Purpose:
Predoctoral Fellowships have been established through an NIH-supported Training Grant (T32-HD007505), entitled, “Training Program in Organogenesis”. The goal of this Fellowship Award is to provide up to two years of support to PhD or MD/PhD students who have achieved candidacy and who wish to undertake a research project in the field of organogenesis. Interdisciplinary projects (crossing departmental or school lines) are highly encouraged. Criteria used to evaluate applications include the strength of the mentors, strength of the student (as evaluated by letters and CVs), the interdisciplinary nature of the project, its feasibility and the likelihood of a successful outcome and the degree to which the project fits the goals of the Center for Cell Plasticity and Organ Design.

Organogenesis Mission Statement:
The mission of the Center for Cell Plasticity and Organ Design is to provide an infrastructure for the study of organogenesis at the University of Michigan. The field of Organogenesis unites research in the clinical, basic science, and applied arenas with a common, directed goal: To understand the basic mechanisms by which organs are formed and maintained and to use this knowledge to regenerate or replace damaged or diseased organs. The following research focus areas have been defined:

- Stem Cell Biology
- Organ Development
- Tissue Engineering and Organ Regeneration/Replacement
- Organ Injury and Disease

Eligibility:
- The student must be registered in a Ph.D. program at the University of Michigan.
- Student must have attained full candidacy by the start date of the training year (usually September).
- The student must outline a research project that fulfills the goals of this program.
- The student must be a U.S. citizen or permanent resident.

Note: Applicants who have not yet successfully passed preliminary examination of their graduate program to pass to candidacy are not eligible. Applicants who expect to have passed prelims before September 1st are eligible to apply. However, funding is contingent on passing prelims and achieving candidacy.

Mentor Requirements:
The primary mentor must be a member of the Center for Cell Plasticity and Organ Design. Primary faculty mentors must have an active research program with sufficient funds to provide continuous support for a trainee. Potential faculty mentors who are not already listed as Organogenesis training grant mentors may apply for mentorship simultaneously with the NIH fellowship submission (please contact organogenesis@umich.edu for an application). A secondary mentor is optional. The secondary mentor must hold a faculty appointment at the University of Michigan.

- The mentor and co-mentor must provide a recent NIH style Biosketch and Other Support pages.
- The mentor(s) must provide a letter describing:
  - The trainee’s strengths and appropriateness for the award.
  - The involvement of the laboratory/laboratories in the training program.
The mentor(s) must state what aspects of the training they will be involved in, describing the elements of the laboratory setting or areas of expertise that are important to the success of the project. (If more than one mentor, why is each mentor involved? How will the trainee benefit from the interaction with the two mentors rather than one? The procedures that will be followed by the mentor(s) to monitor trainee progress and deal with unexpected findings.

- Recommendations for composition of the mentoring committee for the candidate (suggest two faculty mentors and state why they are appropriate).

Trainee Requirements:
In addition to the letters from each mentor, the student must solicit two additional letters of recommendation. The letters should address the student’s academic qualifications, intellectual strengths and probability for success in carrying out a research project in Organogenesis. All recommendation letters must be received by the application deadline date. The student should submit an updated curriculum vitae and graduate transcript along with this application.

Project Description:
A description of the project and its interdisciplinary components should be prepared by the trainee. The project must fall into one or more of the four core research areas designated under the umbrella of the Training Program in Organogenesis (see Mission Statement). The project description should be no longer than 4 pages (3 pages of text plus 1 additional page for figures and tables) using standard NIH formatting (0.5 inch margins, single spaced, 11 point Helvetica or Arial font) and should include the following sections:

- Specific Aims (1 page)
- Significance/Scientific Rationale and Innovation (approx. 0.5 page)
- Research plan, including experimental Approaches and Limitations (approx. 1.5 pages)
- Figures and figure captions and/or tables (1 page)
- Complete references should be attached, but will not be counted as part of the page limit.
- Optional: Copies of relevant publications by the trainee may be submitted as an appendix.

Note: In preparing reference lists, article titles must be included. Failure to adhere to these requirements will lead to exclusion of the application.

Candidate Selection:
After initial review of all candidates, the Operating Committee will select several promising candidates for oral interview. Trainees should be prepared to present 3-5 slides that can succinctly explain the rationale and project overview. A short question and answer period will follow. Final selections will follow the interview process.

Successful applicants will be required to:

- Complete necessary Responsible Conduct in Research training, or take a refresher course (i.e.PIBS 503: Research Responsibility & Ethics and PIBS 504: Rigor & Reproducibility Training)
- Attend monthly trainee meetings.
- Present one research talk.
- Attend and participate in the Organogenesis Seminar Series, NIH T32 Seminar Series and the Professional Development Sessions.
- Complete a yearly Individual Development Plan with Mentor.
- Present a poster at the International Symposium on Organogenesis (Fall 2021)
- Complete a Progress Report at the end of the first year of training (documented progress is required for appointment in the second year of training)
- Participate in community outreach (e.g., FEMMES, MI DNA Day, etc.) by attending one event/activity per semester. This entails trainee identifying highly engaged students during the outreach initiative and by encouraging the select students to participate in, but on limited to organizations and opportunities such as, Developing Future Biologist.

For more information, email: organogenesis@umich.edu