



Call for Proposals for

MULTINATIONAL RESEARCH PROJECTS ON SENSORY DISORDERS

Submission deadline for pre-proposals: 10 March 2020, 14:00 CET

Electronic proposal submission

For further information, please visit us on the web

<http://www.neuron-eranet.eu>

or contact

NEURON Joint Call Secretariat:

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1. Purpose

Maintenance, improvement and restoration of human health are of fundamental importance and worldwide priority. Biomedical and health research provide an important basis for the improvement of healthy living. Sensory disorders cover a broad range of often debilitating conditions and are major causes of morbidity and impaired quality of life. Impaired function of sensory systems severely affects the interaction of people with their social environment and may lead to self-isolation. In Europe, sense deficits rank highly on the burden of disease scale, leading to a serious economic and social burden due to long-term disability. Therefore, research on sensory disorders and its translation into diagnostic and therapeutic outcomes are fundamental.

The 'Network of European Funding for Neuroscience Research' (NEURON) has been established under the ERA-NET scheme of the European Commission (www.neuron-eranet.eu). The aim of the ERA-NET NEURON is to coordinate and optimize research efforts and funding programmes of its partner countries in the field of disease related neuroscience.

Under the umbrella of NEURON, a joint transnational call (JTC-2020) is launched in the field of sensory disorders. The following funding organizations have agreed to fund the present joint call for multinational research projects. The call will be conducted simultaneously by the funding organizations in their respective countries and coordinated centrally by the Joint Call Secretariat.

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| • Fonds de la Recherche Scientifique-FNRS (F.R.S.-FNRS) | Belgium |
| • Research Foundation – Flanders (FWO) | Belgium |
| • Fonds de recherche du Québec - Santé (FRQS) (Québec) | Canada |
| • Canadian Institutes of Health Research – Institute of Neurosciences, Mental Health and Addiction (CIHR-INMHA) | Canada |
| • French National Research Agency (ANR) | France |
| • Federal Ministry of Education and Research (BMBF) | Germany |
| • General Secretariat for Research and Technology (GSRT) | Greece |
| • Ministry of Health (CSO-MOH) | Israel |
| • Ministry of Health (MOH) | Italy |
| • State Education Development Agency (VIAA) | Latvia |
| • The Research Council of Norway (RCN) | Norway |
| • National Centre for Research and Development (NCBR) | Poland |
| • Executive Agency for Higher Education, Research, Development & Innovation Funding (UEFISCDI) | Romania |
| • Slovak Academy of Sciences (SAS) | Slovakia |
| • National Institute of Health Carlos III (ISCIII) | Spain |
| • Spanish State Research Agency (AEI) | Spain |
| • Swiss National Science Foundation (SNSF) | Switzerland |
| • The Scientific and Technological Research Council of Turkey (TUBITAK) | Turkey |

2. Aim of the call

The aim of the call is to facilitate multinational, collaborative research projects that will address important questions related to sensory disorders and their impact on the nervous system. They may include, among others, research into all the sensory modalities including the somatosensory system. Research questions addressing synergies across modalities and multisensory dysfunction are also encouraged in the present call.

Proposals should focus on impairment and/or loss of sensory function of neural origin. The proposals may include studies on sensory neurons, including receptor cells, the related neural pathways and connected brain areas. Research on accessory, non-neural parts of sensory organs is not the main focus of the call, and may be included only if they have a significant impact on the nervous system. Research questions may encompass the entire lifespan.

The sensory system is particularly amenable to innovative therapeutic approaches, and recent years have witnessed remarkable developments in this regard. Innovative treatment approaches may include *e.g.* restoration of function through gene, molecular and cell therapies, regenerative strategies, new electronic interfaces or prostheses. The use of novel approaches to improve therapeutic or diagnostic technology is accepted in the context of this call. Proposals may comprise studies on *e.g.* disorders of development affecting sensory systems, the role of environmental factors on sensory functions as well as health economic issues, based on existing cohorts or registries. A focus on chronic pain is excluded from the present call.

The NEURON funding organizations particularly wish to promote multi-disciplinary work and translational research proposals that combine basic and clinical approaches. In the context of the present call, the collaboration of clinicians with fundamental neuroscientists in the postulating consortia is highly encouraged, where appropriate, along with other disciplines with specific expertise. The consortia are expected to submit novel, ambitious ideas that can only be achieved by the complementary collaboration between partners.

