



**BERKELEY LAB**

Bringing Science Solutions to the World



U.S. DEPARTMENT OF  
**ENERGY**

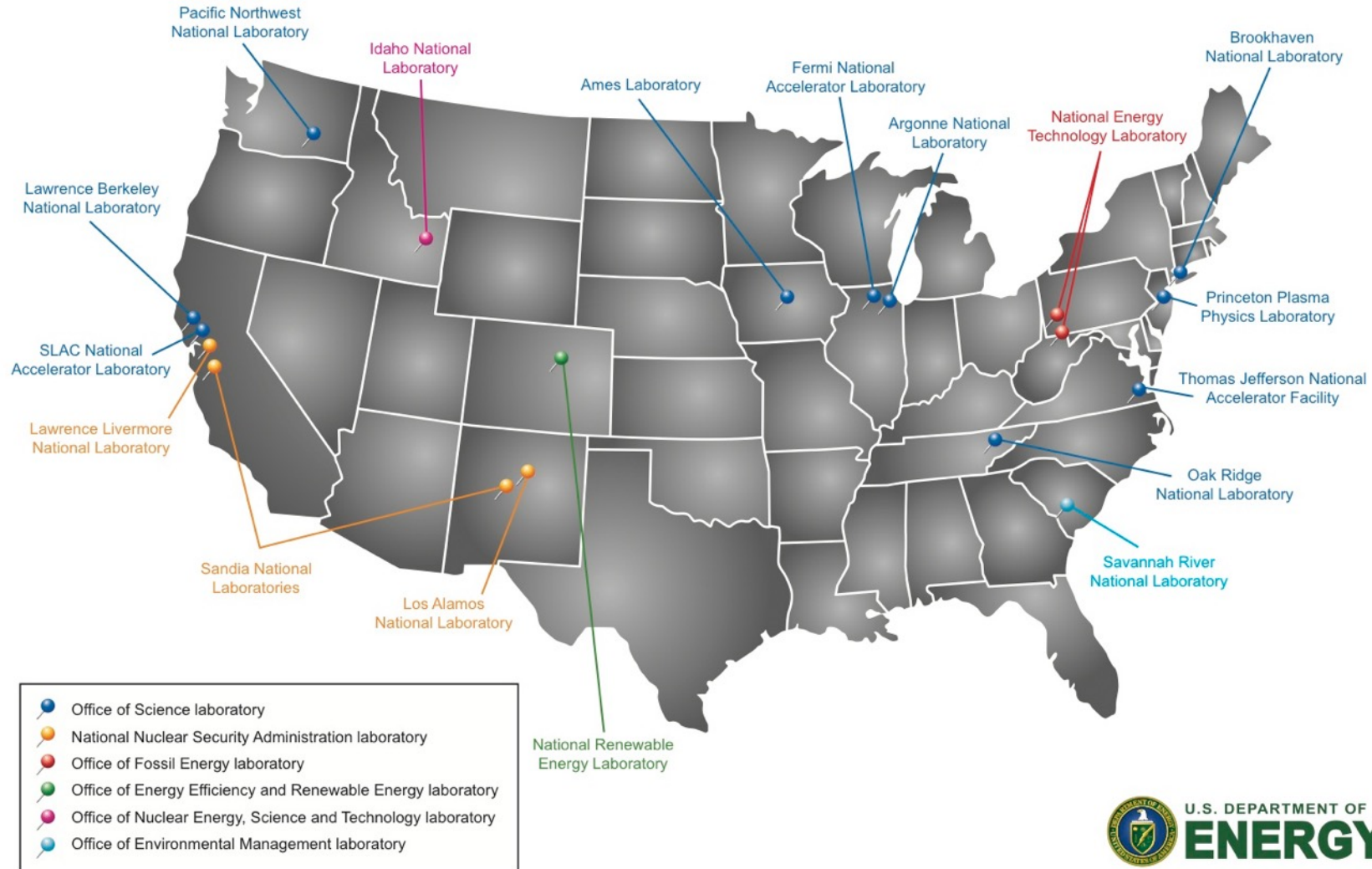
Office of Science

# WHAT IS BERKELEY LAB?

LBNL POINT OF CONTACT FOR MTV: JOHN VALENTINE [JDVALENTINE@LBL.GOV](mailto:JDVALENTINE@LBL.GOV)



# Department of Energy National Laboratories



# Berkeley Lab Quick Facts



**\$1.2** billion budget  
**4,000** employees  
**1,700** scientists  
**240** joint faculty with UC  
**500** undergraduate/  
graduate students  
**2,000** visiting scientists/ engineers



