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DEPARTMENT OF PHILOSOPHY

TITLE OF THESIS: THE CASE OF THE TRIGGERED MEMORY:

SERENDIPITOUS DISCOVERY AND THE ETHICS

OF CLINICAL RESEARCH

TIME/DATE:

Friday, September 4th at 10:30am

PLACE:

Room 3107, The Mona Campbell Building, 1459

LeMarchant Street

EXAMINING COMMITTEE:

Dr. Walter Glannon, Department of Philosophy, University of Calgary (External Examiner)

Dr. Kirstin Borgerson, Department of Philosophy, Dalhousie University (Reader)

Dr. Lisa Gannett, Department of Philosophy, St. Mary's University (Reader)

Dr. Françoise Baylis, Faculty of Medicine and Department of Philosophy, Dalhousie University (Supervisor)

DEPARTMENTAL Dr. Michael Hymers, Department of Philosophy, **REPRESENTATIVE:** Dalhousie University

CHAIR:

Dr. Leonard Diepeveen, PhD Defence Panel,

Faculty of Graduate Studies

ABSTRACT

Should researchers take advantage of unexpected opportunities to make valuable discoveries when these opportunities arise in the context of research involving human participants? The pursuit of knowledge sometimes requires human beings to participate in research as the subjects of study. This is particularly the case when it comes to the pursuit of knowledge about the brain. In this dissertation, I consider the potential value of serendipitous discoveries in the context of clinical research involving humans, with a narrow focus on deep brain stimulation (DBS) – a technology that enables clinician-researchers to access and manipulate the living human brain.

Along the way, I accomplish three goals. First, I provide an account of serendipitous discovery in science. Serendipity consists of three elements—chance, sagacity and a valued outcome—that come together in a single process of discovery. Second, I apply my analysis to a case of potential serendipity in early phase medical research involving humans. Third, I explore the epistemological and ethical implications of both the analysis and its application. Serendipitous discoveries, for instance, are made by scientific communities, rather than by individuals. Thus, features of communities can enhance or constrain the making of serendipitous discoveries. Specifically, I argue that communities that perceive the unexpected as potentially valuable, that support the epistemic agency of their members, and that encourage the sharing of knowledge, foster serendipitous discovery.

I closely examine a recent case from clinical research with DBS—the case of the triggered memory—as a case of potential serendipity. The tripartite account of serendipity I articulate provides a lens through which I draw out several epistemological and ethical implications of pursuing serendipitous discovery within the context of clinical research, when human participants in research are the source of unexpected observations. In conclusion, I propose recommendations for pursuing serendipitous discovery in clinical research without compromising ethics.