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NewYork-Presbyterian

COLUMBIA | ACCELERATING CANCER THERAPEUTICS
ACT

Accelerating Cancer Therapeutics (ACT)
Pilot Award Pre-Proposal Instructions

Herbert Irving Comprehensive Cancer Center

2024 - 2025

Discovery □ Compassion □ Innovation

cancer.columbia.edu

Accelerating Cancer Therapeutics (ACT) is a therapeutic development accelerator program focused on providing funding, education, partnership, and mentorship to Columbia Investigators, to advance novel cancer therapies from the lab to the clinic. A steering committee of academic and industry experts in the field of drug development will provide advice and project guidance. We work closely with Columbia Technology Ventures (CTV), the Irving Institute *Accelerate* Resource and Translational Therapeutics (TRx) pilot awards, and the Columbia Biomedical Technology Accelerator (BioMedX), to provide early-stage funding and project development resources to investigators with promising scientific ideas looking to advance their discoveries through the translational spectrum to where outside funding would be available for further commercialization.

The Herbert Irving Comprehensive Cancer Center (HICCC) is inviting Columbia University Faculty to submit pre-proposal applications for its annual ACT pilot awards. Investigators in all therapeutic areas (basic, translational, clinical, and population sciences) are encouraged to apply. Unique therapeutic targets or ideas with a clear path towards commercialization are of interest. Funding from this pilot award is intended to move projects forward to an inflection point of value (e.g. high throughput screen for hit to lead, dosing studies of small molecules including proteins and chemical compounds, assay development for target mechanism/engagement, pivotal small animal study, design of clinical study) so that they are eligible to explore later stage funding opportunities through Government or Foundation grants and/or industry partnerships. Applicants are strongly encouraged to present a complementary team comprising at least a basic scientist and a clinical scientist as part of the pre-proposal application.

APPLICATION PROCESS AND PROGRAM STRUCTURE:

Pre-Proposal Submission: The application process is multi-stage, starting with the submission of a pre-proposal. Applicants should submit pre-proposals for their cancer therapeutics projects via the Submittable portal, as described below.

Lab-to-Market Life Science Accelerator Boot Camp: Teams whose pre-proposals are selected will be invited to attend a Lab-to-Market Life Science Accelerator Boot Camp, which consists of interactive sessions, running from January through April 2025, that will aid in the preparation of the full-proposal submission. See below for full-proposal details.

At least one member of the project team (including graduate students and post-docs) must participate in the core boot camp sessions.

As an additional resource during the boot camp, we can assign graduate students (including MBA, engineering, and biotechnology students) who are enrolled in the course for credit to faculty-led project teams to help research the business case for their technology. Students are overseen and managed by the course instructors. Project team PIs are required to meet with their assigned students 2-3 times (outside of regular class time) throughout the boot camp to discuss their project and provide direction for the student research. In past cohorts, students have been an invaluable resource to team success. Teams accepted to the boot camp will have the opportunity to “opt-in” to confirm participation in this aspect of the program prior to kickoff.

Full Proposal Submission: Teams will submit full proposals in March 2025. These proposals will outline the budget target and feasible milestones for the one-year development project. Details of the full proposal application requirements and format will be provided later.

A subset of applicants with high-scoring full proposals will be invited to “pitch” their therapeutic solution to a panel of industry and academic experts. Teams selected for funding will receive the support of a mentorship team to guide project progression. Typically, the team will include the following members but

will be customized to the project needs:

1. The applicant clinical and basic scientists
2. A TRx/ACT Steering Committee member, Executive-in-Residence (XIR), or other Industry representative
3. A representative from Columbia Technology Ventures and/or Columbia's Clinical Trials Office

ELIGIBILITY:

- Principal Investigators must have a full-time Columbia University faculty appointment. Graduate students and post-doctorate trainees can act as project leads with permission from the principal investigators (PIs).
- Awardees who previously received funding **within the last three years (2020-2023) through this pilot award mechanism are not eligible** unless the proposed project supports a new type of grant submission compared to the prior award.
- Additionally, special consideration will be given to applications from Principal Investigators and/or teams of investigators from underrepresented groups.
- Projects must focus on translating a validated target toward commercialization and address a clear unmet medical need in cancer. Projects focusing on new treatments for cancer disease targets and new drugs for known targets and pathways in cancer are eligible.

New activities for currently known and/or approved cancer drugs (repurposing) should contact the Program Manager before applying to determine if their project is eligible.

AREAS OF INTEREST:

All cancer-related projects with a valid target in any stage of development with translational/ commercialization trajectory are encouraged to apply. Therapeutic strategies, including small molecules, biologics, novel delivery approaches, gene therapy, and cell therapeutics will be considered.