Research proposals should cover at least one of the following areas:

- a) Fundamental research addressing the pathogenesis and etiology of sensory disorders. This may include the development of innovative or shared resources and technologies. The relevance of the research to sensory systems disorders must be clearly described. Pre-clinical studies may be included. Any animal or cell models should already be established and validated.
- b) Clinical research to develop novel strategies for prevention, diagnosis, patient stratification, therapy and/or rehabilitation for sensory disorders.

Clinical studies are eligible up to the point of proof of concept¹. The establishment of large patient cohorts will not be funded by NEURON, but the use of existing cohorts and exploitation of existing data sets is encouraged. Appropriate access to relevant, well-characterized patient populations or suitable biomaterial collections must be demonstrated. Applicants should demonstrate that they have the expertise and range of skills required to conduct the study or that appropriate collaborations are in place. The development of new animal or cell models is excluded from the scope of the call unless it constitutes a marginal support of the main part of the proposal (*i.e.* as a strategy to strengthen the results or hypothesis in a project). If relevant, it is highly recommended to get in contact with appropriate European infrastructures early in the planning of the projects, in particular EATRIS-ERIC (focused on translational medicine), BBMRI-ERIC (focused on biobanking) and ELIXIR (focused on data sharing). Different platforms can be found via the European Strategy Forum for Research Infrastructures in Europe - ESFRI (www.esfri.eu).

The following research areas are excluded from this call:

- Chronic pain;
- Impairment of sensations or hallucinations caused by mental disorders and effects of neurological diseases (e.g. stroke);
- Eye movement disorders due to neurological diseases;
- Neurodegenerative disorders that are addressed by the EU Joint Programme - Neurodegenerative Disease Research (JPND)².

The ERA-NET NEURON seeks to strengthen patient engagement in research. Applicants are expected to include patients, where appropriate, in their research process. Meaningful patient engagement can occur at the level of research planning, conducting research or research result dissemination. Patient representatives will participate in the review of selected proposals and provide feedback on patient engagement aspects. All the applications should include a description of expected outcomes with potential relevance for the patients.

3. Application

3.1 Eligibility

Joint transnational research proposals may be submitted by research teams working in universities (or other higher education institutions), non-university public or private research institutes, hospitals or foundations, as well as in commercial companies, particularly small and medium-size enterprises³. The eligibility of the afore-mentioned institutions, together with details of eligible costs (e.g. personnel, material, consumables, travel money, investments), are subject to the administrative requirements of individual funding organizations and will therefore differ. Please note that, for some funding

¹ Eligibility and funding requirements for clinical trials vary between the partner countries. Clarification may be obtained from the individual funding agencies.

² Alzheimer's disease and other neurodegenerative dementias, Parkinson's disease (PD) and PD-related disorders, Prion disease, Motor neuron diseases, Huntington's disease, Spinocerebellar ataxia, Spinal muscular atrophy

³ Please check carefully the national regulations for further information on eligible beneficiaries

organizations, commercial companies are not eligible or are only eligible under certain conditions (e.g. only in partnership with academic institutions in the consortium). Clarification should be obtained from the individual funding agencies (see contact details below). **It is advised to read carefully all national annexes regarding eligibility and funding by the respective funding agencies.**

Only transnational projects will be funded. Each consortium submitting a proposal must be comprised of a minimum of three research partners eligible for funding by organizations listed in this call text (see above). The eligible research partners must be from at least three different countries. The total number of research partners in a consortium is limited to five, including partners participating by own expenses. No more than two research groups can be from the same country.

The ERA-NET NEURON strives to strengthen the European Research Area by including as many partner countries as possible in its funding scheme. Therefore, consortia including partners from countries that are to date underrepresented in this funding scheme (Latvia, Romania, Turkey and Slovakia may increase the total number of partners to six.

Applicant partners not eligible to their national funding organizations or from countries which are not involved in this call may participate in projects only if their participation clearly provides an added value to the consortium and if they present evidence on secured budget for their part in the project. Such potential partners are not considered in the minimum number of three research groups mentioned above. In any case, the total number of research groups in one consortium must not exceed five, or six if one of the underrepresented countries listed above is comprised.

Each consortium should have the critical mass to achieve ambitious scientific goals and **should clearly demonstrate added value** from working together. Each project must nominate a project coordinator who represents the consortium externally and is responsible for its internal management (e.g. the application procedure, the consortium agreement, reporting). The consortium coordinator must be eligible for funding by one of the organizations listed in this call text.

A single application must be submitted by the consortium coordinator to NEURON Joint Call Secretariat. The individual research groups will be funded by the NEURON funding organization(s) of their respective countries. Eligibility criteria are the matter of individual partner funding organizations.

