

# JERHRE NOTES

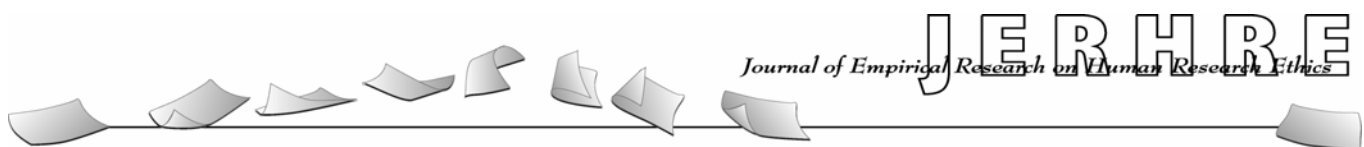
*Skills for Solving Ethical Problems in Human Research*

## Incidental Findings & Other Ethical Challenges in Neuroimaging Research

Neuroimaging research has advanced understanding of morphology and function in healthy and diseased brains. Advanced imaging capabilities expand the scope of research and range of suitable volunteers, and stimulate private-sector activity, creating challenges for human subject protection. Issues include management of incidental neuroimaging findings of unexpected anomalies of potential clinical significance (e.g., at <http://neuroethics.stanford.edu>, see The Case of SH); protection of confidentiality in neuroimaging databases; and promotion of public neuroscience literacy based on a balanced assessment of scientific validity, and of the risks and benefits of neuroimaging. How can investigators and research ethics committees manage these challenges?

Ethical Issue	Recommendation
<b>Incidental Findings (IFs) &amp; Informed Consent:</b> Neuroimaging research can reveal IFs or unexpected anomalies of potential clinical significance. How should institutional policy and informed consent respond to this possibility?	Transparency of research protocol and consent form concerning how incidental findings will be handled: Ethics committees and research groups should collaborate to construct ethical approaches for handling IFs that respect research goals, subjects and institutional mandates.
<b>Recruitment &amp; Confidentiality:</b> Recruitment of students challenges confidentiality and consent.	Clarification of recruitment practices: Ongoing education can promote confidentiality and uncoerced participation.
<b>Decisional Capacity:</b> Non-invasive procedures are expanding the pool of prospective volunteers to more vulnerable populations.	Use communication procedures that are sensitive to level of decisional capacity, especially for children and patients with severely impaired decisional capacity.
<b>Stigma:</b> Results can be misconstrued.	Prevent misunderstanding through clear language.
<b>Scientific Value:</b> Diverse research methods lead to lack of clarity about value of findings.	Evaluation of protocols should take into account diversity of research paradigms and risk-benefit ratio.
<b>Conflict of Interest:</b> Hype leads to direct-to-consumer advertising of brain imaging products.	Be clear about academic/private sector strategies and acceptability of their societal implications.
<b>Application:</b> Unrealistic expectations for early clinical applications may occur.	Review strategies for dissemination of research results and claims for technological promise.

Racine, E. & Illes, J. (2007). Emerging ethical challenges in advanced neuroimaging research: Review, recommendations and research agenda. *Journal of Empirical Research on Human Research Ethics*, 2(2), 1-10.



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