



## Ethiopia-Emory TB Research Training Program

### **Ethiopia-Emory TB Research Training Program (EETB-RTP) Request for Applications (RFA) for Long-Term Tuberculosis Research Training in Ethiopia**

The **Ethiopia-Emory TB Research Training Program (EETB-RTP)** represents a partnership between Emory University, the Armauer Hansen Research Institute (AHRI), Addis Ababa University (AAU), and the Ethiopian Public Health Institute (EPHI). The EETB-RTP provides didactic and mentored TB research training for promising Ethiopian investigators. The goal is to develop a cadre of multidisciplinary researchers who are successful and funded investigators that carry out internationally recognized TB-related research and translate research findings into practice and public health policy. The EETB-RTP is funded by a Global Infectious Diseases grant from the U.S. National Institutes of Health (NIH) Fogarty International Center (D43TW009127).

The EETB-RTP is releasing a **request for applications (RFA)** from trainees in Ethiopia with clinical or translational research proposals in TB. Accepted applicants will receive two years of support to carry out a hypothesis-driven research proposal to be carried out under the guidance of their dual Ethiopian-US mentoring team. Support will include a stipend, modest research supply budget, tuition support for Emory University distance learning courses, a laptop, access to several online resources, travel funds for presenting research at an international meeting, advanced English language training, and more. Additional information about the program, eligibility, and application process can be found in subsequent pages below.

**Ethiopia-Emory TB Research Training Program (EETB-RTP)  
Request for Applications (RFA) for  
Long-Term Tuberculosis Research Training in Ethiopia  
DEADLINE for Applications: September 4, 2024**

**An application workshop delivered by Dr. Janet Gross, a grant writing specialist at Emory University, on how to write a competitive EETB-RTP application will be held on June 17, from 3-4:30pm Addis Ababa time via Zoom. Register for the application workshop here: [https://zoom.us/meeting/register/tJAofuyrjqgrGdEA9YZK4cTRW-d9WiSp0\\_Sj](https://zoom.us/meeting/register/tJAofuyrjqgrGdEA9YZK4cTRW-d9WiSp0_Sj)**

Additional information about the application workshop is listed below in Section VIII. For those who cannot attend the workshop live, the application workshop will be recorded and posted at: <https://tinyurl.com/EETB-RFA-2024>

**The deadline for receipt of applications to the EETB-RTP is **September 4, 2024**.**

**I. Background:** Tuberculosis (TB) is an enormous global public health problem and a public health emergency in Ethiopia. The World Health Organization (WHO) estimates that there were 10.6 million new cases of TB and 1.3 million deaths due to TB in 2022. TB is among the top five killers of adult women in reproductive years and causes 6-15% of all cases of maternal mortality. In 2023, TB reemerged as the leading global cause of death from a single infectious agent, exceeding both HIV and COVID-19. HIV/TB co-infection and the emergence and spread of drug resistant TB represent major challenges to TB prevention and control globally. The COVID-19 pandemic has led to additional challenges and setbacks in global TB control and has led to increased TB mortality. Ethiopia is one of only 12 countries worldwide on two WHO “high burden countries” lists for TB and TB/HIV. The past decade has seen the development of new and repurposed TB drugs and diagnostics, but additional tools (new drugs, point of care diagnostics, effective vaccine) are needed in order to achieve the ambitious goals of the WHO END TB Strategy. In addition, implementation science research is needed on best strategies for early diagnosis, treatment, and prevention of TB that accounts for distinct socioeconomic contexts. **A major barrier to improved research, treatment, and control of TB in Ethiopia is the scarcity of Ethiopian scientists and health professionals with the relevant research knowledge and expertise to carry out internationally recognized research that can be translated to improve public health practices in Ethiopia.**

