

Available Postdoc Position

RUA

Position ID Number	100021
Supervisor Name	Elena Rivas
Supervisor Title	Senior Research Fellow
Phone Number	
Supervisor Email	elenarivas@fas.harvard.edu
Lab Website	http://rivaslab.org/
Affiliated Institution	Harvard University
Contact Name	Debra Maddalena
Contact Title	Administrator
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Contact Phone Number	
Date of Best Consideration	8/1/22
Application Close Date	12/31/22
Anticipated Start Date	9/1/22
Job Website	https://academicpositions.harvard.edu/postings/11360
Job Location	Cambridge, MA
Is remote work possible?	No
CIP Codes	26 - Biological and Biomedical Sciences 11 - Computer and Information Sciences 30 - Multi/Interdisciplinary Studies

The team of Dr. Elena Rivas has an NSF-funded postdoctoral position available for up to 3 years, in the Department of Molecular and Cellular Biology at Harvard University. We are seeking postdocs in computational biology working at the interface of probabilistic and evolutionary models interested in remote homology problems.

Job Description

The research project aims to bring homology detection to the next level by integrating probabilistic evolutionary models in order to transfer the learned homology models trained on present-day data into the realm of unseen remote homology or to reconstruct ancestral sequences. By tuning to more divergence, the evolved models may reveal new homologs that cannot be detected by current models expanding the phylogenetic range of a gene; and synthesized divergent sequences may suggest homologies that should be there, but they are not, thus revealing clade-specific genes. Conversely, reconstruction and comparison of ancestral amino acid sequences may reveal homologies that cannot be detected in present-day proteins establishing homologies between currently assumed disconnected protein families.

The position is available any time after July 1, 2022.

Required Qualifications

A Ph.D. is required. Optimal candidates will have an understanding of probabilistic and evolutionary models for genomics, as well as a solid coding background. Candidates are also expected to carry an independent research program, as there will be ample room for following their own ideas. Candidates from diverse and non-traditional backgrounds are encouraged to apply.

Desired Qualifications

Minimum Monthly Salary \$0

Maximum Monthly Salary \$0

Special Instructions for Applicants

Letters of recommendation are not required at the time of application, however letters will be collected for finalists. Candidates should submit with their application contact information for two to three references from experts at the ladder faculty ranks or highly accomplished senior researchers from corporations or research institutes.

Opportunities for teaching? No

Opportunities for supervision/mentoring? Yes

Opportunities for community outreach? No

Position keywords

computational biology

evolutionary models

genomics

coding
