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Postdoctoral fellow in machine learning for human atlasing

The Laboratory for Computational NeuroImaging at the Martinos Center for Biomedical Imaging (MGH / Harvard Medical School) is seeking for a postdoctoral research fellow to work on an exciting NIH-consortium project: “Functionally guided adult whole brain cell atlas in human and non-human primates”. The consortium comprises 18 institutions across three continents:

<https://alleninstitute.org/news/mapping-the-whole-human-brain-allen-institute-to-lead-global-collaboration/>

The research fellow will work with Drs. Bruce Fischl and Juan Eugenio Iglesias on machine learning methods for the human brain mapping portion of the consortium, in areas like:

- Analysis of ultra-high resolution ex vivo MRI scans.
- Laminar analysis.
- Spatial transcriptomics.
- Deep probabilistic models of neuroanatomy.
- Registration across scales (histology, MRI, portable MRI, dissection photography).

The successful candidate will have the opportunity to lead high-impact publications in collaboration with other members of the consortium, and to develop an independent research program potentially leading to an individual fellowship (e.g., a K award).

The position is initially for 2 years, with possibility of extension. The salary range is 75K-80K/year, depending on experience.

Responsibilities:

- Developing machine learning algorithms for image analysis and atlasing.
- Preparing submissions to journals and conferences.
- Presenting their work in meetings and conferences.
- Assisting with preparation of grant applications.

Desired qualifications:

- PhD in computer science, engineering, neuroscience, or related field.
- Machine learning expertise.
- Experience with brain MRI or at least other volumetric medical imaging modalities.
- Experience with Python and deep learning packages like PyTorch or TensorFlow.

To apply for this position, please send a cover letter, CV, list of publications, and contact information of three references to jiglesiasgonzalez@mgh.harvard.edu.