

The background of the slide is a photograph of a modern building with a grid-like facade, tinted in a deep blue color. The building features multiple levels with balconies and a prominent vertical structure on the right side.

UC San Diego

JACOBS SCHOOL OF ENGINEERING  
Corporate Affiliates Program

# Welcome CAP Executive Board

October 9, 2025

# CAP Chair and Vice Chair



**Magaly Drant**

Vice President, Developer Productivity  
ServiceNow



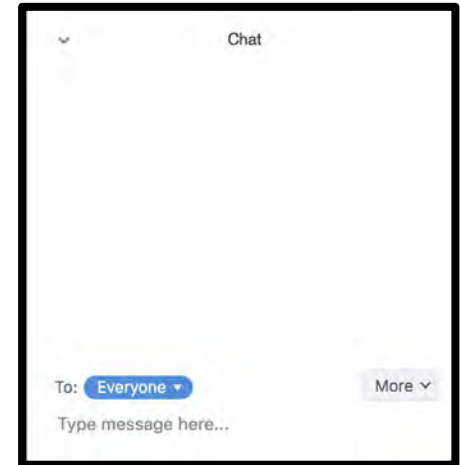
**Shariqa Dowla**

Director, Software Engineering  
Cubic Transportation Systems

Welcome

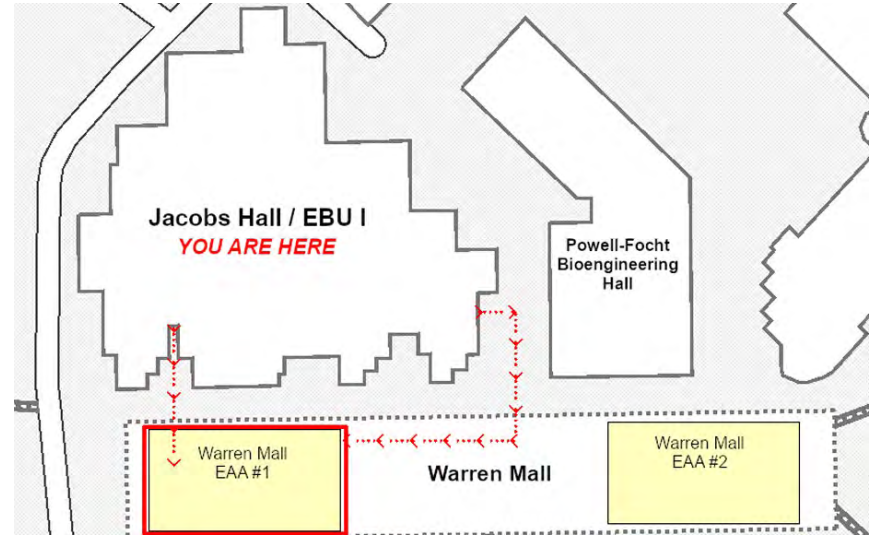
# Virtual Attendee Protocol

- We will be recording this meeting
- You will be muted; Use chat box for questions & comments
- We will create a Zoom room for the discussion portion of the meeting, please turn on your cameras at that time.



# Safety Protocols

- Please note the exit doors
- Evacuation area is the lawn outside the front doors
- Please find a UC San Diego team member for assistance



# Agenda

<b>5:00-5:05pm</b>	<b>CAP Executive Board Vice Chairwoman Welcome</b> <i>Shariqa Dowla</i> <i>Director of Software Engineering, Cubic Transportation Systems</i>
<b>5:05-5:15pm</b>	<b>Internship Presentation</b> <i>DRS Daylight Solutions</i>
<b>5:15-5:30pm</b>	<b>Dean's Report</b> <i>Bill Lin</i> <i>Associate Dean for Research, Jacobs School of Engineering</i>
<b>5:30-5:50pm</b>	<b>Engineering Opportunities in Fusion Energy</b> <i>Javier Garay</i> <i>Professor, Mechanical &amp; Aerospace Engineering</i> <i>Director, Fusion Engineering Institute</i>
<b>5:50-6:20pm</b>	<b>CAP Executive Input</b>
<b>6:20-6:30pm</b>	<b>CAP Business</b> <i>Wil Dyer</i> <i>Director, Corporate Affiliates Program</i>
<b>6:30pm</b>	<b>Adjournment</b>

## Welcome New CAP Partners



## Welcome Guests

Autodesk

Illumina

Saab

Sumitomo Heavy Industries

## CAP Partner Milestones

20+ years

**ASML**

**ATA**  
ENGINEERING, INC.



 **GENERAL ATOMICS**

**Google**

**HUGHES**



**leidos**

Naval Information  
Warfare Center



PACIFIC

**NORTHROP  
GRUMMAN**

**ORACLE**

**Qualcomm**



**RTX**

**Solar Turbines**  
A Caterpillar Company

**teradata.**

**Viasat**



## CAP Partner Milestones

15 years

CORNING



CUBIC™

NOVO  
ENGINEERING

Meta

10 years



**GENERAL ATOMICS**  
**AERONAUTICAL**



Lawrence Livermore  
National Laboratory

## CAP Partner Milestones

5 years



Welcome DRS Daylight Solutions Intern

**DRS DAYLIGHT  
SOLUTIONS**

The logo graphic consists of a thick red horizontal line that extends across the width of the text. On the right side of this line, there is a stylized red sunburst or starburst design, composed of several sharp, radiating lines of varying lengths.

# DRS Daylight Solutions Internship Presentation

By Anastasia Egoudine

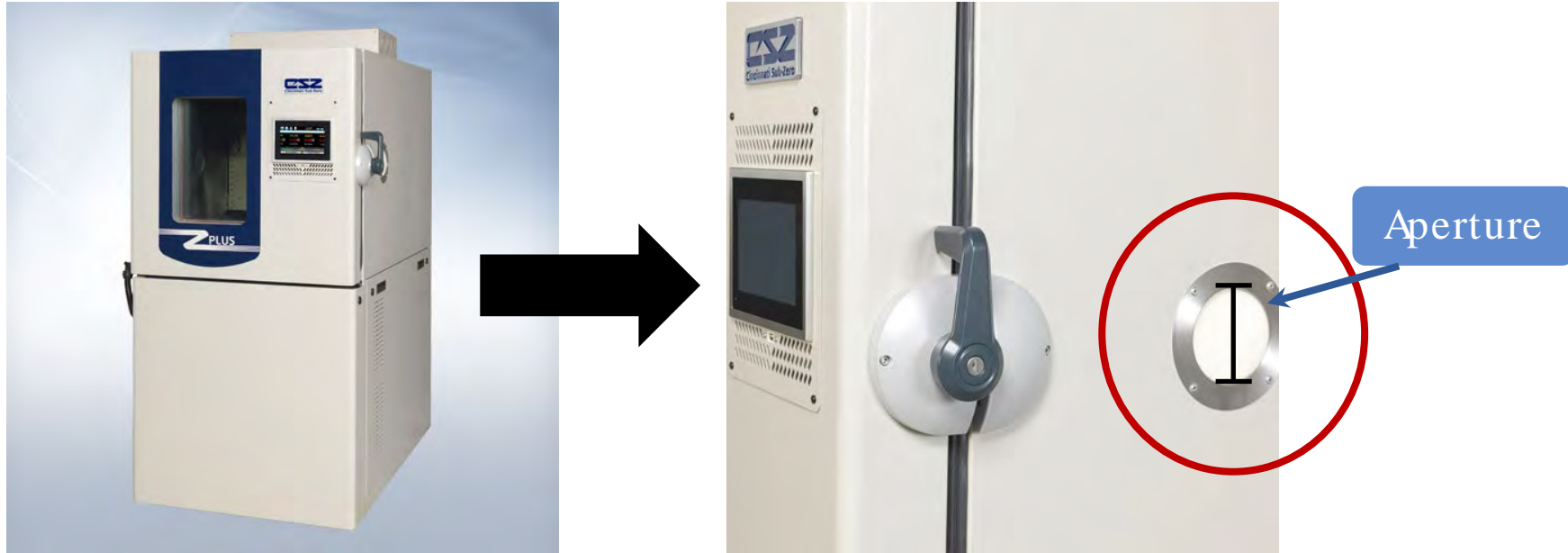
# Project Overview:

