



CLEMSON UNIVERSITY UNIVERSITY OF DELAWARE  
DELAWARE STATE UNIVERSITY TULANE UNIVERSITY

# RESEARCH EXPERIENCE FOR UNDERGRADUATES @ Clemson, Delaware, Delaware State, or Tulane

## 10-week duration

### Date window: May 15<sup>th</sup> – Aug. 7<sup>th</sup>

\*Actual dates determined by hosting institution

Clemson University, University of Delaware, Tulane University, and Delaware State University are collaborating to better understand the Chinese hamster ovary (CHO) cell line, which is used to manufacture most biopharmaceuticals.

This project studies genomic instability in CHO cells by developing a quantitative understanding of the complex interactions between the genome and environment that generates the variable phenotypes. CHO cells provide a unique opportunity to address the complex interactions between the genome and phenome, as CHO cells can be cultured in very tightly controlled environments (bioreactors) to generate variable phenomes due to genome instability.

Students will be exposed to this cutting-edge research working with graduate students, post-doctoral researchers, and professors. Projects are highly integrated such that REU students will work in one area but will have opportunities to interact with researchers in other areas that include the *bioreactor optimization*, *transcriptome analysis*, *multivariate analysis*, *bioinformatics*, *molecular biology*, and *product characterization* teams as well. A major emphasis of the grant includes broadening participation for which all participants must take an active role.

*Program adjustments may occur due to COVID-19 pandemic.*

# REU OPPORTUNITY

## APPLY:

Applications due

**Friday, March 4<sup>th</sup>, 2022**

Send application documents to:  
CHOg2p@tulane.edu

## FIND OUT MORE:

[cecas.clemson.edu/CHOg2p](https://cecas.clemson.edu/CHOg2p)

Email: [CHOg2p@tulane.edu](mailto:CHOg2p@tulane.edu)

- Stipend of \$5000
- Dorm housing fees are covered
- Meal plans are available but will need to be covered by the students from stipends. *A la carte* plans are available at each institution
- Student researchers will be able to present their work at a research symposium the end of summer on site at Clemson University. Travel and accommodations will be provided.

### Eligibility

- **Rising juniors and seniors** from accredited undergraduate institutions who are U.S. citizens or permanent residents
- Strong academic record in: **chemical engineering, bioengineering, math, computer science, biology, bioinformatics, biotechnology** or other related disciplines.
- Underrepresented groups are strongly encouraged to apply, as well as those from academic institutions with limited research opportunities