

## **2021 Biotechnology Summer Experience Lawrence Livermore National Laboratory (LLNL)**

The 2021 LLNL Biotechnology Summer Experience is a virtual, two-week, half-day program which to engage high school students in an authentic research project in bioinformatics and molecular biology. It focuses on DNA sequence analyses of genes from a fresh-water aquatic plant that is of interest to the scientific community, *Landoltia punctata*, and how these genes compare to those found in other species. No laboratory experiments will be performed during this program, but students will gain knowledge and understanding of many techniques used in molecular biology.

This intense 10-day experience begins on Monday July 12, 2021 and will run weekdays, ending on Friday July 23, 2021; it will be offered entirely online. High school students who are accepted in to the 2021 Biotechnology Summer Experience program will:

- participate in on-line seminars
- analyze gene sequences from DNA fragments using the same bioinformatic tools used by practicing scientists worldwide
- submit approved DNA sequences for publication in an international repository, with each published sequence acknowledging the student by name

### **ELIGIBILITY:**

- 16 years or older by the start of the workshop
- US citizen
- Cumulative GPA of 3.3 or higher

### **How to apply:**

- Submit completed Application Form below and Statement of Interest.
- Submit most recent high school transcript; an unofficial copy is acceptable.
- Submit a Letter of recommendation from recent high school science teacher; this school year or last school year. Preferred recommenders: Biology or Chemistry teachers.
- Application must be received by **MAY 21, 2021**.

Applicants will be accepted based on the review of their academic background, statement of interest, and letter of reference. This virtual program is free of charge.

### **When is the LLNL-Biotech Program?**

- The program runs weekdays beginning Monday, July 12 through Friday, July 23, 2021.
- The program begins each day at 9:00 AM and concludes by 1:00 PM.
- Students are expected to attend and participate fully each day of the 10-day session.

### **Where is the LLNL-Biotech Program?**

- The LLNL-Biotech Program will be held online through Webex. Links will be provided upon acceptance into the program.

**Application for 2021**  
**Lawrence Livermore National Laboratory (LLNL)**  
**LLNL Biotechnology Summer Experience**

**Student Personal Information**

Name \_\_\_\_\_ Gender \_\_\_\_\_

Address \_\_\_\_\_ Home Telephone \_\_\_\_\_

Student email address: \_\_\_\_\_ Student Cell number: \_\_\_\_\_

Name of Parent/Guardian \_\_\_\_\_ Parent Cell number: \_\_\_\_\_

Emergency Contact Name: \_\_\_\_\_ Emergency Contact cell number: \_\_\_\_\_

Do you have any special needs? \_\_\_\_\_

**Student School Information**

Name of High School \_\_\_\_\_ Grade in Fall 2021: \_\_\_\_\_

Current Cumulative G.P.A.: \_\_\_\_\_ G.P.A. in Science Courses: \_\_\_\_\_

Do you have experience working in a science laboratory? \_\_\_\_\_

Name of Science Teacher providing letter of recommendation: \_\_\_\_\_

List science courses and grades received while attending high school:

Describe science projects or independent research you have participated in at high school or in the community:

**REQUIRED STATEMENT OF INTEREST:** “Describe your interest in science and why you would like to participate in the LLNL Biotechnology Summer Experience?” in 350 words or less.

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Student Signature (Type name in the box) Date

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Parent Signature (Type name in the box) Date

**PLEASE SUBMIT COMPLETED APPLICATIONS BY EMAIL TO:**

Dr. Joanna Albala  
Manager, Science Education Program  
Lawrence Livermore National Laboratory  
stem-education@llnl.gov