## Thermal Chamber

- Heating and Cooling  
Common Testing Temp: 40°C to 70°C
- Characterize laser performance over temperature
  - Laser shoots out of chamber to measure pointing



# Thermal Chamber Hole:

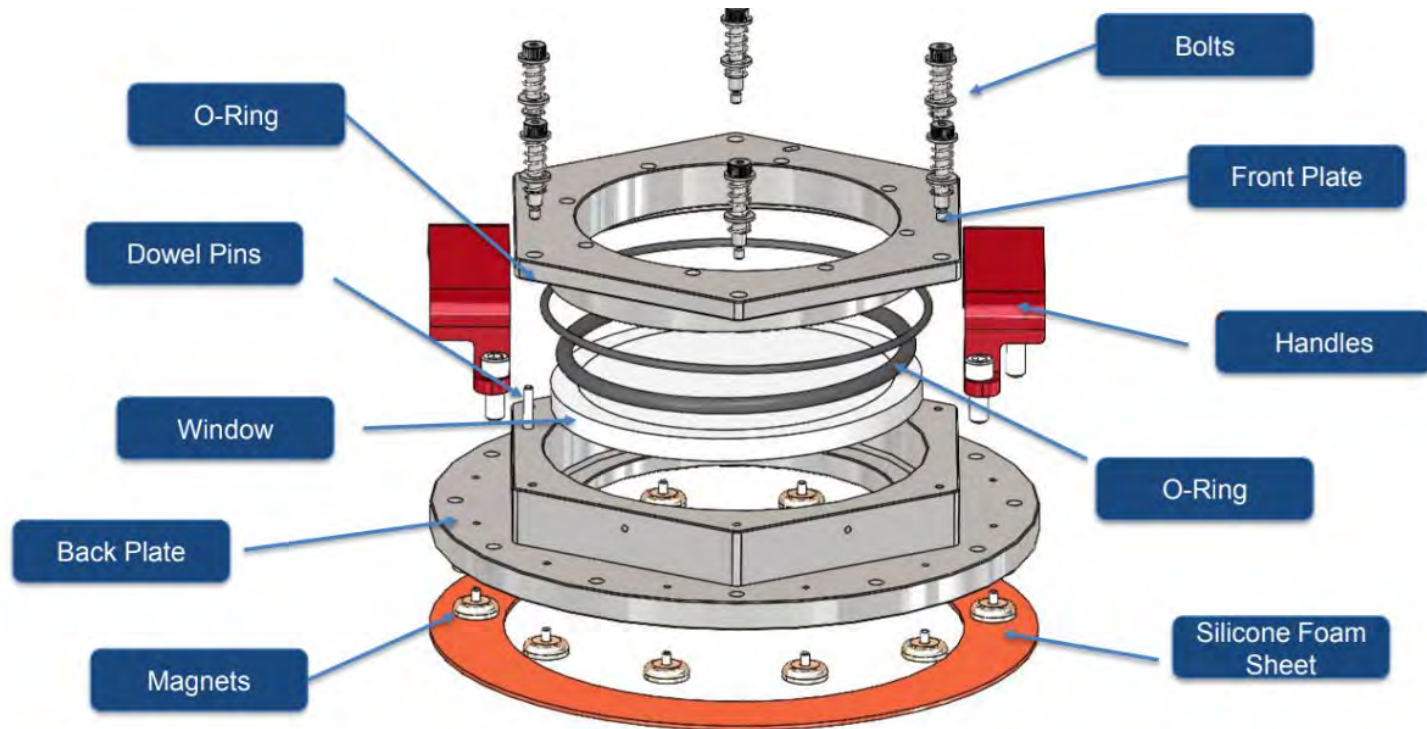


# Requirements:

- Prevent condensation
- Compatible with variety of thermal chambers without reducing clear aperture
- Compatible with a variety of beam sizes and colors



