

Fellowship Program / Description

OVERVIEW

The Stanford Center for Computational, Evolutionary and Human Genomics (CEHG) was founded with the recognition that the rapidly growing quantity of genomic data at all levels of taxonomic organization—from cells in an individual, to individuals within a species, to whole ecological communities—represents a critical challenge for 21st-century biology. Novel computational, experimental, statistical, and theoretical approaches that will facilitate the collection, analysis, and interpretation of genomic data will be fundamental for basic biological understanding and for the application of genomics in such fields as agriculture, biotechnology, ecology, evolution, medicine, and population sciences.

As part of its larger set of objectives, the Center aims to deepen interactions among labs on the Stanford campus, enhance the training of Stanford students and postdoctoral scholars, recruit outstanding trainees to Stanford labs, and support trainee research activities. The Center seeks to build an intellectual community in which member faculty and trainees work together to enrich the local scientific and training environment. The CEHG Fellowship Program is the centerpiece of the Center's approach to achieving this goal.

We seek outstanding graduate and postdoctoral applicants performing research in any area of computational, evolutionary, or human genomics within Stanford CEHG member labs. Supported research areas are broadly interpreted as any field that connects to these areas of genomics and that spans the research interests of member faculty.

Fellowship support is centered on the transition from graduate school to postdoctoral fellowship. This period is important for trainees as they seek to develop long-term research interests and professional identity and to deepen their professional networks. However, relatively few avenues for support are available for trainees at this stage, as many funding opportunities for graduate training focus on the early part of the graduate school experience, and many postdoc funding opportunities require the research relationship with the postdoctoral mentor to be well established. We seek to address this gap in the funding environment.

To enhance trainee experiences at the graduate-postdoc transition, we provide support in a number of forms to graduate students at the conclusion of their degree and beginning postdoctoral fellows.

First, trainees receive financial support during the transition period, to support completion of their graduate degree or to launch their postdoctoral work. The size of the fellowship will depend on the availability of funds. Ph.D. students can expect support for one or possibly two quarters. The amount of support expected to be available for postdoc support in this year's cycle is around \$15,000 per fellow.

Second, fellows are provided with opportunities to lead and participate in scientific activities in the Center, with the aim of advancing their own research, enhancing their professional skills, and developing meaningful scientific relationships with Center faculty and other trainees.

ELIGIBILITY

Predoc trainees: Predoc applicants must be Stanford students in a PhD program (or advanced degree equivalent) who are performing research in any field of computational, evolutionary, or human genomics. Applicants must be completing their degree under the supervision of a faculty member on the current member roster of the Center. In addition, applicants for fellowships for the 2021-22 year must be planning on a graduation date no later than the end of summer quarter 2022. Applicants completing their degree under formal co-supervision by two faculty members are eligible if at least one supervisor is on the current Center member faculty

roster. MD/PhD applicants who are seeking support for the final year of the PhD and who meet all other eligibility criteria are also eligible.

Postdoctoral trainees: Postdoctoral applicants can be either graduate students, at Stanford or elsewhere, interested in pursuing postdoctoral research under the supervision of a faculty member on the Center faculty roster, or current postdocs. For current postdocs, eligibility is limited to candidates who have been in their postdoctoral experience in the proposed lab for no longer than one year at the application deadline. Current Stanford graduate students seeking postdoctoral support at Stanford are eligible if they will be completing their postdoctoral work in a different lab from their graduate lab.

Both predoctoral and postdoctoral trainees: Predoctoral and postdoctoral applicants who meet all other criteria but whose faculty supervisor is not a member of the Center member roster at the time of the fellowship application deadline are not eligible; however, Stanford faculty can apply for membership at any time. Both domestic and international candidates are permitted to apply. Candidates who have obtained fellowships for the relevant time period from an outside source are ineligible.

APPLICATION MATERIALS

Applications should be submitted by email to stanfordcehg@stanford.edu. Applications must include the following components:

Predoctoral trainees.