FUNDING:

At the conclusion of the Boot Camp core sessions, participants will be eligible to submit a full proposal application for a one-year pilot grant of up to $75,000 per project, based on the project's needs. Funding should be directed to a specific experimental milestone that will make the project eligible for follow-up funding through Government or Foundation grants and/or industry partnerships. We encourage that the majority of funds be utilized for project-specific study experiments; a smaller portion of the funds may be used towards post-doctoral researcher, graduate student, and technician salary. Funding may not be used towards PI, Co-PI or faculty salary.

PRE-PROPOSAL DIRECTIONS:

Pre-proposals are due **by 5:00PM ET on Tuesday, October 29, 2024**. Pre-proposals should be completed and submitted through an online form found at ColumbiaLSA.submittable.com. *Please allow time to create a Submittable account if you do not already have one.*

1) **Areas that will be covered on the online form include:**
   - Project Title
   - PI Name(s)
   - Brief Non-Confidential Abstract
   - Project Team
     A brief description of the clinical and basic scientists and their area of expertise. Please do not include full biosketches.
   - Project Description and Clinical Need
     A summary of the project, the current stage of development, and the plan to reach the next stage. Also, a brief description of the medical need and desired indication.
   - Competitive Landscape
     A brief description of the current standard of care and how this therapy, if developed, is an improvement over currently available treatment.
   - Project Needs
     Describe the resources and expertise needed to progress the project and the amount of funding required to support this next stage of development (max $75,000). Please include a high-level budget. Please indicate if a Columbia Core Lab is needed for the project.
   - Intellectual Property
2) *List if there are patents covering this idea or invention reports with Columbia Technology Ventures.* **Complete the online form for each section and submit it by 5:00PM ET on Tuesday, October 29, 2024 to ColumbiaLSA.submittable.com**

REVIEW PROCESS:

Pre-proposals will be reviewed for eligibility and feasibility. Full proposals will be reviewed by a panel of faculty (including HICCC leadership) and industry members with consideration of any potential conflicts-of-interest. Each application will be judged based on the translational and commercialization potential, scientific and medical merit, cancer focus, and feasibility.

NOTE: IRB/IACUC approval is not required at the time of the pre-proposal application but is required prior to receipt of funding.

NOTE: The pre-proposal will be confidential; however, we suggest you discuss the application and project with your Columbia Technology Ventures licensing officer prior to applying. If you do not have a licensing officer, please reach out to **techventures@columbia.edu**.

Please contact Program Director Dr. Emer Smyth (es3551@cumc.columbia.edu) or Senior Program Manager Dr. Sadiqa Quadri (skq1@cumc.columbia.edu) if you have any questions about the ACT pilot competition.

RECENT AWARD RECIPIENTS:

2023 – 2024

- James Manley, Sidhartha Mukherjee, Pedro Bak-Gordon (Co-investigator) – Biological Sciences
- Tannishtha Reya – Physiology & Cell Biology
- Lance Kam, Nicole Lamanna, Jia Guo (Co-investigator) – Biomedical Engineering

2022 – 2023

- Wei Min & Zhilun Zhao – Chemistry

2021-2022

- Marta Galan-Diez, Stavroula Kousteni & Azra Raza - Physiology & Cellular Biophysics
- Kam Leong – Biomedical Engineering
- Joseph Garcia, Charles Karan & Donald Landry - Medicine
- Adam Mor & Shalom Lerrer - Medicine

2020-2021

- Tal Danino & Nicholas Arpaia – Biomedical Engineering
- Catherine Spina & Andrea Califano – Radiation Oncology
- Jean Gautier & Brent Stockwell – Genetics & Development & Chemistry
- Riccardo Dalla Favera & Claudio Scuoppo – Cancer Genetics
- Anjali Saqi & Keith Yeager – Pathology & Cell Biology

2019-2020

- Adolfo Ferrando, Brent Stockwell & Nobuko Hijiya – Systems Biology & Chemistry
- Harmen Bussemaker & Chaitanya Rastogi – Biological Sciences
- Yiping Han, Fay Kastrinos & Timothy Wang – Dental Medicine
- Fatemeh Momen-Heravi & Akiva Mintz – Dental Medicine
- Cory Abate-Shen, Juan Arriaga, Donald Landry & Shi-Xian Deng – Pharmacology & Medicine
- Harris Wang & Kristin Beiswenger - Systems Biology & Pathology and Cell Biology
- Christine Hendon & Hanina Hibshoosh – Electrical Engineering & Pathology