

## TRANSFORM TL1 Training Program for Postdoctoral Fellows Columbia University

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### *INFORMATION AND APPLICATION PROCEDURES AND FORMS*

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**PRIORITY DEADLINE:  
DECEMBER 14, 2018**

**ANTICIPATED AWARD START DATE:  
JULY 1, 2019**

#### ***I. Background.***

On September 29, 2006, Columbia University became one of the first twelve institutions to compete successfully for the new Clinical and Translational Science Award (CTSA) from the National Institutes of Health. Through the CTSA, the NIH has launched a new national consortium that seeks to transform the conduct of clinical and translational research, ultimately enabling researchers to provide new and effective treatments more efficiently and quickly to patients. A key component of the CTSA at Columbia is the TRANSFORM TL1 Training program for Postdoctoral Fellows. The TRANSFORM TL1 award combines didactic training, mentoring, exposure to multidisciplinary research, and ongoing evaluation to prepare young investigators for an academic research career that can contribute to developing innovative approaches to disease prevention and treatment that takes into account individual differences in people's genes, environments, and lifestyles.

#### ***II. Award Provisions.***

With TRANSFORM TL1 support, postdoctoral candidates will participate in an integrated didactic and mentored training program. Postdoctoral candidates are required to dedicate full-time to research and training related to precision medicine. Precision Medicine includes research related to, but not limited to, lifestyle, environment, or genetics. The CTSA support includes funds for stipend (stipend level is determined by the number of full years of relevant postdoctoral experience when the award is issued), travel expenses, training related expenses such as supplies and health insurance, and tuition and fees in accordance with NIH policy, and therefore, may be subject to change.

Trainees are also required to complete at least one externship. Options include:

- **Entrepreneurship Coursework.** The Columbia Biomedical Accelerator aims to catalyze the advancement of biomedical technologies by providing funding, education, resources and mentorship to interdisciplinary teams of clinicians, engineers, scientists and students working to develop solutions to clinical unmet needs, with the ultimate goal of bringing innovative research out of the lab to benefit society. Project support is expected to serve as a bridge to commercial investment, with awards granted to perform specific tasks needed to validate a commercial hypothesis (vs. a scientific hypothesis). For more information, please visit: [www.columbia-coulter.org](http://www.columbia-coulter.org)
- **Dissemination and Implementation Science Training.** This externship will provide an opportunity to gain experience in the field of dissemination and implementation science through hands-on mentorship and research with faculty from the Columbia University Irving

Medical Center. Potential projects relate to the adaptation, implementation, and sustainability of evidence-based programs in real-world community and clinical settings.

- **Enhancing Partnerships and Productivity with Industry.** We have developed specific opportunities to provide our trainees with exposure to drug development and industry research, through engaging with industry partners (e.g. Regeneron, Merck, Janssen) that have worked closely with Columbia University investigators. We will create a day-visit program for our trainees to gain insight into aspects of drug development including discovery, validation, clinical development, medical affairs, and marketing.
- **Biomedical Entrepreneurship.** Our trainees will be required to attend 3 or more **Columbia Health Tech Assembly (HTA)** sessions and/or case competitions to learn about the process of interdisciplinary collaboration and engagement with venture capitalists:  
<http://www.healthtechassembly.com/>
- **Translational Therapeutics Boot Camp.** The **Translational Therapeutics (TRx) module** has developed a 6-week boot camp and additional seminar series to provide exposure to the drug development and commercialization process.
- **Other.** You have the option of proposing your own research externship. Please provide a detailed summary that addresses the following: Where and how often would you visit this externship location? Who would be supervising the externship? What are your goals for completing this externship? How would this externship enhance your current training?

Recipients of the TRANSFORM TL1 funding will be required to submit a written progress report during each year of the training, and may be contacted periodically to provide information on their research career.

### **III. Eligibility Criteria.**

- Applicant must be a U.S. citizen or permanent resident, and must hold a research or health-professional doctoral degree or its equivalent.
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- Applicant must have a **postdoctoral appointment** at Columbia University. It is acceptable to have a non-postdoctoral appointment at the time of the application, so long as the applicant has a postdoctoral appointment by the time of the award (July 1, 2019); ***this must be clearly indicated in the letter of support from the applicant's department chair.***
- Applicant must be able to devote a minimum of two years to the TL1 training program.
- Each applicant's department chair must provide a supporting letter guaranteeing that if awarded, the trainee will pursue their research training full time
- The applicant must not have a concurrent award from the NIH or other PHS funding.

### **IV. Further Application and Award Details.**

- Note that the typical duration of the TL1 award is 2 years, initially awarded as a one-year grant but renewable annually based on performance and renewal of the CTSA grant from NIH.

