

# **Strategic Plan of the Latin American Brain Initiative (LATBrain) 2024-2029**

The strategic plan of LATBrain is the result of discussions and exchanges among the countries participating in the initiative and the collective of adherent agents. This strategic plan was constructed taking into account and based on the mission and vision of the Initiative established in its founding document. This strategic plan serves as a guide and support source for the development of the organization and its objectives.

## **1) Vision and Mission of the Organization**

As established in the founding document, the vision of the Latin American Brain Initiative is to achieve a deep and comprehensive understanding of the brain that leads to improving the quality of life of people worldwide, in various aspects of individual and social life.

The mission of the Latin American Brain Initiative is to enhance and advance brain research through collaboration and knowledge exchange, uniting different approaches and perspectives at the Latin American level to expand the scope of our research. This aims to produce and disseminate new scientific knowledge and applications for the benefit of our countries and the world.

The Latin American Brain Initiative will achieve its objectives by identifying common priorities among different countries and facilitating the exchange of ideas, recognizing opportunities and challenges in our region, building networks, catalyzing collaborations involving its members, academics, industry scientists, educators, philanthropists, communicators, governments, civil society, and stakeholders from other areas of science. It will also stimulate the creation of national programs or projects in brain sciences.

## **2) Main Pillars**

### **2.1. Strengthening the Organization Locally and Regionally**

LATBrain has been gradually and continuously strengthening since the formalization of its structure in 2021. New countries have joined, and more researchers participate in its activities. LATBrain has already established itself among the organizations driving Brain Sciences in Latin America and the world. However, the organization needs a greater presence in countries and in the region. Additionally, to adapt to future challenges, LATBrain needs to diversify and formalize its structures further. To achieve these goals, LATBrain will:

1. Urgently draft statutes or regulatory documents for the organization to have a clear and predictable legal framework for all member countries to work within.
2. Explore the possibility of acquiring legal status.
3. Organize the administration and management of funds that it can obtain, either through its legal status or using alternative forms (e.g., through FALAN, Universities, Centers, or other partners).

4. Contact authorities from different countries to explain the mission and vision of the organization and request their support, where such support has not yet been generated.
5. Promote greater presence and positioning of the organization in society by publicizing its activities and objectives through its website, YouTube channel, and social networks.
6. Convene experts and advisors in organization development and management to obtain guidance on how to grow the organization both in its regional presence and its relationship with funding agencies, companies, and foundations.
7. Coordinate and collaborate with other regional (e.g., FALAN) and international organizations (regional committees of IBRO, the World Federation of Neurology, and other brain initiatives, etc.) to work together to achieve common goals.

## **2.2. Fundraising and Support Generation**

1. LATBrain will propose to funding agencies, universities, and companies in each country to coordinate the allocation of funds within integrative Latin American projects supported by LATBrain.
2. It will invite regional and international companies to participate in LATBrain and request their financial support to finance its activities (e.g., symposia, outreach videos, conferences, etc.).
3. Seek professional advice to optimize the organization's linkage with companies.
4. Identify possible organizations, agreements, foundations, and agencies offering funds for research and seek support through joint projects.

## **2.3. Activities of the Latin American Brain Initiative to Achieve Its Objectives**

1. Administer and coordinate received funds to finance research projects supported by the Latin American Brain Initiative.
2. Advise governments or society agents interested in solving problems related to Brain Sciences.
3. Facilitate and promote interaction among research groups in Latin America, promoting the creation of consortia, laboratory networks, technological networks, networks for the availability of biological samples, tissue, or organs for research.
4. Promote and facilitate interdisciplinarity.
5. Produce and disseminate outreach materials on Brain Science research conducted in Latin America.
6. Promote Brain Health and educate society on the prevention of diseases.
7. Produce and disseminate educational materials on Brain Science to reach countries with limited capabilities in this knowledge area.
8. Organize Brain Science symposia on topics of interest to Latin America.
9. Organize conferences integrating different societies related to Brain Sciences (neurology, neuroscience, neuropsychiatry, psychology, psychiatry, etc.).
10. Promote good research and publication practices globally; strengthen the use of Spanish and support regional publications in our language; combat discrimination of any kind in Science, both regionally and internationally; and work to promote transparency and ethics globally in all processes leading to the production, publication, and use of knowledge.

## **2.4. Training and Development of Technology and Research Projects**

### **2.4.1. Training**

While training in Brain Sciences in Latin America can be considered good, there is a wide diversity of situations among different countries. Therefore, LATBrain's training proposals will consider these aspects.

1. Promote an increase in the number of researchers, particularly by training researchers in priority areas (e.g., clinical research, translational research, development and use of new technologies, bioinformatics, etc.) and aiming for interdisciplinarity.
2. Contact university, governmental authorities, and regional and international organizations to raise awareness of this situation and request significant investment in Brain Sciences training.
3. Promote courses on Brain Science topics to contribute to the training of researchers, particularly in countries and regions with little tradition in this knowledge area.
4. Promote the exchange of students and researchers within and outside the region to strengthen the research capacities of our countries.
5. Promote the coordination and organization of Latin American postgraduate programs and/or intraregional training exchange networks and disseminate them regionally and internationally.

### **2.4.2. Technology and Infrastructure**

1. Promote the development of technology at the regional level.
2. Promote the incorporation of new technology that is non-existent or scarce in the region (e.g., fMRI, PET, scanning probe microscopy, large-scale neuronal recordings, optogenetics, chemogenetics, magnetoencephalography, magnetic neurostimulation or implants, etc.).
3. Promote coordination and cooperation among countries in the purchase, development, and exchange of cutting-edge technology.
4. Establish technological hubs or reference centers in Latin America and promote their opening to other countries in the region.
5. Promote the improvement of research infrastructure in Latin America (facility locations, animal facilities, etc.).
6. Promote the improvement and facilitation of access to research inputs and their intra- and extra-regional transportation, as well as reduce customs clearance barriers and costs.

### **2.4.3. Research in Brain Sciences Areas**

While there is an understanding that all areas and disciplines related to Brain Sciences are equally important for understanding its functioning, there are currently themes that seem necessary to prioritize. These are mainly related to brain health problems significantly affecting the population in general, lack of understanding of brain functioning and its regulating codes, limitations and challenges in teaching and learning in the face of profound social and technological changes, and significant technological distance from the rest of the world. Additionally, it is increasingly necessary to incorporate other disciplines into the study of the brain. Therefore, we consider it

necessary to prioritize research in the following areas and continue investing in Brain Sciences in all its areas, stimulating interdisciplinary approaches:

- Prevention, neural mechanisms, and treatment of neurodegenerative diseases (Alzheimer's, Parkinson's, etc.), including rehabilitation.
- Prevention, neural mechanisms, and treatment of mental disorders (psychiatric and psychopathological).
- Prevention, neural mechanisms, and treatment of neurodevelopmental disorders, including rehabilitation.
- Cognitive and behavioral sciences, aiming to understand the functioning of neural circuits (neural codes, processing, predictability, and manipulation of behaviors).
- Prevention and treatment of cognitive deficits, neural process stimulation, and teaching methods to improve school performance and human mental capacities.
- Research aimed at developing support technology for Brain Sciences at the regional level.
- Sustain support for all innovative Brain Sciences research areas.

### **3) Progress Monitoring**

The development of this strategic plan will be evaluated annually by the Strategic Planning Committee (CoPEs) of the Initiative or by seeking external advice if deemed necessary.

The LATBrain coordination and secretariat will propose an annual plan to the CoPEs to advance the objectives set out in this strategic plan. This strategic plan may be exceptionally revised at the request of an absolute majority of the CoPEs.