

**Postdoctoral position at San Diego State University
Department of Chemistry and Biochemistry**

We are looking for a highly motivated individual to start immediately in a NIH-funded postdoctoral position to study structure and mechanisms of transfer-RNA modification enzymes using biochemical and X-ray crystallographic methods. Prof. Manal Swairjo's group focuses on structural, functional and mechanistic characterization of tRNA and DNA modification enzymes and enzyme complexes, and related fundamental problems in molecular evolution and catalysis. The laboratory is part of a long-standing multi-institutional consortium focused on studying the biosynthesis and functions of the hypermodified nucleotides of transfer-RNA and understanding their roles in translation.

The postdoctoral position will focus on elucidating the molecular mechanisms underlying queuosine modification of tRNA in eukaryotes using X-ray crystallography, biochemical and biophysical methods. The candidate will be responsible for cloning, overexpression, purification, biochemical characterization, crystallization, and X-ray crystal structure determination of protein and protein-RNA complexes, and mutagenesis toward structure-function analysis and elucidation of enzyme mechanism. The researcher is expected to carry out experiments from molecular biology to a fully refined structure, and complement structural data with biochemical and biophysical assays. The candidate will interface with the PI and team of collaborators to complete functional and mechanistic interpretation of results.

The candidate should have a Ph.D. degree (in biochemistry, biophysics, structural biology or related area). Experience with basic molecular biology, protein and RNA expression and purification, and strong oral and written communication skills are required. Prior experience in macromolecular X-ray crystallography is desired. This is a full-time position with a competitive salary and fringe benefits.

To apply: <https://www.linkedin.com/jobs/view/1280936337/>
or send CV to mswairjo@sdsu.edu.

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