**Mike Witherell**, *Director, Berkeley Lab*

# Ernest Orlando Lawrence, Founder, Berkeley Lab



# Ernest Orlando Lawrence, Founder, Berkeley Lab



# New Laboratory



# Charter Hill



# E.O. Lawrence Desk



Cover of TIME Magazine

Cigar box with Plutonium-239

Notebook with top secret code word

Radioactive symbol



# 60" Cyclotron Yoke

**Philip Abelson**  
National Medal of Science

**Martin Kamen**  
Enrico Fermi Award

**Luis Alvarez**  
Nobel Prize  
National Medal of Science  
Enrico Fermi Award

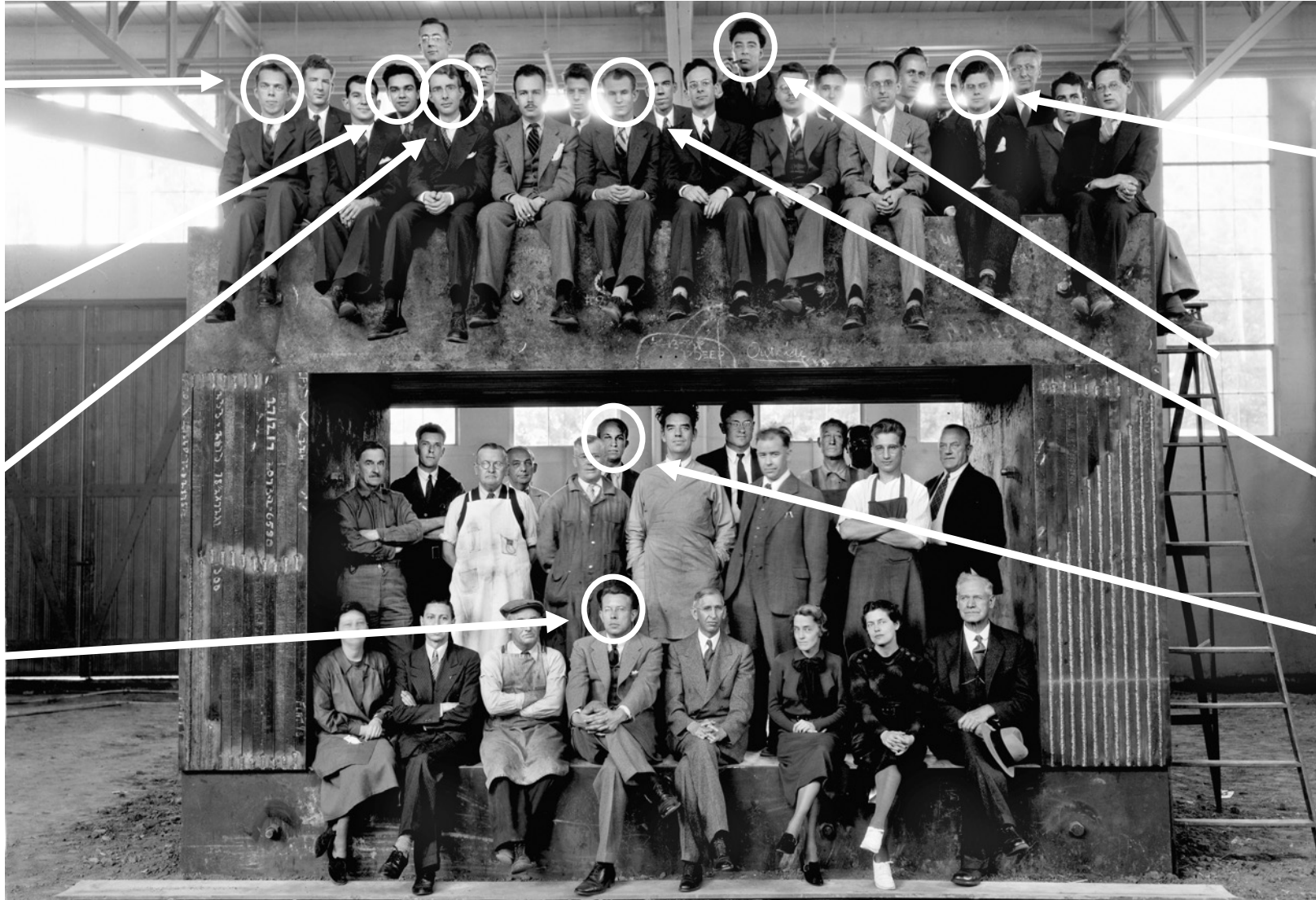
**E.O. Lawrence**  
Nobel Prize  
Enrico Fermi Award  
Founder, National  
Laboratory

