

# Strengthening Institutional Capacity to Conduct Global Cancer Research (D43)

## Pre-Application Webinar

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## Notes for Slide 1

- Thank you for participating today. We are happy to provide details of this D43 grant program where we seek to strengthen the capacity of US- and low- and middle-income country (LMIC) LMIC-based institutions to conduct collaborative cancer research. My name is Sudha Sivaram and I am the program officer for this initiative. On the call today are two colleagues who helped develop this program – Dr. Susan Perkins and Dr. Min He. Dr. Perkins is Acting Deputy Director and also the Acting Chief of the Cancer Training Branch at the NCI Center for Cancer Training. Dr. He is Program Director from the NCI Office of Cancer Centers. This D43 program sits within the research and training branch of the center for global health at NCI. The acting chief of this branch, Dr. Mark Parascandola is also on the call. Ms. Catherine Hidalgo who is our Program Analyst and coordinates grant activities is also on the call and today she will moderate the discussion. On our behalf, I will go over some basic information about the program and application process for about 20 or so minutes and open it up for questions. As you hear the presentation, please write down questions in the chat box and we will answer them at the end of the presentation.

## Outline of Webinar

### **RFA-CA-20-031: Strengthening Institutional Capacity to Conduct Global Cancer Research (D43)**

<https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-20-031.html>

- Objective and Scope of the RFA
- Key Definitions
- Research Training Topics
- Application Preparation Guidance
  - Who can apply; Eligibility; Program Attributes; Trainees; Types of Training; Types of Support Allowed
  - Select Application Sections
  - Review Criteria
  - Key Dates and Budget

## Notes for Slide 3

In our presentation, we will go over Objective and Scope of the RFA, provide some key definitions and outline eligible research topics. We will then offer some guidance for application preparation. Here we will discuss eligibility of institutions, PDs/PIs as well as trainees; we will review the type of training that can be proposed, and the types of support allowed. Finally, we will go over the sections of the application, talk about review and end with key dates and notes on the budget before we open it up for questions.

## Funding Objective and Scope

### **Institutional Training Grant awarded to US-LMIC Collaboration**

- Support pre- and postdoctoral training of US and LMIC scientists
- Facilitate research leadership/mentorship at US and LMIC institutions
- Provide durable funding (5 years) to allow multi-disciplinary training programs to address cancer research priorities and opportunities in LMICs

## Notes for Slide 5

The goal for the D43 program is to award an institutional training grant to US institutions to support training and research experiences that will develop or expand an ongoing collaboration with an LMIC institution. In addition to training support to conduct research, we anticipate the awards will also facilitate research mentorship in US and LMIC institutions and provide long term funding to allow development of multi-disciplinary training programs.

## Key Definitions

- Low- and Middle-Income Countries (LMICs)
  - Eligible LMICs include Upper-Middle Income Countries that are not G20 members
- High-Income Countries (HICs)
  - Countries other than eligible LMICs in this program

## Notes for Slide 7

We want to define country eligibility first. US institutions applying to this program must collaborate with an institution in a Low and Middle-income country or LMIC. Per NIH guidance for international research training support, we are using country classification put forth by the World Bank to define LMICs. The World Bank classifies countries according to Gross National Income per capita into four categories: low-income, lower-middle-income, upper-middle-income, and high-income countries. In this program, eligible LMICs include low-income and lower middle-income countries based on this classification. Eligible LMICs also include upper middle-income countries that are not members of the G20 group.

All other countries that are not eligible LMICs are considered high income countries for the purposes of this program. While these countries may not receive support for their own trainees, applicants can involve institutions and individuals from these countries in their proposed training program. Examples include institutions serving as training sites or experts from these countries serving as consultants.