- The TL1 program places special emphasis on multidisciplinary and interdisciplinary research (see section VIII for definitions), which must be reflected in the research, training, and “team mentorship” plans. By “team mentorship,” we mean that each applicant must identify.
- **TL1 Mentors from at least two different disciplines** to supervise his/her research progress during the period of the award (see sections VIII and IX below for guidance). Additional consultants may also be named, as needed and appropriate. A proposed schedule of meeting times between the scholar and his/her mentors must be provided.
- Candidates who enter the program will take didactic courses related to precision medicine and career development. Scholars will need to fill out a non-degree application to take courses. We also welcome applications from candidates who are currently enrolled in but have not yet completed a research Master’s degree program. In all cases, applicants should describe how additional training will enhance their specific research program.
- Successful completion of the 1-credit course entitled “Responsible conduct of research and related policy issues” (G4010) is required of all TL1 scholars.
- Active participation in and attendance (80% or better) at the weekly POR Career Development Colloquium and monthly Precision Medicine Colloquium is a program requirement, as well as completion of all assignments.
- TL1 Scholars will be required to present oral progress reports 1-2 times per year and to submit a written report annually.
- Awardees will also be required to participate in at least one Externship opportunity.
- Each scholar and his/her mentors must attend periodic progress report meetings, and must also provide upon request written updates on the scholar’s academic career accomplishments and feedback on the program and mentorship, both during the program and throughout the scholar’s career.
- Scholars must work with administrators in their home departments as well as CTSA administrators to ensure successful management of TL1 salary and funds for the costs of tuition, research expenses, travel, and supplies.
- In order to receive a TL1 Award, scholars and their mentors must sign the “TL1 Compact” indicating their agreement to all TL1 Award requirements and expectations.

#### ***V. Application Information***

Each applicant must submit electronically the application form and its supplemental documents, which include:

- Current CV
- NIH Biosketch (version D)
- Externship Preferences
- Personal Statement
- 4-page Research proposal: The research proposal should represent a well-developed scientific initiative in clinical or translational investigation. Because of page limitations, the proposal does not require the full detail of an NIH grant, but must be thorough enough to be evaluated in terms of overall design, significance, statistical approach, and human subjects issues (see the application form for specific TL1 instructions, modeled after NIH research grant instructions). The proposed research must meet the NIH definition of patient oriented research, so that the

focus of the research can be translational, mechanistic, therapeutic, clinical trials-oriented, physiological, behavioral, or epidemiologic in nature.

- The names of 2 (or more) proposed multidisciplinary TL1 Mentors and proposed meeting schedule (see section VIII below for more on mentor selections)
- Three letters of recommendation (2 from primary mentors and 1 from the Department Chair)

The Application should be submitted by **5pm on December 14, 2018**.

### ***VII. Emphasis on Precision Medicine Research.***

The Postdoctoral Training Program aims to create the next generation of leaders in the development and application of precision medicine science and methods to improve public health. This new training program in precision medicine will train physicians/researchers to identify individual differences to help develop innovative approaches to disease prevention and treatment options. Precision Medicine includes research related to, but not limited to, lifestyle, environment, or genetics.

### ***VIII. Emphasis on Multidisciplinary and Interdisciplinary Research.***

The CTSA award, which funds the TRANSFORM TL1 program, seeks to promote multidisciplinary and interdisciplinary research initiatives. Consequently, applications that reflect a strong multidisciplinary or interdisciplinary flavor will be viewed very favorably. According to Patricia Rosenfield in her 1992 article in *Social Science and Medicine*, interdisciplinarity is “when researchers work jointly but from discipline-specific bases to address a common problem.” In contrast with multidisciplinary research, interdisciplinary research suggests a more deeply integrated collaboration, and not simply working in parallel, to address a research question of interest.

### ***IX. TL1 Team Mentorship.***

Each application must specify at least **two TL1 Mentors** from different disciplines (who may be from different schools, departments, or divisions) to oversee the candidate’s progress in precision medicine research. As the ideal TL1 candidate will propose science that is interdisciplinary, the mentors should be chosen to reflect the disciplines needed to gain independence in the proposed research area. For example, a lab-based researcher and an endocrinologist might be chosen to supervise a project on early diabetes drug development. The TL1 Mentors should be chosen from the large pool of senior investigators at Columbia who have established reputations in clinical/translational research and mentorship. The primary mentor must be a member of any department at Columbia University. The TL1 Advisory Committee will review the credentials of the proposed mentors for appropriateness. Criteria used in their review will include scientific productivity, grant-funding record, and mentoring history. If the committee decides that a mentor is unsuitable, the applicant may be required to meet with CTSA program leaders to discuss how to proceed. In some instances, the TL1 Committee may recommend that a more senior mentor join the mentoring team, or propose additional mentors. Because of the outstanding cadre of clinical/translational investigators at CUMC and its affiliates, we do not expect any difficulty in identifying excellent mentors.

A specific schedule for meetings between the scholar and mentors must be included in the application package. The strongest applications will specify frequent (e.g., weekly) team mentoring meetings in which all mentors meet simultaneously with the scholar. Meetings with other advisors/consultants are expected to take place less frequently. In addition, the TL1 Mentors must be available to report on the candidate’s progress to the full TL1 Advisory Committee at meetings and symposia 1-2 times per year. Finally, written feedback and evaluations are required periodically of both scholars and mentors.

***X. Miscellaneous Issues.***

- There is no need to present a formal budget; just be sure that you will have enough funds to do what you have planned.
- Appendices are not permitted.
- We reserve the right to request additional information at any point during the review process.

***XI. Application Procedures and Deadlines.***

The application can be accessed [here](#). The recommendation form can be accessed [here](#). The priority deadline is December 14, 2018.

Questions? Contact the Irving Institute Education Center at [ctsa\\_edu@cumc.columbia.edu](mailto:ctsa_edu@cumc.columbia.edu)