

Opportunity Title: CDC/NCEH/DLS Fellowship Opportunity at Newborn Screening and Molecular Biology Branch

Opportunity Reference Code: CDC-NCEH-DLS-2024-0199

Organization Centers for Disease Control and Prevention (CDC)

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How to Apply *To submit your application, scroll to the bottom of this opportunity and click **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 recommendations. Your application will be considered incomplete and will not be reviewed until one recommendation is submitted.

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

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Application Deadline 12/20/2024 3:00:00 PM Eastern Time Zone

Description *Applications will be reviewed on a rolling-basis.

CDC Office and Location: A research opportunity is available with the Newborn Screening and Molecular Biology Branch (NSMBB) at the Division of Laboratory Sciences (DLS) within the National Center for Environmental Health (NCEH) at the Centers for Disease Control and Prevention (CDC), located in Atlanta, Georgia.

The Centers for Disease Control and Prevention (CDC) is one of the major operation components of the Department of Health and Human Services. CDC works to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same. For additional information, please go to <http://orise.orau.gov/cdc/> or <http://www.cdc.gov/>.

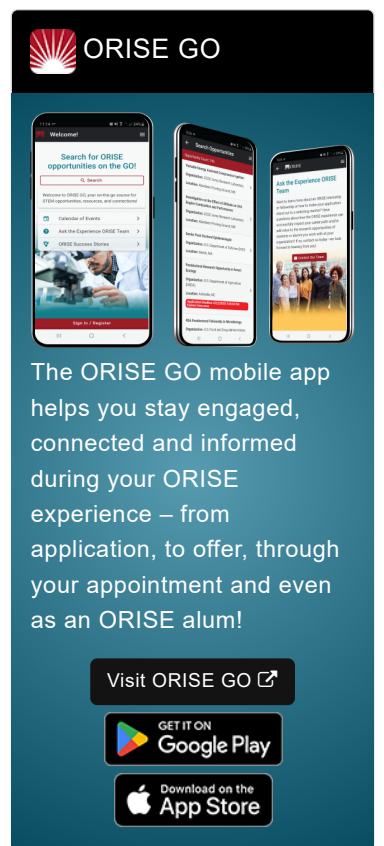
Research Project: NSMBB is seeking a candidate to contribute to the development of molecular assays to detect newborn disorders which are recommended for screening by the U.S. Department of Health and Human Services and by State Public Health programs. The candidate will be involved in the development of novel laboratory methods and the creation of dried blood spots using human cell lines to mimic samples from affected newborns for targeted disorders.

Learning Objectives: Training will include but not be limited to:

- Molecular genetic analysis for newborn screening disorders (e.g., real-time PCR, DNA sequencing, gene copy number analysis, droplet digital





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PCR, etc.)

- Transduction and production of cell lines, including the application of novel CRISPR techniques, to create panels of diverse rare pathogenic variants in the dried blood spot matrix
- Devising novel methods for the creation and production of dried blood spot materials for proficiency testing and quality assurance
- Participation in all stages of development and validation of molecular assays under ISO standards for providers of proficiency testing materials and proficiency testing programs
- Data processing and analysis using complex software and data evaluation procedure
- Presentation of results at national conferences and publications
- Provide technical support and learn about giving training to state newborn screening programs

Mentor(s): The mentor for this opportunity is Christopher Greene (crge0@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: January 6, 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year but may be renewed upon recommendation of CDC and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: Stipend rates may vary based on numerous factors, including opportunity, location, education, and experience. If you are interviewed, you can inquire about the exact stipend rate at that time and if selected, your appointment offer will include the monthly stipend rate.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and CDC. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process, please email ORISE.CDC.NCEH@orau.org and include the reference code for this

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opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

The participant will use the Epstein Barr Virus for cell line transductions. Candidates that are selected will be tested for the presence of antibodies to both VCA and EBNA, which will be required for fellowship eligibility.

An overall GPA of 3.0 or higher on the 4.0 scale is preferred.

The following skills and experiences are desired:

- Experience and proficiency in performing molecular techniques (DNA extraction, PCR, real-time PCR, sequencing)
- Experience in performing mammalian cell transduction, tissue culture, and aseptic techniques
- Proficiency in performing assignments on multiple projects and timelines
- Knowledge in human genetics and genomics
- Strong organizational skills
- Excellent written and oral communication skills

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
 - **Overall GPA:** 3.00
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([8](#))

Affirmation I certify that I have not previously been employed by CDC or by a contractor working directly for CDC. I understand that CDC does not permit individuals with a prior employment relationship with CDC or its contractors to participate as trainees in the ORISE program. (Exceptions may be granted for individuals who, since the previous CDC employment, have obtained a new STEM degree which necessitates training in a new field.)