

February 17, 2022

2022–2023 AlgaePrize Competition Office Hours Webinar

Dr. Ira “Ike” Levine, President, Algae Foundation and Professor, University of Southern Maine

Christy Sterner, Technology Manager for the Advanced Algal Systems Program, Bioenergy Technologies Office



U.S. DEPARTMENT OF ENERGY
AlgaePrize
NextGen Algal Innovators

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Today's Agenda

- I. AlgaePrize Presentation
- II. AlgaePrize Question and Answer

Today's Presenters



Dr. Ira "Ike" Levine

**President, Algae Foundation and
Professor, University of Southern Maine**



Christy Sterner

**Technology Manager, Advanced
Algal Systems Program, Bioenergy
Technologies Office (BETO)**

Dr. Ira “Ike” Levine
President, Algae Foundation
and Professor, University of
Southern Maine

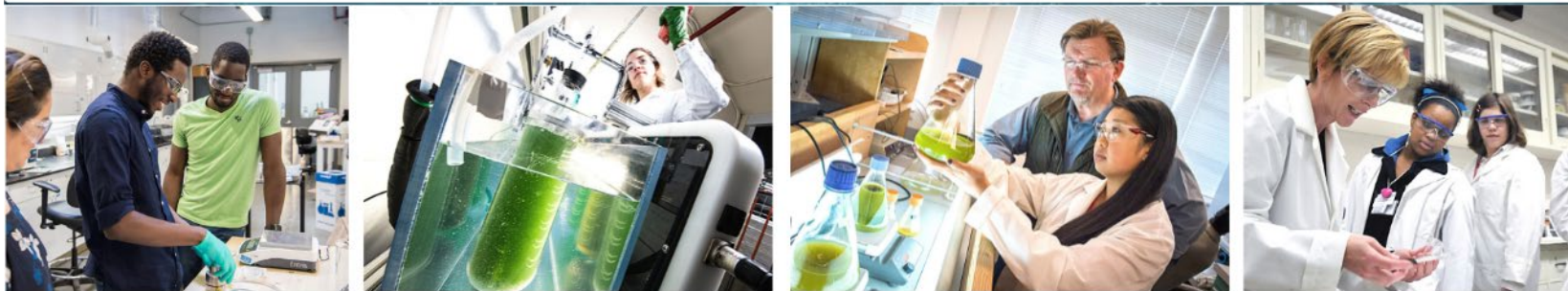




U.S. DEPARTMENT OF ENERGY
AlgaePrize
NextGen Algal Innovators

HIGH SCHOOL THROUGH GRADUATE-LEVEL
STUDENTS GET READY TO GET INNOVATIVE WITH

ALGAE



REGISTRATION IS NOW OPEN AT [ENERGY.GOV/ALGAEPRIZE](https://energy.gov/algaeprize)



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AlgaePrize

NextGen Algal Innovators

The AlgaePrize competition encourages students to pursue innovative ideas for the development, design, and invention of technologies within the commercial algae value chain.

energy.gov/AlgaePrize

The AlgaePrize competition is sponsored by:



With support from:

AlgaeFoundation

We see a future that embraces algae as an essential solution for a sustainable and healthy planet. Our mission is to create that future through education, mentoring, and public outreach and engagement.