# CAD Model:



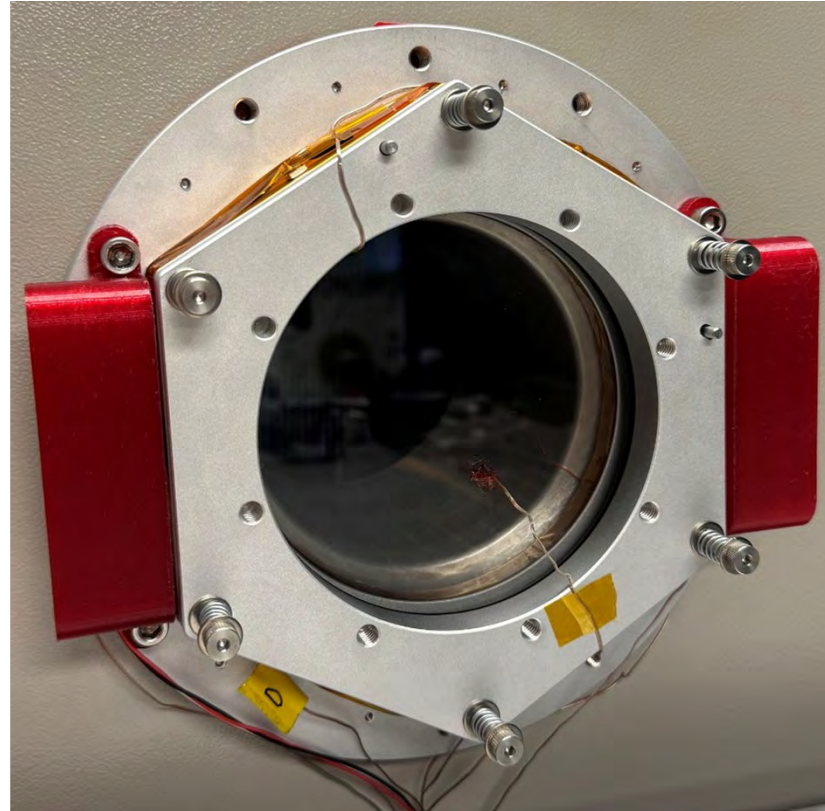


# My Design:

## N-BK7 Window

Wavelength: 350nm-2.2um

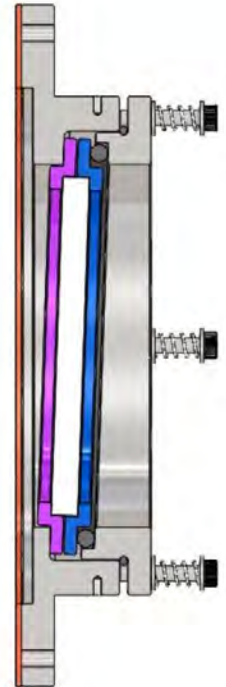
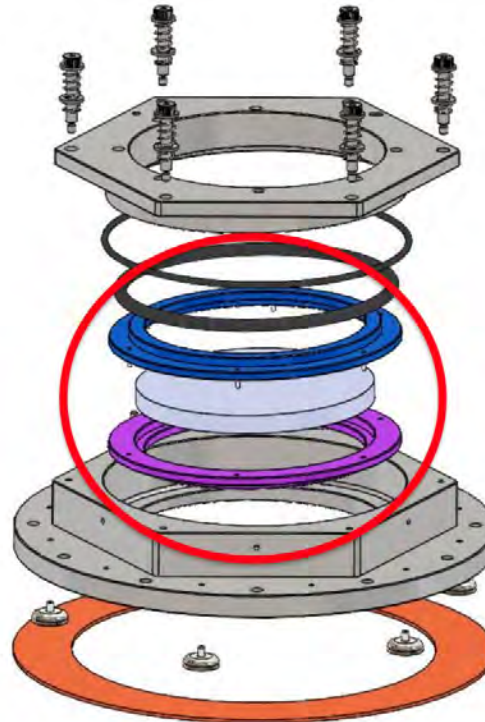
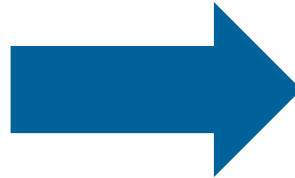
Cost: \$340.26



# Component: Adapter

ex. ISP Calcium Fluoride Window  
Wavelength: 300 - 8000 nm

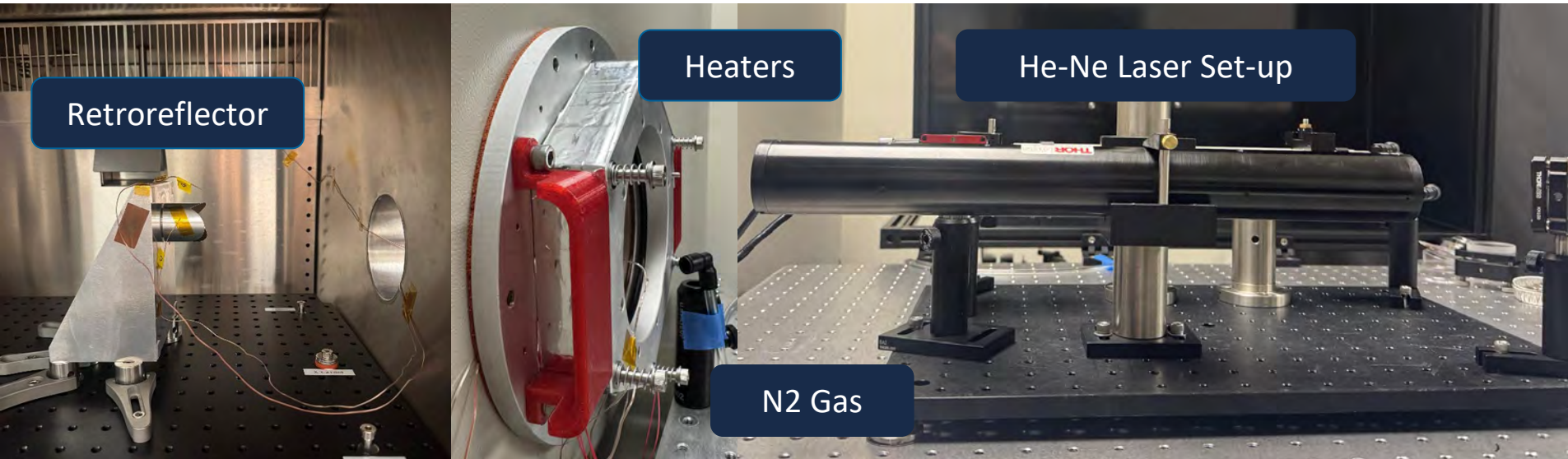
I am using a different wavelength  
laser and need to use a different  
window! What do I do?



