Positions

Available Positions

Specialist in Data Science/Computer Vision to study selective vulnerability in neurodegenerative disease

Job Summary
We are seeking an innovative Data Scientist / Computational Scientist to join a multidisciplinary team studying the pathobiology of neurodegenerative disease.

The ideal candidate will have a strong background in data science, computer science, and software engineering. Additional training in computer vision methods and/or life sciences is preferred. Working with neuropathologists, neurologists, and neuroscientists, the candidate will help design and implement image analysis tools for application to human post-mortem histological images acquired using cutting-edge methods. Successful candidates should be scientifically motivated self-starters, comfortable working in a highly productive academic environment, and motivated to use their skills to advance our understanding of neurodegeneration, with an eye toward therapeutic discovery.

This position offers an outstanding training opportunity for a data/computational scientist seeking to break into the neurodegenerative disease field. The candidate will join the multidisciplinary Seeley Lab (https://seeleylab.ucsf.edu/lab [1]), which is a part of the UCSF Memory and Aging Center within the Department of Neurology.

Required Qualifications
MS or PhD in Computer Science, Data Science, or a related field. Strong experience with pipeline development, management and analysis or large datasets, and demonstrated competence in programming languages such as R or Python. The position will be designated as a senior postdoctoral fellow or staff scientist based on the candidate?s experience.

Applications will be reviewed on an ongoing basis until the position is filled. Please direct inquiries to Dr. William Seeley by sending a letter of interest, CV and at least three references to bill.seeley@ucsf.edu [2]

Postdoctoral fellow in neurodegenerative disease

Job Summary
The fellow will pursue a series of related experiments regarding selective neuronal vulnerability in frontotemporal lobar degeneration (FTLD), amyotrophic lateral sclerosis (ALS), and related disorders. The fellow will obtain advanced training in neuroanatomy,
neurohistology, experimental human neuropathology, and gene and protein expression profiling to facilitate experiments geared toward understanding what makes specific sets of neurons vulnerable to disease. Potential projects focus on specific aspects of: 1) neuronal splicing dysregulation in TDP-43 related disease, 2) the molecular identity and vulnerability of von Economo neurons, a phylogenetically specialized class of large projection neurons targeted in FTLD, or 3) integrative analyses designed to derive novel insights based on massively multiplexed immunofluorescence images obtain from patients with FTLD and ALS.

**Required Qualifications**
PhD in neuroscience and a career interest in neurodegenerative disease. Preference will be given to applicants with prior training in mammalian anatomy and histology and a capacity to blend neuroanatomy with molecular biological approaches, but all interested applicants are encouraged to apply.

Applications will be reviewed on an ongoing basis until the position is filled. Please direct inquiries to Dr. Seeley by sending a letter of interest, CV, and at least 3 references to bill.seeley@ucsf.edu [2].

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**Postdoctoral fellow in clinical neuroimaging**

**Job Summary**
The fellow will conduct human neuroimaging research on normal brain organization and changes in network architecture among patients with neurodegenerative disease. Techniques include voxel-based morphometry and functional MRI, with an emphasis on intrinsic functional connectivity network mapping (also referred to as ?resting-state? fMRI), analyzed using multivariate statistical modeling, graph theoretical models, and related data science methods. We are integrating regional gene expression atlases and other genomic datasets into studies that seek to clarify biological mechanisms of selective vulnerability to neurodegeneration. The position also affords opportunities to develop novel biomarkers for diagnosis and disease monitoring. The ideal candidate will have an interest in neuroanatomy, fMRI methods/biomarker development, neurodegenerative disease, data science, or a combination. The fellow will contribute to ongoing experiments and pursue self-directed projects within the lab?s area of investigation.

**Required Qualifications**
Appropriate areas of doctoral training include but are not limited to neuroscience, bioengineering, applied mathematics, or computer science. Strong computational skills, including script writing or programming (Matlab, Python, R) are required.

Applications will be reviewed on an ongoing basis until the position is filled. Please direct inquiries to Dr. Seeley by sending a letter of interest, CV, and at least 3 references to bill.seeley@ucsf.edu [2].

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