Inclusion of a partner in a proposal that is not eligible for funding according to the specific regulations of its respective funding organization may result in the rejection of the entire proposal without further review. Therefore, applicants are strongly advised to follow the instructions contained in the country-specific eligibility tables which are published on the NEURON website and to contact their national/regional funding organization to confirm eligibility before submitting an application.

Only projects that fulfil the legal and ethical international/EU (including ethical standards and guidelines in Horizon 2020) as well as national and institutional standards will be funded. Ethical approval and/or a positive vote must be obtained from the relevant national or local ethics committee(s) prior to the start of the project. All procedures involving human beings should conform to the Helsinki Declaration. Additional national regulations and requirements may apply.

3.2 Submission of joint transnational proposals

There will be a **two-stage procedure** for joint applications: **pre-proposals** and **full proposals**. In both cases, one joint **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 one spokesperson, the coordinator.

Pre-proposals must be submitted in electronic format no later than **10 March, 2020** (14:00 CET) via the **electronic submission** system. All fields must be completed using **DIN-A4; font: Arial, 10pt; single-spaced, page limits. Pre-proposals that not meet the formal criteria will be rejected from the call process without any further review.**

The information given in the pre-proposal is binding. Thus, any fundamental changes between the pre- and full proposals stages concerning the composition of the consortia, objectives of the project or requested budget must be communicated to the Joint Call Secretariat and their respective funding agencies with detailed justifications and will only be allowed in exceptional cases by the Call Steering Committee, before passing to evaluation stage.

NOTE: Full proposals submissions will be accepted only from those applicants **explicitly invited** by the Joint Call Secretariat.

3.3 Further information

For further details, please refer to the respective submission forms available through the NEURON web site. If you need additional information, please contact the Joint Call Secretariat. Finally, national agencies may set special requirements for their applicants. Applicants are, therefore, strongly advised to review the instructions contained in the country-specific information that are published on the NEURON website and to contact their national/regional funding organization for further information (see Annex I for contact details).

4. Evaluation and decision

The review process will be in two stages.

4.1 Formal check of pre- and full proposals

The Joint Call Secretariat will check the proposals to ensure that they meet the call's formal criteria (e.g. date of submission; number of participating countries; inclusion of all necessary information in English). The Joint Call Secretariat will also forward the proposals to the national/regional funding organizations, which will perform a formal and eligibility check of compliance with their respective regulations.

The Joint Call Secretariat and national/regional funding organisations will perform cross-checks in parallel submissions to other joint transnational calls (e.g., EJP RD, JPND, EuroNanoMed, ERAPerMed and others) and national calls. Applicants shall avoid applying for same research activities to different calls. Double funding is not allowed.

Proposals not meeting the formal criteria described above will be rejected at this stage. Proposals passing this step will be forwarded to the joint Peer Review Panel for evaluation.

4.2 Peer-review of pre- and full proposals

The reviewers will first assess if the projects are within the scope of the call and then, they will carry out the evaluation according to specific evaluation criteria:

1. Excellence

- Scientific quality of the approach and methodology
- Quality of the experimental design and data analysis
- Novelty of the scientific concept/hypotheses
- Competence and experience of participating research partners in the field(s) of the proposal (previous work in the field, specific technical expertise)

2. Impact

- Potential impact of the expected results on clinical and other health related applications
- Added-value of transnational collaboration

3. Quality and efficiency of the implementation

- Feasibility of the project
- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks, resources, time-frame and related risk analysis
- Quality and added-value of collaborative and multi-disciplinary interactions within the consortium
- Appropriateness of the management structures and procedures

4.3 Decision

4.3.1 Pre-proposals

Eligible pre-proposals will be reviewed using the above mentioned evaluation criteria via a written (remote) peer review process. Based on the scores in the written reviews a ranking list will be established. Preferably, each pre-proposal will be reviewed by at least three reviewers. By mid-May 2020, the coordinators of the selected proposals will be invited by the Joint Call Secretariat to submit a full proposal before **22th June 2020** (14:00 CET).

4.3.2 Full proposals

The international Peer Review Panel will evaluate the full proposals based on the above mentioned evaluation criteria and establish a ranking list of the fundable proposals based on scientific assessment. Based on this ranking list the Call Steering Committee will determine the projects to be funded, taking into account the national budgets available. Based on these recommendations, final decisions will be made by the funding organizations and will be subject to budgetary considerations.

5. Funding procedure / Responsibilities / Reporting requirements

5.1 Funding procedure

Successful research groups will be funded directly by the respective funding organizations.