**Robert Wilson**  
Enrico Fermi Award  
National Medal of Science  
Founder, National  
Laboratory

**J. Robert  
Oppenheimer**  
Enrico Fermi Award  
Founder, National  
Laboratory

**Edwin McMillan**  
Nobel Prize  
Director, National  
Laboratory

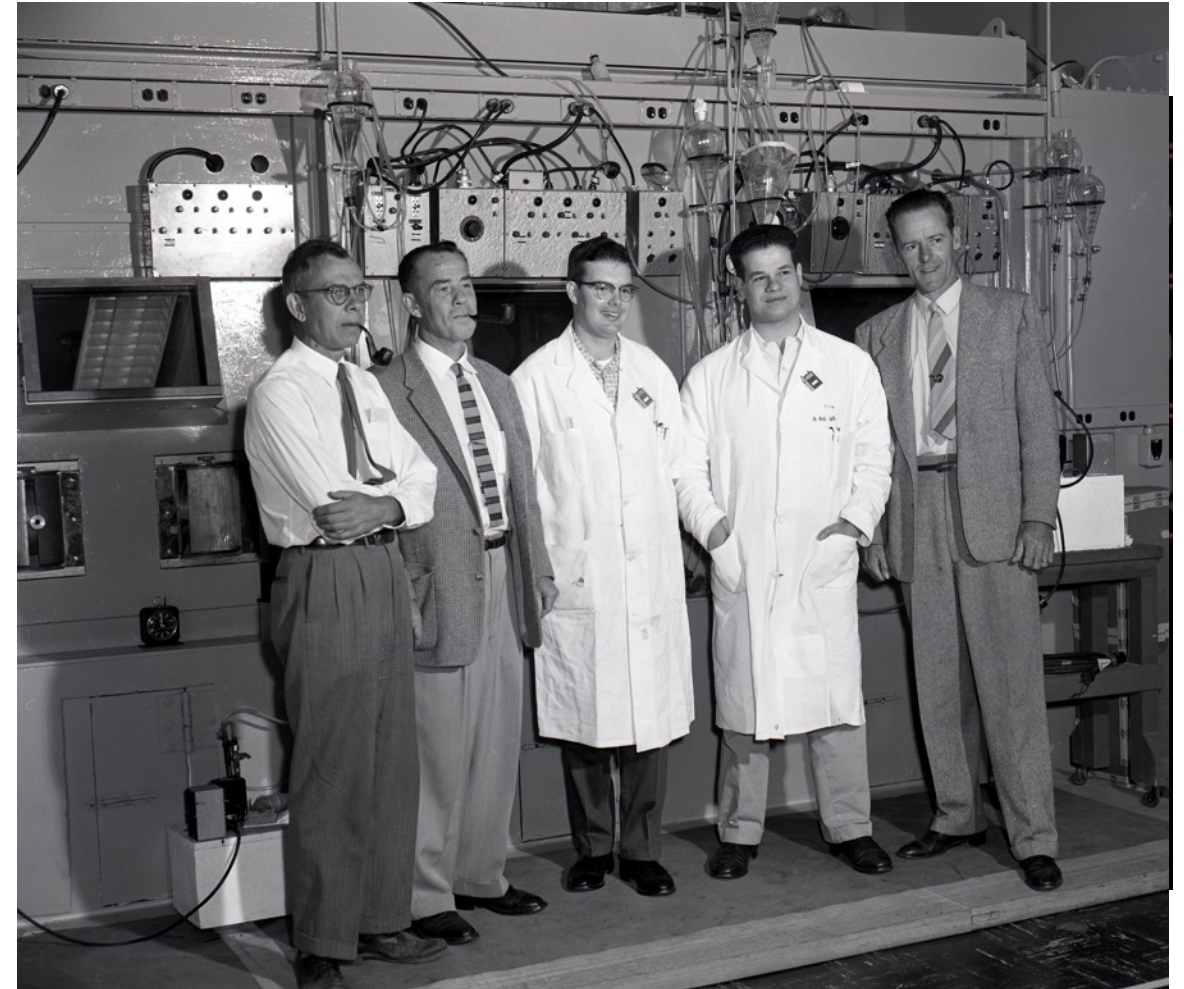
**John Lawrence**  
Enrico Fermi Award



# Discovered 16 Elements on the Periodic Table



**Plutonium**



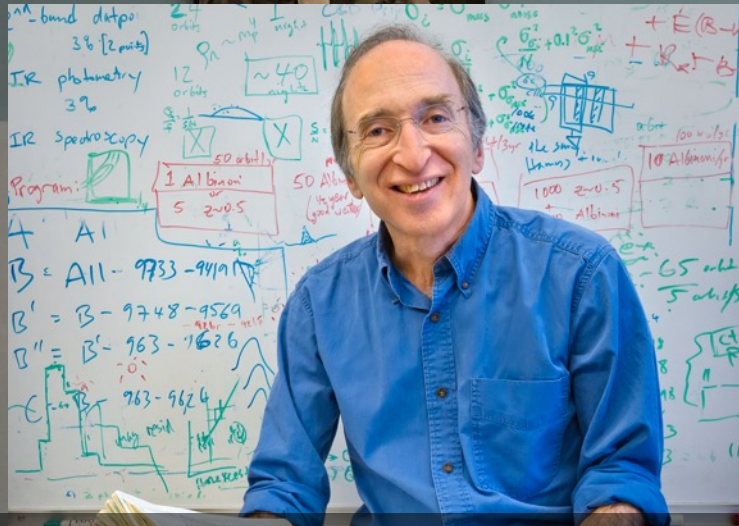
**Berkelium Team**

# LAWRENCE BERKELEY NATIONAL LABORATORY NOBEL LAUREATES

Honoring men and women from all corners of the globe for outstanding achievements in physics, chemistry, medicine, literature and peace...



