EU Joint Programme - Neurodegenerative Disease Research (JPND) Call: "Novel imaging and brain stimulation methods and technologies related to Neurodegenerative Diseases" 2020

Guidance Notes

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<thead>
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<th>Key dates &amp; Times</th>
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<tbody>
<tr>
<td>Call Announcement</td>
<td>7 January 2020</td>
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<tr>
<td>Submission deadline for pre-proposals</td>
<td>3 March 2020 (14:00 GMT)</td>
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This document provides additional guidance to researchers based in Ireland applying to this call as part of a transnational consortium. This document must be read in conjunction with the call documents listed in Appendix I, and the FAQ for this call on the HRB website.

1. Introduction

The problem of age-associated neurodegenerative disorders is a growing socio-economic problem in many countries. Over seven million people in Europe suffer from neurodegenerative diseases, yet treatments that prevent or stop the progression of neurodegeneration are still lacking. This places a heavy burden on the individuals with disease, their relatives and society as a whole; a problem that will worsen as the European population ages. Tackling this ‘grand’ challenge is clearly beyond the scope and resources of any one country. To this end the Health Research Board is a partner in a member states-led initiative called the EU Joint Programme on Neurodegenerative Disease Research (JPND) (http://www.neurodegenerationresearch.eu/about/).

The ultimate goal of JPND is to accelerate progress in understanding the causes of these debilitating conditions, leading to not only early diagnosis and the development of new treatments and prevention, but also the provision of more effective medical and social care to improve the quality of life for patients and care givers. On February 7th 2012 JPND launched their Research Strategy for neurodegenerative diseases detailing priorities for basic, clinical and social and healthcare research. The JPND Research and Innovation Strategy, published in 2012 and updated during 2017/18, outlines the intention to launch initiatives each year, including Calls for proposals, to address high priority areas in neurodegenerative disease research in line with this Research Strategy.

Recent years have seen major increases in the range and power of technologies across the basic, clinical and patient-centred domains of JPND. The use of imaging and analysis technologies such as Magnetic Resonance Imaging (MRI), Position Emission Tomography (PET) or Molecular Imaging has become more sophisticated, both at the molecular level as well as at the level of whole-body imaging. In addition, the use of brain stimulation techniques such as Deep Brain Stimulation (DBS), Neuromodulation, Transcranial Magnetic Stimulation (TMS) or transcranial Direct Current Stimulation (tDCS) has increased. These techniques help us to better understand, treat or diagnose neurodegenerative diseases, but there is still a need to assess the potential of these approaches to deliver new and better treatment options for these debilitating diseases.
JPND launches this joint transnational call with a view to promoting research aiming at the development of novel and the advanced use of existing cutting-edge imaging and brain stimulation technologies related to neurodegenerative diseases. The goal of the partners is to maximise the number of high-quality transnational research projects that can be funded through this call. These projects must demonstrate clear scientific benefit from working across national borders.

The call will be conducted simultaneously by the participating funding organisations in their respective countries and coordinated centrally, with a single proposal submission and peer review system.

The Health Research Board (HRB) Strategy 2016 – 2020: Research. Evidence. Action. launched in January 2016 highlights three areas of focus that the HRB will engage in during the course of our strategy. The HRB Strategy aims to address major health challenges through support for high-quality, investigator-led, internationally competitive research. HRB will support research that is driven by excellence and originality, with the aim of informing the future development of innovative or novel therapies, treatments, prevention strategies, services and interventions. In line with its strategic objectives, the Health Research Board (HRB) will act as a funding partner in this joint transnational call, and Irish participants in successful consortia will be funded through the HRB, to a maximum of €370,000.

### Aim and Scope

The aim of the call is to establish a number of ambitious, innovative, multi-national and multi-disciplinary collaborative research projects that will add value to the respective research areas.