# Testing

# Testing:

1. Reduce Noise at 70C
2. Prevent Condensation at 40C



# Test 1: Noise Reduction Results

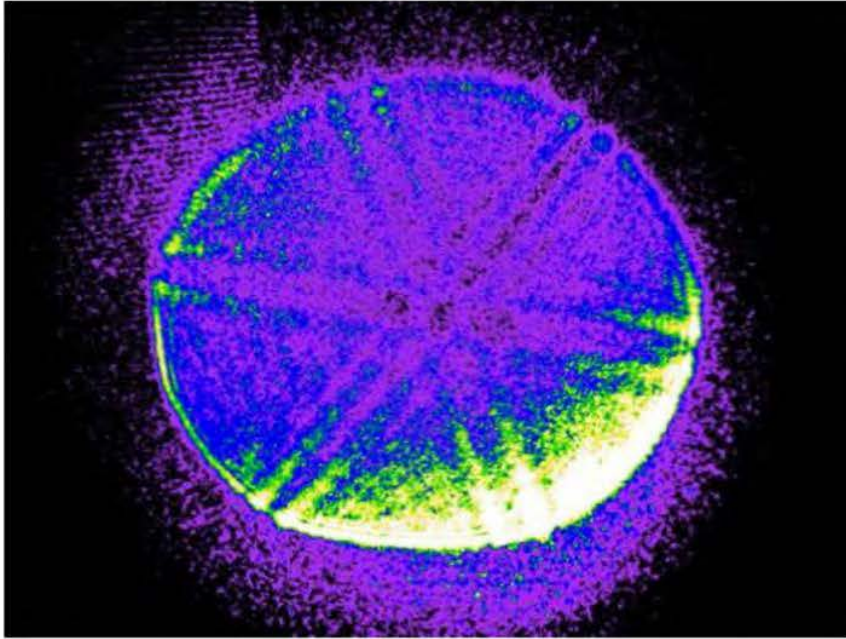
Window: OFF

Window: ON

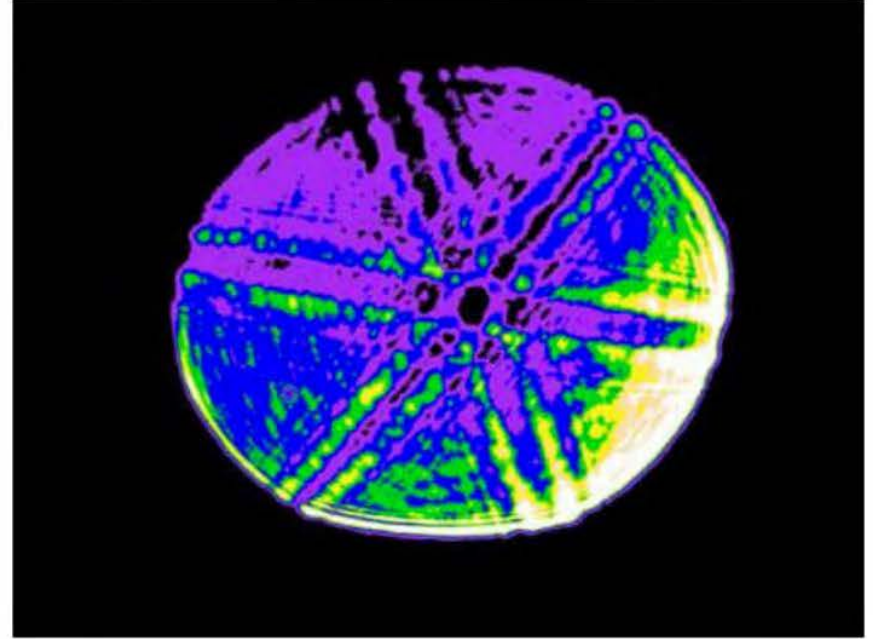


# Test 2: Condensation Prevention Results

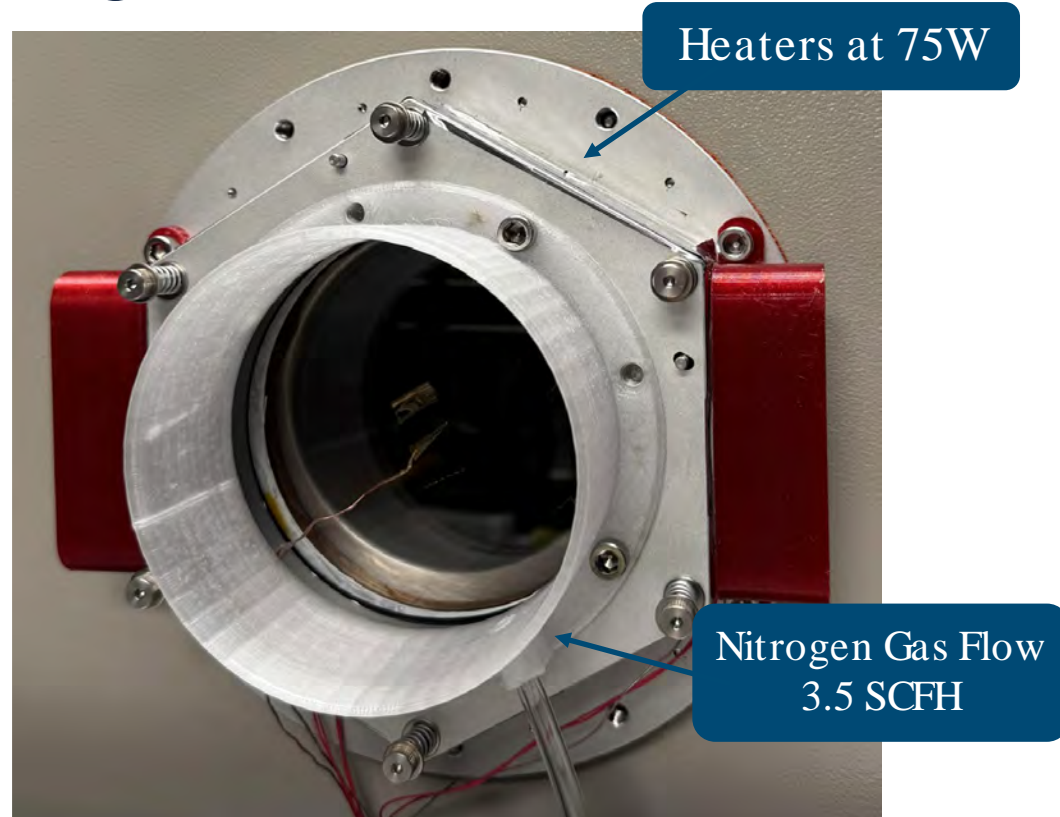
Heater and Nitrogen: OFF



Heater and Nitrogen: ON

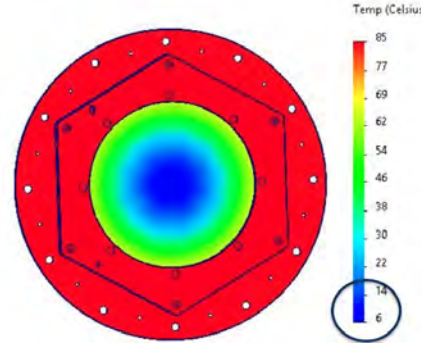


# Current Design:



# Skills Learned:

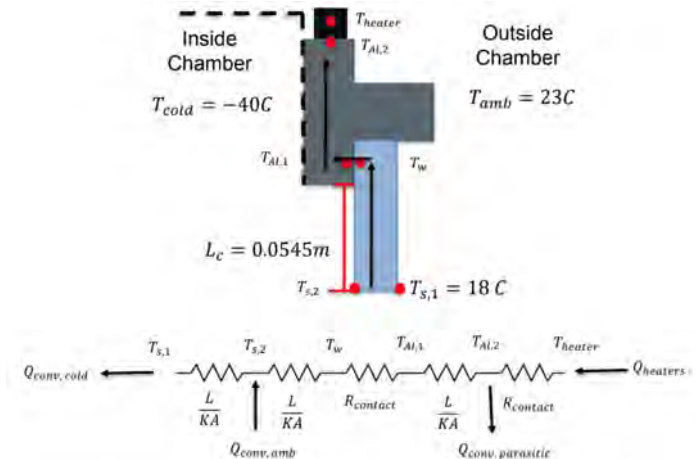
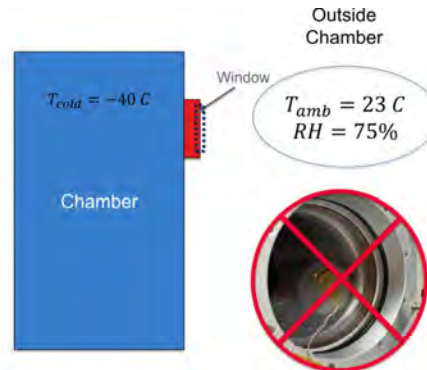
- Solidworks CAD
- Solidworks Thermal Simulation
- Heat Transfer Calc
- Dew Point Calc
- Tolerancing
- Designing for Manufacturing
- Software: ThorCam, DAQami, TIM Connect



