U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

STEMtember – Ready, Set, Join the BETO Webinar on Internship and Fellowship Opportunities!

Presenters:

Ebony Brooks, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy

Tiffany Jones, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy

Ali Josephson, Idaho National Laboratory

Dr. Brad Wahlen, Idaho National Laboratory

September 29, 2022

Webinar Housekeeping

- Attendees will be in listen-only mode
- Audio connection options:
  - Computer audio
  - Dial in through your phone (best connection)
- Automated closed captions are available
- Technical difficulties? Contact us through the chat section, lower right of your screen
- Use the Q&A window to ask questions
- Today's webinar will be recorded and posted to "BETO Webinars": energy.gov/eere/bioenergy/beto-webinars

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About the Bioenergy Communicators (BioComms) Working Group

Sponsor:

- U.S. Department of Energy (DOE)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Bioenergy Technologies Office (BETO)

BETO & DOE National Laboratory Members:

- Bioenergy communicators, laboratory relationship managers, BETO tech team, and education and workforce development professionals

Purpose:

- Communications strategy for BETO-funded bioenergy research and development

Photo by iStock

Today's Agenda

I. Ebony Brooks and Tiffany Jones, Internship and Fellowship Opportunities at DOE EERE

II. Ali Josephson, Building the Workforce of the Future at Idaho National Laboratory

III. Dr. Brad Wahlen, Interning at Idaho National Laboratory

Photo courtesy of iStock

Today's Presenters

Ebony Brooks
DOE EERE

energy.gov/eere

Tiffany Jones
DOE EERE

energy.gov/eere

Ali Josephson
Idaho National Laboratory

inl.gov

Dr. Brad Wahlen
Idaho National Laboratory

inl.gov

Ebony Brooks

Staffing, Onboarding, and Security Supervisor

DOE EERE

Tiffany Jones

Workforce Management Office Staffing Liaison

DOE EERE

U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

Internship and Fellowship Opportunities

Ebony Brooks and Tiffany Jones

Who is EERE?

About the Office of Energy Efficiency and Renewable Energy

The Office of Energy Efficiency and Renewable Energy (EERE) is working to build a clean energy economy that benefits all Americans through energy efficiency, renewable energy, and sustainable transportation.

What Does EERE Do?

EERE invests in clean energy technologies that show viable pathways for achieving EERE's programmatic priorities: decarbonizing the electricity, transportation, industrial, and agricultural sectors, and reducing the carbon footprint of buildings.

EERE's Three Pillars

Energy Efficiency

Research and development in advanced manufacturing and building technologies.

Renewable Energy

Applied research, development, and demonstration (RD&D) activities to make renewable energy—geothermal, solar, wind, and water power—cost-competitive with traditional sources of energy.

Sustainable Transportation

RD&D in bioenergy, hydrogen and fuel cells, and vehicles to increase access to domestic, clean transportation fuels and improve the energy efficiency, convenience, and affordability of transporting people and goods.

Internship and Fellowship Opportunities

Federal Opportunities

- Internships (https://www.usajobs.gov/)
- Recent Graduates (https://www.usajobs.gov/)
- Presidential Management Fellows (https://www.pmf.gov/)

Non-Federal Opportunities

- Minority Educational Institution Student Partnership Program (MEISPP)
- DOE Scholars
- EERE Science and Technology and Policy Fellowships
- American Association for the Advancement of Science (AAAS) Science & Technology Policy Fellowship

Bonus

- Student Volunteer Internship Program

Internships

Federal Opportunity

Pathways

- Student Trainee/Student Intern
  - Apply on usajobs.gov

Non-Federal Opportunity

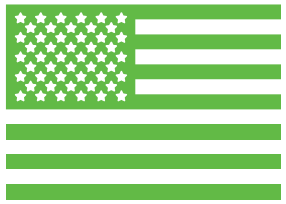
- MEISPP is open to students pursuing a variety of academic degrees, such as engineering, science, social sciences, and business.
- The DOE Scholars program is accepting applications now for interns and fellows and may offer several application opportunities throughout the year.

U. S. Department of Energy
DOE
SCHOLARS PROGRAM

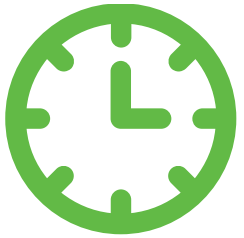
Minority Educational Institution Student Partnership Program

To be eligible, you must:

Be an undergraduate or graduate student enrolled full-time in an accredited Minority Serving Institution (MSI).



Be at least 18 years of age and a U.S. citizen (permanent residents and green card holders are ineligible).



Have earned at least 24 undergraduate semester hours (39 quarter credit hours).

Maintain a minimum overall GPA of 3.0 on a 4.0 scale.

Minority Educational Institution Student Partnership Program

Ideal candidates will demonstrate the following:

Leadership potential

Commitment to public service

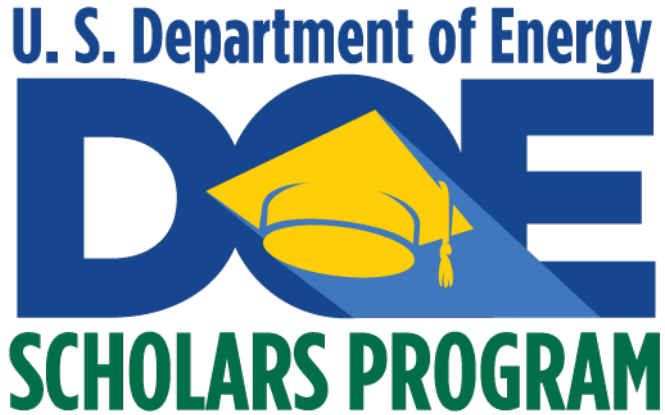
Interest in energy-related issues

Strong written and verbal communication skills

DOE Scholars

To be eligible you must:

- Be at least 18 years of age **AND** a U.S. citizen.
- Meet one of the following conditions:
  - Be enrolled as an undergraduate or graduate student at an accredited institution of higher education pursuing or with a degree in science, technology, engineering, or math (STEM) **or** a field that supports DOE's operations, such as communications, management, business, or law.
  - Have completed an undergraduate or graduate degree within 5 years of the intended start date.
  - Be a U.S. military veteran who has been honorably discharged and/or medically discharged and who received a college degree in an appropriate discipline within 10 years of the desired start date.
  - Have completed a qualifying certificate STEM program, with a minimum of 30 semester credit hours or the equivalent, by an accredited academic institution within one year of the desired start date. The certificate program should be related to or complement a prior degree earned (bachelor's or higher).