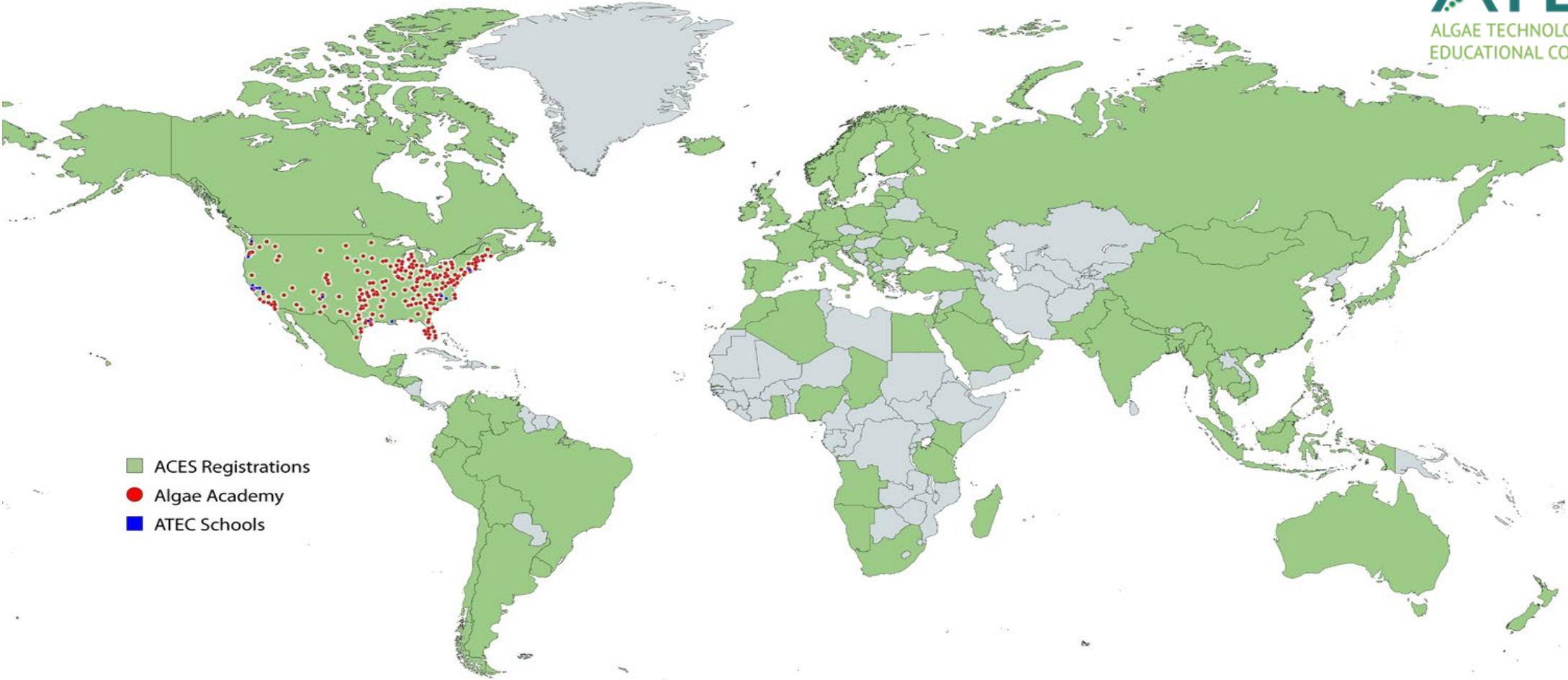


National Renewable Energy Laboratory

The National Renewable Energy Laboratory (NREL) is transforming energy through research, development, commercialization, and deployment of renewable energy and energy efficiency technologies.



Algae Technology Educational Consortium (ATEC)



- Reached over 120,000 student participants in last 4 years
- All 50 U.S. States and 100 countries

AlgaePrize Overview

- Students pursue innovative ideas for the development, design, and invention of algal commercialization technologies
- 16-month long competition
- Develop real-world solutions
- Work with industry professionals, national lab researchers, and academics.



energy.gov/AlgaePrize

AlgaePrize Eligibility

The 2022–2023 AlgaePrize competition:

- Teams of two or more students currently enrolled in a U.S.-based:
 - High school
 - Community college
 - College
 - University
 - Graduate program.



Photos courtesy of NREL and the Algae Technology Educational Consortium

AlgaePrize Research Areas of Interest

Production

- Cultivar enhancement
- Aquaculture engineering
- Husbandry and productivity

Downstream Processing

- Harvesting, dewatering, and processing
- Development of biorefinery applications

Identification of Novel Products or Tools

- New product development
- Remote sensing and modeling
- Ecological/environmental services



Photo courtesy of NREL

AlgaePrize Timeline



Photo courtesy of Unsplash

- **March 2, 2022** – Teams must register and submit 500-word research abstract.
- **April 6, 2022** – Deadline for 10-page research synopsis.
- **April 20, 2022** – AlgaePrize finalists announced.
- **April 25–May 6, 2022** – Finalists present their research synopsis.
- **August 3, 2022** – Deadline for Research Update #1.
- **November 2, 2022** – Deadline for Research Update #2.
- **February 1, 2023** – Deadline for Research Update #3.
- **March 22, 2023** – Deadline for 25-page Research Project Final Report.
- **April 12, 2023** – Deadline for team presentation files.
- **April 14–16, 2023** – AlgaePrize Competition Weekend Event at the National Renewable Energy Laboratory (NREL) in Golden, CO. AlgaePrize winners announced.



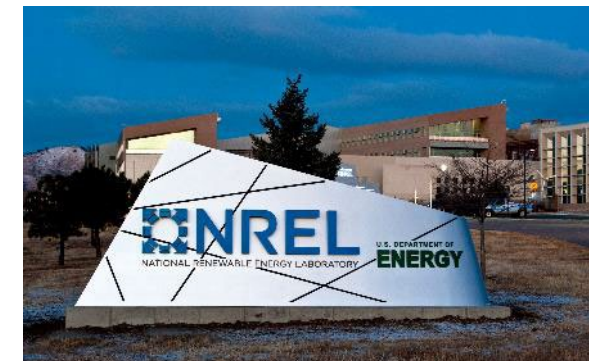
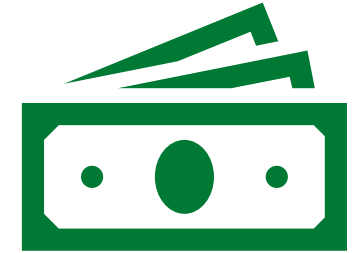
AlgaePrize Prizes