Dew Point  
Relative Humidity: 75%  
Ambient Temperature: 23 C  
Dew Point: 18 C

$$\text{Dew Point} = \frac{243.12 \times \left\{ \ln \left( \frac{RH}{100} \right) + \frac{17.62 \times T}{243.12 + T} \right\}}{17.62 - \left\{ \ln \left( \frac{RH}{100} \right) + \frac{17.62 \times T}{243.12 + T} \right\}}$$

Outside window surface  
must stay above 18C





# Thank you!

Thank you to Edmund Lau, Jake Lesher, Chris Lai, DRS Daylight Solutions, and UC San Diego

# Dean's Report

Bill Lin

Associate Dean for Research,  
Jacobs School of Engineering



Unprecedented Era for Engineering

# AGENDA

1. Education & workforce initiatives
2. Research growth & highlights
3. Emerging industries: fusion energy

# 11 UNDERGRAD PROGRAMS RANK TOP 10 AMONG PUBLIC SCHOOLS

US News & World Report 2026 Best Colleges

Irwin & Joan Jacobs  
School of Engineering

# Top Ranked Undergraduate Programs

**bioinformatics /  
biotechnology**  
#1 public / #2 overall

**biomedical**  
#3 public / #7 overall

**cybersecurity**  
#4 public / #7 overall

**computer systems**  
#6 public / #9 overall

**programming languages (cs)**  
#5 public / #11 overall

**computer science**  
#6 public / #12 overall

**artificial intelligence (cs)**  
#7 public / #13 overall

**computer science theory**  
#7 public / #14 overall

**electrical engineering**  
#8 public / #13 overall

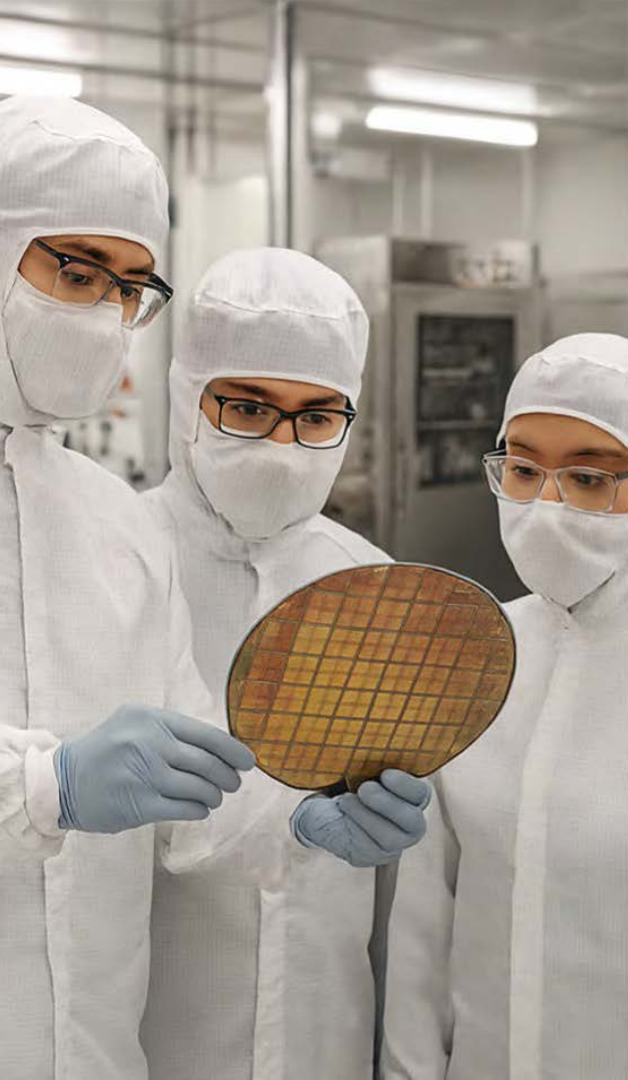
**computer engineering**  
#9 public / #15 overall

**Jacobs School of Engineering  
undergraduates overall**  
#10 public / #17 overall



**We launched a new Artificial Intelligence major in our Computer Science department this Fall**





## We launched an NSF pilot program on semiconductor training

*PI: Kiana Aran, Bioengineering*

### ✓ Industry-Aligned Training ✓ Training Focus

- Course plan developed with industry partner input and feedback
- Partnered with SEMI University for course guidance
- SEMI customized virtual training
- Nano3 hands on training at UCSD
- Summer internships
- Outcomes & Impact: Washington, DC Briefing

### Co-investment model: Blend federal funding + industry contributions to sustain long-term impact.

- Sponsoring student cohorts
- Offering internships or mentorship
- Become an industry adviser

# Gift Expands Efforts to Teach Engineering Problem Solving at Scale

- \$1.51M Gift from Girard Foundation
- The goal is to **better prepare the region's technical workforce** by teaching a wide range of students - as early as high school - to **solve problems like engineers**.
- The curriculum has been developed by educators and engineers at UC San Diego in collaboration with educators across the region.



<https://extendedstudies.ucsd.edu/news-events/extended-studies-blog/gift-expands-uc-san-diego-efforts-to-teach-engineering-problem-solving-at-scale>




# We Opened New Bioengineering Labs!



- **Doubled the capacity** of our bioengineering hands-on educational labs
- Students can **design** a medical device, **test** it with living cells, and **validate** it in vivo
- This integrated workflow is the **first of its kind in the UC system**

# 6 New Faculty Hires



**KOLADE ADEBOWALE**  
Assistant Professor  
Ph.D. Stanford

Adebowale's lab seeks to integrate engineering design principles to cancer immunology to enable rational engineering and prediction of effective, next-generation immune cell therapies. Adebowale strives to understand how the complex functionality of the immune system arises from mechanical cues and simple biophysical principles.

**BIOENGINEERING**

kadebowale@ucsd.edu

Previously: Postdoctoral Fellow Harvard University / Wyss Institute



**ADAM FEIST**  
Assistant Professor  
Ph.D. UC San Diego

Feist uses robotics, data and models to evolve and engineer microbes for biomanufacturing and biomedical discovery. His work builds smarter, faster ways to apply microbes in real-world industrial settings and to better understand their behavior.

**BIOENGINEERING**

afeist@ucsd.edu

Previously: Research Scientist, UC San Diego



**YIORGOS MAKRIS**  
Professor  
Ph.D. UC San Diego

Makris' research focuses on applications of machine learning and formal methods in semiconductor design, manufacturing and testing. His work leverages domain-specific expertise, digital twin technology and the power of data to develop industrially-relevant solutions for optimizing quality, reliability, security and trust of integrated circuits.