Most patient-related research would be impossible without the active involvement of patients. Thus, JPND has determined that Patient and Public Involvement should be an integrated part of the implementation of its Research and Innovation Strategy. Proposals to be funded under this call will therefore need adequately to involve patients, carers and the public. Consortia are expected to make every effort to include approaches that involve these groups, where appropriate, at each stage of the research process including the preparation of the application. In the application it must be described in which step of the research process patients,

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their relatives or carers will be involved, from where they will be recruited and which roles they would play. Reasons must be given if such an approach is not taken.

The aim of the call is to establish a number of ambitious, innovative, multi-disciplinary and multi-national collaborative research projects that will further advance the development and the use of imaging technologies and brain stimulation techniques in order to better understand, diagnose or treat neurodegenerative diseases. Technical progress on relevant techniques is eligible as long as the expected benefit for patients or for routine scientific and clinical applications is well defined. Thus, approaches must be translational and patient-centered. It is encouraged to integrate basic research and cost-effectiveness studies, where appropriate. They must be hypotheses-driven and combine cutting-edge technological developments with a clear, substantial research question.

Proposals must focus on one or several of the following neurodegenerative diseases:

- Alzheimer’s disease and other dementias
- Parkinson’s disease and PD-related disorders
- Prion diseases
- Motor neuron diseases
- Huntington’s disease
- Spino cerebellar ataxia (SCA)
- Spinal muscular atrophy (SMA)

In addition, proposals must focus on one or several of the research areas listed below:

- **Imaging technologies**, such as MRI, PET or super-resolution microscopy and molecular imaging techniques have brought about a dramatic improvement in the understanding of the onset, development and progression of neurodegenerative diseases. Advances have been made regarding access to state-of-the-art and cutting-edge imaging technology, but also regarding the access to platforms for image analysis and the advanced application of Artificial Intelligence (AI) and Machine Learning approaches. The benefit of using modern imaging techniques is undoubtedly accepted across the field. Thus, the aim is to accelerate this progress and to fund research projects that focus on the development of novel imaging technologies or on improvements to the application of existing cutting-edge imaging technologies. This may result in advancements regarding, amongst others, the assessment of the personal risk of disease, providing early and more reliable diagnosis and monitoring of disease progression. At a basic research level, the recent advancements in imaging technologies offer promising
ways to examine the role of mechanistic pathways. The potential of these technologies should be further explored to better understand these pathways. Moreover, novel methods can be applied or developed to interrogate complex biological data. The development of novel techniques and enhanced protocols of application as well as an accompanying advanced application of Big Data approaches will be central to these aims.

- **Brain stimulation techniques**, such as DBS, have proven to directly affect the quality of life of patients and have become established methods in modern medicine. Other techniques, such as TMS, tDCS or Focused Ultrasound, could have potential to offer new non-invasive treatments. Although data on effectiveness derived from large-scale clinical trials are still lacking in many cases, there is considerable knowledge available regarding the positive effects of these techniques on e.g. cognitive and motor function for several neurodegenerative diseases. **Thus, the aim is to fund research that will lead to new or improved applications of both invasive and non-invasive brain stimulation techniques for the diagnosis and the treatment of neurodegenerative diseases.** The technological developments should target increasing patient well-being by reducing harmful side effects and by demonstrating positive long-term benefits of the treatment. The development of novel techniques and enhanced protocols of application, as well as an advanced understanding of the underlying mechanisms of stimulation techniques in the brain, (e.g. neurophysiological techniques), will be central to these aims.

Full details of the scope of the call, including areas excluded from this call, should be reviewed carefully in the **Call Text** which can be accessed at this link: 

2. **Eligibility criteria**

2.1 **Eligibility requirements for the Project Team**

Only transnational projects will be funded.

