

CDC-RFA-OE20-20010101SUPP20:EnhancingPublicHealth
Laboratory Capabilities and Increasing Capacity

Supplemental Project Proposal

Appendix D: Infectious Diseases - NCHHSTP

Excellent Laboratories, Outstanding Health

Division of Laboratory Systems



Appendix D: Infectious Diseases

Focus Area Name
Infectious Diseases

Focus Area Contact Information
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1. General Information

Project Name: HHSTP TB Project & HHSTP Informatics Project

Project Activity Contact Information: Angela Starks (eog0@cdc.gov / 404-639-3205) & Tracy Dalton(dvx7@cdc.gov / 404-639-3904)

Approximate Amount of Supplemental Funding Available: \$1,303,000 (core DTBE or RAL)/ funding potentially available for entire duration

2. Project Description

i. Purpose

The **HHSTP TB project** addressed specific strategies and activities described in the NOFO. The TB specific project includes support for collaboration and information exchange among stakeholders through the active APHL TB Subcommittee and APHL membership in the Advisory Council of TB Elimination (ACET). The TB project also involves development and release of educational tools, resources, and guidance documents for TB testing for the public health community. Workforce development and training will also be conducted in support of the annual Diagnostic Mycobacteriology workshop, the 12th National Conference on Laboratory Aspects of TB, and TB-Track Antibiotic Resistance Fellowship. Emerging methodologies and process improvements will be incorporated through The DST Reference Center and further integration of WGS to the National Laboratory system.

The **HHSTP TB Informatics project** will focus on supporting the buildout of the AIMS platform to integrate WGS results for clinical care and maintenance of the existing Lab Web Portal for the DST Reference Center.



The following new or expanded activities are proposed as part of this supplemental request.

- A. Build out of infrastructure for public health laboratory access to a bioinformatic pipeline for resistance prediction in *Mycobacterium tuberculosis* with associated resources.
- B. Build out of infrastructure for data storage and/or transfer of whole genome sequencing files
- C. Build out of query for the AIMS platform allowing CDC to do data queries (no patient identifying information would be accessible) to monitor workload, turnaround time, and result statistics at the National DST Reference Center for TB.
- D. Expand diagnostics evaluations for TB.
- E. Pilot decentralization of whole genome sequencing at public health labs for both molecular epidemiology and drug resistance prediction.
- F. Develop new education and training tools for public health laboratorians to support current TB activities.
- G. Support expanded capacity to evaluate approaches for latent TB infections.

ii. Justification

The **HHSTP TB Project** and the **HHSTP TB Informatics Project** would both be well served by additional funding to expand the recently approved activities under the NOFO and through the initiation of new activities. These projects are heavily focused on strengthening the national laboratory system for TB testing in the use of new technologies, especially whole genome sequencing, and support the data analytics that must accompany this expanded use. Additionally, other education and training tools will be needed for workforce development to gain knowledge and skills beneficial for both wet-lab work and also bioinformatic analyses. DTBE is also highly supportive of efforts to improve and expand availability of methodologies for detection and understanding of latent TB infection in the United States and with the recently approved NOFO, we were unable to provide funding for that purpose. This supplemental opportunity provides a potential opportunity to support those efforts as well.

iii. Identification of need

The need for these projects were collectively identified by both the CIO and recipient.

iv. New or expanded project

The projects represent and expansion of existing projects that were recently approved with the exception of the support for latent TB infection (no comparable NOFO). The currently approved projects are listed below.

A. HHSTP TB Project

- | | |
|--|-----------|
| a. Universal sequencing for genotyping | \$70,000 |
| b. TB DST Reference Center | \$403,098 |
| c. Diagnostics evaluation | \$0 |

B. HHSTP TB Informatics Project

- | | |
|--|-----------|
| a. Lab Web Portal discovery, enhancements, and development | \$112,500 |
|--|-----------|



b. AIMS LWP v2 go live

\$20, 537

3. Outcomes

Activities in this project should achieve or contribute to the following proximal outcomes:

PO-1 Improved collaboration and communication across public health laboratories and other stakeholders.

PO-2 Improved awareness and understanding among laboratory professionals of emerging methods and processes in public health laboratories.

PO-3 IO Improved understanding of data-related challenges and data-informatics solutions among laboratory professionals in diverse settings.

Activities in this project should achieve or contribute to the following intermediate outcomes:

IO-1 Established communities of practice and other collaborative relationships among and between laboratories and other stakeholders.

IO-2 Improved competence and engagement of public health laboratory workforce.

IO-3 Enhanced practices, methods, technical capabilities, and infrastructure within the public health laboratory system.

Activities in this project should contribute to the following long-term outcome: Improved effectiveness of public health laboratories, individually, and as components of a national system for TB testing.

4. Strategies and Activities

List specific strategies, activities, and process measures

Strategy/Activity	Process Measure
1. D/S2.5	Number of new tools and resources provided to public health laboratories.
2. D/S3.3	Number of users accessing new tools and resources for training and workforce development.
3. D/ S4.3	Number of process improvements for WGS or LTBI implemented.

Please note: APHL is expected to collaborate with their CDC point of contact and/or technical monitor for this project to develop realistic measurable process objectives. In response to this proposal, APHL should provide a detailed work plan with: Outcomes, outcome measures, strategies/activities, and process measures.

5. Budget

CELS/DLS project officers will provide budget spreadsheet for APHL to complete for requested funds by object class category

- No specific budget instructions or restrictions.



By submitting this project plan, I certify that my CIO currently does not maintain a comparable NOFO for similar activities and the proposed use of funds is consistent with the appropriation.

 **Angela Starks-S** Digitally signed by Angela Starks-S
Date: 2020.04.08 09:21:11 -04'00'

Technical Monitor Signature