## Research Training Topics

### **Areas of training relevant to US-LMIC research collaboration, can include/not limited to**

Etiology, prevention and control of infection-associated cancers, cancer genetics and cancer biology, cancer epidemiology, clinical research, behavioral and social science research, implementation science, cancer surveillance and data science, integrative oncology

### **Critical areas essential for successful global research collaboration**

- Ethics and regulatory issues
- Good clinical and laboratory practices
- Competencies in cross national/cultural research collaborations

## Notes for Slide 9

The scope of the proposed training will be specific to the US-LMIC collaboration's research goals and the training needed to conduct, develop, and sustain these goals. As such the proposal can include a broad range of topics – examples are noted on this slide. However, regardless of the research training goals, we anticipate that all funded collaborations will also address critical areas needed for successful global research such as research ethics, regulatory issues, good clinical and laboratory practices as well as competencies needed to collaborate across countries and cultures.

# Application Preparation Guidance

- Eligible Institutions
  - **Award is made to US institution**
  - **A PD/PI from a US institution is the primary contact.**
  - US institution must collaborate with an LMIC institution
  - LMIC institution must be a registered institution in the country – key for RFA goals
  - Multiple US institutions and LMIC institutions are allowed
  - Past institutional collaboration and New institutional collaborations

## Notes for Slide 11 – Part 1 of 2

We will now move on to eligibility criteria for the program. First eligible institutions. Award will be made to a US institution – also called as the applicant institution. The primary applicant and contact PI must be from a US institution that is proposing the research training program. This applicant institution must collaborate with an institution from an eligible LMIC. We recognize that many US universities may have established entities in LMICs to serve as extensions to their research programs in the US. These entities are not considered eligible LMIC institutions. We anticipate that collaborations will take place with an LMIC institution that is independently dedicated to cancer research and training so that sustained capacity development can take place. Multiple US institutions and LMIC institutions are allowed to be part of the application.

## Notes for Slide 11 – Part 2 of 2

An application where the US-LMIC Institutional collaboration was active in the past but not at the time of the application is eligible. In this case, applicants are encouraged to outline the past collaborative work in detail and provide rationale of how the proposed D43 will build on the past work. There might be an instance where a US institution with considerable global cancer research experience is seeking to develop a new collaboration with an institution in an LMIC. Perhaps in the past, there have been some interactions such as workshops, planning calls for collaborative research – but there is not yet any collaborative research program. As long as the PDs/PIs from the US and proposed LMIC institution can document how these interactions can help strengthen collaborative research and build workforce capacity, this will be considered an eligible application. However, programmatically we feel that a collaboration that is being developed only for the purpose of applying to this program may not be competitive in review. In this scenario, the US institution may consider applying with an institution in an LMIC with whom they have collaborated in the past and involve trainees from the ‘new LMIC’ as a way of strengthening existing research collaborations.

# Application Preparation Guidance

- Eligible Program Directors/ Principal Investigators [PD(s)/PI(s)]
  - Individuals with research expertise in the topic area
  - Past research/training projects in collaborating LMIC
  - Should have an active research project
    - Can be a project in a no cost extension period
    - Can be an active research or research training project
  - Multiple PDs/PIs are allowed
  - Consultants from HICs are allowed

## Notes for Slide 14 – Part 1 of 3

We now move onto eligibility of the principal investigator/s. An eligible Program Director/Principal Investigator - PD/PI for short- is any individual with skills, knowledge, and resources to carry out the proposed training program. PD/PIs with past research/training projects with the collaborating LMIC are encouraged to apply.

From past NIH and NCI experience, an important facilitator of successful research training is that research training takes place in the context of a research program. An active research portfolio also helps establish the expertise of the PD/PI in terms of her/his ability to lead program, collaborate with colleagues and guide students.

## Notes from Slide 14 – Part 2 of 3

Active research is defined as a grant that will end only after the D43 begins.

We recognize that the following two scenarios of active research/award are possible.

1. PDs/PIs have an active research program in US and/or in LMIC, such as an R01 grant or cooperative award in the topic of focus for the D43
2. PDs/PIs have an active research training program in US and/or in LMIC in the topic of focus for the D43

PDs/PIs in either of the above scenarios are eligible to apply.



