Yale Center for Clinical Investigation
Multidisciplinary Post-Doctoral Training Program

Based on the success of our Multidisciplinary Pre-Doctoral Training Program in Translational Research (MPDTP), last year Yale Center for Clinical Investigation (YCCI) elected to create a new program for post-doctoral trainees which would complement our other successful training programs.

The YCCI Program will be open to ALL applicants training across the full span (T1-T4) of clinical and translational research. All applications will be accepted and reviewed based on scientific merit.

All Applicant category: Multidisciplinary Post-Doctoral Training Program in Translational Research

The new Multidisciplinary Post-Doctoral Training Program in Translational Research will provide a new opportunity for Yale post-doctoral trainees in the Schools of Medicine, Nursing, Public Health, Biomedical Engineering, Statistics and Data Science, Computer Science, and Applied Math to receive up to 2 years devoted to training across the full span (T1-T4) of clinical and translational research. The Multidisciplinary Post-Doctoral Training Program in Translational Research will have the same goals as the three existing TL-1 programs, namely to identify and support a representative and diverse group of outstanding trainees in each of the programs who specifically want to pursue careers in clinical and translational research; to train them in the use of state-of-the-art research tools; to enhance their abilities to work collaboratively in complex multidisciplinary research teams; to provide outstanding mentoring (including concordant mentoring) by experienced and diverse faculty that support the trainee’s long-term professional development. The program will tap into Yale’s established educational leadership team whom has diverse backgrounds in clinical and translational research, as well as expertise in the evaluation and dynamic reshaping of medical education programs. The leadership will work directly with both the trainees and their mentors to promote multidisciplinary team-based research that addresses complex medical and/or societal aspects of health and healthcare delivery in the US and around the world. Awards will be for one year with the potential to request a second year of support.

Areas of Special Consideration:
The YCCI Program will be open to all applicants training across the full span (T1-T4) of clinical and translational research. All applications will be accepted and reviewed based on scientific merit; however, some priority will be given to investigators who:

• Pursue research in clinical and research informatics;
• Pursue Lifespan research: or
• Are underrepresented minorities
Special emphasis: YCCI Multidisciplinary Post-Doctoral Program to Promote Clinical & Research Informatics

YCCI is pleased to announce the new Clinical & Research Informatics trainee program open to post-doctoral candidates from across all fields of medicine with many different potential areas of practice and study. Among the many subspecialties that have emerged within medicine, Clinical Informatics is an unique blend of knowledge and application of medical, information, and computer science with application towards healthcare delivery. With the widespread adoption of electronic health records and supporting systems, the importance and need for physicians trained in Clinical Informatics has dramatically grown. Similarly, the application of Informatics to support clinical research is a burgeoning field in need of more well-trained knowledge experts. Both Clinical and Research Informatics are essential components to the daily practice and regular research activity of every medical specialty at the Yale School for Medicine.

The selected candidate(s) will be assigned mentors from, and embedded within, the Clinical Informatics Physician Leadership and/or the Joint Data Analytics Team (JDAT) for the School of Medicine and Yale New Haven Health System. They provide the clinical and research informatics leadership for all of the departments at the School of Medicine as well as the six hospital campuses of the health system. As a result, the Clinical and Research Informatics trainee program at Yale will have a significant impact on patient care in every medical department, as well as on medical education at the undergraduate and graduate levels, and the translational medical research being conducted in the School of Medicine and other colleges throughout the Yale. This award is intended to support post-doctoral trainee, who after completion of the program intends to practice medicine in addition to a career in clinical and/or research informatics. Therefore, some individuals may decide to continue to practice medicine within the trainees’ area of medical specialty throughout the program. In such cases, the trainees’ clinical activity will be coordinated between the YCCI and the clinical department. As part of the review process, an emphasis will be placed on career development and mentoring plans by successful senior clinical faculty capable of understanding the challenges of integrating very active clinical care and robust translational research portfolio.