*In summary*

- Each proposal must involve a minimum of three and a maximum of six regular partners, including the coordinator, from at least three different countries that are participating in this call.
- If the proposal involves at least one regular partner from an EU-13 country (e.g. Czech Republic, Hungary, Latvia, Poland, Romania, Turkey), the maximum number of regular partners is extended to seven partners (please see call text for further details).
• No more than two regular partners from the same country are allowed to join a proposal.
• In addition, external collaborators (e.g., research groups from countries that are not participating in this call or research groups that are from countries participating in this call but do not apply for funding) may participate in proposals. External collaborators must secure their own funding.
• Whilst proposals are to be submitted jointly by research groups from different countries, individual regular partners will be funded by the corresponding funding organisation of their country participating in this call. In consequence, eligibility for funding is decided by the respective funding organisations and details of what may or may not be funded are subject to the specific regulations of these funding organisations and thus may vary.
• Individual budget restrictions will apply for each country and/or funding organisation: coordinators should pay close attention to these.

Up to date information on which countries are participating in this call, together with country-specific specific eligibility requirements, is available on the JPND website:

The terms of any collaboration should be determined early on and relevant agreements should be in place by the onset of the project. The HRB advises that due consideration should be given to issues such as relative responsibilities, governance arrangements, intellectual property rights, reporting and publishing, access to and sharing of data when drafting collaboration agreements.

2.2. Eligibility of researchers based in Ireland

All proposals with researchers from recognised host institutions in Ireland will be subject to a HRB eligibility check following submission to the centrally coordinated peer review to ensure:

1. The investigator(s) from Ireland is from a recognized host institution. The Host Institution for the award is the body in charge of the financial and administrative co-ordination of the Irish component of the research project receiving a research grant from the HRB. A Host Institution must be a recognised research organisation in the Republic of Ireland. Queries regarding eligibility of Host Institutions should be directed to HRB prior to submission. For further information see:https://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-approval-of-host-institutions/
2. The PI (group leader) named on the award holds a post (permanent or a contract that covers the duration of the award) in a recognised research institution in the Republic of Ireland (the “Host Institution”) as an independent investigator, or is a contract researcher recognised by the Host institution as an independent investigator who will have a dedicated office and research space for the duration of award, for which he/she will be fully responsible, or is an individual who will be recognised by the Host Institution upon receipt of the HRB award as a contract researcher as defined above. The Principal Investigator does not necessarily need to be employed by the Host Institution at the time of the application submission.

3. The PI has demonstrated research independence through securing at least one peer-reviewed, independent research grant as a Principal Investigator or as Co-Investigator and is a senior author (first, last or corresponding or in those fields where alphabetic order authorship is the norm, joint author) in peer-reviewed scientific journals.

4. The PI is not requesting their own salary

5. Any named co-applicants are not requesting their own salary

6. The Irish component of the budget for the project does not exceed €370k (including overheads and pension contributions)

7. Only eligible costs have been included:
   - Salary-related costs
   - Small equipment costs (max €10,000)
   - Travel
   - Direct running costs
   - FAIR data management costs
   - Dissemination and knowledge exchange costs
   - Overheads

8. The proposed work fits the scope of the call. While basic research is also encouraged within this call, HRB as a funder will not support costs of basic biomedical research.
Any queries on eligibility, in particular in relation to the scope of this call, should be raised with the HRB well in advance of the call deadline.

3. Funding

It is anticipated that a number of projects will be funded, depending on the overall available budget. Whilst joint applications will be submitted involving groups from different countries, individual research groups in successful projects will be funded by the individual JPND funding organisation(s) within their country. The maximum amount that funders in each participating country will contribute to their successful applicants can be found in documents on the following webpage: https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/

For successful bids involving applicants based in recognized host institutions in Ireland, the total available for the research component carried out in Ireland will be a maximum of €370,000 over 36 months (inclusive of overheads and pension contributions). For applicants in Ireland the award will cover the costs of salary-related costs, small equipment costs, travel, direct running costs, knowledge and dissemination costs and overheads.