## Notes from Slide 14 – Part 3 of 3

For this D43, grants that are in a no-cost extension year at the time of submission are also considered active. It is highly encouraged that PD/PIs consider discussing what research opportunities trainees will have if current research or research training grants are ending.

Finally, multiple PIs are eligible. And applicants are allowed to have consultants/experts from HICs in the training program.

# Application Preparation Guidance

- Eligible Preceptors/Mentors
  - Individuals with appropriate expertise and funding available to support the number and level of trainees (including short-term trainees, if applicable) proposed in the application
  - Strong record as researchers, including recent publications and successful competition for research support in areas related to the training program
  - Strong records of training individuals at the level of trainees (including short-term trainees, if applicable) proposed in the program
  - Most, if not all, have research or research training experience in LMIC

## Notes for Slide 18

We now move to eligibility of preceptors and mentors in the program.

In a training award, preceptors and mentors are key as they provide expertise and guidance on conducting research. Eligible preceptors and mentors are individuals who have expertise in a cancer research topic of focus in the application and funding available to support the number and level of trainees. Preceptors and mentors should also have a strong record as researchers. Further, they should have a track record of training individuals at the levels that they are proposed in the program including short term trainees. We expect that most if not all mentors have research or research training experience in the LMIC/s that are part of the application and on topics that are the focus of the application.

# Application Preparation Guidance

- Types of training allowed
  - Long-term training - Degree/Certificate; mentored research experience
  - Medium-term training (3 to 6 months): specialized research skills
  - Short-term training (less than 3 months): research relevant capacity
- At least 50% trainees from LMICs
- Program does not support formal training of mentors
- What are the types of costs allowed in this grant?
  - Tuition fees
  - Stipends
  - Faculty and Mentor effort
  - Travel support

## Notes for Slide 20 - Part 1 of 2

The FOA refers to three types of training – long-term, medium term and short-term. Long-term training for example includes training that leads to a degree or certificate program, or a mentored research experience. This is usually greater than 6 months in duration. Medium-term training (3 to 6 months) can focus on acquiring specialized research skills and Short-term training (less than 3 months) can help build research relevant capacity. These types of training are all options to build capacity. We are not specifying any requirements regarding number of these types of training, nor are we requiring that an application should have all three. We recognize that different collaborations will come with their own specific requirements for capacity building.

We are leaving it to the applicant to make this decision on the types of training and the combination they want to implement in this program. Applicants should also provide rationale for whatever training plan or approach they propose. We expect that at the end of the proposed grant period, 50% of trainees completing long- and medium-term training will be from LMICs

## Notes for Slide 20 – Part 2 of 2

The FOA notes that training for mentorship is encouraged. Mentors cannot be formally trained in this program. That said, we recognize that there is an opportunity to informally provide mentorship guidance during the grant period. Discussions via conference calls, experienced faculty devoting some of their effort to advice newer mentors, sharing lessons in mentorship at side meetings in conferences that faculty and key personnel plan to attend, and taking advantage of existing regional networks to focus on mentorship are examples of the types of informal mentorship that we encourage.

Broadly, training support includes tuition fees for degree granting and certificate programs, research costs, research relevant travel support as well as effort of mentors and faculty. Training support also includes protected time for trainees to conduct research training. Please refer to Section 2 of the FOA under Other Award Information for more details.

# Application Preparation Guidance

- Eligible Trainees
  - Trainees are individuals both from the U.S. applicant institution/s and the collaborating LMIC/s.
  - Pre-doctoral trainees must be enrolled in a program leading to a master's degree, PhD or an equivalent research doctoral degree program.
  - Postdoctoral trainees must have received a Ph.D., M.D., D.D.S., or comparable doctoral degree from an accredited domestic or foreign institution. Postdoctoral trainees also include clinical fellows and clinicians in residency training.
  - US trainees can only be trained at the postdoctoral level
  - LMIC trainees can be trained both at the pre-doctoral and post-doctoral levels

## Notes for Slide 23 – Part 1 of 2

We will now move to eligibility of trainees in this program.