**II. Purpose/Partners:** The *Ethiopia-Emory TB Research Training Program (EETB-RTP)* represents a partnership between **Emory University** in Atlanta (USA) and **three Ethiopian institutions in Addis Ababa** including the **Armauer Hansen Research Institute (AHRI)**, a research arm of the Ethiopian Ministry of Health and an internationally respected research institute which includes a major focus on TB investigation; **Addis Ababa University (AAU)**, a degree granting university which is the oldest and largest university in Ethiopia; and the **Ethiopian Public Health Institute (EPHI)**, a national public health institution that is part of the Ethiopian Federal Ministry of Health. **The EETB-RTP is focused on providing didactic and mentored TB research training for promising Ethiopian investigators.** The goal is to provide trainees and their institutions with the skills and capacity to carry out internationally recognized and locally relevant TB-related research (e.g., clinical and/or translational research, epidemiologic research, implementation science [sometimes also called operational research], behavioral/social sciences research, and laboratory-based research). **The EETB-RTP is**

funded by a Global Infectious Diseases grant from the U.S. National Institutes of Health (NIH) Fogarty International Center (D43TW009127).

III. **Specific Aims** of the EETB-RTP program include:

**1. Continue to build relevant and sustainable research capacity in Ethiopia by aligning research training activities with the research priorities outlined in the Ethiopian MOH's "National Tuberculosis Research Roadmap (2022-2026)".** The EETB-RTP will focus on the four themes which encompass the TB research questions that are of high priority for Ethiopia: Epidemiologic Research, Clinical/Translational Research, Operational Research/Implementation Science, and Health Systems Research. We will augment in-country Master's and PhD degree training through high quality, semester-long, distance learning courses developed and implemented in collaboration with the Emory Master of Science in Clinical Research (MSCR) program.

**2. Support career development to promote the 7 professional characteristics of a translational scientist aligned with leadership in TB research.** These 7 characteristics of a translational scientist include: *boundary crosser, systems thinker & process innovator, domain expert & rigorous researcher, team player, and skilled communicator*.

**3. Enhance the diversity of the Ethiopian TB biomedical workforce by continuing to increase the number of women engaged in TB research,** with a concerted focus of increasing the number of women in the biomedical workforce focused on TB research. To maintain our goal of having at least half of the trainees in the current cycle of funding being women, we anticipate that half of the applicants accepted into this new cohort of trainees will be women.

**IV. Long-Term Training Activities. Long-term training is the most important component and focus of the EETB-RTP** given the program's goal to develop a cadre of multidisciplinary researchers who are successful and funded investigators that carry out internationally recognized TB-related research and translate research findings into practice and public health policy. Regardless of track chosen, all long-term trainees will develop a hypothesis driven research proposal to be carried out under the guidance of their dual Ethiopian-U.S. (Emory) mentoring team. **There will be 3 options or tracks for long-term training:**

1) **PhD graduate degree program/pre-doctoral research training.** PhD graduate students at AAU or other universities while affiliated with AAU, AHRI or EPHI (in the Biomedical Sciences, Behavioral/Social Sciences, Public Health or Pathobiology) who are committed to a research career that encompasses TB-related investigation will be eligible to apply to the program. In general, PhD students will have completed their core course work before they are accepted into the EETB-RTP. These students at AAU will generally be entering the thesis stage of their PhD degree program at the time of acceptance to our program. **The EETB-RTP will provide didactic and mentored research training for long-term trainees including PhD students** with the expectation that their thesis is focused on TB-related hypothesis-driven research. Didactic training provided by the EETB-RTP (at a minimum) will include at least five Emory University graduate school distance learning courses (Scientific and Grant Writing, Biostatistics, Data Management, Epidemiology, and Translation & Implementation Science).

2) **Postdoctoral research training (for persons with MD or PhD or similar degrees) with opportunities through the EETB-RTP for didactic training including graduate degree programs** (e.g., MPH or MSc degree). **Postdoctoral trainees**, including junior faculty members at AAU (MD or PhD), postdocs (PhD or clinical fellows) or MD or PhD-level scientists at the three Ethiopian institutions (AAU, AHRI, EPHI), who are interested in obtaining further didactic

and mentored research training to provide a foundation for a career in TB-related research are included in this track. **All long-term trainees (in any of the tracks) will have didactic training supplemented by at least five semester-long Emory University graduate school distance learning courses** as well as short courses and workshops and will have protected time for didactic and mentored research training.