Fellowships

Federal Opportunity

Pathways

- Recent Graduate
  - Apply on usajobs.gov

Non-Federal Opportunity

Managed by ORISE

- EERE Science and Technology and Policy Fellowships
- AAAS Science & Technology Policy Fellowship
- DOE Scholars (interns and fellows)
  - View open opportunities.

AAAS | Science & Technology Policy Fellowships

EERE Science and Technology and Policy Fellowships

Appointments will be awarded to applicants based on academic level and experience.

Level 1

For recent college graduates who have held a bachelor's degree for less than 5 years at the time of application.

Level 2

For recent master's or Ph.D. graduates who have held a graduate degree for less than 3 years at the time of application.

Level 3

For master's or Ph.D. graduates who have held a graduate degree for more than 3 years at the time of application and have post-degree experience in a technical or research capacity.

EERE Science and Technology and Policy Fellowships

Level 1

Required qualifications:

- Bachelor's degree for less than five years in an energy-relevant field of science, engineering or other highly quantitative field such as economics.
- U.S. citizenship or permanent resident (Green Card) status.
- Matriculated undergraduates may be considered for short-term appointments.

EERE Science and Technology and Policy Fellowships

Level 2

Required qualifications:

Ph.D. or master's degree for no more than 3 years in an energy-relevant field of science, engineering, or other highly quantitative field such as economics.

U.S. citizenship or permanent resident (Green Card) status.

EERE Science and Technology and Policy Fellowships

Level 3

Required qualifications:

Doctorate or master's degree for more than 3 years in an energy-relevant field of science, engineering, or other highly quantitative field such as economics. If more than 5 years have passed since receipt of graduate degree, applicant must have at least 3 years of post-degree experience in a technical or research position in a field related to energy innovation.

U.S. citizenship or permanent resident (Green Card) status.

Experience and knowledge in technology commercialization is desirable but not required.

EERE Science and Technology and Policy Fellowships

Ideal candidates will have:

A superior academic performance and publication record.

Strong analytical, research, and communication (oral and written) skills and demonstrated capacity for creative thinking.

A strong technical background and expertise in a field related to energy technology.

An interest in being part of a multi-disciplinary, fast-paced environment, focused on energy technology research and development.

AAAS Science & Technology Policy Fellowship

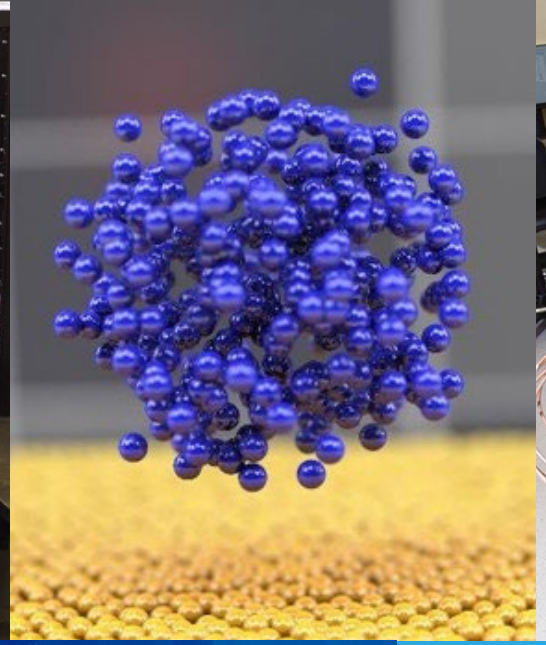
Applicants for Executive, Legislative, or Judicial Branches must:

- Hold a doctoral-level degree in a qualified field or a master's degree in engineering plus 3 years of professional engineering experience.
- Be a U.S. citizen (dual citizenship is acceptable).
- Be eligible to receive federal government funds through the System of Award Management (SAM).
- Comply with U.S. Selective Service System requirements.
- Not be a federal employee, including Title 42 positions and Presidential Management Fellowships.
- Not be an employee of AAAS or be working with AAAS through a paid engagement.

Ali Josephson

University Recruitment Manager

Idaho National Laboratory


Ali Josephson
Manager, University Recruiting
ali.josephson@inl.gov

Building the Workforce of the Future at Idaho National Laboratory (INL)

September 29, 2022

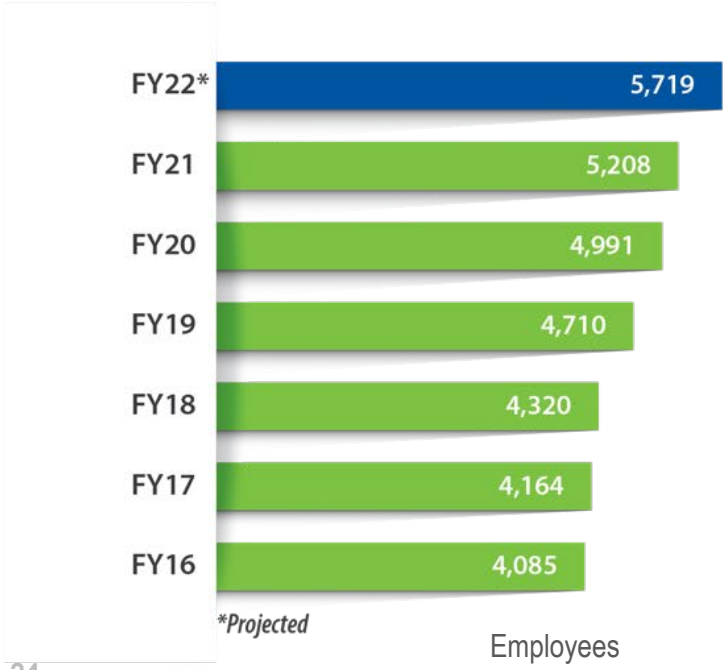
INL is managed by Battelle Energy Alliance
for the US Department of Energy

