Joint Programming in Neurodegenerative Disease Research (JPND)

Coordinating approaches to research across Europe

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Dublin
12/12/2014
Joint Programming in Research?

Close to 85% of public research funds in the EU are spent independently by Member States

- Countries working together to:
  - Identify core research questions (or the next societal challenge)
  - Define, develop and implement a common research agenda
  - Avoid duplication, synergize on common research themes

- Implementation through voluntary, a-la-carte activities
We cannot tackle neurodegenerative diseases by acting as single countries.

JPND is the largest global ND research initiative led by EU countries, with 28 participating EU member states. Associated countries. Third countries.

Increasing coordination of national research programmes to improve impact and effectiveness.
Scope of JPND Research

Scientific  Medical  Social
JPND brings together

• Researchers (Basic, Clinical, Healthcare/Social)
• National Funding Bodies
• National Research Strategies and Investments
To tackle the challenge of Alzheimer’s and other neurodegenerative diseases, the goals of the JPND Research Strategy are:

- To develop new treatments and preventive strategies
- To improve health and social care approaches
- To raise awareness and de-stigmatise neurodegenerative disorders
- To alleviate the economic and social burden of these diseases
Neurodegenerative Diseases?

The neurodegenerative diseases that JPND focuses on are:

- Alzheimer’s disease and other dementias
- Parkinson’s disease and related disorders
- Prion disease
- Motor neurone diseases
- Huntington’s Disease
- Spinocerebellar ataxia (SCA)
- Spinal muscular atrophy (SMA)
Defragmentation – what JPND is all about…

STRATEGIC RESEARCH AGENDA

ALIGNMENT OF EU COUNTRIES ON COMMON RESEARCH GOALS
JPND Research Strategy (SRA)

- Agreed by all JPND Member States + Assoc. Countries
  - Officially Launched Feb 7th 2012

- Thematic priorities for future research:
  - The origins of neurodegenerative disease
  - Disease mechanisms and models
  - Disease definitions and diagnosis
  - Developing therapies, preventive strategies and interventions
  - Healthcare and social care
### SRA Implementation (2012-2014)

#### Annual Calls for Proposals

<table>
<thead>
<tr>
<th>Year</th>
<th>Total fund available</th>
<th>Research Area</th>
<th>No. of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 (pilot)</td>
<td>€16M</td>
<td>Optimization of biomarkers + harmonization of their use</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>€18M</td>
<td>Risk and Protective Factors</td>
<td>5</td>
</tr>
<tr>
<td>2012</td>
<td>€11M</td>
<td>Evaluation of Healthcare</td>
<td>6</td>
</tr>
<tr>
<td>2013</td>
<td>€12M</td>
<td>Cross-Disease Analysis</td>
<td>10</td>
</tr>
<tr>
<td>2013</td>
<td>€11M</td>
<td>Pilot Preventive Strategies</td>
<td>5</td>
</tr>
</tbody>
</table>

### Centres of Excellence in Neurodegeneration (CoEN)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total fund available</th>
<th>Phase</th>
<th>No. of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>€6M</td>
<td>Phase I: common resources and methodological approaches</td>
<td>8</td>
</tr>
<tr>
<td>2012-13</td>
<td>€8M</td>
<td>Phase II: “Pathfinder” projects</td>
<td>5</td>
</tr>
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</table>
## Annual Call statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Call area of interest</th>
<th>No. of proposals submitted</th>
<th>Budget requested (million €)</th>
<th>No. of proposals recommended for funding</th>
<th>No. of proposals supported</th>
<th>Budget supported (million €)</th>
<th>Success rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Harmonization of Biomarkers</td>
<td>14</td>
<td>€31</td>
<td>5</td>
<td>4</td>
<td>€14</td>
<td>29%</td>
</tr>
<tr>
<td>2012</td>
<td>Risk and Protective Factors</td>
<td>52</td>
<td>€97</td>
<td>18</td>
<td>5</td>
<td>€17</td>
<td>10%</td>
</tr>
<tr>
<td>2012</td>
<td>Healthcare Evaluation</td>
<td>22</td>
<td>€29</td>
<td>9</td>
<td>6</td>
<td>€9</td>
<td>27%</td>
</tr>
<tr>
<td>2013</td>
<td>Cross-Disease Analysis</td>
<td>90*</td>
<td>€112</td>
<td>23</td>
<td>10</td>
<td>€12.5</td>
<td>11%</td>
</tr>
<tr>
<td>2013</td>
<td>Pilot Preventive Strategies</td>
<td>35*</td>
<td>€36</td>
<td>5</td>
<td>5</td>
<td>€7</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>213</strong></td>
<td><strong>€157m</strong></td>
<td><strong>60</strong></td>
<td><strong>30</strong></td>
<td><strong>€59.5m</strong></td>
<td><strong>18%</strong></td>
</tr>
</tbody>
</table>

* pre-proposals
JPND-supported projects
Risk and Protective Factors

- **APGeM**: Pre-clinical genotype-phenotype predictors of Alzheimer’s disease and other dementias
  Coordinator: Tormod Fladby, Akershus University Hospital, Norway

- **PERADES**: Defining Genetic, Polygenic and Environmental Risk for Alzheimer’s Disease using multiple powerful cohorts, focussed Epigenetics and Stem cell metabolomics
  Coordinator: Julie Williams, Cardiff University, United Kingdom

- **RiMod-FTD**: Risk and Modifying factors in Fronto-Temporal Dementia
  Coordinator: Peter Heutink, German Center for Neurodegenerative Diseases – Tübingen, Germany
JPND-supported projects:
Cross Disease Analysis