**ELECTRICAL & COMPUTER ENGINEERING**

ymakris@ucsd.edu

Previously: Professor, University of Texas at Dallas



**MARC NIETHAMMER**  
Professor  
Ph.D. Georgia Tech

Niethammer's work brings together computer vision, medical image computing, and machine learning. He focuses on methods for image separation and registration, shape analysis, and spatio-temporal and multimodal models. Applications include analysis approaches for neuroscience and neurodevelopment, as well as image analysis in the context of stroke, pediatrics, cancer, osteoarthritis and lupus.

**COMPUTER SCIENCE & ENGINEERING**

mniethammer@ucsd.edu

Previously: Professor, University of North Carolina at Chapel Hill




**HOVAV SHACHAM**  
Professor  
Ph.D. Stanford

Shacham looks for security problems in deployed systems — voting machines, cars, network appliances, airport body scanners, web browsers, and more — to help improve their replacements. His work has driven industry investment priorities, informed public-policy debates, and been recognized with multiple "test-of-time" awards.

**COMPUTER SCIENCE & ENGINEERING**

hoshacham@ucsd.edu

Previously: Professor, University of Texas at Austin



**THUY-DUONG "JUNE" VUONG**  
Assistant Professor  
Ph.D. Stanford

Vuong focuses on theoretical computer science. Her current research interests are classical and quantum Markov chains, diffusion models, and other stochastic processes.

