Palalic
Tel.: +44 207 594 6265
Fax: +44 207 594 6265
E-mail
Contact the organisation

EU contribution: EUR 772 367,90
FUNDACIO CENTRE DE REGULACIO GENOMICA
CARRER DOCTOR AIGUADER 88
08003 BARCELONA
Spain

EU contribution: EUR 819,492,60

See on map

Activity type: Research Organisations

Administrative contact: Xavier Estivill
Tel.: +34933160138
E-mail

Contact the organisation

VEILIGHEIDS- EN GEZONDHEIDSREGIO GELDERLAND-MIDDEN
EUSEBIUSBUITENSINGEL 43
6802 EJ ARNHEM
Netherlands

EU contribution: EUR 148 440

See on map

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

Administrative contact: Jeroen Smit
Tel.: +31883555017
E-mail

Contact the organisation

HYLOBATES CONSULTING S.R.L.
VIA DEI MONFORTANI 57/B
00100 ROMA
Italy

EU contribution: EUR 37 312

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

Administrative contact: Francesca Bucchini
Tel.: +39 0698939628
Fax: +39 06 98939630
E-mail

Contact the organisation

SENSING & CONTROL SYSTEMS SL
AVDA BARCELONA 105 EDIFICIO IG-NOVA DESPACHO 8
08700 IGUALADA
Spain

EU contribution: EUR 63 600

See on map

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

Administrative contact: Alberto Fernandez
Tel.: +34931763520
E-mail

Contact the organisation
INSTITUT NATIONAL DE L ENVIRONNEMENT ET DES RISQUES INERIS
Parc Technologique Alata
60550 VERNEUIL EN HALATTE
France
EU contribution: EUR 163 710

Activity type: Research Organisations
Administrative contact: Lydia Boutigny
Tel.: +33 3 44 61 81 20
E-mail
Contact the organisation

UNIVERSIDAD DE SANTIAGO DE COMPOSTELA
COLEXIO DE SAN XEROME PRAZA DO OBRADOIRO S/N
15782 SANTIAGO DE COMPOSTELA
Spain
EU contribution: EUR 451 194

Activity type: Higher or Secondary Education Establishments
Administrative contact: Martin Cacheiro
Tel.: +34 881 816 233
Fax: +34 881 816 263
E-mail
Contact the organisation

Subjects
Scientific Research

Last updated on 2017-03-06
Retrieved on 2018-09-18

© European Union, 2018