Funding is expected to start **early in 2021**⁴. Projects can be funded for a period of three years⁵. Neutral-cost extensions can be granted for individual research groups according to respective funding organizations' regulations.

Funding will be administered according to the terms and conditions of the responsible funding organizations, taking into account all other applicable regulations and legal requirements.

5.2 Responsibilities

Within a joint proposal, each consortium coordinator will be the contact person for the relevant national/regional funding organization. The coordinators of funded projects together with the respective funding organizations shall make every effort to seek a common start date for all research groups in the consortium.

After the evaluation and selection procedures are completed, each consortium selected to be funded is required to draft a Consortium Agreement (CA) and a data management plan (DMP). The CA will determine a common project start date, manage the delivery of project activities, finances and intellectual property rights (IPR), and avoid disputes that might be detrimental to the completion of the project. All consortia are strongly encouraged to sign the CA before the official project start date. Within six months from the start of the project the DMP must be sent to the Joint Call Secretariat NEURON along with the CA signed by all parties.

5.3 Reporting Requirements

On behalf of the research consortium, the project coordinator will be required to submit to the Joint Call

⁴ For Romanian institutions recommended for funding, projects must start at the end of 2020.

⁵ For Greek institutions recommended for funding, funding period will be 24 months

Secretariat annual scientific progress reports, as well as, a final report at the end of the project. Additionally, group leaders may be required to submit reports separately to their national funding organization. In that case, reporting guidance will be forwarded by the relevant funding organization, as applicable.

Annual reports must be submitted by April, 30, starting in 2022. Final reports must be submitted six months after the end of the project at the latest. Annual reports do not need to be submitted if the project ends between January and March on the last year. In the latter case, the submission of a final report will suffice. However, instead of submitting the final report within the usual six-month period, the final report will be required within four months from project completion.

It is the task of the coordinators to determine in agreement with the consortia a formal end date for project completion. This is required, as partners may be granted extensions of different duration. Coordinators will be informed about this procedure by the Joint Call Secretariat and will receive the report template in due course.

The coordinators will be asked to present a progress report during an intermediate status symposium. The attendance is obligatory for all coordinators and Principal Investigators (PIs). Early-career scientists working on the projects are welcome to join the intermediate symposium together with the PIs. Accordingly, travel expenses to attend the symposium should be considered in the proposal budget plans. Failure to comply with this requirement may result in administrative and/or financial sanctions according to the rules of each funding agency.

Funding recipients must ensure that all outcomes (publications, etc.) of transnational NEURON projects include a proper acknowledgement of ERA-NET NEURON and the respective funding partner organizations.

Annex I. Contact details

Please note that country specific requirements might apply to this call. **Compliance with the national/regional regulations specified in the country specific information is mandatory. We strongly advise you to contact your national/regional representative prior to submitting a pre-proposal:**

Country (Region)	Contact person(s)	Funding organizations contact Details
Belgium (French Speaking Community)	Dr Florence Quist Mr Joël Groeneveld	Fonds de la Recherche Scientifique (FNRS) rue d'Egmont 5 1000 Bruxelles Tél. +32 (0)2 504 93 51 florence.quist@frs-fnrs.be joel.groeneveld@frs-fnrs.be <u>+32(0)2 504 92 70</u>
Belgium (Flanders)	Dr Alain Deleener Toon Monbaliu	Research Foundation Flanders (FWO) Egmontstraat 5 1000 Brussel <u>www.fwo.be</u> <u>eranet@fwo.be</u> +32 2 550 15 70
Canada	Dr Christian Brochu	Canadian Institutes of Health Research christian.brochu@cihr-irsc.gc.ca 613-948-4878 www.cihr-irsc.gc.ca
Canada (Québec)	Maxime Beaudoin	Fonds de recherche du Québec-Santé (FRQS) <u>Maxime.Beaudoin@frq.gouv.qc.ca</u>