**3) Postdoctoral research training opportunities through non-degree training: “mid-career” track.** Mid-career track trainees will have attained a doctoral degree and a rank no higher than Assistant Professor at AAU or Scientist at AHRI or EPHI, and a minimum of five years of experience post terminal degree. Training opportunities for long-term trainees includes providing opportunities for research training in relevant laboratory, clinical, translational, epidemiologic, implementation science and social science related research on a case-by-case basis. These trainees will also take the five Emory University distance learning courses as well as intensive short courses but would be in a non-degree program. Mentored research training opportunities will be offered in one of the four thematic areas highlighted as research priorities for Ethiopia (Specific Aim 1 listed above). Trainees in this mid-career track will be required to take the 5 Emory MSCR semester-long distance learning courses, and there will be a focus on grant writing and on mentorship and leadership training.

## **V. Support for Long-Term Trainees**

Those long-term candidates accepted into the EETB-RTP will be supported for **two years** of didactic and mentored research training. **The second year of support is dependent upon satisfactory performance in the first year of the program.** Long-term trainees accepted into the EETB-RTP will receive:

- **Stipend support** to ensure that their professional time is protected for research and research training (\$700 per month). **Trainees must dedicate  $\geq$  50% professional time to the research training program (i.e., research and research training).**
- **Research project support** (\$3500 USD per year per trainee)
- **Tuition support**, including coursework delivered through real-time semester long distance learning courses from Emory University
- **Multidisciplinary mentoring team**, including an Ethiopian lead mentor and International/US-based lead mentor
- **Technology support** (laptop computer, 4G wireless internet access, Emory email account and Emory electronic resources including ejournals, Zoom, etc.)
- **Travel support to an international meeting** (one trip for each trainee during the two-year research training period when presenting a first author abstract after receiving prior approval)
- **Opportunities to apply for an advanced in-country research training grant (\$15,000 USD)** following the official two-year training period and submission of their Fogarty trainee research project for publication.
- **English language training** (written and oral); trainees must have moderate-to-excellent proficiency in English at the time of application. Advanced English language training will be provided to trainees accepted into the program to enhance their English language and presentation skills.

## VI. Trainee Recruitment and Selection

**Applications to the EETB-RTP will be reviewed and ranked by members of the Training Advisory Committee** (discussed below).

### **Eligibility requirements for long-term trainees for this RFA:**

1. Ethiopian citizenship or permanent Ethiopian resident
2. Fluency in English (written and spoken)
3. Predoctoral graduate student (PhD program) **or** Postdoctoral trainee (candidate with a PhD or M.D. degree) with a strong desire for TB-related research training and a career that encompasses TB-related research
  - **Predoctoral candidates** include current graduate students enrolled in a PhD program at AAU or employed as an EPHI staff member with a minimum of a Master's degree (e.g., laboratory or epidemiology background) who would qualify for a PhD program at AAU
  - Postdoctoral trainee—candidates who have already attained a MD or PhD degree are eligible to apply for a Fogarty supported TB research training position; this includes postdoctoral trainees, residents/fellows, staff, and faculty at AAU, EPHI, and AHRI/ALERT. Postdoctoral trainees may receive training through either degree or non-degree didactic training; postdoctoral trainees also include junior faculty members at AAU or junior scientist at AAU, EPHI, or AHRI/ALERT, and residents/fellows at AAU
  - “Mid-Career Track trainees”—candidates in this track should meet requirements outlined above for the “Mid-Career Track”
  - **Must include a TB related research proposal and training plan as described below**
  - **Must be able to commit ≥ 50% professional effort to the EETB-RTP** (which includes research and research training). A letter of support from the applicant’s supervisor must be included guaranteeing the protected time if accepted into the EETB-RTP.