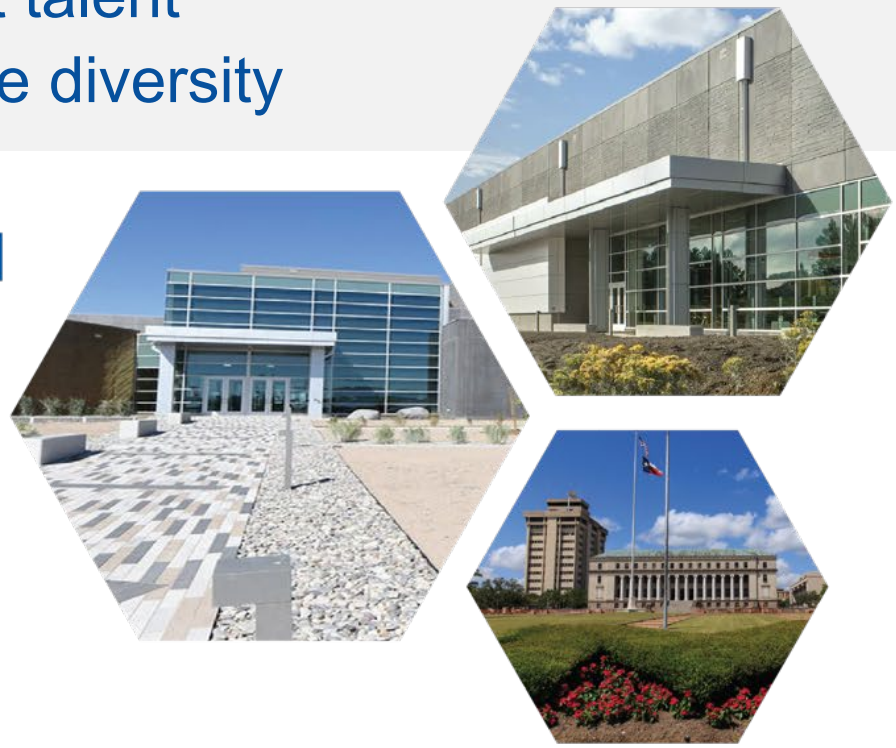
Idaho National Laboratory

Building the Workforce of the Future

INL is focused on:

- Working with universities nation-wide
- Recruiting the best talent
- Increasing inclusive diversity





In FY22, INL hosted 513 interns from:

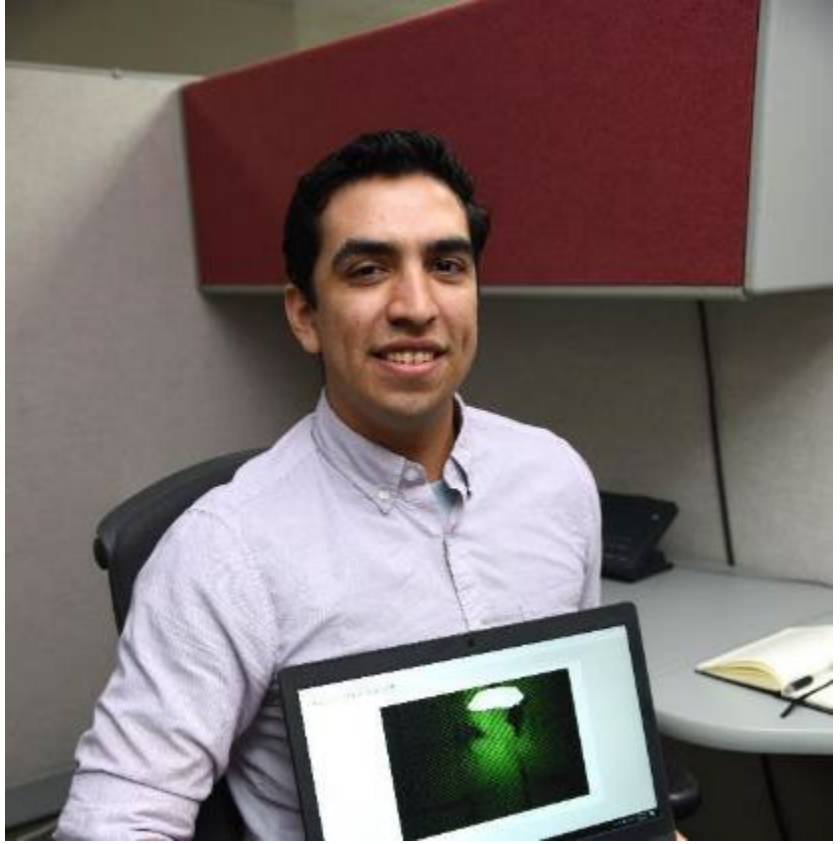
42 states + DC

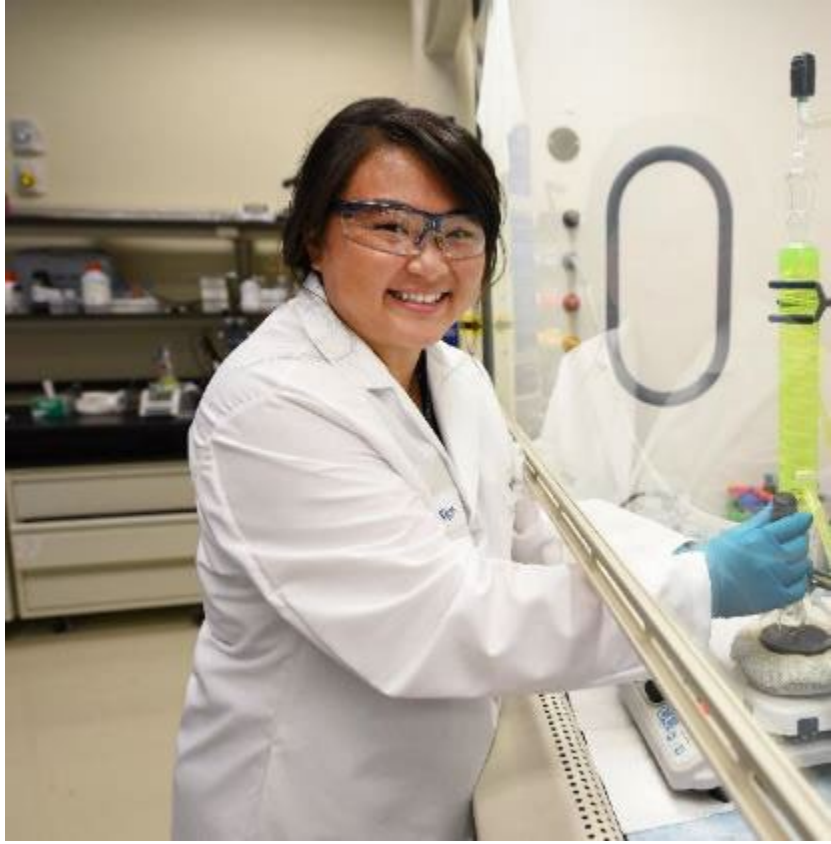
25 countries

151 HS, colleges, universities and Institutions represented

2,176 Intern applicants from 334 colleges and universities in FY22

Graduate fellowships **25**

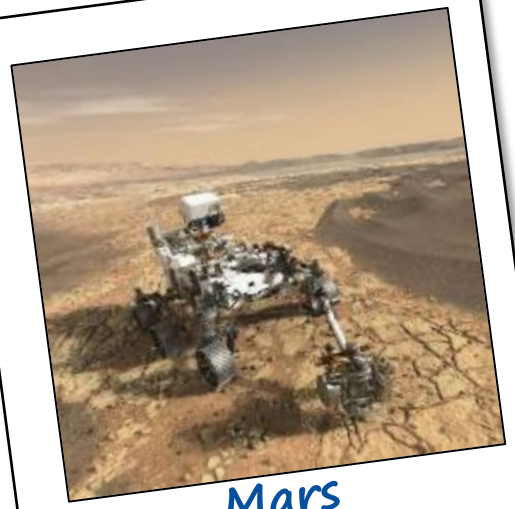




Benefits of interning at a national laboratory

- Designated Mentor
- Meaningful Projects
- Access to State-of-the-Art Research Facilities
- Hands-On Experience
- Long-Term Collaboration Opportunities
- Networking Opportunities
- Career Exploration

What We're Working On



Mars Perseverance Rover

Small Modular Reactors

Electric Vehicles

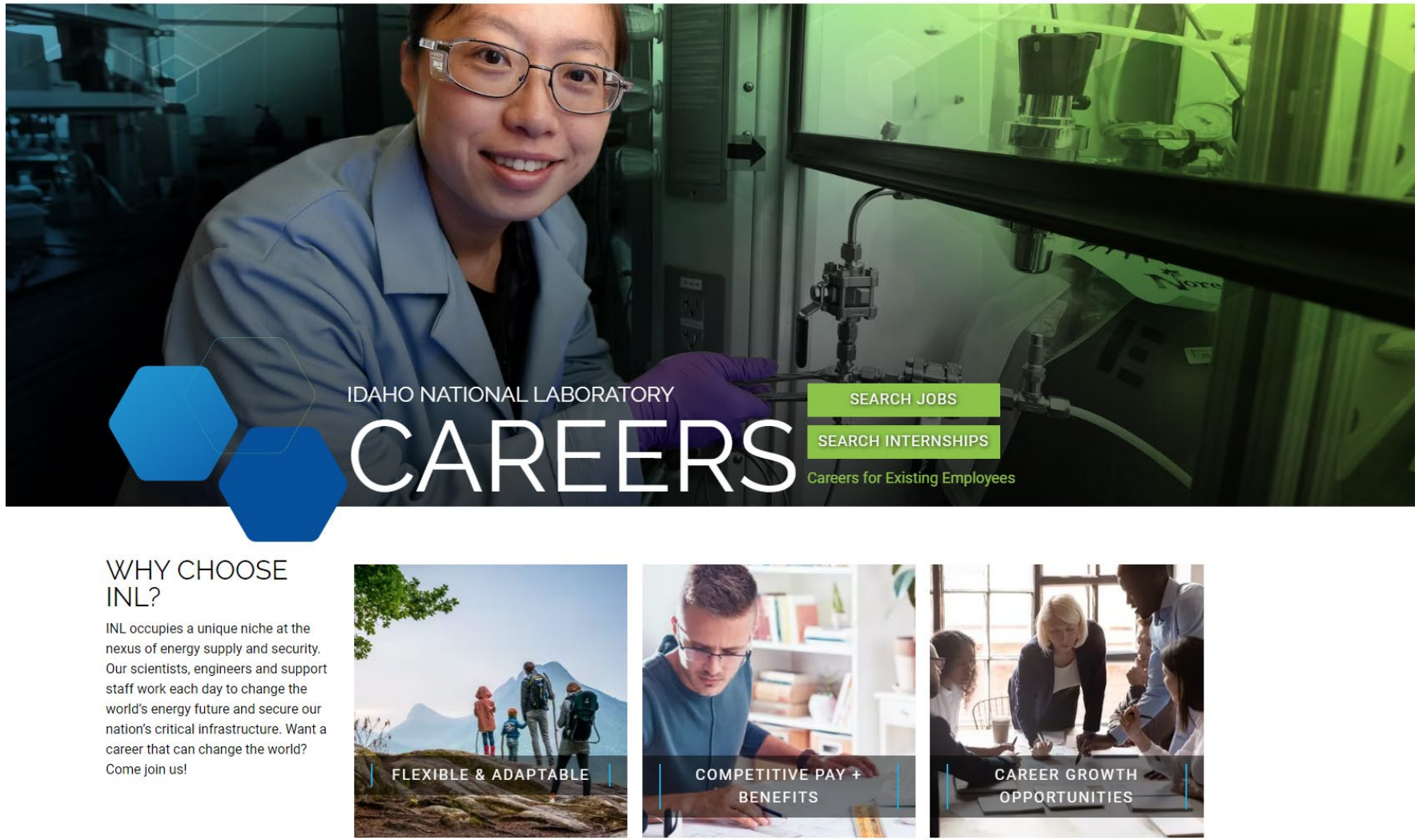
Biofuels Research

Artificial Intelligence

High Performance Computing

Microreactors

Wireless Test Bed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WHY CHOOSE INL?
INL occupies a unique niche at the nexus of energy supply and security. Our scientists, engineers and support staff work each day to change the world's energy future and secure our nation's critical infrastructure. Want a career that can change the world? Come join us!
FLEXIBLE & ADAPTABLE
COMPETITIVE PAY + BENEFITS
CAREER GROWTH OPPORTUNITIES
Find out why our employees love working at INL

Other DOE-Funded Internship Programs

Science Undergraduate Laboratory Internships (SULI)/ Community College Internships (CCI)

- Undergraduate and Community College Student Opportunities in STEM degree programs
- 10- and 16-week internships at national laboratories managed by DOE Office of Science
- Summer application period: October 18, 2022, to January 10, 2023
- Apply at https://science.osti.gov/wdts/suli

Minority Servings Institutions Partnerships Program (MSIPP) EM

- Opportunities for undergraduate and graduate students from minority serving institutions
- Focus on STEM degree programs
- 10-week internships working at national laboratories managed by DOE Office of Environmental Management (DOE-EM).
- Application deadline: February 28, 2023
- Apply at https://orise.orau.gov/msipp/

Energy Efficiency and Renewable Energy (EERE) and Advanced Manufacturing Office (AMO)

- EERE AMO offers three advanced manufacturing internship programs in robotics, energy storage, and high-performance computing designed
- Application and projects are listed on Zintellect.com

INL SULI Intern
Julie Nguyen

Commitment to Inclusion and Diversity

"We have so much to learn from those whose experiences and backgrounds differ from our own. Our work is difficult and complex. Producing the positive outcomes expected of us will only happen if everyone performs at their best."