Research Synopsis Prize (April 2022)

- 15 student teams selected as AlgaePrize finalists (\$5,000 each team)

Final Awards (April 2023)

- 15 finalist teams present research at AlgaePrize Competition Event at National Renewable Energy Laboratory
- Five teams selected as AlgaePrize winners (\$10,000 each team)
- Five teams present research to judge panel
- Grand Champion winner awarded grand prize (\$5,000)



Christy Sterner

Technology Manager, Advanced Algal
Systems Program, Bioenergy
Technologies Office (BETO)

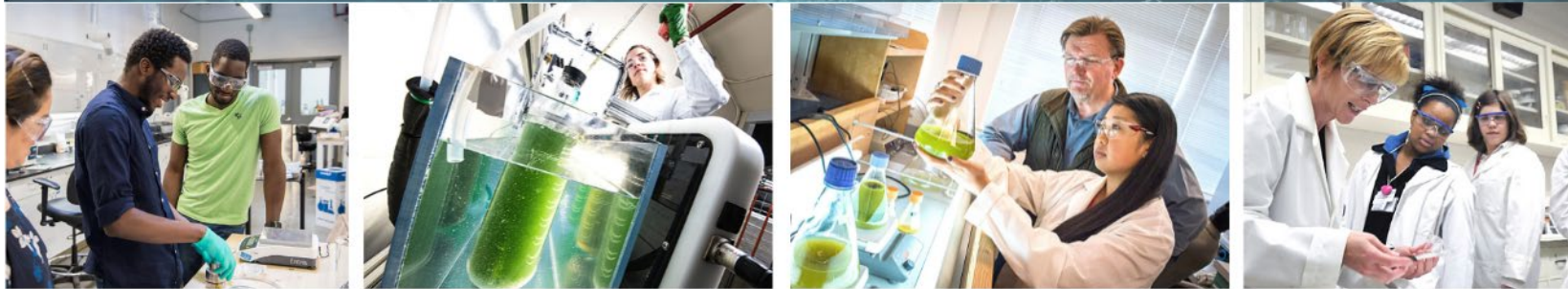




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Defining Algae

The AlgaePrize defines algae as:

- Microalgae (microscopic photosynthetic eukaryotic organisms and cyanobacteria)
- Macroalgae (seaweed)



Photos courtesy of NREL

Algae's Unique Properties

Potential to grow in every U.S. state



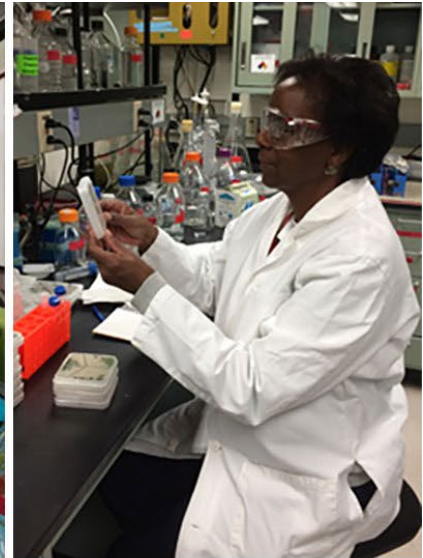
Some algal strains can double overnight



Up to 10x more productive than some terrestrial biocrops



Examples of AlgaePrize Areas of Interest



U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY
BIOENERGY TECHNOLOGIES OFFICE

thealgae foundation

NREL
Transforming ENERGY

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AlgaePrize Resources

- Visit energy.gov/AlgaePrize for details
- Email algaeprize@ee.doe.gov with questions

A promotional graphic for the AlgaePrize competition. The background is an underwater scene with sunlight filtering through the water. At the top center is the AlgaePrize logo, which features a green laurel wreath surrounding a circular emblem containing several green spheres. To the right of the logo is the text "U.S. DEPARTMENT OF ENERGY AlgaePrize NextGen Algal Innovators". Below the logo and text is a dark blue rectangular box with white text that reads "STUDENTS, YOUR JOURNEY IN ADVANCING THE ALGAE-BIOECONOMY CAN START NOW!". Below this box, the word "ALGAE" is written in large, bold, green letters, with the letters themselves filled with images of algae. At the bottom of the graphic, the text "JOIN THE ALGAEPRIZE TODAY" is written in white, bold, uppercase letters. At the very bottom, a green horizontal bar contains the text "APPLICATIONS ARE DUE MARCH 2, 2022" in white, bold, uppercase letters. There are also several small circular inset images showing people working in a laboratory or office setting.

Thank you!

Questions for the AlgaePrize team?

General email: algaeprize@ee.doe.gov



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AlgaePrize information and registration: energy.gov/AlgaePrize

Learn more about the Bioenergy Technologies Office: energy.gov/bioenergy