Postdoctoral Fellow – RNA biology and RNA chemical modifications (Whipple Lab, Harvard University)

Multiple postdoctoral positions are available in the Whipple Laboratory in the Department of Molecular and Cellular Biology at Harvard University to study the molecular functions of small nucleolar RNAs (snoRNAs), with a particular focus on orphan snoRNAs in neuronal systems.

Our lab investigates gene regulation in the mammalian brain, with an emphasis on epigenetic regulation in the context of genomic imprinting. A major focus of current work is a large and poorly understood class of RNAs known as orphan snoRNAs, which lack defined molecular targets despite their conservation and, in some cases, highly specific expression in the brain. Using approaches such as chimeric eCLIP, we are defining RNA–RNA interactions at scale and uncovering unexpected roles for snoRNAs in RNA processing and translational regulation. These studies address a major unresolved problem in RNA biology and provide an opportunity to discover new mechanisms of gene regulation.

The successful candidate will lead projects aimed at identifying the targets and molecular mechanisms of neuronally expressed orphan snoRNAs. This work will integrate transcriptome-wide mapping of RNA–RNA interactions, CRISPR-based perturbation approaches, and functional assays to define how snoRNAs engage RNA targets and regulate gene expression at the post-transcriptional level.

We are particularly interested in candidates with a strong experimental background in RNA biology in mammalian systems. Experience with high-throughput sequencing techniques (e.g., CLIP-seq, RNA-seq, Ribo-seq) and familiarity with or interest in computational analysis of sequencing data are highly desirable.

Applicants must have recently obtained a Ph.D. in a relevant field and demonstrated research productivity through peer-reviewed publications. Strong written and oral communication skills are essential. Candidates with interests at the interface of gene regulation, computational biology, and neurobiology are especially encouraged to apply.

The Whipple Lab provides a collaborative and interdisciplinary environment with access to state-of-the-art genomics, imaging, and computational resources. Postdoctoral fellows are encouraged to develop independent research directions and will be supported in career development, including fellowship applications and transition to independent positions.

Application Instructions:
Applicants should submit a CV, a brief cover letter describing previous research experience and future interests, and contact information for 2–3 references via email to amanda_whipple@fas.harvard.edu.

Contact:
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