- 1) Curriculum vitae
- 2) Graduate transcript
- 3) Nominating letter of recommendation from a Center faculty member
- 4) At least two additional faculty letters of recommendation
- 5) Title and abstract of the dissertation
- 6) Statement of research interests, experience, and fellowship goals (2 pages max, including figs and refs)

For predoctoral applicants, the nominating letter is from the primary advisor and is expected to comment on the applicant's plan to complete the graduate degree by the end of summer quarter 2021. If the student will be taking longer than 6 years total to complete the degree, the advisor letter is expected to comment on the reasons underlying this timeline.

Postdoctoral trainees.

- 1) Curriculum vitae
- 2) Graduate transcript
- 3) Nominating letter of recommendation from a Center faculty member
- 4) At least two additional faculty letters of recommendation
- 5) Statement of research interests, experience, and fellowship goals (2 pages max, including figs and refs)

For postdoctoral applicants, the nominating letter is from the Stanford faculty member with whom the applicant proposes to perform postdoctoral research. The nominating letter is expected to comment on the applicant's interest in joining the member lab. It is also expected to comment on a plan to support the applicant beyond the one-year period of the fellowship.

Both predoctoral and postdoctoral trainees: The statement of research interests is expected to include the applicant's current research as well as the proposed research for the fellowship year. As part of the statement, applicants are expected to specifically comment on the ways in which they plan to participate in Center activities and to support the Center's and program's goals. Although proposed research projects need not involve more than one lab, applicants are encouraged to describe their plans for interaction with additional faculty beyond their primary supervisor.

SUBMISSION OF APPLICATIONS

The program application deadline will be announced annually. For the current application period, applicant materials must be received by **April 30, 2021**. Recommendations are due **April 30, 2021**. Applicants should prepare all application materials except for the nomination letter and supporting recommendation letters. Students are responsible for arranging that recommendation letters be sent separately. All materials should be submitted by email to stanfordcehg@stanford.edu. Applicants are responsible for ensuring that nomination and recommendation letters are received by the deadline.

EVALUATION PROCESS

Applications are evaluated by a committee designated by the CEHG Executive Committee. Applications are evaluated on the basis of the following criteria:

- 1) Excellence of the candidate
- 2) Excellence of the proposed research and suitability of the research to Center goals
- 3) Feasibility of degree completion by the end of summer 2021 (for predoctoral applicants)
- 4) Commitment and suitability of the mentor lab (for postdoctoral applicants)
- 5) Expected contributions of the candidate to Center activities

As CEHG Fellows contribute to the development of a growing community within the Center, efforts will be made to represent a diversity of research areas within the collection of awarded fellowships.

Trainees are designated as fellows for the duration of a full year, starting with the autumn quarter of their appointment.

Predocctoral trainees: Predocctoral trainees receive full support for TGR tuition, health insurance, and stipend for one or two quarters during the fellowship year. Upon acceptance of the fellowship, trainees will be asked for information about the one or two quarters of the fellowship year for which they would like support.

Postdoctoral trainees: Postdoctoral trainees receive around \$15,000 support for the fellowship year. Departments are welcome to set alternative funding start dates with prior approval from CEHG.

Awardees will be expected to participate in Center events and activities in ways that encourage their advancement as developing professionals in the field. For example, fellows serve as a trainee group provided with opportunities to present their research, suggest visits of outside speakers, participate in speaker visits, interact with center faculty in an informal setting, and organize reading groups and seminars. Trainees can be expected to be called upon by Center faculty to participate in various ways throughout the fellowship period and are encouraged to propose new Center activities.

Trainees are required to acknowledge the fellowship on publications produced during the fellowship. The Center is invested in the professional success of its fellows, and expects to maintain longer-term contact with fellows after completion of the fellowship period.

CONTACT INFORMATION

Program Manager: Lawrence Bond, 650.804.6625, stanfordcehg@stanford.edu

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