



Weill Cornell Medical College

POSTDOCTORAL POSITION in the MENON LAB

Mechanisms of protein glycosylation in the endoplasmic reticulum

JOB SUMMARY. We are looking for motivated individuals with experience in yeast molecular cell biology who are interested in joining our research team as postdoctoral fellows to study the mechanism of glycolipid flip-flop in the pathway of protein glycosylation in the endoplasmic reticulum. This is a full-time position, for at least 2-4 years, with an initial annual salary of USD 74,690 for a recent PhD (i.e., with no prior postdoctoral experience), and an excellent benefits package, including access to subsidized housing conveniently situated to the lab.

REQUIRED QUALIFICATIONS. A PhD in biochemistry, cell biology, biophysics, or related field. Experience with yeast molecular cell biology techniques (for example strain creation, spot assays, plasmid shuffling, protein analysis by SDS-PAGE immunoblotting and fluorescence microscopy) is preferred. See Hirata et al. (2024) *J. Biol. Chem.* 300: 107584 for an example (PMID 39025454).

OVERVIEW OF THE LAB. The Menon Lab studies how lipids are trafficked inside cells. Our goal is to identify the machinery needed for lipid transport and understand how it works. The lab currently focuses on lipid flip-flop, the process by which lipids move from one side of a membrane bilayer to the other side. This is important in many physiological processes such as apoptosis, blood clotting, protein glycosylation, biogenesis of mitochondria, and the growth of biological membranes. We use fluorescence-based and other assays to characterize how certain proteins (such as G protein-coupled receptors) flip-flop lipids and chemical biology tools to discover transporters that have eluded molecular identification.

Many of our experiments are done using yeast (*Saccharomyces cerevisiae*) as a model system, where we take advantage of genetics approaches. We also make use of mammalian cells (for example, HEK293 cells, which we use for protein expression) and *in vitro* approaches, using synthetic components (for example, purified proteins reconstituted into membrane vesicles).

ENVIRONMENT. Weill Cornell is part of a Tri-Institutional nexus with The Rockefeller University and Sloan Kettering Institute. The three institutions are across the street from each other in Manhattan (New York City), creating an invigorating environment for biomedical research.



CONTACT: Prof. Anant Menon

Department of Biochemistry and Biophysics, Weill Cornell Medical College
1300 York Avenue, New York, NY 10065, USA

Email: akm2003@med.cornell.edu