Founder,  
Ernest Orlando  
Lawrence  
Physics, 1939



## Saul Perlmutter

The Nobel Prize in Physics 2011

## Intergovernmental Panel on Climate Change

The Nobel Peace Prize 2007





terature and peace...



Donald A. Glaser  
Physics, 1967



Melvin Calvin  
Chemistry, 1961



George F. Smoot II  
Physics, 2006



Environmental Panel on  
Genetic Change  
Peace, 2007

# Jennifer Doudna

The Nobel Prize in Chemistry 2020

**When Scientists Win a Nobel Prize...**  
they get a street named after them!



Smoot Rd.

Alvarez Rd.

→ Chu Rd.  
59 65 88  
Exit Blackberry Gate

← Smoot Rd.  
6 23 50 54  
69





# THE NATION'S HIGHEST HONORS FOR SCIENTISTS, ENGINEERS, AND INNOVATORS

Bestowed each year by the President of the United States



**Luis W. Alvarez**  
Physical Sciences, 1963  
The National Medal of Science  
Awarded by: Lyndon B. Johnson

Photo Credit: Berkeley Lab Photo Archive



**Kenneth S. Pitzer**  
Physical Sciences, 1974  
The National Medal of Science  
Awarded by: Gerald R. Ford

Photo Credit: Gerald R. Ford Presidential Library and Museum



**George C. Pimentel**  
Chemistry, 1983  
The National Medal of Science  
Awarded by: Ronald W. Reagan

Photo Credit: Berkeley Lab Photo Archive



**Yuan T. Lee**  
Chemistry, 1986  
The National Medal of Science  
Awarded by: Ronald W. Reagan

Photo Credit: Berkeley Lab Photo Archive



**Melvin E. Calvin**  
Chemistry, 1989  
The National Medal of Science  
Awarded by: George H. W. Bush

Photo Credit: Berkeley Lab Photo Archive



**Edwin M. McMillan**  
Physical Sciences, 1990  
The National Medal of Science  
Awarded by: George H. W. Bush

Photo Credit: National Science Foundation



**Glenn T. Seaborg**  
Chemistry, 1995  
The National Medal of Science  
Awarded by: George H. W. Bush

Photo Credit: National Science Foundation



**Darleane C. Hoffman**  
Chemistry, 1997  
The National Medal of Science  
Awarded by: William J. Clinton

Photo Credit: White House photograph, courtesy of Emilio Segrè Visual Archives, American Institute of Physics



**Harold S. Johnston**  
Chemistry, 1997  
The National Medal of Science  
Awarded by: William J. Clinton

Photo Credit: Clinton Presidential Library and Museum



**Bruce N. Ames**  
Biological Sciences, 1998  
The National Medal of Science  
Awarded by: William J. Clinton

Photo Credit: National Science and Technology Medal Foundation



**Marvin L. Cohen**  
Physical Sciences, 2001  
The National Medal of Science  
Awarded by: George W. Bush

Photo Credit: National Science and Technology Medal Foundation



**Gabor A. Somorjai**  
Chemistry, 2001  
The National Medal of Science  
Awarded by: George W. Bush

Photo Credit: National Science and Technology Medal Foundation



**John M. Prausnitz**  
Engineering, 2003  
The National Medal of Science  
Awarded by: George W. Bush

Photo Credit: National Science and Technology Medal Foundation



**Arthur H. Rosenfeld**  
Environment, 2012  
The National Medal of Science and Innovation  
Awarded by: Barack H. Obama

Photo Credit: National Science Foundation



**Alexandre J. Chorin**  
Mathematics and Computer Sciences, 2012  
The National Medal of Science  
Awarded by: Barack H. Obama