**COMPUTER SCIENCE & ENGINEERING**

thvuong@ucsd.edu

Previously: Postdoctoral Researcher, UC Berkeley

# New Faculty Leadership Appointments



**Bill Lin**

Associate Dean for Research  
Professor, Electrical &  
Computer Engineering



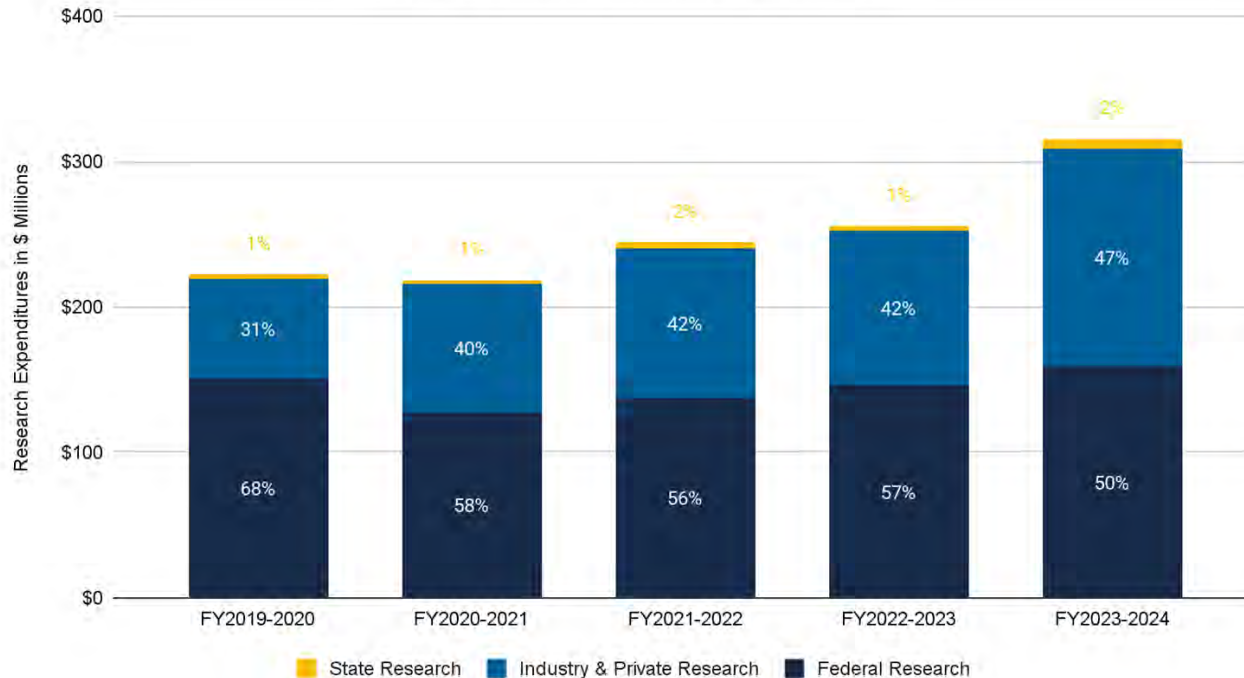
**Steve Swanson**

Department Chair for  
Computer Science &  
Engineering



# Despite the Headwinds, Research Expenditures Trending Up

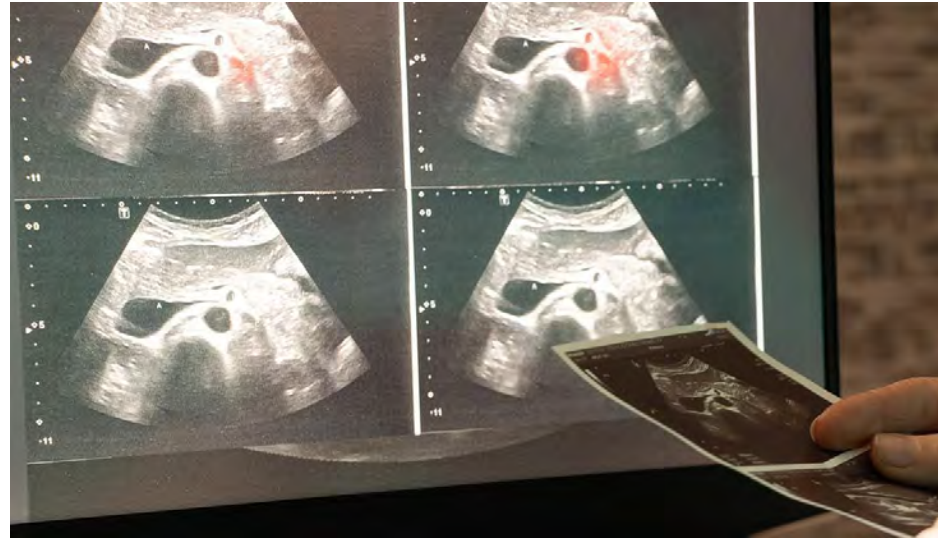
Jacobs School Research Expenditures



\$316M total - up 23%,  
with 47% from industry  
& private sources

# New AI Tool Learns to Read Medical Images With Far Less Data

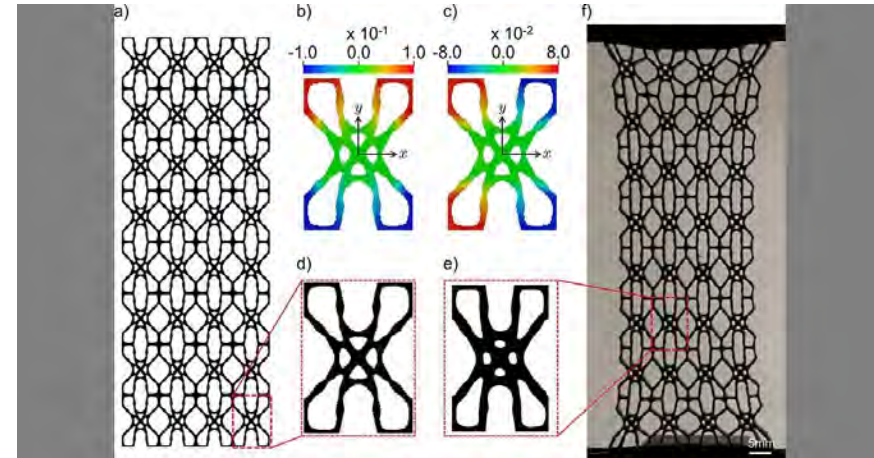
- AI Tool that can learn **medical image segmentation** from a **small number of samples**.
- Cuts down the amount of data required by 20x, leading to **faster, more affordable diagnostic tools**
- Full study: [Generative AI enables medical image segmentation in ultra low-data regimes](#)



*Team led by Li Zhang, Ph.D student of Pengtao Xie, Assoc. Professor in Electrical & Computer Engineering*

# Jacobs School Leads \$5M SHAPE Center to Design Impact-Resistant Metamaterials

- Aimed at developing a **new class of impact-resistant materials**
- **Computational models using AI and Supercomputers** at the San Diego Supercomputer Center (SDSC) and Lawrence Livermore National Laboratory (LLNL)
- **Direct applications in the defense and space** sectors, with far-reaching applications in robotics and mechanical computing.



*Principal Investigator and Center Director: Alicia Kim, Professor, Structural Engineering*

# 10 Story Steel Building: Shake and Burn

- Shake tests followed by fire tests on Cold Formed Steel (CFS) building - a **lightweight material** made from 60% to 70% **recycled steel**.
- Tests show buildings with this material **can be built up to 10 stories** (currently limited to 6 stories)
- Significant regional, national, and international media coverage; **why federally-funded research matters!**



*Project lead: Tara Hutchinson, Professor,  
Structural Engineering*



**Right now:** There are a great deal of non-federal research funds that are available in the USA.


**Here** at the Jacobs School,  
**we know this.**



# To Secure Non-Federal Research Funding

- We need the right projects.
- We need the right messages.
- We need to get in front of the right decision makers.

# WE POWER EMERGING INDUSTRIES



<https://jacobsschool.ucsd.edu/emerging-industries>

**New web landing page with language to drive the relevance and impact messaging.**

# Jacobs School's 5 Major Initiatives to Power Emerging Industries

1. Healthcare Engineering (Spring 2025 CAP Board Meeting)
2. Future Biomanufacturing (Winter 2025 CAP Board Meeting)
- 3. TODAY: Fusion Engineering**
4. AI Tutors/Emerging Intelligence (Fall 2024 CAP Board Meeting)
5. New Approaches to Semiconductors

**Thank you. Questions/Comments?**

# Faculty Presentation

## Javier Garay

Director, Fusion Engineering Institute

Professor, Mechanical & Aerospace Engineering



### Engineering Opportunities in Fusion Energy

**UC San Diego**

**JACOBS SCHOOL OF ENGINEERING**  
Corporate Affiliates Program



A close-up photograph of a fusion reactor component, showing a glowing orange-red circular opening with internal structures, set against a dark background with various mechanical parts and cables.

# Engineering opportunities in Fusion Energy

J. E. Garay

Fusion Engineering Institute

Materials Science and Engineering Program

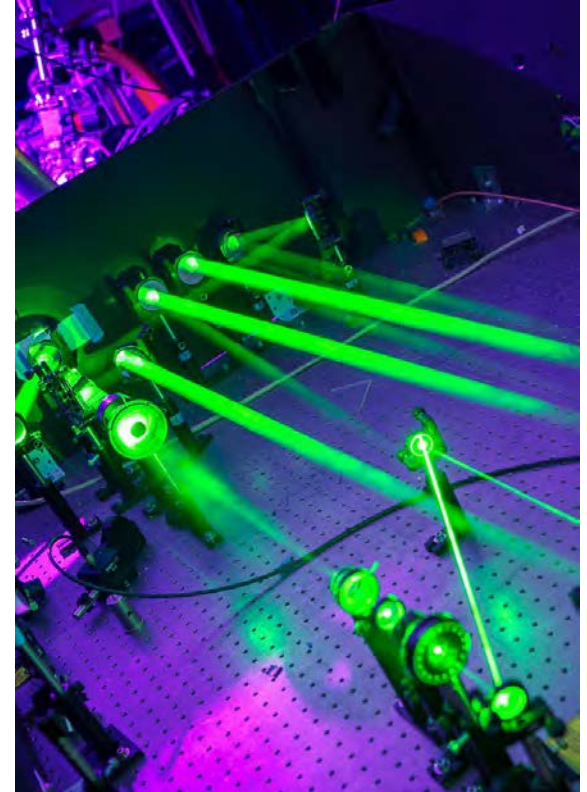
Mechanical and Aerospace Engineering Department

