

Genome Science and Leadership Initiative (GSLI)

University of Colorado Denver, Denver, CO

June 2 – 8, 2019

Presented by: Larry Hunter, Timberley Roane, and Chris Miller, *University of Colorado Denver*; Joslynn Lee, *Howard Hughes Medical Institute*



WORKSHOP The goal of the workshop is to introduce participants to the connection and importance of the natural world to molecular biology and genomics. Participants will gain hands-on laboratory and computational experience to explore the presence of bacteria in environmental samples affected by industrial pollution, and in associated remediation facilities. This experience will introduce the latest DNA technologies, current computational biology tools and data science methods to investigate the hidden world of microbial communities. Participants will learn about science career paths and leadership philosophy/practices.

ELIGIBILITY Applicants must be a current undergraduate student majoring in science or science

education, and/or be currently in a science internship and have a GPA of 2.5 or above and provide a recommendation from a member of the science faculty (or staff). Students from groups underrepresented in science are encouraged to apply. American Indians and Alaska Natives students will be given priority but no one will be excluded from consideration based on their ethnic background.

Tentative schedule:

March 2019 - Sample Collection in Colorado (optional)

Sun June 2 - Arrive at CU Denver campus, Denver, CO

Mon June 3 - Visit contaminated watersheds and remediation sites near Denver, and meet local scientists

Tues June 4 - Molecular Biology: Perform sample preparation of environmental samples

Wed June 5 - Introduction to Bioinformatics: 16S rRNA data processing of environmental samples

Thurs June 6 - Data Science: Understanding microbial communities through statistics and predictive modeling

Fri June 7 - Data Science: Explore the microbial co-occurrence patterns of environmental samples

Sat May 8 - Depart from CU Denver campus, Denver, CO

See highlights from the workshop program from 2018: <http://bit.ly/gсли2018-overview>

APPLICATION

The following documents must be complete:

1. Fill out the application online: (<http://bit.ly/GSLI-CU Denver>)
2. Resume and most recent college transcript(s) (unofficial is acceptable in Word or PDF format)
3. Name / phone number / email of a science faculty or science staff member who will serve as a reference.

Applications will be considered starting February 8, 2019 and resume and transcripts should be sent by email to: Dr. Timberley Roane (Timberley.Roane@ucdenver.edu)

Housing and all meals will be arranged and paid by the workshop. Students will receive stipends for their time. Attendees will be responsible for travel to University of Colorado Denver, Denver, CO.
Questions? Contact Dr. Timberley Roane (Timberley.Roane@ucdenver.edu)

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