### **Application Process:**

**Please note that all applicants should use Arial font (11) at least a half inch (1.27 cm) margins in completing their application. Applicants must adhere to the page limits described below.**

**NOTE: Electronic submission is required. Online submission should occur through the following link: <https://form.jotform.com/241284219828159>**

If you have questions about this process, please contact Hiwet Eyob ([hiwet.eyob@ahri.gov.et](mailto:hiwet.eyob@ahri.gov.et)) at AHRI and Alison Hoover ([alison.hoover@emory.edu](mailto:alison.hoover@emory.edu)) at Emory University.

### **The application requires the following components:**

- A. Applications must be completed in the English language.
- B. Applicant should submit the following materials as part of the application package:
  - 1) **Abstract – 500 word maximum.** Provide an abstract of the entire application (candidate, interest in the program and career goals, and research plan).
  - 2) **Personal statement**– 1-page maximum on why you are applying to the program, what you hope to gain from the program and your long-term career goals. In addition, the applicant should indicate the degree of professional effort he/she will commit to the EETB-RTP (must be at least 50% professional effort) and how they will spend whatever remaining professional effort that is not committed to the EETB-RTP. The applicant may also briefly describe who they anticipate would serve as their in-country mentor in Ethiopia. All

applicants accepted into the program will have an in-country (Ethiopian) mentor and an international mentor (e.g., Emory University faculty member or other U.S. or international mentor). The EETB-RTP Program Directors will assist those applicants accepted into the program with assignment of an international mentor. An international mentor is not required at the time of application, but a committed Ethiopian mentor is.

3) **Brief research concept proposal** (5-page maximum) in which the candidate outlines their hypothesis-driven research concept that they propose to pursue during the training period. **Proposed projects must be feasible, focused and be able to be completed within two years. The EETB-RTP supports research training; grant funds are restricted to research training and limited funds (e.g., \$3500 per trainee per year) are available to support the trainee research project.** For trainees who will also be pursuing graduate training during the period of EETB-RTP support (e.g., PhD graduate students or Master students), this proposal could serve as the basis of their research thesis for their degree. Applicants to the program are encouraged to meet with the EETB-RTP in-country program director (see contact information below) and may also request a biostatistical consultation to assist them as they prepare this research concept proposal. The brief research proposal should be structured as follows:

**Significance/Background.** Provide a brief description of the problem or issue to be investigated. This introduction should convey sufficient information to justify the research project. In particular, include a paragraph on how the results of this research may potentially improve TB control or management in Ethiopia and/or globally.

**Hypothesis.** State the specific hypothesis to be tested. Be sure that this statement is written as a hypothesis.

**Specific Aims.** These are the goals of the research project. Enumerate the specific aims (1, 2, 3, etc.). There should be a **limited number** of specific aims (typically 2-4) for the research project.

**Approach/Research design.** Describe how the study will be designed and carried out. For clinical or translational research, please discuss sample size (include sample size calculations). If this is a pilot study that is not fully powered, please indicate this. Please briefly describe how the data will be collected and analyzed. If the project involves human subjects, describe briefly how patient confidentiality and/or consent will be addressed. This section must include a research timeline table.

**References.** This should employ standard citation methods. Referenced papers may be numbered and cited by number within the text. **References do not count toward the page limit.**

4) **Curriculum Vitae (NIH style biosketch is required)**; See <https://grants.nih.gov/grants/forms/biosketch.htm> for forms and examples. Use the **non-fellowship format**.

Additional information about how to construct a NIH biosketch is available in the application workshop reference materials dropbox folder: <https://tinyurl.com/EETB-RFA-2024>

5) **Transcript** (graduate and undergraduate transcripts); please note that a scanned copy of the transcript is acceptable.

6) **Letters of Support.** Three letters of support are required as part of the EETB-RTP application: 1) One letter could come from a local mentor in Ethiopia; 2) **one letter should come from the applicant's supervisor and must guarantee that the applicant will have a minimum of 50% protected professional time to participate in the EETB-RTP (for didactic and mentored research training) if accepted into the EETB-RTP;** 3) The third letter of support may come from faculty in a graduate education program, potential mentors, current or former supervisors or faculty, or other individuals. **The applicant should NOT personally receive or submit the letters of support.**

**The letters of support should be submitted directly by the letter writer (the letters of support should not be given to the applicant to submit). Online submission of the letters of support is preferred through the following link:**

**<https://form.jotform.com/241284219828159>.** In order for the letter writer to submit the letter through the online portal, the applicant must register as described below.

