



Bioinformatics – Astrobiology Postdoctoral Fellow – Institute for Astronomy, University of Hawai'i Manoa

The Institute for Astronomy (IfA) invites applications for a postdoctoral fellowship in evolutionary bioinformatics to work with the University of Hawai'i's NASA Astrobiology Institute team (see <http://www.ifa.hawaii.edu/UHNAI/>). Our team maintains an innovative and multi-disciplinary research environment linking astronomical, biological, chemical, and geological sciences to investigate the origin, history, distribution and role of water as it relates to life in the universe. The program centers around interactions with an interdisciplinary group of postdoctoral fellows.

We seek an individual to undertake a mentored research program that studies the evolution of genetic coding through analysis of protein folds and their amino acid composition. This work will involve simulating molecular evolution of protein-coding genes and the protein structures that they produce. The successful applicant will have experience in protein fold prediction (protein threading algorithms, homology modeling or alternatives). Experience in automated queries of the SCOP and CATH databases (or equivalents) and a general competence in bioinformatics programming (i.e. scripting languages such as Perl) will be strongly preferred. Experience with XML database development would be ideal. A background familiarity with the processes of molecular evolution would be advantageous, but the evolutionary and astrobiology context for this work can be part of the training that you will receive.

The Fellowship is for one year and may be renewable for another year assuming satisfactory progress and continued availability of funds. The fellow will receive a stipend of approximately \$5,000 per month, a small relocation allowance and basic research costs.

Minimum qualifications include a Ph.D. in bioinformatics or a related field, and evidence of research-experience relating to bioinformatics analysis of protein sequence/structure relationships (e.g. publications). Education and public outreach is an integral part of the Astrobiology program and experience with or interest in E/PO will be considered positively in an application.

Further details about the bioinformatics research projects being carried out within the UH Astrobiology effort can be obtained from Dr. Stephen Freeland (freeland@umbc.edu).

To Apply, please submit the following:

- Contact information - name, email, phone(s), fax, address.
- Current position and location
- Date of Ph.D and where and what field
- Date available if selected for Fellowship.
- If non-US citizen, visa status (note: funding only allows support for fellows on J1-visas)
- Current CV and Bibliography
- Letters of recommendation – Please provide the names, addresses and phone numbers of 3 people we may contact for letters of recommendation.

Application materials can be sent (preferably by email) to:

Via snail mail to: Stephen Freeland, Institute for Astronomy, 2680
Woodlawn Drive, Honolulu, HI 96822.

Via e mail to: freeland@ifa.hawaii.edu

Via fax to: NAI Postdoc application, Fax no. (808) 956-4644

Applications will be reviewed beginning at the end of July 2010 and will remain open until the Fellowship is filled.