In the context of this FOA, "trainees" are individuals both from the US applicant institution and the collaborating LMIC institution/s. The applicant can propose to train pre-doctoral and postdoctoral candidates. Pre-doctoral trainees must be enrolled in a program leading to a master's degree, Ph.D., or an equivalent research doctoral degree program. Postdoctoral trainees must have received a Ph.D., M.D., D.D.S., or comparable doctoral degree from an accredited domestic or foreign institution. Postdoctoral trainees also include clinical fellows and clinicians in residency training. In this program, US trainees can only be trained the postdoctoral level; LMIC trainees can be trained at both the predoctoral and the postdoctoral level.



## Notes for Slide 23 – Part 2 of 2

Here we would like to note that participants in short term training can be selected from a wider group of scientists and professionals.

Training can take place either in the US applicant institution or at the primary collaborating LMIC institution. Other institutions can also serve as training sites as long as application includes a rationale for this decision.

**Before moving to the next slide, we would like to note the following as you consider the types of training and eligible trainees. We recognize that training needs vary based on the cancer research area/s of interest to the US-LMIC collaboration. Please bear in mind that the focus should really be on the numbers of investigators who receive meaningful research training and career development in this program and not numbers of individuals who attend trainings.**

# Application Preparation Guidance

- Please follow NIH Grant Application Guidelines for Training
- Remember that the RFA instructions always supersede the general application instructions:

<https://grants.nih.gov/grants/how-to-apply-application-guide.html>

- Page limits guidelines for D43

<https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/page-limits.htm#train>

- **Refer to RFA for additional guidance on specific sections**

## Notes for Slide 26

We have covered eligibility criteria for institutions, PDs/PIs, Preceptors and Mentors, types of training allowed and also discuss eligible trainees. With this information, as you begin to prepare your application, please refer to the NIH grant application guidelines for training as well as page limit guidelines. It is important to note that the RFA has additional guidance in specific sections – these supersede the general applications instructions - please review these carefully.

## Discussion of Selected Application Sections

- Research and Related (R&R) Budget
- Research Training Program Plan
  - Background
  - Program Plan
    - Program Administration
    - Program Faculty
    - Proposed Training
    - Training Program Evaluation
    - Trainee Candidates
  - Institutional Environment and Commitment to the Program (Letters of Support)

## Notes for Slide 28 – Part 1 of 3

We would like to outline briefly the application sections. These include the budget and the research training plan. The research training plan has the sections and sub-sections as noted on the slide. The background section is where the rationale for collaboration with LMIC institution, the choice of cancer research topic, the aims of the proposed training can be outlined. This is also where applicants can detail how this program will address cancer research capacity building needs of the LMICs and how the LMIC institutions and faculty were involved in setting the research and training agenda.

## Notes for Slide 28 – Part 2 of 3

The RFA also provides additional guidance as you prepare the Program Plan and its sub-sections. In this part of the application, the applicants can outline how the program will be administered, the roles and leadership of program faculty, preceptors, and mentors as well as their expertise, as well as details of a training advisory committee is one is being proposed. The Proposed Training sub-section, applicant can outline the types of training that will be provided, number of trainees who will be trained and a timeline for training. This section can also discuss how these various activities will contribute to research capacity building and career development of the trainees. Training Program Evaluation is a key sub-section of the Program Plan where applicants can provide details on the metrics that will be used to evaluate the program.

## Notes for Slide 28 – Part 3 of 3

The Trainee Candidates sub-section is where applicants can describe generally how trainees will be recruited strategies for trainee retention as well as strategies for, how they will be selected as well as strategies for retention. If a Training Advisory Committee is being proposed, this section will also outline how feedback from this committee will be incorporated.