Photo Credit: Chip Sommers/Getty Images for America's



**A. Paul Alivisatos**  
Chemistry, 2014  
The National Medal of Science  
Awarded by: Barack H. Obama

Photo Credit: Berkeley Lab Photo Archive

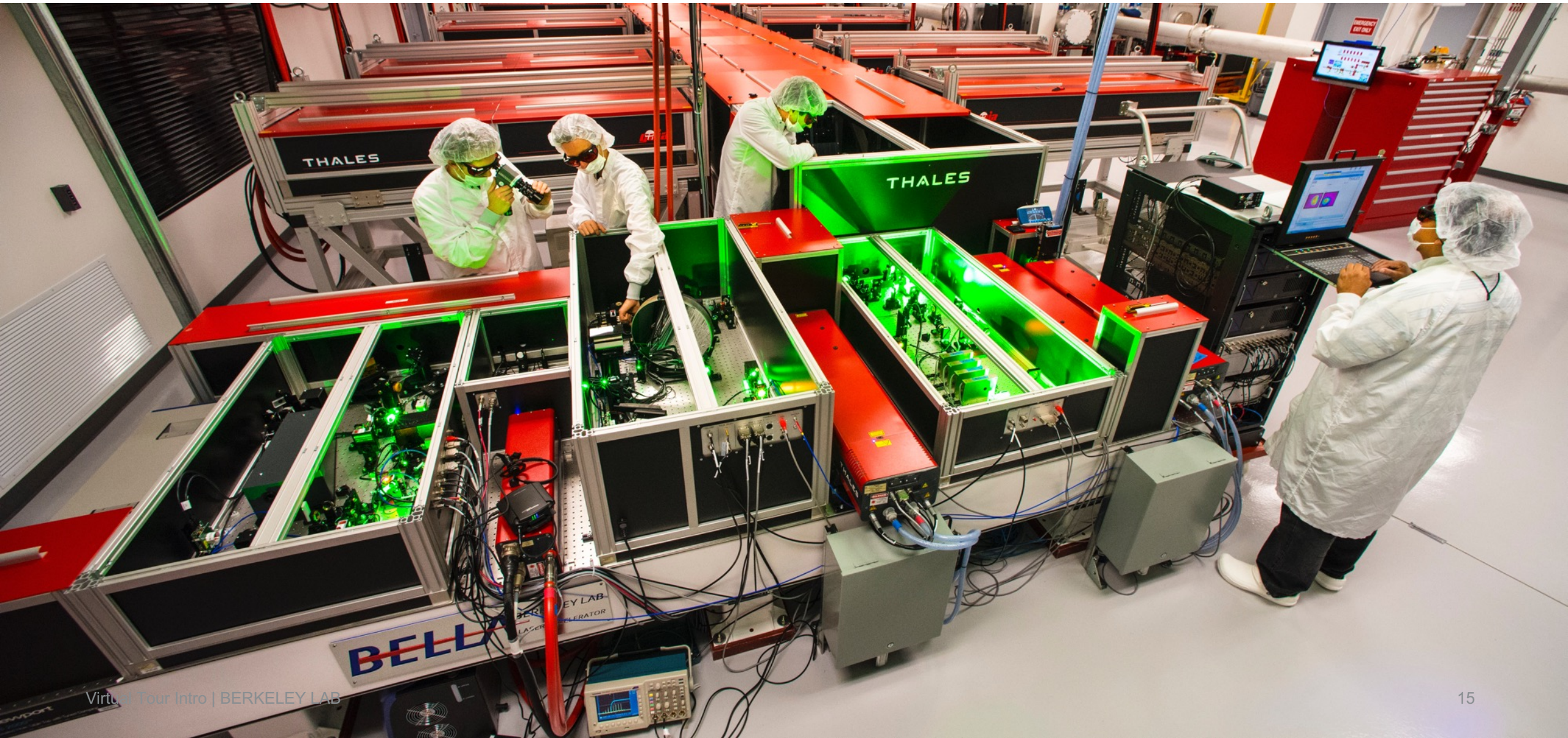
**86** Members of the National Academy of Science

