

CATALYZING RESPONSIBLE INNOVATION IN NEUROSCIENCE

Asilomar for the Brain and Mind

The next decade of brain science has the potential to reshape the human experience. If we are passive, the coming brain revolution will either fall short of its potential or drift towards negative outcomes. With BrainMind’s vision to form a new vital connective tissue between the lab and society, our responsible innovation initiative considers how to encourage decision-making that maximizes the potential benefits and minimizes the unintended hazards that accompany rapid innovations in brain science.

In 2024, BrainMind will convene a sector-defining summit: "Asilomar for the Brain and Mind." This global, multi-sectoral meeting will focus on the research, development, distribution, and use of near-term innovations in brain science. Regulation will never keep pace with technological innovation. We need to build responsible neuro-innovation into the culture. Influential leaders across brain science sectors must come together to adopt unified ethical principles and practical tools for responsible neuroinnovation.

This meeting will not reinvent the wheel. Neuroethics principles and guidelines have already been developed in committee meetings internationally (US BRAIN Initiative, OECD, IEEE, GNS, others) but most of the people translating ideas out of the lab are either unaware of these guidelines and standards or don’t know how to use them in their day-to-day decision-making. Asilomar will catalyze adoption of practical tools and methods to navigate ethical questions throughout the innovation process.

Examples of tools to be disseminated at Asilomar:

- 1) “Points to Consider” questionnaire for funders to screen candidate companies and researchers
- 2) Practical benchmarks for entrepreneurs and scientists such as bylaws for responsible neurotechnology companies, codes of ethics created by exemplar labs, funds, and companies
- 3) Other implementable frameworks such as a neuroscience ESG

PRIVATE SECTOR ENGAGEMENT

The Asilomar conference will include deep engagement with private sector stakeholders, including investors, entrepreneurs, philanthropic organizations, and life science and tech leaders. Tremendous private and corporate investments have been directed into brain research in recent years and commercialization of brain technologies will have an unprecedented influence on individual lives and societies.

BrainMind is uniquely suited for a convening role at Asilomar because of our capacity to engage leaders in the private sector. Our 3,000-member community includes individuals at the highest reaches of their respective industries: Midas list investors, widely revered technology entrepreneurs, past and future Nobel laureates. These leaders are making strategic decisions at the most influential institutions in the world. BrainMind has already organized several world class Summits since 2018, at Stanford, MIT, and at the OECD headquarters in Paris.

ADVISORS (full list in Appendix)



Steve Hyman
Harvard/Broad



Ed Boyden
MIT



Karen Rommelfanger
Emory



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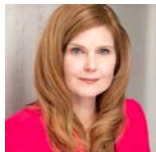
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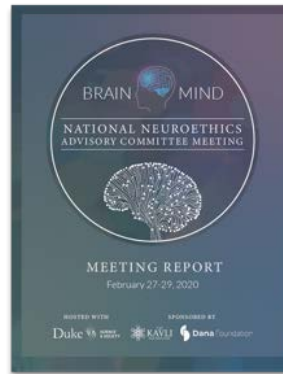


Ricardo Chavarriaga
IEEE, CLAIRE

BUILDING CONSENSUS, 2020-2023

First National Advisory Meeting

On February 27—29, 2020, BrainMind convened its first neuroethics advisory committee meeting with leading neuroscientists, neuroethicists, entrepreneurs, policymakers, and investors. Participants included leaders from the NIH/NINDS, the US BRAIN Initiative, the International Neuroethics Society, the International Brain Initiative, and the Institute of Electrical and Electronics Engineers (IEEE). The group affirmed the opportunity for BrainMind to form a “practical layer” between conceptual neuroethics frameworks and their functional applications in research and product creation.



BrainMind’s 2020 White Paper describes why it is particularly timely to establish a multi-sectoral, international collaboration to support integration of neuroethics in tandem with ideation and project development for emerging neurotechnologies.

Global Workshop cohosted with OECD

On July 11—12, 2022 in Paris, BrainMind convened 40 interdisciplinary leaders in Paris at the OECD headquarters to advise on the role of neuroethics in the future of neuroscience research and innovation.