The application also requires a section on institutional environment and commitment to the program where applicant provides details of institutional commitment at the US and LMIC institutions for the program and includes letters of support as applicable

## Discussion of Selected Application Sections

- Plan for Instruction in Responsible Conduct of Research
- <https://grants.nih.gov/grants/guide/notice-files/not-od-10-019.html>
- Plan for Instruction in Methods for Enhancing Reproducibility - <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-033.html>
- Multiple PD/PI Leadership Plan - [https://grants.nih.gov/grants/multi\\_pi/overview.htm#availability](https://grants.nih.gov/grants/multi_pi/overview.htm#availability)
- Data Tables - <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-077.html>



## Notes for Slide 32

All institutional training grants require a section on how trainees will be instructed in the responsible conduct of research. Applicants are also expected to include a plan for instruction in methods to enhance reproducibility of research results. Please review these relevant links. Further, if multiple PD/PIs are being proposed, the application must include a leadership plan. Finally, data tables offer reviewers a chance to better understand the scientific expertise and output of the PD/PI's, faculty mentors and preceptors as well as trainees. A recent notice notes some minor changes to these data tables – please refer to this as well.

# Application Review

- Research Training grant vs. Research grant
- Criteria for review
  - Training Program and Environment
  - Training Program Director(s) / Principal Investigator(s) [PD(s)/PI(s)]
  - Preceptors and Mentors
  - Trainees
  - Training Record

## Notes for Slide 34- Part 1 of 2

As you prepare your application, please also bear in mind that this is a research training grant application and as such different from a research grant. While in a cancer research grant, applicants propose to test hypotheses or evaluate interventions, in a research training grant, applicants propose specific training activities to develop or expand capacity to conduct cancer research.

## Notes for Slide 34- Part 2 of 2

The applicants will be evaluated using these 5 criteria.

Under Training Program and Environment, three domains will be considered: the cancer research relevance of the proposed training to the LMIC, how the proposed program furthers capacity strengthening of the US-LMIC research collaboration, and the content of the training program.

Review will also look at the expertise and experience of the Training Program Directors/Principal Investigators, the experience of the Preceptors and Mentors, the commitment of Trainees to global cancer research; and for those applications who have had past research training experiences, the Training Record.

We have merely introduced the review criteria on this slide - Please review section 5 of the RFA to become informed about these criteria in more detail.

# NIH Reporter – A Useful Resource

Resources: NIH Reporter: <https://projectreporter.nih.gov/reporter.cfm>

The screenshot shows the NIH Reporter search form. At the top, there are navigation tabs: QUERY, BROWSE NIH, MATCHMAKER, and SEARCH PUBLICATIONS BETA. The main form is divided into several sections:

- RESEARCHER AND ORGANIZATION:** Includes fields for Principal Investigator (PI) / Project Leader (Last Name, First Name), City, State, Country, Congressional District, DUNS Number, Organization, and Department Type. There are also checkboxes for 'Contains' and 'Begins with' in the organization field.
- TEXT SEARCH:** Features a text search box with a character count (2500 left) and options to search in Projects, Publications, or News. It also includes filters for Project Title, Project Terms, and Project Abstracts, along with start and end year dropdowns.
- PROJECT DETAILS:** Includes fields for Project Number/Application ID, Agency/Institute/Center, NIH Spending Category, and Funding Mechanism. There are also checkboxes for 'Admin' and 'Funding'.

The screenshot shows the search results page for the NIH Reporter. The page title is 'Search Results' and it indicates there are 161 results matching the search criteria. The results are displayed in a table with the following columns: T, Act, Project, Year, Sub #, Project Title, Contact PI/Project Leader, Organization, FY, Admin IC, Funding IC, FY Total Cost by IC, and Similar Projects.

