**Faculty Call for Research Assistant Application**

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| **Part I – Outline of research project** |

**Academic field:** Neuropsychology

**Research topic:** Acute brain injury

**Brief description of project and research assistant duties:**

Up to 2 research assistants may be accepted for this project. The project concerns patients' experiences in hospital consequent to acute brain injury (stroke). We have access to hundreds of sets of notes, describing patients' symptoms and treatment during their initial stay in hospital. The challenge is that the data are complex and difficult to interpret in a consistent way. The project aims to develop methods to automate that interpretation, using AI. However, to validate such methods, we need the results of human processing of the same data. The research assistant will: (a) support the Professor in a double-blind interpretation process, manually extracting relevant details; (b) producing a pipeline for automated extraction of the same details; and then (c) comparing the two (and adjusting the automated pipeline as needed to minimise the differences between the two sets of results).

**Sponsoring professor:** Thomas Hope

**Professor’s e-mail address:** t.hope@ucl.ac.uk

**Semester of assistantship**: Fall 2025

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| **Part II – Mentoring plan** |

**Full description of research assistant’s regular duties:**

The regular duty will be interpreting clinical notes (which will be provided), and extracting the relevant details. Other duties will depend on the student's interests. The most pressing, other duty is to develop an automated pipeline for processing these notes. This is somewhat complicated by the sensitivity of the underlying data: e.g., off-the-shelf tools require the sending of data over the internet, which is not permitted for this project.

**Description of the work to be completed by the end of the research assistant’s 45 hours of work:**

The core of the work is to devise and agree what the relevant output of the processing pipeline should look like, and to process at least some sets of notes according to those guidelines. There are so many available that simply processing those notes in full would be impossible in only 45 hours; the goal is to make a good start.

**Statement addressing how the faculty research will help the student research assistant develop their research skills:**

Interpreting medical records is no simple task on its own, and requires some understanding of the unerlying condition(s) being treated, which the professor will provide. Additionally, it requires some grasp of what might be done with the extracted information, and why, which will also be taught as part of the project. The crucial skill, here, is the interpretation of qualitative, inconsistent data in consistent, quantitative terms: this skill is consistently significant in most areas of psychology. Additionally, the student(s) will gain some understanding / experience of the use of advanced AI tools in clinical research.