For the purposes of this RFA, YCCI will use the definition of Clinical Informatics and Clinical Research Informatics as defined by American Medical Informatics Association (AMIA). Clinical Informatics is the application of informatics and information technology to deliver healthcare services and is also referred to as applied clinical informatics and operational informatics. Similarly, Clinical Research Informatics is considered by AMIA to involve the use of informatics in the discovery and management of new knowledge relating to health and disease, including management of information related to clinical trials and other research. AMIA considers informatics when used for healthcare delivery to be essentially the same regardless of the health professional group involved (whether dentist, pharmacist, physician, nurse, or other health professional). Clinical informatics includes a wide range of topics ranging from clinical decision support to visual images (e.g. radiological, pathological, dermatological, ophthalmological, etc); from clinical documentation to provider order entry systems; and from system design to system implementation and adoption issues. https://www.amia.org/applications-informatics/clinical-informatics

The program is designed to provide the trainee with a foundation in Clinical and Research Informatics, as well as the opportunity to focus on several areas of specific interest in which they will obtain a deeper understanding.
Educational Program:
The education program for the Clinical Informatics program includes these main educational components:

- **Operational rotations**: The trainee will collaborate with clinical and research leadership at the Yale School of Medicine and Yale New Haven Health System, faculty, healthcare providers, information technology application teams (including, but not limited to, Epic, OnCore, and ancillary systems). The trainee will participate on leadership committees on active short and long-term projects throughout the medical practice and health system to improve clinical and research care. Projects for successful candidates will be broad-based across the healthcare system and may include projects within their specific areas of medical practice and/or interest. A focus on the study and development of informatics solutions to support and improve clinical and research care delivery within existing information technology systems, and thus more highly replicable, is encouraged.

- **Research rotations**: The fellows will undertake informatics research in one or more areas of interest under the mentorship of our faculty. It is expected that this research will be presented at national meetings and/or submitted for publication in peer-reviewed journals. The trainee may also have the opportunity to rotate to external institutions engaged in clinical and research informatics to broaden the experience and foster inter-institutional collaboration and cross-pollination of ideas and strategies.

- **National meetings**: Attending national meetings helps trainees to understand the scope, scale and current thoughts in Clinical and Research Informatics, and provides them the opportunity to network with informatics colleagues. Trainees are expected to attend at least one national informatics meeting during the program, and are encouraged to present their work at these conferences.

Special emphasis: YCCI Multidisciplinary Post-Doctoral Program to Promote Lifespan Research

YCCI is pleased to announce the new Lifespan trainee program open to post-doctoral candidates from across all fields of medicine with many different potential areas of practice and study with an interest in lifespan research perspective.

Lifespan research brings a developmental perspective to questions of individual differences in aging, susceptibility to diseases, the impact of early stressors and adversity across the developmental process, and the intergenerational transmission of risk for diseases. Lifespan research aims to understand the developmental origins of disease to better achieve earlier diagnosis and intervention, and lessen the impact of disease as people age. Lifespan research also seeks to recognize risk factors in childhood and adolescence that increase the risk for diseases of either greater severity or earlier expression in adulthood. Lifespan research is inherently interdisciplinary in that questions may bring together, for example, researchers in childhood diseases and those focused on aging.

The selected candidate(s) will be assigned mentors from, and embedded within, the YCCI Lifespan Program, which was developed to bring together investigators from diverse disciplines to study important lifespan research questions that are relevant to clinical medicine across the developmental process.
**Special emphasis: YCCI Multidisciplinary Post-Doctoral Program to Promote Diversity in Translational Research**

The YCCI is committed to the development and support of a research workforce that engages the ideas, creativity, and innovation from all diverse backgrounds and segments of society. YCCI seeks to promote diversity in all of its training and research programs, and to increase the participation of underrepresented groups. We have therefore decided this year to launch a new initiative focused on the further promotion of diversity in translational research.

YCCI announces this request for applications for the YCCI Post-Doctoral Program to Promote Diversity in Translational Research, which will provide support to under-represented post-doctoral trainees. Translational research includes clinically-based, laboratory-based, population-based or community-based research that is focused on understanding or treating human diseases. The goal of the program is to attract outstanding trainees who are members of populations that are under-represented in the biomedical research workforce and who want to pursue careers in any type of translational research. The program provides training in the use of state-of-the-art research tools; enhances the abilities of the trainees to work collaboratively in complex multidisciplinary research teams; and provides outstanding mentoring (including concordant mentoring) by experienced and diverse faculty that support the trainee’s long-term professional development, including connecting diverse individuals to supportive networks; and providing resources for retention and eliminating barriers for career transition. Awards will be for one year with the potential to request a second year of support.