• **DAMNDPATHS**
  Elucidation of common transcriptional targets in vulnerable DopAmine, MotorNeuron and frontotemporal Dementia disease PATHwayS.
  Coordinator: Eva Hedlund, Sweden

• **MissingLink**
  Identification and structural characterization of the primordial cytotoxic conformers of the amyloidogenic cascade: Ideal prevention / diagnostic / therapeutic targets in ND. Coordinator: Mariano Carrión-Vázquez, Spain

• **NeuroGeM**
  Identification of genes that modulate the severity of all neurodegenerative diseases. Coordinator: Jörg Gsponer, Canada
JPND-supported projects: Pilot Preventive Strategies

- **EURO-SCD**: Subjective cognitive decline in preclinical Alzheimer’s Disease: European initiative on harmonization and on a lifestyle-based prevention strategy **Coordinator: Frank Jessen, Germany**

- **MIND-AD**: Multimodal preventive trials for Alzheimer’s Disease: towards multinational strategies **Coordinator: Mia Kivipelto, Finland**

- **NEUROEXERCISE**: The effects of an extensive exercise program on the progression of mild cognitive impairment (MCI). **Coordinator: Stefan Schneider, Germany**

- **PreFrontAls**: Searching for therapeutic interventions in frontotemporal dementia with C9ORF72 repeat expansions in the presymptomatic stage. **Coordinator: John C van Swieten, The Netherlands**
<table>
<thead>
<tr>
<th>Researcher</th>
<th>Projects</th>
<th>Funded by</th>
</tr>
</thead>
</table>
| Brian Lawlor                | • BIOMARKAPD (Biomarkers)  
                             • NEUROEXEC (Preventive Strategy)                                   | HRB       |
| Trinity College Dublin      |                                                                         |           |
| Orla Hardiman               | • SOPHIA (Biomarkers)  
                             • ALS-CARE (Healthcare Evaluation) – Coordinator  
                             • STRENGTH (Risk Factors)                                           | HRB       |
| Trinity College Dublin      |                                                                         |           |
| Kate Irving                 | • ACTIF-CARE (Healthcare Evaluation)                                     | HRB       |
| Dublin City University      |                                                                         |           |
| Damien Thompson             | • MissingLink (Cross-Disease Analysis)                                    | SFI       |
| University of Limerick      |                                                                         |           |
| Jochen Prehn                | • CeBioN (Cross-Disease Analysis)                                         | SFI       |
| Royal College of Surgeons,  |                                                                         |           |
| Ireland                     |                                                                         |           |
Welcome to the JPND Partnering Tool

A multi-lingual online platform where researchers responding to JPND calls for proposals can showcase their own research experience, find suitable collaborators worldwide, pitch call-related ideas and form consortia online.

JPND has made this improved pilot tool available as an optional support for researchers interested in submitting proposals for the JPND Call for proposals, due to launch in January 2015.

Looking for research partners?
With the JPND partner finder, it is easy to register your research group’s experience, and get an overview of other registered groups.

Got an idea for a JPND proposal?
JPND will launch a joint transnational call for proposals in January 2015 aimed at supporting transnational research collaborations in three JPND priority areas.

Getting started
For more information about how to use the tool, please click on the links below. The tool is now available in: Dutch, French, German, Polish, Portuguese, and Spanish. (Default = US English)

More information
Register research group
Search for partners
Register proposal idea
Search for proposal ideas

Browse research groups
Gipuzkoas Alzheimer Project (GAP) Study
Fundacion CITA-alzheimer Fundazioa
Last updated: 12/11/2014

Browse proposal Ideas
Study and Influencing of cerebelar mouse models
JPND-2230 | Panteek Voxxeh
Last updated: 12/14/2014

Example of a Proposal Idea
Last updated: 11/12/2014
SRA Implementation (2012-2014)

JPND Action Groups

- Alignment of National Strategies
- Alignment of National Activities
- Longitudinal Cohorts
- Assisted Living Technologies
- Industry Partnership
- Animal and Cell Models
- Palliative Care
- Patient + Public Involvement
- Optimisation of biomarkers
Action Group Recommendations
“Rapid Action” Call for working groups

Results from 2014 JPND “Rapid Action” Call for Working Groups on Longitudinal Cohort studies

Ten international working groups to be funded under JPND call.

The EU Joint Programme Neurodegenerative Disease Research (JPND) has released the results of a “rapid action” call to support ten groups of leading scientists in finding ways to enhance the use of longitudinal cohort studies for neurodegenerative disease (ND) research.

JPND launched this call on 23rd April 2014 as part of a series of new JPND initiatives, designed to amplify the impact of research by aligning and building upon existing national programmes and initiatives, and to bring a more wide-ranging and multidisciplinary approach to research on neurodegenerative diseases.

The awarded proposals are for top ND scientists to come together and recommend how to address the most pressing issues that prevent full use of longitudinal cohorts. This includes population studies and disease cohorts, both having considerable potential for ND research. Funding decisions were based upon scientific evaluation and...
Coordination and development of best practice

Ten JPND working groups to address methodological challenges for longitudinal cohort studies such as:

- Cognition / Functional Assessment
- Biomarkers
- Biobanking
- Imaging
- Health and Social Outcomes
- Presymptomatic ND
2015 Call for proposals

- January 2015 - **Cofunded Call with European Commission**

- Three topics
  - Longitudinal Cohort Approaches
  - Advanced Experimental Models
  - Risk/Protective Factors

- €30 million from Member States
  - top-up of €10 million from European Commission
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  - http://www.jpnd.eu

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- Follow us on Twitter:
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