–INL lab director, John Wagner

INL Newcomers in Leadership

Multiculturals in Leadership

PRISM 20x20

Veterans & People with Disabilities Leadership Council

Women in Leadership

INL Interns at the Intern Poster Session

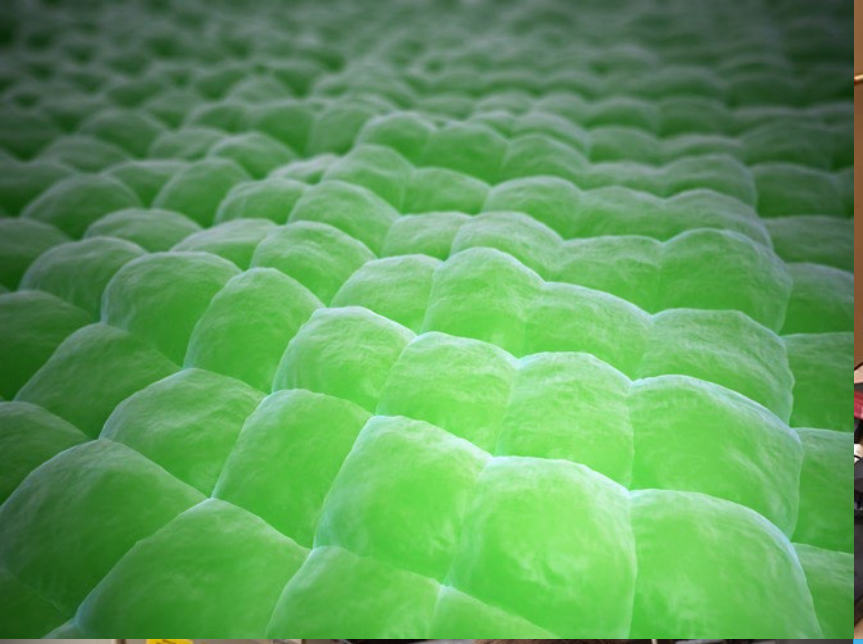
The East Idaho Lifestyle

- Enjoy unparalleled access to the region's world-class skiing, hiking, camping, climbing, mountain biking, hunting, fishing, and much more.
- Live close to some of the country's greatest natural wonders: Yellowstone National Park, Grand Teton National Park, Craters of the Moon National Monument, Jackson Hole, and more.

Dr. Brad Wahlen

Research Scientist

Idaho National Laboratory



September 29, 2022

Brad Wahlen
Research Scientist

Interning at Idaho National Laboratory (INL)

What to expect

Battelle Energy Alliance manages INL for the
U.S. Department of Energy's Office of Nuclear Energy

Idaho National Laboratory

Selection Process – Researcher Perspective

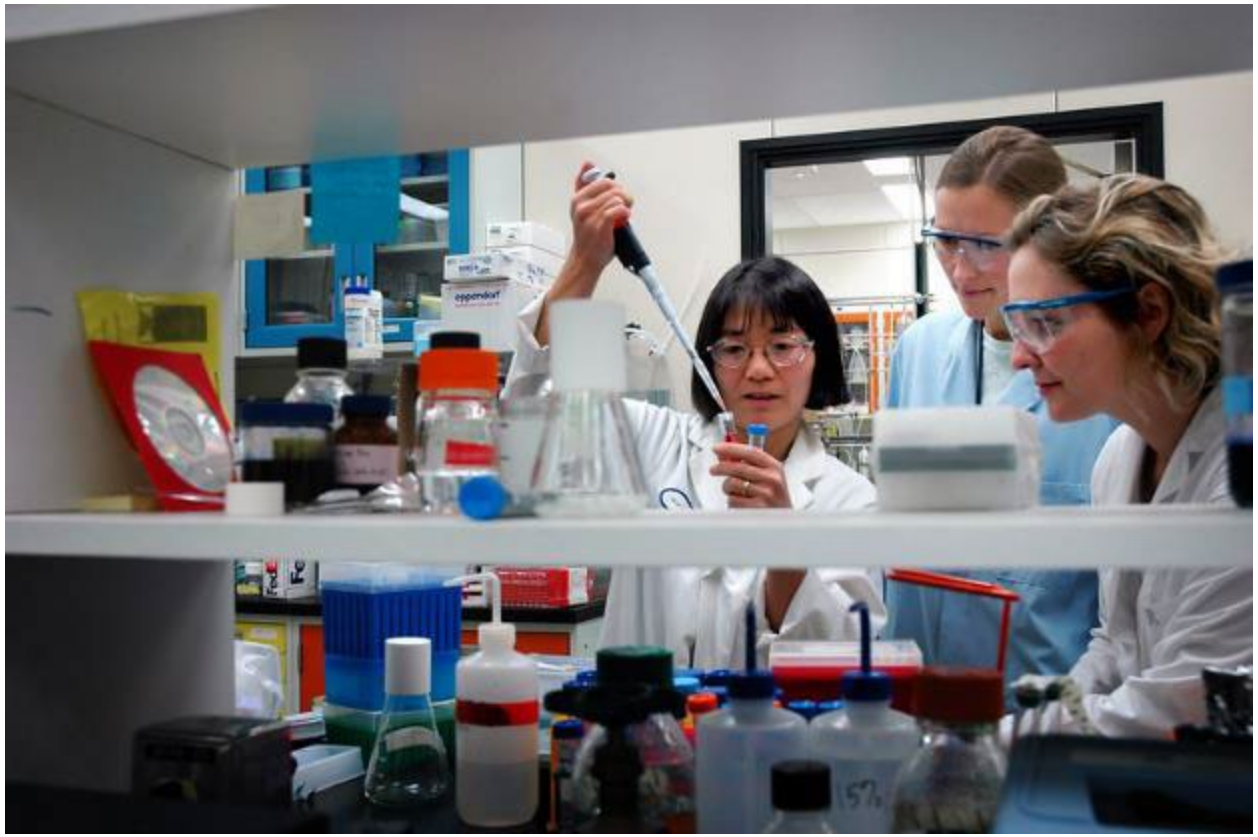
- Several months prior to the internship beginning. Researchers will evaluate internship candidates and identify those that match project needs:
  - Experience level
    - Some projects may require prior experience or a particular experience
    - Often prior experience isn't necessary. Providing experience to students is part of the internship experience
  - Courses taken
    - Project specific. Example, general microbiology may be needed for a project where bacteria cultivation will be a core activity
    - Academic success in core classes
  - Interests
    - Do intern interests match the project, generally.

