



COST Action CA24123

“Extended Reality Neurorehabilitation of Spatial Neglect and Related Disorders After Brain Injury (NeuroXRehab)”

Call for applications for NeuroXRehab Young Researcher and Innovator Dissemination Conference Grants

1. About NeuroXRehab

NeuroXRehab addresses the important need for improving health and function in a large group of people with acquired brain injuries (ABI) causing spatial neglect (SN) and related disorders by leveraging extended reality (XR) technology for personalised and cost-effective neurorehabilitation. Extended reality, an umbrella term for virtual, mixed, and augmented reality, offers exciting new possibilities for assessment and treatment of SN. Individuals affected by SN pay no or insufficient attention to the side of space opposite to the injured brain hemisphere. SN independently predicts prolonged hospitalisation, poor rehabilitation outcomes, and slows recovery. Thus, SN constitutes a substantial burden for the individual, their caregivers, and health services. Conventional assessment and treatment of SN have insufficient diagnostic accuracy and efficacy.

Advances in XR technology allow for combined cognitive-motor assessment and treatment that is cost-effective and reduced the impairment of ABI survivors, as well as the financial burden to society. NeuroXRehab will improve the assessment of SN and related disorders by proposing differential diagnostics and follow-up individually tailored treatment (precision medicine) to increase specificity and intensity of neurorehabilitation across the continuum of care, including self- and telerehabilitation. This collaboration of experts such as researchers, clinicians, developers, patients and caregivers will result in a platform of sharing knowledge, defining XR guidelines, promoting coordinated research projects and increasing the technical readiness level of XR neurorehabilitation. The Action will drive the technological and scientific development in XR applications for neurorehabilitation and contribute to positioning the EU as a major player in health technologies.

The objective of NeuroXRehab

The main aim and objective of the Action is to investigate how XR neurorehabilitation effectively can reduce the impact of SN and related disorders, improve the health, function, and well-being of patients with ABI, enhance the quality of life for family caregivers, and reduce the burden on society by increasing clinical efficacy.

Five working groups (WG) focus on the following topics

1. Meta study on latest knowledge on methodology and scientific evidence. The main task of the meta-study group is to systematically collect theoretical and empirical evidence from the literature, technical and clinical expertise from the Action members, and knowledge on the latest XR technology for the assessment and treatment of SN and related disorders.
2. Assessment of spatial neglect and related disorders. The main task of WG2 will be to operationalise methodologies for assessment of SN and related disorders using XR. The aim is to improve the diagnostic accuracy of the many sub-symptoms of SN and differentiate diagnostics of related disorders and define common data elements.
3. Treatment of spatial neglect and related disorders. WG3 will standardise methodologies for implementing treatment methods in XR for SN and related disorders. The aim will be to implement conventional and novel treatment approaches with XR that are more flexible allowing for individualised neurorehabilitation.
4. Creation of a data collection and sharing policy/platform. WG4 will facilitate data sharing for multicentre studies on diagnostic accuracy and treatment efficacy of SN and related disorders. The main task is to define data policies, agree on best practices, identify and extend suitable ontologies for data sharing and re-use, and create a data storage/sharing platform
5. Multicentre Project Planner. The main task of WG5 is to prepare protocols for future multicentre studies based on the activities and deliverables from WG1 (meta study), WG2 (assessment), WG3 (treatment), and WG4 (data policy). Defining study objectives, design, and methods for investigating diagnostic accuracy and treatment efficacy of XR neurorehabilitation of SN and related disorders.

2. What is a neuroXRehab YRI dissemination conference grant

The neuroXRehab dissemination conference grant supports an oral or poster presentation of the work of the Action by an Action participant at a high-level conference fully organized by a third party, i.e. not organized nor co-organized by the COST Action. This presentation should significantly increase the visibility of the Action in the research community, contribute to increasing visibility of the presenter, and attract additional participants and stakeholders. It

must disseminate Action results to relevant end-users at high profile conferences in the field on a topic relevant to the Action.

3. Eligibility

Grant applications can be made by any Action participant under the age of 40 who has been accepted to give an oral or poster presentation of the work done in the Action. Presentations should relate strongly to one or more of the Action's Working Groups.

4. Financial support

The financial support provides a contribution for the costs of travelling, accommodation, subsistence expenses, insurance costs, conference registration fee, and any publication costs arising.

The financial support is provided in the form of a grant. Receipts are required. The maximum grant amount is 1,000 EUR.

5. The grant awarding process

The supported activity, including reporting and payment, must be carried out entirely within one Grant Period. Each Grant Period runs from the 1 November until the 31 October of the following year.

Each application is reviewed by two (or three in case the outcome is not consistent) MC or WG members who are guided by the Grant Awarding Coordinator. This assessment considers the relevance of the proposed oral or poster presentation and of the conference to the Action and its dissemination potential. The Grant Awarding Coordinator advises the Action Chair who acts on the advice if the budget allows. Successful grantees receive a grant letter.

The supported activity ends when the payment is recorded. Therefore, applicants should allow time for submitting the report, evaluating it, and processing the payment within the Grant Period. This means that the work of conference participations funded in this call should be complete by 30 September to give adequate time for reporting and grant payment by 31 October.

6. Application procedure

Applicants must have an e-COST profile: <https://e-services.cost.eu/user/login>, and applications must be submitted online in e-COST. The applicant encodes a dissemination conference grant application by logging into e-COST and selecting the 'Dissemination Conference' type option. In addition to completing the fields, the following should be uploaded:

1. Copy of the abstract of the accepted oral or poster presentation
2. Acceptance (or invitation) letter from the conference organisers

Documents that cannot be uploaded via the e-COST interface should be sent directly to the Grant Awarding Coordinator (iris.charlotte.brunner@helse-bergen.no) and the Chair of the COST action, Lars.Evald@midt.rm.dk

7. Submission of the report and payment

The applicant claims the payment of the grant via e-COST when the activity has ended and the report is submitted and accepted. For this, the grantee submits the report using the dissemination conference report template before 15 October. The report should include:

1. A report on the contacts made and potential for future collaborations.
2. The certificate of attendance to the conference.
3. The programme of the conference or book of abstracts / proceedings indicating the oral or poster presentation of the grantee.
4. A copy of the given presentation.

Notes:

Each publication produced with support of a dissemination conference support grant should acknowledge the support of the COST Action and whenever possible use the COST and neuroXRehab logos (on slides and posters).

Acknowledgement text:

This publication is based on work supported by the COST Action CA24123: “Extended Reality Neurorehabilitation of Spatial Neglect and Related Disorders After Brain Injury” (neuroXRehab)