T	Act	Project	Year	Sub #	Project Title	Contact PI/Project Leader	Organization	FY	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
<input type="checkbox"/>	5	D43	TW010331	05	RESEARCH TRAINING PROGRAM ON THE IMPACT OF ZOOPTIC AND VECTOR-BORNE VIRUSES, RICKETTSIAE, AND LEPTOSPIRA IN ACUTE UNDIFFERENTIATED FEBRILE ILLNESSES	AGUILAR, PATRICIA VERONICA et al.	UNIVERSITY OF TEXAS MED BR GALVESTON	2020	FIC	FIC	\$217,091	
<input type="checkbox"/>	1	D43	TW011404	01	COLLABORATIVE RESEARCH, IMPLEMENTATION, AND LEADERSHIP TRAINING TO ADDRESS CHRONIC CONDITIONS ACROSS THE LIFECOURSE (COALESCE)	ALI MOHAMMED KUMAIL et al.	EMORY UNIVERSITY	2019	FIC	FIC	\$252,327	
<input type="checkbox"/>	1	D43	TW011544	01	VANDERBILT-NIGERIA BUILDING RESEARCH CAPACITY IN HIV AND NON-COMMUNICABLE DISEASES (NCDS) (V-BRCH)	ALIYU, MUKTAR HASSAN et al.	VANDERBILT UNIVERSITY MEDICAL CENTER	2020	FIC	FIC	\$303,230	
<input type="checkbox"/>	1	D43	TW011324	01A1	MALAYSIAN IMPLEMENTATION SCIENCE TRAINING (MIST) PROGRAM IN HIV	ALTICE, FREDERICK LEWIS et al.	YALE UNIVERSITY	2020	FIC	NIDA	\$198,129 \$100,000	
<input type="checkbox"/>	1	D43	TW011394	01	TRAINING PROGRAM FOR STRENGTHENING RESEARCH CAPACITY IN NON-COMMUNICABLE DISEASES IN VIETNAM (TSORC-NCDS-VN)	AN, DAO THI MIINH et al.	HANOI MEDICAL UNIVERSITY	2019	FIC	FIC	\$250,591	

## Notes on Slide 37

We encourage applicants to look at the NIH Reporter site. This site is a publicly available database of all NIH awards and provides useful information such as abstracts of funded grants. Searching for D43 as we have shown here will provide information on past D43s supported at NIH and this may be a useful reference.

## Key Dates and Budget

Open Date (Earliest Submission Date)	June 24, 2020
Letter of Intent Due Date(s)	June 24, 2020; May 24, 2021
Application Due Dates(s)	July 24, 2020; June 24, 2021
Review Dates	September 2020; August 2021
Council Dates	January 2021; January 2022
Earliest Start Date (s)	March 2021; March 2022

Budget: RFA with two receipt dates; up to 7 total awards

Total Costs per award per year: up to \$270,000 (\$250K Direct + 8% F&A)

## Notes on Slide 39

As we end, we would like to note key dates to keep in mind in this program. Earliest submission date is June 24, 2020. Letters of intent are due also on June 24 this year. While these letters of intent are not mandatory, they help us administratively to plan for review so we encourage you to send this in.

There are two receipt dates for this program as shown – one on July 24, 2020 and the second on June 24, 2021. We anticipate, based on availability of funds, to support up to 4 awards in the first round and three awards in the second round. Direct costs for the grant are 250K per year for up to 5 years. Indirect costs for training grants are set at 8% per NIH policy.



## Questions and Notes

COVID-19 pandemic- related disruptions in place after D43 program was announced

Guidance from NIH OER:

<https://grants.nih.gov/policy/natural-disasters/corona-virus.htm>

Guidance for D43 program will be updated at the NCI Center for Global Health website:

<https://www.cancer.gov/about-nci/organization/cgh/research-training>

Email Questions to: [nciglobaltraining@nih.gov](mailto:nciglobaltraining@nih.gov)

## Notes for Slide 41

Lastly, we recognize that this program was developed prior to the current pandemic outbreak and was posted just as the global shutdowns related to covid-19 were underway. We recognize that these disruptions affect the ability to collaborate internationally in many ways. As we are all aware, this is a rapidly evolving situation and affects the entire research community including NIH/NCI extramural portfolio. This is being handled uniformly across the NIH with regular updated guidance from the NIH OER – please see the link on this slide. This guidance would also be applicable to the D43 program. As always, check on the center for global health (CGH) website and also use the email on the slide to reach out with any questions as you prepare your application. We will also have all the slides and a summary of the webinar within a week. Thank you for your participation in today's webinar. We will review questions in the chat box and address them in order.



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