Selection Process – Intern Perspective

- 2–3 candidates may be selected for a phone interview
  - Conversation between researcher and candidate
  - Discuss project and gauge candidate interest
  - General interview questions
  - Allow candidates to ask questions about the project or about the internship experience
  - Let the candidate know when to expect a decision.

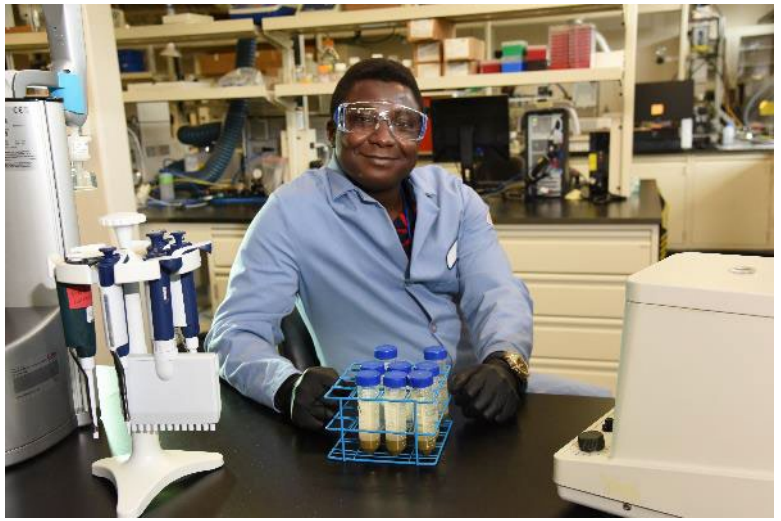
Training

- Research at national laboratories is conducted safely
  - All projects are reviewed for safety concerns.
- Interns will be given trainings to prepare them to execute work safely and confidently in the lab.
- In addition to formal training, interns will work beside their mentor and other lab personnel to learn techniques and to receive additional guidance and support.



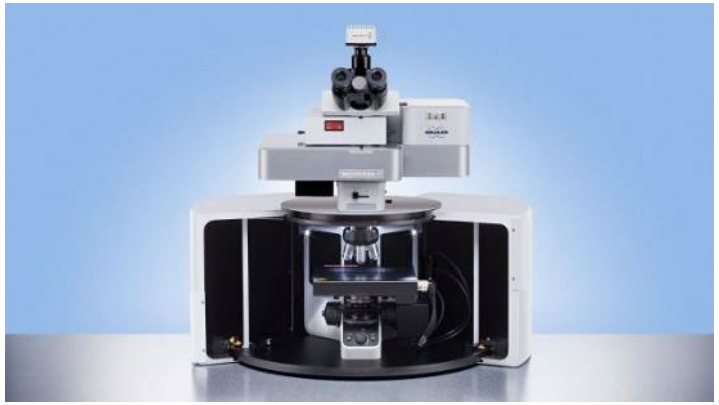
Research Execution

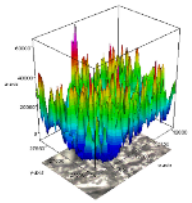
- Mentors will discuss project details with the student.
- Projects will support the mission of their respective national lab and the U.S. Department of Energy.
- The environment where the research is conducted could vary:
  - Lab-based, hands-on research using chemical, biological or mechanical processes to further research objectives
  - Software-based, a data-centric project may be executed entirely in the office
  - Hybrid, where research can occur in both environments.

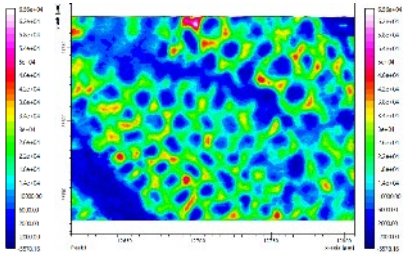


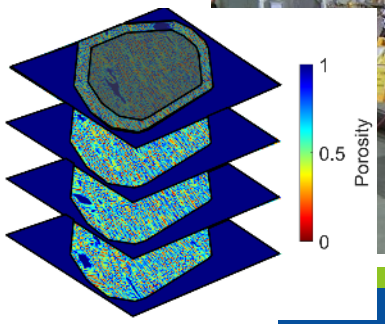
State-of-the-Art Instrumentation

- Student interns will have access to and gain experience using advanced instrumentation.