		514-873-2114 #1369 www.frqs.gouv.qc.ca
France	Dr Sheyla Mejia-Gervacio	French National Research Agency (ANR) Health & Biology Department Sheyla.mejia@anr.fr +33 178 09 80 14
Germany	Dr Christina Müller	Project Management Agency (DLR-PT) – Health, on behalf of the Federal Ministry of Education and Research (BMBF) Chr.mueller@dlr.de +49 228 3821 1257 www.gesundheitsforschung-bmbf.de
Greece	Georgia Kostopoulou	General Secretariat for Research and Technology (GSRT) g.kostopoulou@gsrt.gr +302131300100
Israel	Dr Liron Even-Faitelson	Chief Scientist Office - Ministry of Health (CSO-MOH) http://www.health.gov.il/Subjects/research/International_cooperations/Pages/default.aspx liron.ef@moh.gov.il +972-2-508-2168
Italy	Dr Gaetano Guglielmi	<u>Ministero della Salute</u> g.guglielmi@sanita.it http://www.salute.gov.it/portale/home.html
Latvia	Dr Uldis Berkis	State Education Development Agency www.viaa.gov.lv Uldis.Berkis@viaa.gov.lv Office: +371-67785406 Mobile: +371-29472349
Norway	Dr Alexandra Bjørk-Skaflestad	The Research Council of Norway (RCN) alb@rcn.no Tel.: +47 22 03 72 24

Poland	Marcin Chmielewski	National Centre for Research and Development (NCBR) Section for Research Projects BIOMED marcin.chmielewski@ncbr.gov.pl phone: + 48 22 39 07 109 www.ncbir.pl
Romania	Mrs. Mihaela Manole	Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) Mihaela.manole@uefiscdi.ro Tel: +4 021 30 23 863
Slovakia	Mrs. Katarina Bibova	Slovak Academy of Sciences (SAS) bibova@up.upsav.sk +421 2 5751 0136 www.sav.sk
Spain	Mrs. Maria Druet	National Institute of Health Carlos III (ISCIII) SG de Programas Internacionales de Investigación y Relaciones Institucionales phone: +34 91 822 2530 mdruet@isciii.es
Spain	Mrs. Ana Barra	State Research Agency (AEI) neuron@aei.gob.es phone: +34 91 603 83 98
Switzerland	Dr Claudia Ellenrieder	Swiss National Science Foundation (SNSF) Division Biology and Medicine claudia.ellenrieder@snf.ch Tel: +41 31 308 22 22
Turkey	Dr Recep Emrah Çevik	The Scientific and Technological Research Council of Turkey (TÜBİTAK) www.tubitak.gov.tr emrah.cevik@tubitak.gov.tr

Annex II. Anticipated amount of funding provided by each partner

The intended contribution by each participating funding organization to be used for the joint transnational call for research projects is listed below.

Partner Country	Funding organization	Anticipated amount of funding (for 3 years)	Anticipated number of fundable research groups
Belgium	Fonds de la Recherche Scientifique - FNRS (F.R.S.-FNRS)	200,000€	
Belgium	Research Foundation – Flanders (FWO)*	€200,000	
Canada	Canadian Institutes of Health Research	\$ CAD450,000 (€320,000)	2
Canada (Québec)	Fonds de recherche du Québec - Santé (FRQS)	\$CAD450,000 (€320,000)	2
France	French National Research Agency (ANR)	€1,800,000	
Germany	Federal Ministry of Education and Research (BMBF)	€3,000,000	10-20
Greece	General Secretariat for Research and Technology (GSRT)	€800,000	3-4
Israel	Ministry of Health (CSO-MOH)	Up to 300,000€	Up to 2
Italy	Ministry of Health (MOH)	€1,500,000	
Latvia	State Education Development Agency (VIAA)	420,000 EUR	2
Norway	The Research Council of Norway (RCN)	€500,000	
Poland	National Centre for Research and Development (NCBR)	€600,000	2-3
Romania	Executive Agency for Higher Education, Research, Development & Innovation Funding (UEFISCDI)	€400.000	1-2
Slovakia	Slovak Academy of Sciences (SAS)	€120,000	
Spain	National Institute of Health Carlos III (ISCIII)	€400,000	2-3
Spain	State Research Agency (AEI)	€600.000	3-4
Switzerland	Swiss National Science Foundation (SNSF)	approx. € 900'000 (CHF 1 Mio)	3-4
Turkey	The Scientific and Technological Research Council of Turkey (TUBITAK)	€300.000	

* FWO cannot fund clinical research

Annex III. Call Timetable

Pre-proposal stage (I)

December 3, 2019	Preliminary Announcement of the Joint Transnational Call
January 8, 2020	Launch of the Joint Transnational Call
March 10, 2020	Deadline (submission of pre-proposals) 14:00 CET
May 18, 2020	Formal invitation to submit a full proposal

Full proposal stage (II)

June 22, 2020	Deadline (submission of full proposals) 14:00 CET
Mid-September, 2020	Peer Review Panel meeting to assess the full proposals
October-November, 2020	Final funding decision by the CSC and start of national administrative procedures
Early in 2021	Start of funding ⁶

⁶ For Romanian institutions recommended for funding, projects must start at the end of 2020.