**First, the applicant should register at the link noted above; an email link will be emailed to the applicant. The applicant should share that email link with the persons writing her letters of support so that the recommenders may upload their letter of recommendation.** Again, online submission of the letters of support is preferred; alternatively if there are technical issues with online submission, the person writing the letter of support may email it to Hiwet Eyob ([hiwet.eyob@ahri.gov.et](mailto:hiwet.eyob@ahri.gov.et)), EETB-RTP Project Coordinator at AHRI and Alison Hoover ([alison.hoover@emory.edu](mailto:alison.hoover@emory.edu)), EETB-RTP Project Coordinator at Emory with any questions about this process or for technical support.

## **VII. Review of Applications.**

All completed applications for long-term TB research training will be reviewed by the EETB-RTP Training Advisory Committee (TAC) which consists of a group of Ethiopian and U.S. scientists and/or physician-scientists with expertise in the fields of tuberculosis, research, and public health. The TAC members will rate each application using an NIH style scoring system (1-9 where 1 is the best possible score and 9 is the worst possible score) taking into consideration academic qualifications of the applicants and educational transcripts, personal statement and applicant's potential for a successful research career, letters of recommendation, relevance of the proposed training program to the TB research needs and goals, review of the applicants research concept proposal, the matching of an applicant's research interests with those of the program's priorities and faculty members who will serve as mentors, and the commitment of collaborating centers in Ethiopia to support the candidate when they complete the program. **The EETB-RTP will offer long-term training positions to applicants based on their score and ranking by the TAC and the availability of funds.** Those individuals who submit excellent or promising applications but are not in a fundable range will be encouraged to resubmit in future years.

## **VIII. Application Workshop**

**An EETB-RTP application workshop will be held on June 17 from 3-4:30pm online via Zoom.** Dr. Janet Gross, a grant writing specialist at Emory University, will provide instructions and guidance on the application process.

***Applicants to the EETB-RTP are highly encouraged to attend the virtual application workshop live or view the recording and other materials if not able to attend live.*** Register for the application workshop here:

**[https://zoom.us/meeting/register/tJAofuyrqjgrGdEA9YZK4cTRW-d9WiSp0\\_Sj](https://zoom.us/meeting/register/tJAofuyrqjgrGdEA9YZK4cTRW-d9WiSp0_Sj)**



For those who cannot attend the workshop live, the application workshop will be recorded and posted at: <https://tinyurl.com/EETB-RFA-2024>

The deadline for receipt of EETB-RTP applications is **September 4, 2024** at <https://form.jotform.com/241284219828159>. It is anticipated that those accepted into the program will be notified no later than December 15, 2024.

## IX. Questions?

If applicants have any questions, they are encouraged to contact the EETB-RTP Project Coordinator Hiwet Eyob ([hiwet.eyob@ahri.gov.et](mailto:hiwet.eyob@ahri.gov.et)) at AHRI and EETB-RTP Project Coordinator Alison Hoover ([alison.hoover@emory.edu](mailto:alison.hoover@emory.edu)) at Emory.

Questions may also be directed towards the Principal Investigators for the EETB-RTP which include Kidist Bobosha, PhD ([kidist.bobosha@ahri.gov.et](mailto:kidist.bobosha@ahri.gov.et)), Henry M. Blumberg, MD ([henry.m.blumberg@emory.edu](mailto:henry.m.blumberg@emory.edu)), and Russell Kempker, MD, MSc ([rkempke@emory.edu](mailto:rkempke@emory.edu)).



The EETB-RTP is supported by an NIH Fogarty International Center Global Infectious Diseases grant (**D43TW009127**). The EETB-RTP represents a collaboration between Emory University, Addis Ababa University, the Armauer Hansen Research Institute (AHRI), and the Ethiopian Public Health Institute (EPHI).