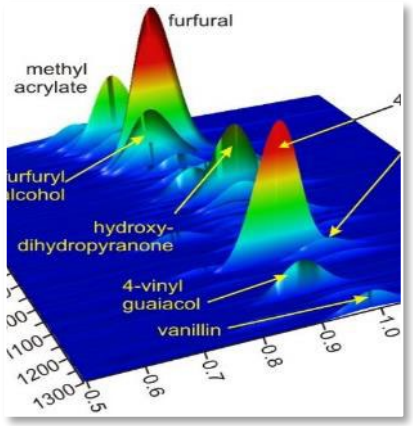


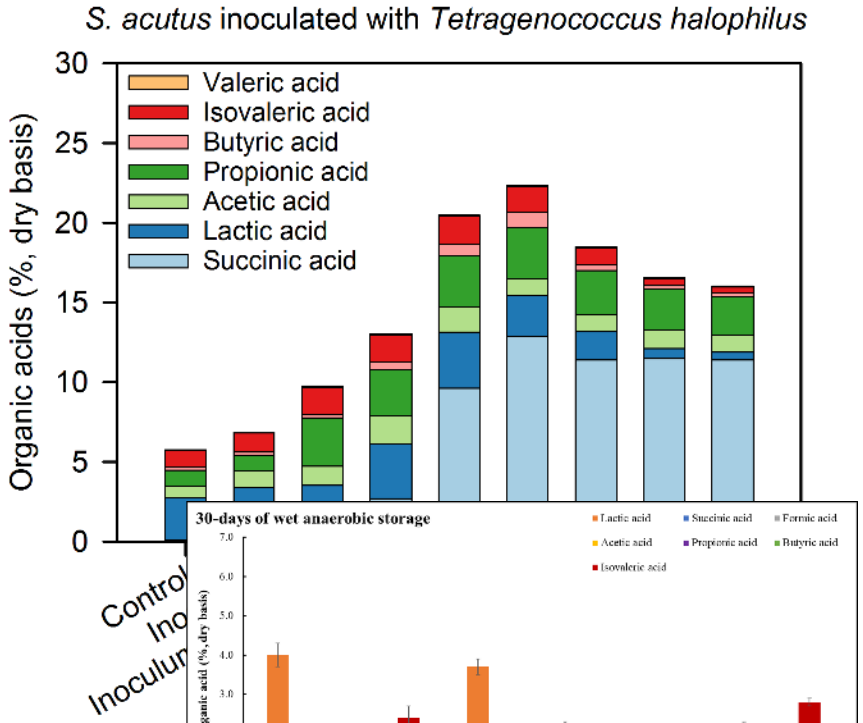


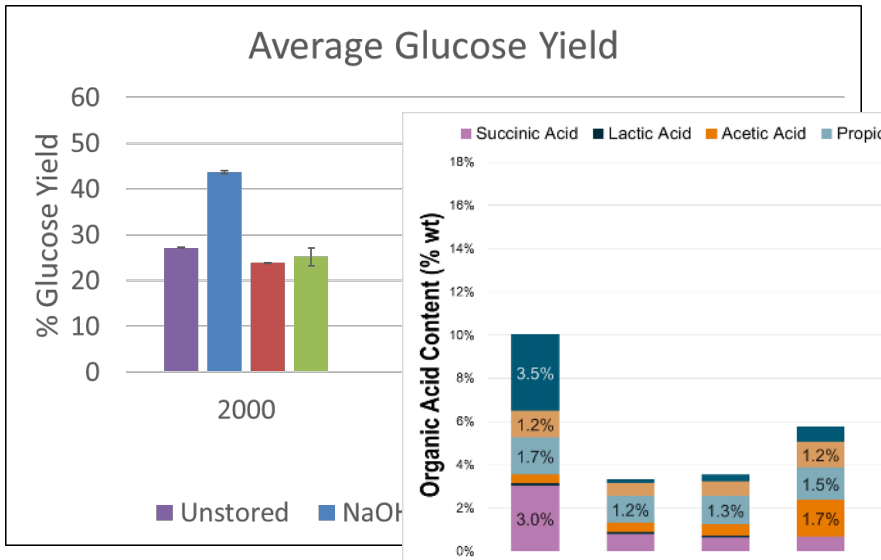


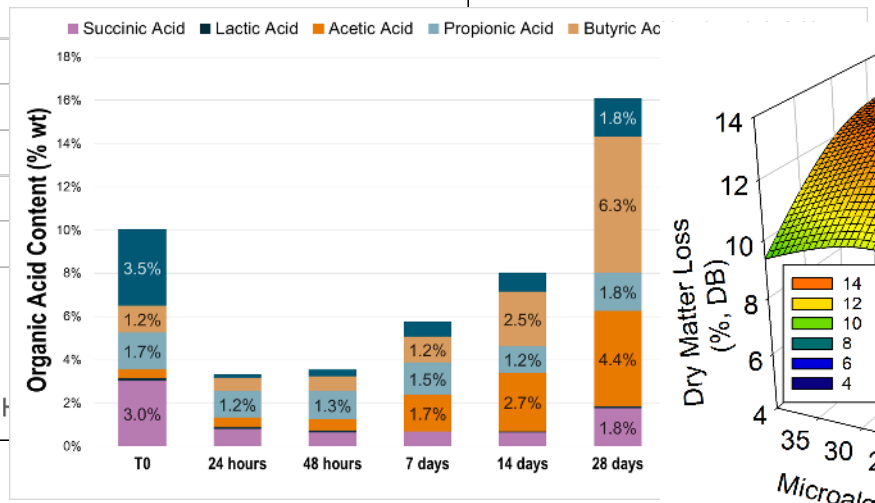
Analysis

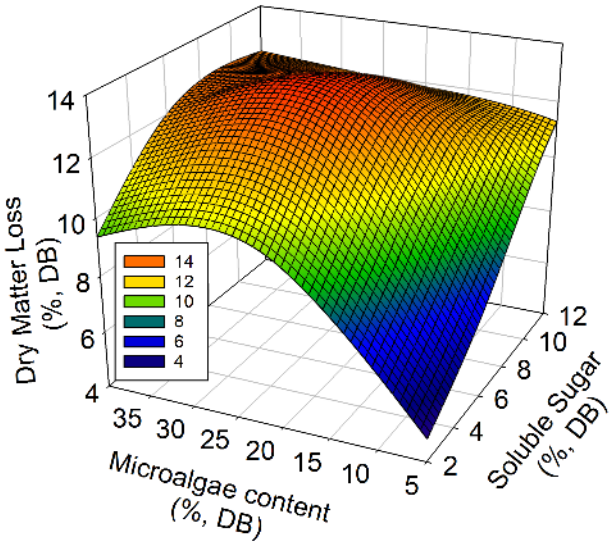
- Interns will work with their mentors to analyze the data and develop graphics to communicate their results.





