

REVIEWS

Integrating ethics and neuroscience research

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Gray matters: Integrative approaches for neuroscience, ethics, and society. Volume I. Washington, DC: Presidential Commission for the Study of Bioethical Issues; May 2014. 48 pp. Available from: <http://bioethics.gov/node/3543>

Mr. Barack Obama, President, United States of America, has appointed a Commission consisting of eminent persons in the fields of medicine, science, ethics, religion, law and engineering to advise him on bioethical issues arising from advances in biology, medicine and related areas of science and technology. It is of interest that the Commission includes Dr. Raju Kucherlapati, geneticist at the Harvard Medical School, as a member. The research staff of the commission includes Maneesha Sakhuja, Ruqayyah Abdul-Karim, Rahul Nayak, Abbas Rattani and Abena Yeboa are included among the interns. Guest presenters to the Commission include Anjan Chatterjee (neurologist), Miyoung Chun (scientist), Ushma Neill (clinical investigator) and Pamela Sankar (ethicist).

The Commission is expected to identify and promote policies and practices to ensure socially and ethically responsible research and care of patients.

Volume 1 of the Commission's report deals with research in the neurosciences. To prepare this report, the Commission held three public meetings on the subject; heard experts from a variety of disciplines and perspectives, including researchers and philosophers; and solicited public comments. The report was prepared in response to the President's request that the Commission "engage with the scientific community and other stakeholders, including the general public, to identify proactively a set of core ethical standards" in neuroscience research.

At the start, the report points out that the neurosciences study the very private and autonomous nature of the self, understanding of the mind, our private thoughts and our volition. This makes crucial the careful reflection on the scientific, societal and ethical aspects of all research in these fields.

The report quotes Santiago Ramon y Cajal's unforgettable statement – as true today as it was when he made it in 1920: "The brain is a world consisting of a number of unexplored continents and great stretches of unknown territory." In this vast territory, the report concentrates on four key aspects: (i) neuroimaging and brain privacy; (ii) dementia, personality, and changed preferences; (iii) cognitive enhancement and justice;

and (iv) deep brain stimulation research and the ethically difficult history of psychosurgery.

The Commission emphasises the need for ethical integration in research on the neurosciences. "Executed well, ethics integration is an iterative and reflective process that enhances both scientific and ethical rigor." It rightly asks neuroscientists to go beyond the concepts of regulatory compliance and mitigation of risk and use ethics as a lens that imparts clarity of vision and sharpness of focus.

Interestingly, as is commonly advocated by those working in the field of medical ethics in India, the Commission recommends that "in order to develop an understanding and knowledge base in ethics, future research professionals should be exposed to ethics early in their education and careers."

The Commission strongly recommends the integration of ethics and research in the neurosciences at all stages – in the infrastructure; through research on ethical, legal and social implications of the studies and their implications; through ethics consultations and the involvement of concerned groups in a variety of spheres (policymakers, technical experts, institutions and the community at large).

The recommendations may be summed up thus:

Recommendation 1:

Integrate ethics early and explicitly throughout research

Recommendation 2:

Evaluate existing and innovative approaches to ethics integration

Recommendation 3:

Integrate ethics and science through education at all levels

Recommendation 4:

Explicitly include ethical perspectives on advisory and review bodies

This report should be required reading for those in our neuroscience research laboratories, neuroscientists in general, those at the helm of affairs in our health ministries and in our medical councils.

Of course, mere reading will not suffice. The principles enunciated here need to be put into practice.

Will our scientists and administrators rise to the occasion?