**Specific Requirement in this:**
- Applicants must be a member of a population identified by NIH as under-represented in the U.S. biomedical, clinical, behavioral and social sciences research enterprise (see [NIH NOT-OD-18-210](https://www.nih.gov/funding/notice-of-special-interest-nih-not-od-18-210)).

**All Application Details:**

Due date for applications in all areas: March 11, 2019 at 5:00 PM
Earliest anticipated start date: May 27, 2019 or June 3, 2019
Applications must be submitted online via the link available at:
[https://medicine.yale.edu/ycci/education/internshipaddprograms/postdoc/postdocrfa.aspx](https://medicine.yale.edu/ycci/education/internshipaddprograms/postdoc/postdocrfa.aspx)

**Requirements:**
- Applicants will need to meet NIH eligibility requirements for appointment to NRSA training grants. In particular, applicants must be US citizens or permanent residents at the time of application.
- Yale post-doctoral trainees in the Schools of Medicine, Nursing, Public Health, Biomedical Engineering, Statistics and Data Science, Computer Science, and Applied Math are eligible to apply.
- Applicants may not have received more than two years of previous support through a NIH post-doctoral training grant.
- The applicant’s primary mentor must hold a full-time faculty appointment at Yale University.
- Awards will include the following support:
  - Stipend support at the prescribed NIH post-doctoral level. See NIH notice [NOT-OD-19-036](https://www.od.nih.gov/sfnd/od-news-036.html) for current stipend levels.
- $4,500 in tuition
- $10,850 for healthcare insurance
- $1000 for travel to conferences

- Mentors/Departments will need to commit to covering any additional costs of the trainee.

**Additional Terms of the Award:**
- Recipients must be prepared to start the award on time, which means that all required approvals (IRB, IACUC, etc.) must be obtained by the start date of the award.
- Recipients will be required to complete training in the responsible conduct of research, appropriate for their career stage, that complies with NIH standards regarding format and range of topics to be covered.

**Application Format:**

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**Other Application Instructions**

1. Cover page. Please use the cover page template provided below. If applicable, note your area or areas or special emphasis (Clinical and Research Informatics, Lifespan Research, Underrepresented minority background).

2. Research Abstract. A succinct description of your proposed research experience while participating in this program. To be completed by applicant.

3. Statement of Purpose. This narrative should provide background information relevant to your past research experience and career goals, your mentor or mentors and relevant elements of their research environment, and how your mentor or mentors will support your career growth. To be completed by applicant.

4. Applicant’s NIH-format biosketch (using the latest NIH format). See instructions and an example here: [https://grants.nih.gov/grants/forms/biosketch.htm](https://grants.nih.gov/grants/forms/biosketch.htm). Please use the “fellowship” version and use the post-doctoral fellowship sample as a model. To be completed by applicant.

5. Budget justification. Describe plans for use of tuition and travel funds, and any other proposed spending from the trainee-related expenses category. To be completed with the assistance of the applicant’s business office.

6. Primary mentor’s letter of support. This letter should provide evidence of your mentor’s commitment to work with you to support your participation in the program and your future career growth. To be completed by the primary mentor.

7. Letters of reference. To be completed faculty with whom you have worked.

8. Department letter of commitment. This letter, signed by your department chair and business office, should describe and commit to provide any costs related to you or your research not
provided through this program, including stipend, health insurance or tuition costs over and above those provided, and research costs. The letter must identify sources of additional funds.

Questions:
For questions about the application process and eligibility, please contact Thomas T. Fogg (Thomas.Fogg@yale.edu). For questions related to the science of the project please contact Lloyd Cantley (Lloyd.Cantley@yale.edu), Eugene Shapiro (Eugene.Shapiro@yale.edu) or Rajita Sinha (Rajita.Sinha@yale.edu)