**15** National Medal of Science winners

**2,000** Publications per year, about 58% in "top journals"



# Berkeley Lab Laser Accelerator (BELLA)

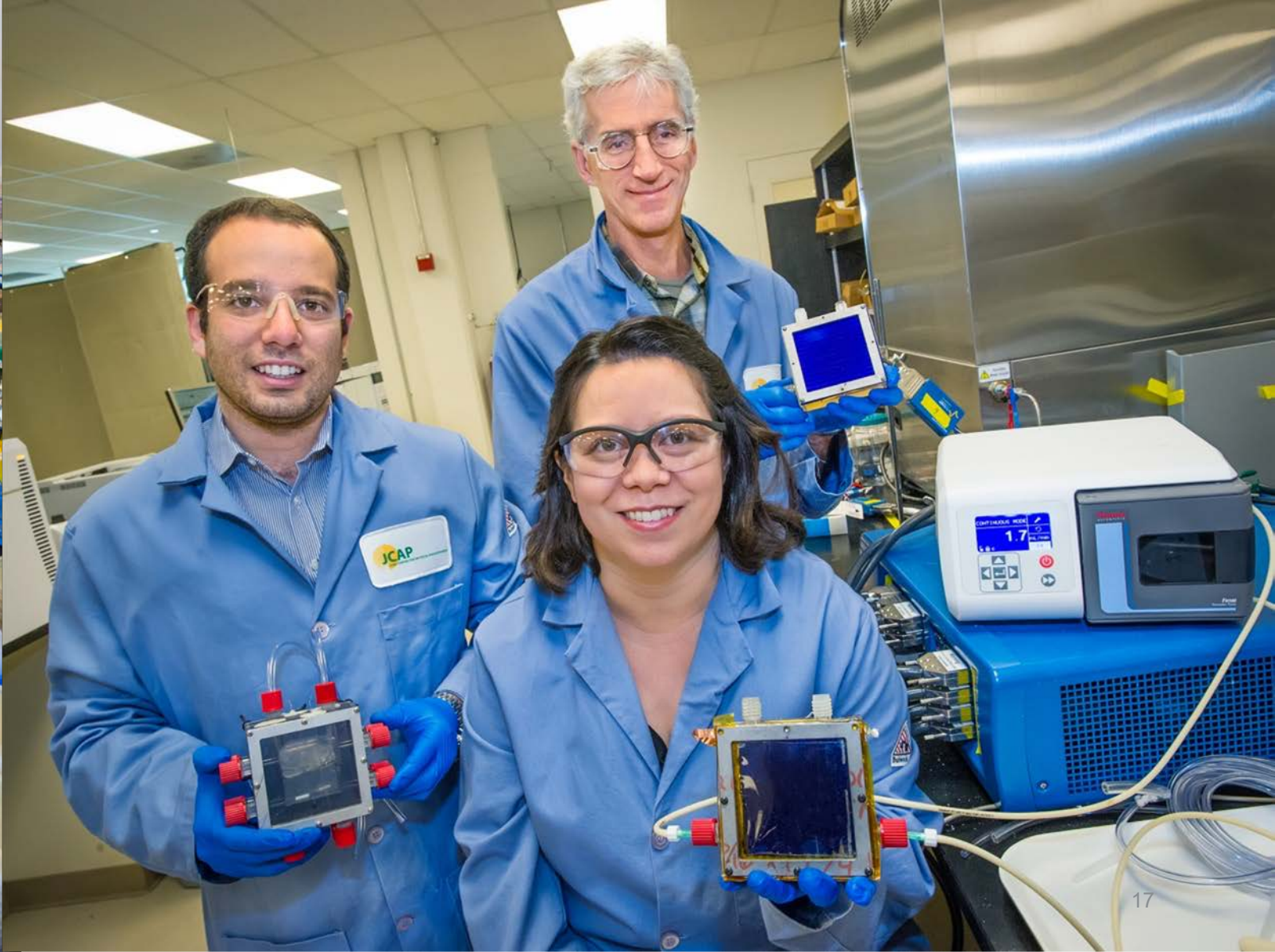


# Watershed Research in the West





# Liquid Sunlight Alliance (LiSA)



# FLEXLAB®

The world's most advanced integrated building and grid technologies testbed



# FLEXLAB®

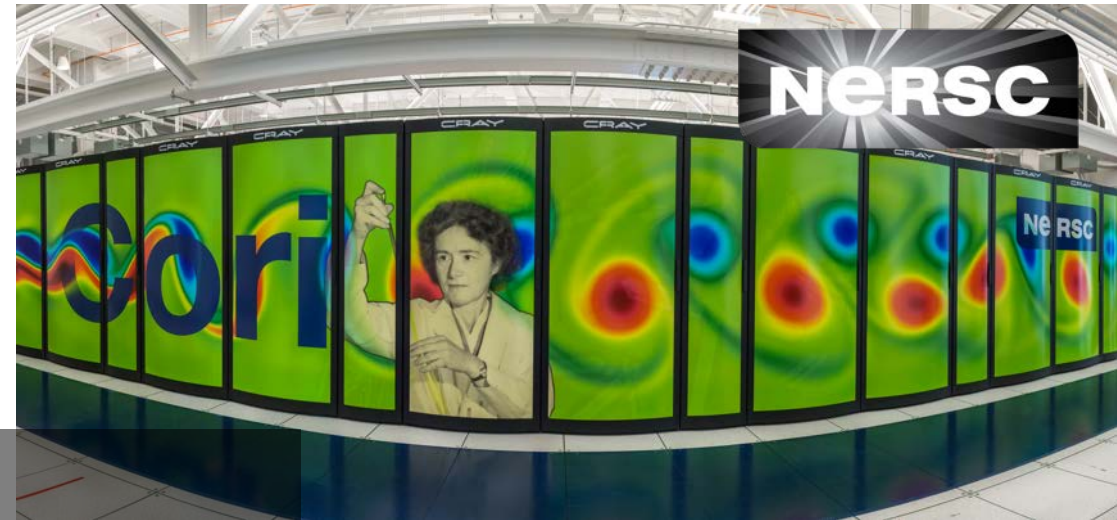
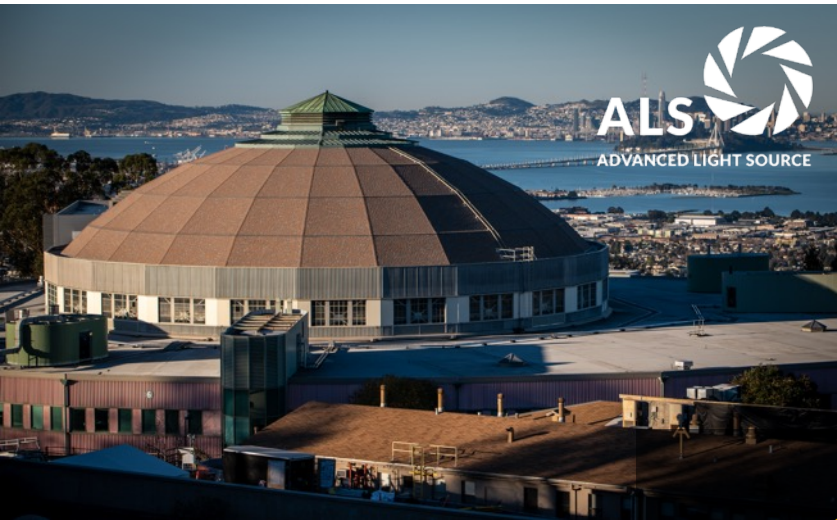
The world's most advanced integrated building and grid technologies testbed



