

Opportunity Title: Parasitic Diseases Molecular Epidemiology Fellowship

Opportunity Reference Code: CDC-CGH-2018-0014

Organization Centers for Disease Control and Prevention (CDC)

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How to Apply A complete application consists of:

- An application
- Transcripts Click here for detailed information about acceptable transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional references

All documents must be in English or include an official English translation.

If you have questions, send an email to CDCrpp@orau.org. Please include the reference code for this opportunity in your email.

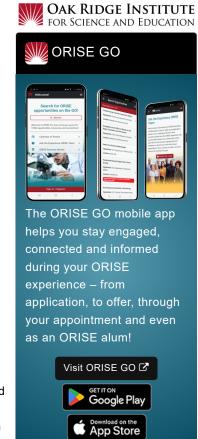
Description An opportunity is available in the Parasitic Diseases Branch (PDB), Center for Global Health, at the Centers for Disease Control and Prevention in Atlanta, Georgia. PDB is seeking candidates for a fellow opoprtunity to participate in the development of genotyping methods for the food-borne parasite Cyclospora cayetanensis.

> The genome of Cyclospora cayetanensis is still mostly uncharacterized and little genomic information is currently available in public databases. One of the challenges is that the only source of this parasite is stool samples from infected humans. In the past 4 years, with the support of Advanced Molecular Detection (AMD) funding, PDB has accumulated genomic sequences from several samples, representing multiple geographical regions, and identified potentially useful genetic typing markers. Next step in the project will be to evaluate these markers using sample panels with epidemiologically linked stool samples from past outbreaks.

Activities may include:

- Processing stool samples to partially purify Cyclospora cayetanensis oocysts
- · Performing DNA extraction from various samples
- · Preparing libraries for next generation sequencing (Illumina and potentially other platforms)
- · Assisting with the design of PCR primers
- Optimizing PCR assays
- · Conducting PCR and real-time PCR experiments
- · Performing sequencing of PCR products by Sanger and/or Illumina
- · Producing, compiling, cleaning, and appropriately store data
- · Analyzing and interpreting research data
- Assimilating research data and prepare for publication in peer-reviewed journals
- · Following all Standard Operating Procedures and safety measures for the laboratory

This program, administered by ORAU through its contract with the U.S.



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Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and CDC. The initial appointment is for up to one year, but may be renewed upon recommendation of CDC contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at CDC in the Atlanta, Georgia, area. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

- Master's degree in microbiology, genomics or related life science earned within the past five years is requried
- Experience using PCR-based methods (e.g., PCR, real-time PCR, RT-PCR) to detect microorganisms is required
- Experience with next generation sequencing (NGS) methods and/or DNA extraction from complex specimens (stool, soil, foods etc.) is highly advantageous
- Knowledge of DNA sequence analysis software, and the ability to understand, write and/or speak Spanish, are beneficial

Eligibility

• **Degree:** Master's Degree received within the last 60 month(s).

Requirements

- Discipline(s):
 - Life Health and Medical Sciences (5 ●)

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