International cooperation in the EU Framework Programmes

Health research

INCONET-GCC conference (Abu Dhabi, 6-7 May 2012)

Dr. Indridi Benediktsson
Health Research, DG RTD
European Commission
Presentation overview

1. International cooperation in FP7 Health
   - strategy
   - experience so far

2. Programme level cooperation
   - methodology
   - examples

3. Future opportunities for international cooperation in Health
Health research requires co-operation across the globe

- Health is a priority for all countries, rich and poor
- Diseases do not respect borders
- 'Rich world' diseases (cancer, DM...) also affect developing countries and vice versa (Aids, TB...)
- Treatments and cures are universal
Taking part in EU-funded collaborative health research

Join in and participate!
Third country partners welcome!

- FP7 - the largest supra-national fund for collaborative biomedical research
- The original focus of the FP is Europe but growing emphasis on international co-operation
- Non-European participants (spontaneous or planned) in 1/3 of all collaborative health research projects
Three different avenues:

1. **All topics open for International Cooperation**
   - International Cooperation Partner Countries (ICPCs) can participate in projects and receive EC funding, same applies for USA
   - Other countries may be funded if their participation is seen as essential for the project or if provided for in the call
   - Minimum number of participants: 3 from MS/AC

2. **Specific International Cooperation Actions**
   - Address specific issues that partner countries face or have a global character, on the basis of mutual interest and benefit
   - Minimum number of participants: 2+2 (2 MS/AC + 2 from ICPCs)

3. **Programme Level Cooperation**
   - Bilateral agreements with specific countries e.g. BRIC…
   - Multilateral with several funding agencies, e.g. NIH, Canada…
Participation of researchers from non-associated 3rd countries in funded projects

<table>
<thead>
<tr>
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<th>Participants</th>
<th>Countries</th>
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<tbody>
<tr>
<td><strong>FP6, 2003-06:</strong></td>
<td>214</td>
<td>51</td>
</tr>
<tr>
<td><strong>FP7 calls 2007-12:</strong></td>
<td>752</td>
<td>84</td>
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(84 + 27 MS + 14 AC = 125 different countries)
# Budget allocation to partners from non-associated 3rd countries

<table>
<thead>
<tr>
<th></th>
<th>million</th>
<th>of total</th>
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<tbody>
<tr>
<td><strong>FP6, 2003-06:</strong></td>
<td>30</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>FP7, so far 2007-11:</strong></td>
<td>155</td>
<td>4.8%</td>
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<td><strong>FP7, 1st year 2007:</strong></td>
<td>13.3</td>
<td>2.1%</td>
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<td><strong>FP7, 2nd year 2008:</strong></td>
<td>30.7</td>
<td>5.4%</td>
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<tr>
<td><strong>FP7, 3rd year 2009:</strong></td>
<td>29.7</td>
<td>4.8%</td>
</tr>
<tr>
<td><strong>FP7, 4th year 2010:</strong></td>
<td>53.5</td>
<td>8.1%</td>
</tr>
<tr>
<td><strong>FP7, 5th year 2011:</strong></td>
<td>25.6</td>
<td>3.8%</td>
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Who are the biggest players?

Third countries involved in at least 6 short-listed FP7 “health theme” project proposals with US partners.
Coming soon: FP7 health research funding round 2012/13

- >750 million EUR expected to be available
- Fewer and more significant priorities
- Spotlight on innovation & targeting SMEs
- Continued support of clinical trials
- Strategic international cooperation

Call to be published in in July
Open Information Day & Partnering Event (Brussels, 29/30 May)
Programme-level cooperation

Big challenges require big means
How does it work?

- Identify and define shared strategic goals
- Agree to approach jointly and share tasks (and costs)
- Let each agency use its own funding mechanisms/timing
- Agree to share data / standards

Alignment – Flexibility – Commitment
**Programme Level Cooperation**

*Bilateral or multilateral agreements with other funding agencies*

- Discussion at administrative level to define areas of common interest
- Workshop to identify priority topics within the area
- Separate issuing of calls in FP and in the cooperating countries
- Independent evaluation, selection and funding of proposals
- Close cooperation of the funded projects
- Sharing of results
K.O. Mouse & Cancer

**International K.O. Mouse Consortium**
- NIH, EU Commission, Genome Canada
- Total investment: $100 million, EU: €13 million
- >60% of the work done
- www.knockoutmouse.org

**International Cancer Genomics Consortium**
- NIH, EU Commission, and 12 other countries
- >$300 million invested, EU €21 million
- www.icgc.org
Metagenome & Epigenome

**International Human Metagenome Consortium (IKMC)**
- NIH, European Commission, CIHR (Canada), JST (Japan), CSIRO (Australia), MRC (UK)
- Total investment >$80 million
- www.human-microbiome.org

**International Human Epigenome Consortium (IHEC)**
- NIH, EU Commission, CA, DE, UK, IT, Korea (foreseen JP, FR, Australia)
- Total investment >$120 million
- www.ihec-epigenomes.org
Rare Diseases & Traumatic Brain Injury

International Rare Disease Research Consortium

- Objective: 200 new therapies & diagnoses for most rare diseases by 2020
- 23 international partners to date - new ones welcome!
- EU investment >€430 million

Int. Initiative for Traumatic Brain Injury Research

- Launched by European Commission, US (NIH) and Canada (CIHR) in October 2011
- >€50 million of funding from EU, US, and Canada
Rare Diseases Research
The reality: research challenges too big to master alone

Huge unmet medical needs for patients across the globe
Scarce research resources
Small patient populations
Scattered knowledge
No harmonisation of information and data
Our vision and 2020 goals in rare diseases research

200 New Therapies

Diagnosis For Most Rare Diseases

How will we do it? ...

