

Exploring neurological & mental brain disorders in Europe



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European Brain Council provides a very helpful update on Brain disorders in Europe – neurological and mental alike

Brain disorders – neurological and mental alike – are widespread in Europe, highly disabling and often difficult to treat. Approximately 60% of the European population lives with a neurological condition¹, and one in six citizens in Europe is affected by mental ill-health.²

These numbers are alarming without considering that they date back to before the COVID-19 pandemic, which we now know spurred higher rates of mental health conditions³ as well as COVID-19-triggered neurological complications.⁴ These conditions represent a high individual, social and economic burden and contribute to the global disease burden and disability.

We should not forget, however, that understanding the brain is not just to tackle a “burden”. It is also to allow people to thrive: to live healthily, to power our economies and to build for future generations. Investing in the brain and brain research is critical.

Instead of divesting in a cost, policymakers and society at large should view the prioritisation and [support of research into brain disorders](#) as an investment into a healthier future.

The brain: Defining areas for prioritisation

The brain is complex. Understanding how the brain works, how brain diseases progress – basic research – and finding treatments and cures for these diseases – applied research – is a long-term endeavour.

Brain research is highly interdisciplinary, requiring the use of a wide range of research techniques based on different models – human, artificial, digital and, predominantly, animal – which remains essential for progress in this domain.

Calling for prioritisation of research of brain disorders at the political level has been a major effort from the brain research community for decades, but, despite [a steady growth of investment by the European Union](#), it has been nowhere near enough, lacks efficiency, remains fragmented, lacks recognition as a priority area⁵ and is persistently misunderstood and underestimated.

Tackling the complexity of the brain together

Enhancing global collaboration in the domain of research and innovation is key to effectively addressing today’s societal challenges and improving the health and well-being of citizens.

This is particularly true for brain disorders, as understanding the brain has proven to be incredibly complex, and the effort needed is immense. The quest to understand the brain for the benefit of all affected by brain conditions and the improvement of overall brain health is global and should not be tackled in silos but at a global level, particularly as our world grows increasingly borderless.

Competition in this space would be futile. Fostering of concrete global partnerships and alliances for brain research is urgently needed to share knowledge, learn from peers, conduct similar research in collaboration rather than duplicating efforts, and strengthen alignment across diverse public and private entities to structure and track investments for the benefit of international research and the health of all populations.

Plenty of high-calibre brain research is underway across continents, and the fostering of concrete global partnerships and alliances could only work to further strengthen the work and avoid duplication.

Strengthen rather than hinder R&I in Europe for accurate brain disorder research

Despite advances in neuroscience research in the past decades, disease-modifying drugs for brain disorders are still lacking. Research using animal models has been essential for the advancement of scientific knowledge and understanding of how the brain works.

Equally, considerable progress has been made using alternatives; however, most of what can be learned about the brain and behaviour still depends, directly or indirectly, on research in animal models. One of the main bottlenecks sustaining this limitation is the lack of scientifically valid methods and in vitro models to conduct brain research beyond the use of animal models.

Despite continued political pressure for a roadmap to phase out all animal testing in the EU as soon as possible, reiterated again in a recent European Citizens' Initiative,⁶ a complete ban on the use of animals in biomedical research is premature and incredibly detrimental to the quest to improve the quality of life of the many citizens affected by brain conditions and towards a future with better understanding and interventions for these conditions.

The scientific community in Europe urgently needs a shift of focus back to the most important issue – supporting European science for the sake of society at large and tackling unmet healthcare needs.

We cannot allow for the EU's ability to lead and further boost scientific innovation, discovery and leadership to be hindered and fall on others abroad for biomedical innovation. It remains vital that scientific advancement is encouraged while offering scientists the time and means to develop viable alternatives.

Addressing unmet needs in brain research

As the burden continues to grow and the EU turns its focus on addressing unmet needs, brain research and innovation must be recognised, more than ever, as a health and research priority in the EU (and beyond) and cannot be left behind.

A European Brain Research and Innovation Plan⁷ is urgently needed, combining research and public health initiatives to address brain disorders and brain function in a comprehensive, collaborative and innovative way at the EU and international levels, supporting scientists to conduct their work for the benefit of those who need it most and our future generations.

References

1. Deuschl G., Beghi E., Varga T., European Academy of Neurology, FACT SHEET: The burden of neurological diseases on Europe, 2019, <https://bit.ly/3HYmhtL>
2. European Commission, Healthier Together, EU Non-Communicable Diseases Initiative, 2022, <https://bit.ly/3pqoYQu> doi:10.2875/195572
3. European Parliament Briefing: Mental health and the pandemic, Nicole Scholz, EPRS – European Parliamentary Research Service, 2021, <https://bit.ly/42607x4>
4. National Institutes of Health COVID-19 Research: How COVID-19 Affects the Brain, <https://bit.ly/43sWges>

5. European Brain Research Area (EBRA) European Research Inventory and Mapping Report, 2022, <https://bit.ly/3snTma0>
6. European Citizens' Initiative: Save Cruelty Free Cosmetics – Commit to a Europe Without Animal Testing, 2022, https://europa.eu/citizens-initiative/initiatives/details/2021/000006_en
7. Pledge for Science: Brain Research and Innovation in the EU, European Brain Council, 2023, <https://www.braincouncil.eu/wp-content/uploads/2023/05/Pledge-for-Science-Updated-3105-2.pdf>