

### ***Expert Student Work***

*Question 5: Ways that science may be limited for studies testing the effectiveness of antidepressant medications.*

Paper 3: Coded as Expert (3): This answer really insightfully addresses the question at hand. The student first discusses the fact that operational definitions vary, and similar to the intermediate response, this student also discusses how the use of serotonin as a measure of depression is really merely one of many imperfect metrics for assessing depressive symptoms. However, where this response rises above the Intermediate response is in the student's discussion of the ethical limitations of scientific enterprise. In some cases, the "perfect" study for assessing a variable's outcome on an outcome of interest is constrained by ethical concerns. As such, the student suggests that the best possible alternative may be the use of multiple measures, to examine how well they converge. However, the student also very keenly identifies that when all measures don't consistently provide the same answer, it is up to the investigators to decide which measures to weigh more heavily.