... through International collaboration
The time to collaborate in rare diseases research is now!

New knowledge thanks to advances in research
Increased number of orphan drug designations need further research
Drawing upon successful examples of international research collaborations
Rare diseases as a model for personalised medicine
Programme level cooperation, International Consortium model

- Teams up organisations investing in rare diseases research
- Stimulates, co-ordinates and maximises research output
- Each organisation funds research its own way
- Funded projects adhere to a common framework
Strong together: what collaboration will allow us to do

- Mobilise the necessary critical mass of expertise and resources
- Avoid overlaps in research allowing for more diseases to be tackled
- Speed up the uptake of research efforts into clinical practice
- Deliver new cures and diagnoses to treat patients world-wide
IRDIRC: 23 members

Europe
- European Commission
- German Federal Ministry of Education and research
- Italian Higher Institute of Health Research
- Italian Telethon Foundation
- French Association against Myopathies
- French National Research Agency
- Netherlands Organisation for Health Research and Development
- Lysogene (FR)
- Prosensa (NL)
- Spanish Carlos III Health Institute
- UK National Institute for Health Research

North America
- Canadian Institutes for Health Research (CA)
- Genome Canada (CA)
- Sanford Research (US)
- Mendelian Disorders Genome Centres (US)
- National Centre for Translational Therapeutics (US)
- National Cancer Institute (US)
- National Institute of Neurological Disorders and Stroke (US)
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (US)
- National Institute of Child Health and Human Development (US)
- National Eye Institute (US)
- NIH Office of Rare Diseases (US)

Australia
- Western Australian Department of Health
In the pipeline: Diabetes & Obesity

- A priority in the FP7 Work Programme for 2011
- Launch of an EU-funded €16 million project cluster earlier this year
- International conference "Diabesity – A World-Wide Challenge" in mid-February
- Cooperation with US, Mexico and New Zealand under preparation – join in!
Diabetes Prevalence

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Diabetes Prevalence
Global initiative on diabetes research

- **Work Programme 2011: Genetic and environmental factors in obesity and/or diabetes in specific populations**
  - genetic and environmental factors causing variations in prevalence and incidence of metabolic disorders in specific populations
  - Comparisons of populations, *e.g.* immigrant populations vs. origin
  - Emphasis on role of genetic, environmental and lifestyle factors, on the incidence, prevalence, and age of onset of metabolic disorders
  - Each project to focus on a particular geographical region

  - **Selected projects:** 4 funded for Africa, Asia, Mediterranean area

  - **PLUS:**
    - **Cooperation:** with Mexico, New Zealand, Australia, Canada, USA
    - and possibly other countries: invitation to join
    - Topic for a coordination action in next call
Setting sail for Horizon 2020

The EU’s next research & innovation framework programme
Horizon 2020 – what’s new?

Commission proposal: €90 billion

- A single programme
- More innovation – “from research to retail”
- Focus on societal challenges
- Simplified & broader access
Looking forward to continued co-operation...

The Commission proposal stipulates that Horizon 2020 shall...

- remain to be the world’s most open funding programme
- be open to acceding countries, candidate countries, potential candidates, and selected third countries that fulfil the relevant criteria
- include a strategic approach to international cooperation, through targeted actions
Rationale For Health Research

1) Challenges

Ageing population

Understanding disease – personalised medicine

Chronic and infectious disease burden

Drug development
Priorities for Health Research (1)

Understanding the determinants of health (including environmental and climate related factors), improving health promotion and disease prevention

Developing effective screening programmes and improving the assessment of disease susceptibility

Improving surveillance and preparedness

Understanding disease

Developing better preventive vaccines

Improving diagnosis

Using in-silico medicine for improving disease management and prediction

Treating disease
Priorities for Health Research (2)

Transferring knowledge to clinical practice and scalable innovation actions

Better use of health data

Improving scientific tools and methods to support policy making and regulatory needs

Active ageing, independent and assisted living

Individual empowerment for self-management

Promoting integrated care

Optimising the efficiency of healthcare systems

Reducing inequalities through evidence based decision making and dissemination of best practice, innovative technologies and approaches
Next Steps

**Since Dec 11:** Parliament and Council negotiations on the basis of Commission proposals

**Ongoing:** Parliament and Council negotiations on EU budget 2014-20 (including overall budget for Horizon 2020)

**Mid 2012:** Final calls under 7th Framework Programme for Research to build a bridge towards Horizon 2020

**Mid 2013:** Adoption of legislative acts by Parliament and Council on Horizon 2020

**1/1/2014:** Horizon 2020 starts; launch of first calls

FP Cooperation

Together we can reach Higher!

Indridi.Benediktsson@ec.europa.eu
http://ec.europa.eu/research/health