Convening key actors from the private sector, this gathering focused on the implementation of neuroethics frameworks across entrepreneurship, public policy, and investing. This effort identified best practices for implementing neuroethical inquiry toward advancing the most powerful neuroscience and neurotechnology outcomes for society.



Sector-Specific Advisory Meetings

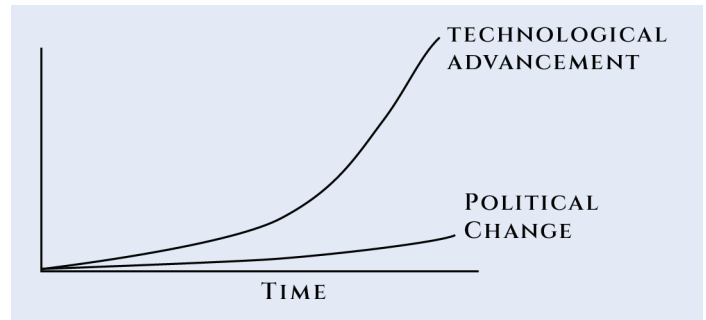
In addition to the national and international advisory meetings, BrainMind has been convening sector-specific advisory meetings in a virtual setting from 2021-2023. These discussions are about understanding incentive structures that would allow a charter of ethics to cross over between rigorous science and exceptional entrepreneurship. Key insights from these discussions have been helping to shape the agenda for Asilomar.



“THE PACING PROBLEM”

As we are witnessing once again with the breakneck speed of AI developments, regulation simply cannot keep the pace of innovation.

Neuroinnovation is happening rapidly, often with private funding and without any public oversight. We need to support ongoing, active engagement with experts who can help scientists and industry to navigate and innovate responsibly in this space.



ASILOMAR AND TOOLS FOR ETHICAL ALIGNMENT

At the first Asilomar conference for recombinant DNA in 1975, sector leaders developed a set of protective principles – these guidelines influenced how science was funded. The meeting also catalyzed a larger set of ethical norms that have been honored to this day. In cases of lone bad actors in DNA research, authorities respond swiftly; not because of regulation, but because there is consensus on “how things are done” in this field.

This is the power of culturally enforced values. In brain science, we are awash in high-level principles, but we now need to socialize best practices among a wide range of stakeholders: scientists, entrepreneurs, investors, and philanthropists. At Asilomar, we can encourage adoption of useful tools for the makers and doers who are translating neurotechnologies into meaningful, beneficial, available technologies for humanity.

MOMENTUM TOWARD ASILOMAR

BrainMind has already built exciting momentum toward the Asilomar conference. We have brought in the founders of the neuroethics field, including Steve Hyman, Hank Greely, Martha Farah, international thought leaders such as Hervé Chneiweiss, Bojana Bellamy, and Ricardo Chavarriaga, and leadership from groups including the OECD, IEEE, the US and International Brain Initiatives, and the International Neuroethics Society. We have attracted prominent funding partners including the Dana Foundation and Kavli Foundation, and we have recruited many prominent academics, investors, entrepreneurs, and industry leaders in the space (see full list in appendix).

This summer, in preparation for the Asilomar announcement, Reid Hoffman is convening strategic advisory sessions with leaders from Google, Microsoft, Meta, IBM, and other major industry players in AI and Neurotechnology. The global Asilomar Conference will be convened in 2024.

ORGANIZATIONS (full list in Appendix)



APPENDIX

Advisors that have contributed to the Asilomar planning process:

Academia

Steven Hyman, PhD (Chair), Harvard University, Broad Institute
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Ken Howery, Founders Fund, PayPal
Bradley Horowitz, Google, Angel investor
Reid Hoffman, Greylock Partners
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Miri Polachek, MBA, Quadrscope Fund (former Joy Ventures)
Bryan Roberts, PhD, Venrock
Maryanna Senko, PhD, Future Ventures
Bo Shao, MBA, Evolve Ventures and Foundation
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Deborah Dunsire, MD, Lundbeck
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Entrepreneurship

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Philip Sabes, PhD, Neuralink (now Starfish Neuro)
Stephen Kennedy Smith, Pear Therapeutics
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