# Joint BioEnergy Institute (JBEI)



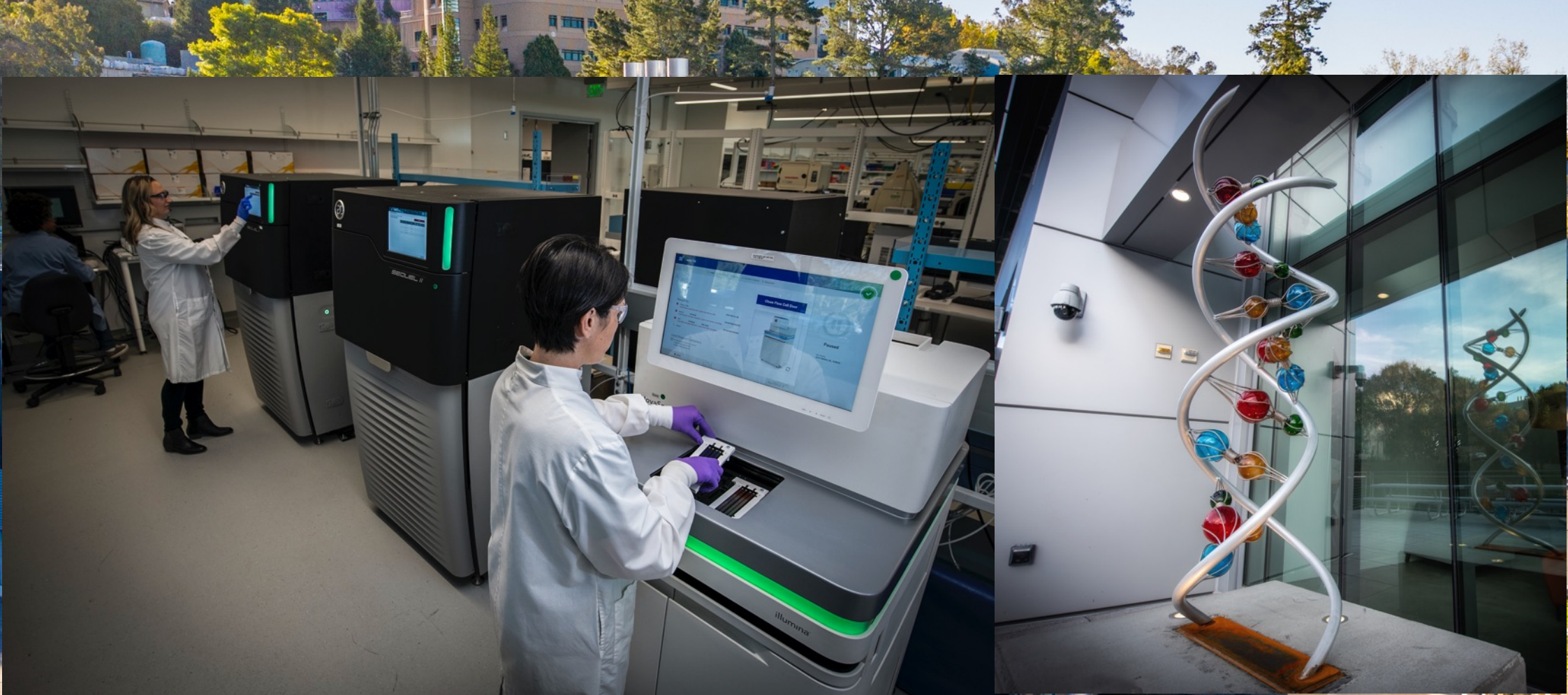
# National User Facilities



14,000 Users



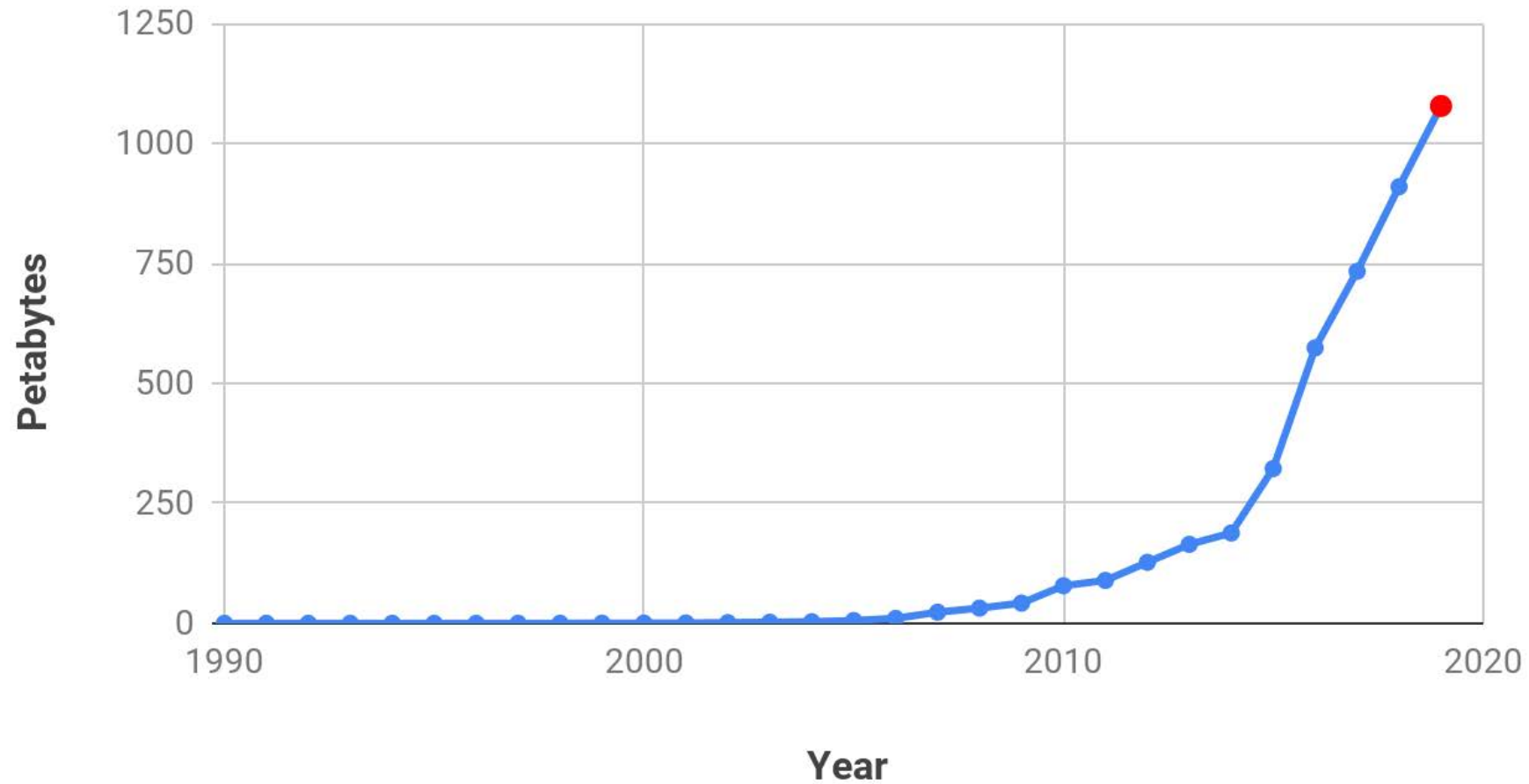
# Joint Genome Institute (JGI)



# Energy Sciences Network (ESnet)



Yearly aggregate traffic in PB carried by ESnet



# Industry Relations



Your Gateway to Berkeley Lab Technology



**Agile BioFoundry**  
A DOE National Lab-led Consortium To Advance Biomanufacturing Across the Public and Private Sectors

[Work with Us](#)

**ABX PDU**  
ADVANCED BIOFUELS AND BIOPRODUCTS PROCESS DEVELOPMENT UNIT

**From Bio-concept to Bioproduct**

**DEVELOPED. DEMONSTRATED. SCALED.**



# Berkeley Lab Guest House



# What a View



# Our Future — K-12 Education



**EXCITE**

**EXPLORE**

**EXPERIENCE**

CULTIVATING THE **NEXT** GENERATION IN STEM  
[k12education.lbl.gov](http://k12education.lbl.gov)

# Our Future — Interns



**CULTIVATING THE NEXT GENERATION IN STEM**  
[education.lbl.gov](http://education.lbl.gov)



# THANK YOU

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