4. Application process

There will be a two-stage procedure for joint applications: pre-proposals and invited full proposals. In each case, a single proposal document (in English) shall be prepared by the partners of a joint transnational proposal and must be submitted to the Joint Call Secretariat by the coordinator. Each transnational project team submitting a proposal must nominate one PI to act as coordinator. The coordinator will submit a single application via the electronic submission system on the following site: https://ptoutline.eu/app/jpnd2020. A proposal template must be used when submitting the application. This proposal template can be downloaded from the JPND website, along with the call text (detailing the aim and scope of the call, eligibility and submission details, the evaluation process and assessment criteria, reporting requirements), pre-proposal guidelines and country-specific requirements, https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/. These documents must be consulted in addition to the HRB Guidance Notes and HRB Frequently Asked Questions documents on this page.
Eligible pre-proposals will be reviewed via a written (remote) peer review process. Based on the scores in the written reviews a ranking list will be set up. By mid May 2020, the coordinators of the top-ranked proposals will be invited by the Joint Call Secretariat to submit a full proposal no later than June 30, 2020 (14:00 GMT).

Full details on the evaluation process and assessment criteria are contained within the call text.

Applicants from Ireland in consortia invited to submit a full application will be required to provide additional information to the HRB at the time of the full application submission deadline. This will include justification for their requested budget, and clarification on deliverables assigned to the partner from Ireland. A template requesting the information required from applicants from Ireland will be provided by the HRB.

It is the responsibility of the applicants in each country to ensure that their host institution(s) have reviewed and approved the budget prior to submission. Please allow sufficient time for these additional processes. Any late applications will be rejected.

5. Timeframe
The expected timeframe for this call for proposal is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event/Deadline</th>
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<tbody>
<tr>
<td>7 January 2020</td>
<td>Publication of the JPND Joint Transnational Call</td>
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<tr>
<td>3 March 2020</td>
<td>Deadline (pre proposals) (14:00 GMT)</td>
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<tr>
<td>15 May 2020</td>
<td>Coordinators invited to submit full proposals</td>
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<tr>
<td>30 June 2020</td>
<td>Submission deadline for full proposals (14:00 GMT)</td>
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<tr>
<td>July-September 2020</td>
<td>Peer Review Procedure</td>
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<tr>
<td>October 2020</td>
<td>Final funding decisions at national/regional level</td>
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<td>Early 2021</td>
<td>Start of funding</td>
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6. Contacts for further information
For general enquiries on this call, the Joint Call Secretariat for this call can be contacted at:

Dr Vera Monter-Telgen
Phone: +49 228-3821-2111
E-mail: vera.moenter@dlr.de
For specific enquiries from applicants from Ireland to this call, contact:

Dr Louise Drudy
Project Officer, Research Strategy and Funding Directorate
Health Research Board
Tel: +353 (0)1 2345 162
E-mail: ldrudy@hrb.ie

The HRB reserves the right to reject any application that does not meet the terms of this call. The decision of the HRB Board in respect of any grant application is final and cannot be appealed or reviewed. In view of the overwhelming evidence that both active and passive smoking of tobacco are injurious to health, the HRB is unwilling to fund applications from individuals applying for, holding, or employed under a research grant from the tobacco industry. The HRB cannot fund research using human embryonic stem cells or tissues or intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

Appendix I

Call documents and Useful links

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<tr>
<th>Main website including</th>
<th><a href="https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/">https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/</a></th>
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<tbody>
<tr>
<td>• Call text</td>
<td></td>
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<tr>
<td>• Proposal template (submissions must use this template)</td>
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<tr>
<td>• Contact details for Call Secretariat</td>
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<tr>
<td>Website for proposal submission</td>
<td><a href="https://ptoutline.eu/app/jpnd2020">https://ptoutline.eu/app/jpnd2020</a></td>
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<tr>
<td>Country-specific information (including funding available per funding organization and specific eligibility criteria)</td>
<td><a href="https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/country-specific-details/">https://www.neurodegenerationresearch.eu/initiatives/annual-calls-for-proposals/jpnd-open-call-2020/open-calls/country-specific-details/</a></td>
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<tr>
<td>Website giving background to JPND initiative</td>
<td><a href="https://www.neurodegenerationresearch.eu/about/">https://www.neurodegenerationresearch.eu/about/</a></td>
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