Postdoctoral Fellow – O-GlcNAc Glycoproteomics & Neural Pathology

The Opportunity: Join the **Lance Wells Lab** at the CCRC at UGA to investigate the pivotal role of **O-GlcNAcylation** in human health and disease. This research, supported by the **Michael J. Fox Foundation (MJFF)** and the **NIH/NICHD**, focuses on the molecular mechanisms of **OGT-XLID** (X-linked Intellectual Disability) and the emerging links between O-GlcNAc signaling and **Parkinson's Disease**. We are looking for a creative scientist to push the boundaries of how we detect and quantify this dynamic modification in the brain.

Key Responsibilities:

- Map O-GlcNAc sites and dynamics in neuronal models of Parkinson's and OGT-XLID.
- Develop and implement advanced **chemoenzymatic tagging** and **protein enrichment** strategies.
- Conduct high-resolution **mass spectrometry (LC-MS/MS)** and data analysis to identify disease-specific glycoproteomic signatures.
- Generate and characterize variant cell lines and enzymes
- Investigate impact of specific changes in O-GlcNAc on key substrates
- Present and publish findings
- Grant writing

Ideal Qualifications:

- Ph.D. in Biochemistry, Chemistry, or a related field.
- Deep experience in **mass spectrometry-based proteomics**.
- Technical proficiency in protein purification and chemical biology labeling techniques.

Note: The Wells Lab is committed to mentorship; **references from former trainees are available upon request.**

About the CCRC and the Wells Lab

The **Complex Carbohydrate Research Center** at UGA, located in Athens GA, is a world-renowned hub for glycoscience. Postdocs in the Wells Lab benefit from a multidisciplinary environment and a culture that values both rigorous science and professional development.

How to Apply: Interested candidates should contact **Dr. Lance Wells** directly with a CV, a brief statement of research interests, and contact information for three references.

https://www.ugajobsearch.com/postings/477479

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Postdoctoral Fellow – Biochemist/Cell Biologist (O-Mannose & CMD)

The Opportunity: The Wells Lab, in the Complex Carbohydrate Research Center at the University of Georgia, is seeking a motivated **Biochemist/Cell Biologist** to explore the **O-Mannose pathway** and its role in **Congenital Muscular Dystrophy (CMD)**. This position is part of a robust research program funded by the **NIH**, **NSF (BioFoundry)**, and the **Michael J. Fox Foundation**. You will bridge glycobiology and functional genomics, focusing on how defective O-mannosylation leads to muscle and neural phenotypes in a highly collaborative, well-funded environment.

Key Responsibilities:

- Design and execute **high-throughput genetic screens** to identify novel modifiers of O-mannosylation.
- Utilize **CRISPR/Cas9** for cell line creation and genomic editing.
- Establish and characterize specialized **muscle and neural cell lines** (including iPSCs or primary cultures).
- Characterize disease mechanisms using advanced imaging and functional assays.
- Purify and characterize enzyme variants associated with CMD.
- Present and publish findings
- Grant writing

Ideal Qualifications:

- Ph.D. in Biochemistry, Cell Biology, or a related discipline.
- Extensive experience in **high-throughput screening** and cell line engineering.
- Strong background in characterizing muscle and/or neuronal development/signaling.

Note: The Wells Lab is committed to mentorship; **references from former trainees are available upon request.**

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