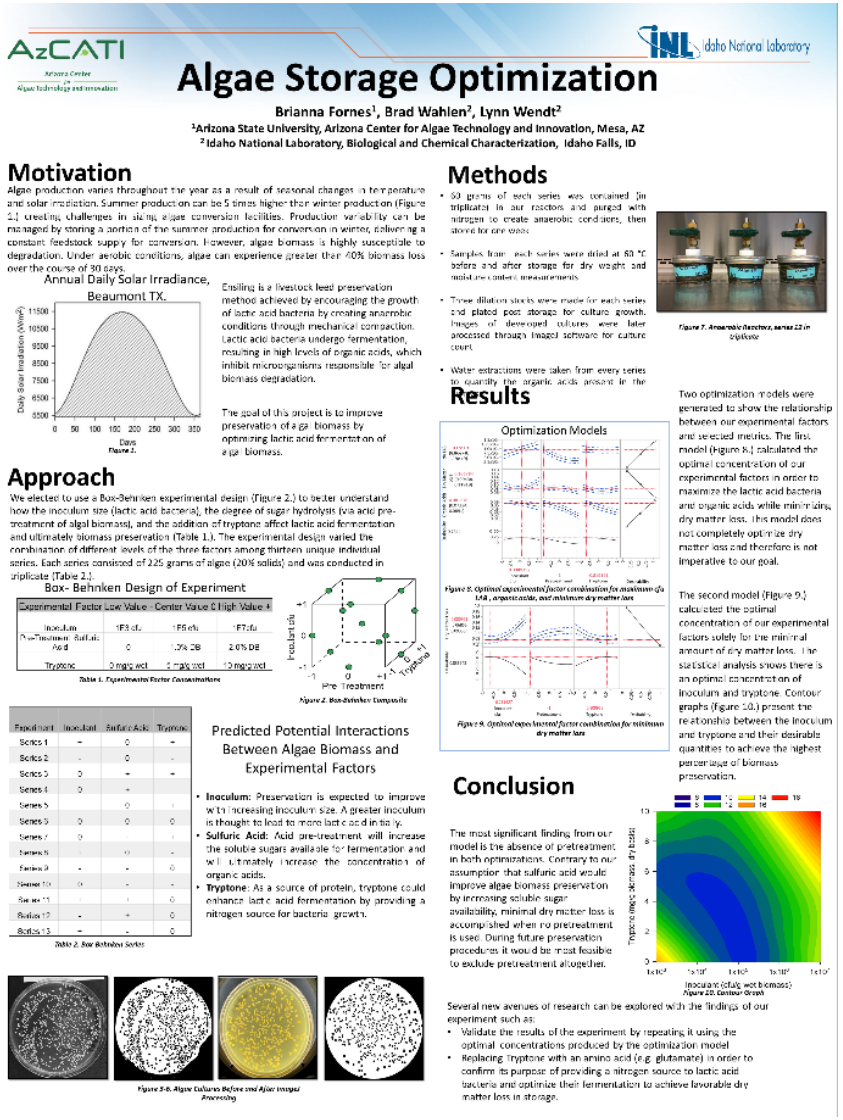






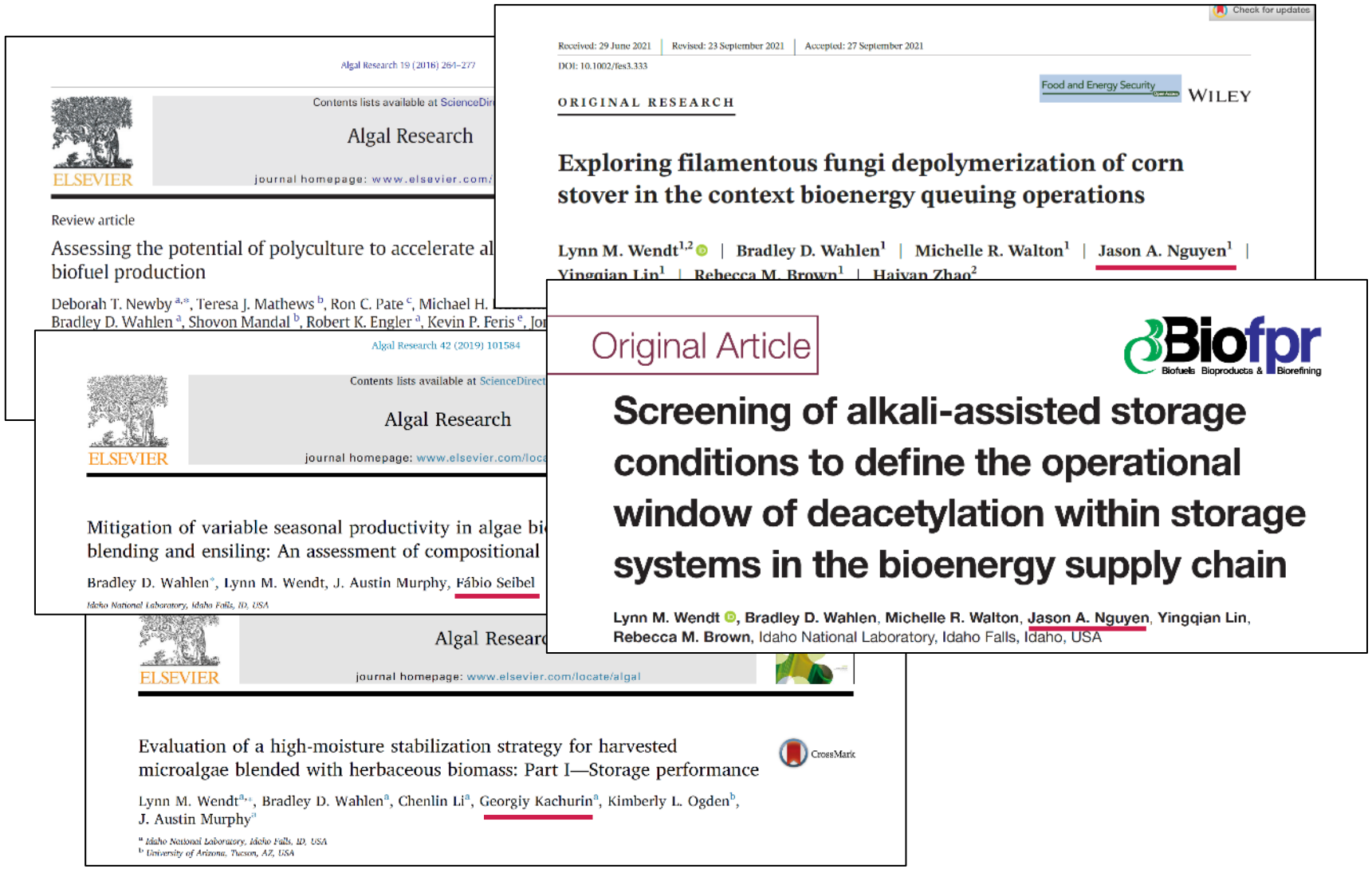
Communicate Results – Presentations

- Communication is an essential part of conducting science.
- Students participate in the annual intern poster session at INL.
- This can be intimidating for some early-career scientists.
- Mentors will work with interns to:
  - Develop the poster
  - Practice presenting the poster to mentor, other staff, and fellow interns
  - Receive constructive feedback.



Communicate Results – Publication

- Scientific authorship can be essential for career progression at all career stages.
- Interns can receive co-authorship recognition for their work in peer-reviewed journals.
- Multiple examples during career as intern mentor.



Intern and Mentor Impacts

- An internship at a national laboratory is a point of distinction that could you set you apart as an applicant to a job, graduate or professional school.
  - Skills and confidence gained will prepare you for future opportunities.
- Why do I choose to mentor?
  - Interns make meaningful contributions to projects and the lab mission.
  - Give aspiring scientists a research experience
    - Science is a great profession. The research experience can help interns see themselves working as a research professional.
    - Science is an apprenticeship vocation. You learn from other practitioners.
  - Personal fulfillment to help others.

Thank you!

Today's Presentation:

STEMtember – Ready, Set, Join the BETO Webinar on Internships and Fellowships Opportunities!

Didn't get your question answered? Email: eere_bioenergy@ee.doe.gov

Ebony Brooks
DOE EERE

Tiffany Jones
DOE EERE

Ali Josephson
Idaho National Laboratory

Dr. Brad Wahlen
Idaho National Laboratory

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Webinar Recording: energy.gov/eere/bioenergy/beto-webinars

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BIOENERGY TECHNOLOGIES OFFICE