

3. Study Interview Guide

Project: *'Building a Framework for Open Science at the MNI/Neuro – deriving guiding principles from key stakeholders: a qualitative research study'*

Note that question probes or follow-ups are denoted with bullet points

Demographic and contextual questions:

To begin, I would like to ask you a few questions about yourself:

1) First, what is your job title/position?

- Clinician-scientist
- Clinician
- Professor
- Research Associate
- Post-Doctoral researcher • Graduate Student
- Research Manager

2) Within what type of setting do you work? (as many of the following that apply)

- Animal model laboratory
- Human subject laboratory
- Cellular imaging laboratory
- Brain imaging laboratory
- Behaviour laboratory
- Clinical research
- Other

3) Could you please describe your training?

- MD
- PhD
- MD/PhD • Master's • other

4) How many years have you been in practice?

- Less than 1 year
- 1 to 5 years
- 6 to 10 years
- 11 to 20 years
- More than 20 years

On Open Science in general

1. In your view, what is Open Science?

2. Have you had any experiences publicly sharing data, samples or research materials? What was the context? What was the outcome?

- What motivated your participation?
- What problems or challenges did you experience, or did you anticipate?
- What were the benefits or harms if any, to the research process and results?

3. Have you had any experiences with patents or other intellectual property rights held by others which affected your research? Have you had any experiences patenting or asserting other intellectual property rights over discoveries you have made?

- What motivated you to seek IP protection or to use materials or processes subject to IP protection?
- What problems or challenges did you experience, or did you anticipate?
- What were the benefits to the research process and results?

4. What do you consider to be the appropriate boundaries of Open Science?

- What scientific resources are you/would you be comfortable sharing?
- With what limitations or caveats? Why?

For example:

- Types of data:

Primary and processed datasets and associated metadata; patient genetic information and associated medical records (drug treatment regimes, biochemical data, test results, behavioral information, EEGs etc); failed or negative experimental data.

- Scientific tools/materials: experimental protocols, reagents, cell-lines, animal models, primers/genetic sequences, antibodies, patient tissues samples and extracts etc)

- Research reports, algorithms, software code, patented inventions etc.

- At which stage of the research process would it be appropriate to share these items?

(eg. immediately upon collection, after processing, after manuscript submission, upon first publication).

What factors inform your answer?

- Under what circumstances would it be appropriate to forgo/avoid intellectual property protection (like patents)?

Under what circumstances would you consider it inappropriate? Why?

Human participants and an obligation to share

5. What considerations, benefits or limitations do you see to Open Science when this involves sharing of research participant or patient-participant data or samples? (if applicable)

- How might this affect your relationship with participants, and the rights and duties owed them through the informed consent process? How might this affect how you obtain informed consent from participants? How might this effect public trust in the MNI's

research?

- How could this affect the ability to secure Research Ethics Board approval for studies with human participants?
- How could these challenges best be addressed? What solutions may exist? How might the benefits be maximized?

Research implications

6. Would an obligation to share data and other scientific resource publicly have technical or logistical implications for your research program – for example might it make it easier to manage and organize data and materials, or conversely might it raise challenges?

- What impact could these challenges or benefits have on how you conduct research? (eg. preparing data to fit the format/type requirements of existing repositories may require increased time and resource commitments or it may create an incentive to streamline

the research process etc.)

- What challenges or benefits do you foresee in obtaining proper attribution for and recognition of your work product?
- How could these challenges best be addressed? What accommodations may be necessary? What could be done to maximize the benefits of sharing?
- To what extent do appropriate repositories/infrastructure for the deposition of the data, samples or materials you collect or generate exist?
- What kinds of institutional supports would facilitate or otherwise encourage you to more freely share data, samples and/or materials?

7. If Open Science at the MNI constitutes to some degree a 'patent-free zone' how might this benefit your research? Conversely, are there ways in which it could raise challenges?

- How might the obligation to forgo intellectual property on your discoveries change how you conduct your research?
- How might the need to avoid using reagents or other patented inventions to the extent that these are incorporated in your results (and thus limit sharing) affect your research?
- If there are challenges, how could they be addressed? What accommodations may be necessary? What could be done to maximize the benefits?

Research partnerships

8. How might an institutional mandate to share data, samples and materials play a role in establishing or maintaining partnerships with other publicly-funded entities?

- In what ways could this enhance these relationships?
- In what ways could this challenges these relationships?

9. How might an institutional mandate to share data, samples and materials play a role in establishing or maintaining partnerships with privately funded or for-profit third parties?

- In what ways could this enhance these relationships?
- In what ways could this challenges these relationships?
- If partners are concerned, what might the issues be?
- What may be the boundaries on sharing from the perspective of privately-funded third parties?

10. How might an institutional mandate not to invoke patents or other intellectual property protections on the products of research play a role in establishing or maintaining partnerships with privately funded or for-profit third parties?

- In what ways could this enhance these relationships?
- In what ways could this challenges these relationships?
- If partners are concerned, what might the issues be?!
- What may be the boundaries of a commitment not to claim intellectual property protections from the perspective of privately-funded third parties?

Key priorities and additional factors

11. In your view what would be the key elements of an institutional Open Science policy at the MNI?

12. Is there any other important aspect that we have not yet discussed?

Thank you for participating!

In the case of any questions or concerns please contact the co-investigator:

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