Jacobs School of Engineering

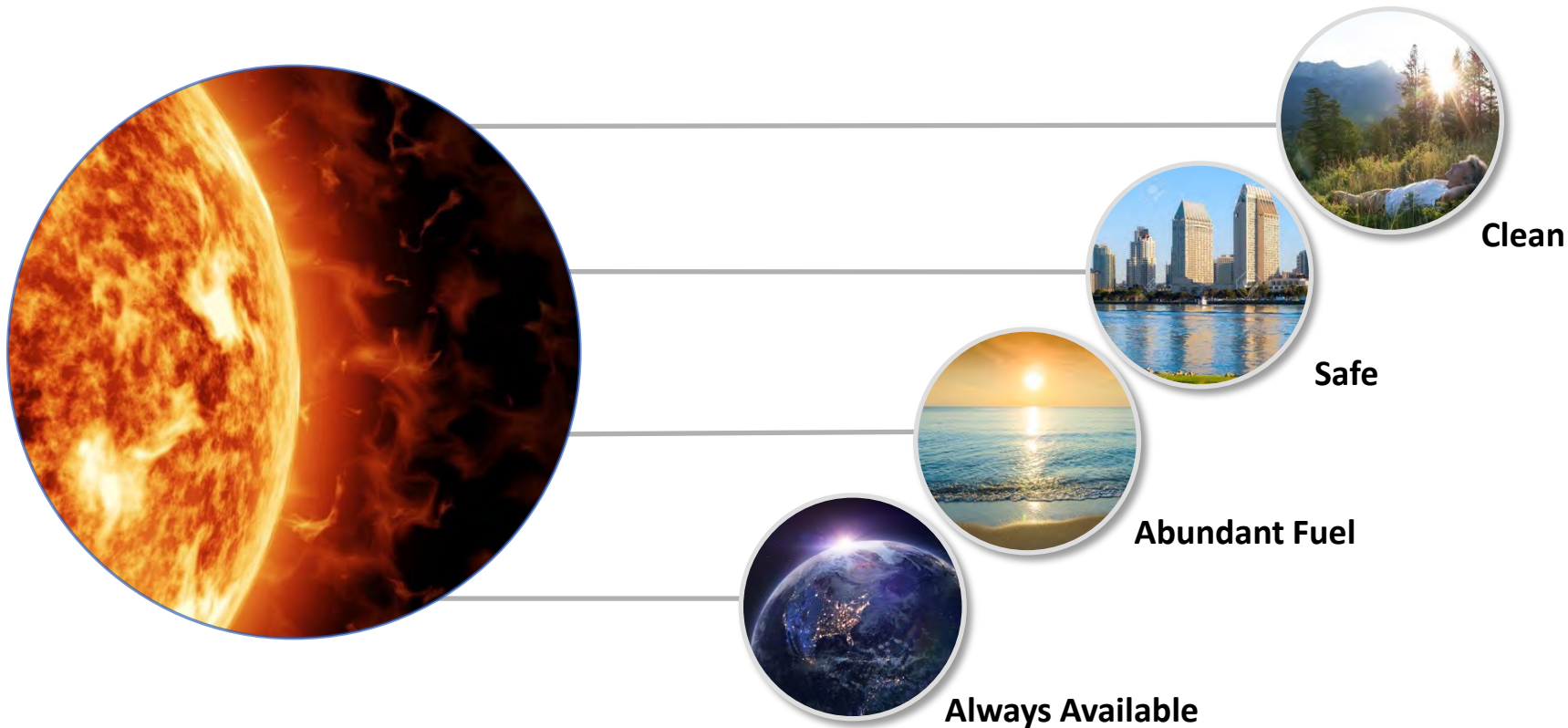
University of California San Diego

# Outline

- Motivation and background for Fusion Energy
- Two recent breakthroughs
- Introduction to Fusion Engineering Institute at UC San Diego
- Specific engineering challenges
  - Materials for extreme fusion environments
  - Fuel capsule (target) designs for fusion



# Fusion Offers the Potential for Limitless Carbon-Free Energy



# Why Fusion Energy?

## Attributes

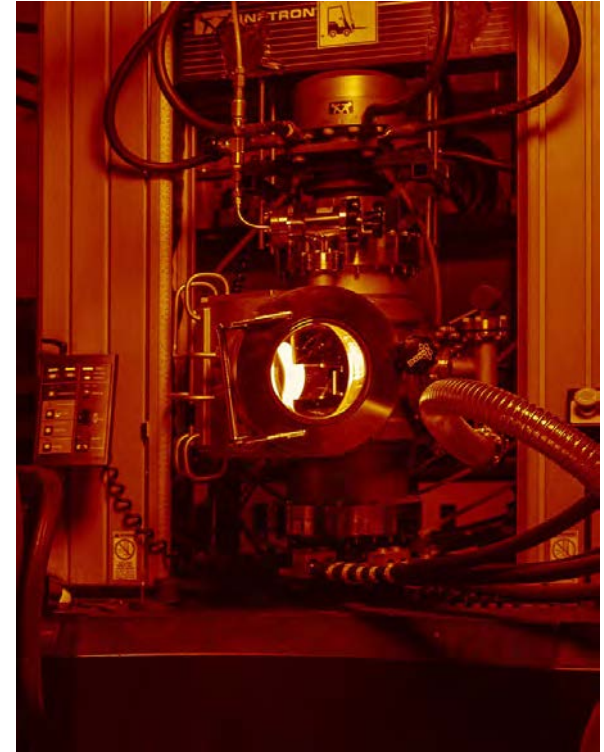
- Fusion energy can be **baseload** and grid level
- Can have a relatively small footprint

## Increased demand

- Worldwide economic growth
- Electrification of vehicles
- Emergence of Artificial Intelligence has **drastically increased** need for energy!
- Poised to increase 160% in data center demand (Goldman Sachs)

## Economics

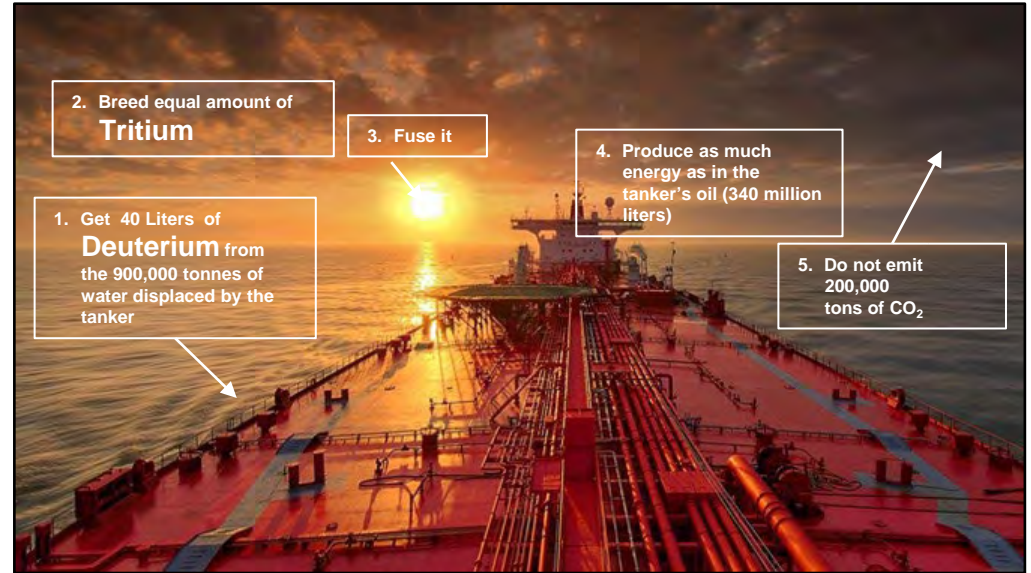
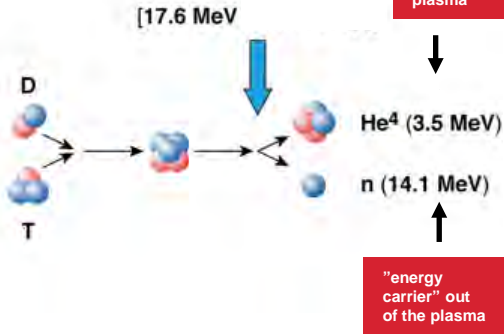
- Estimated to be a \$40 trillion dollar industry by Bloomberg (<https://www.bloomberg.com/>)
- Must be cost competitive



# Fusion Energy: The Basics and the Promise!

## Deuterium (D), Tritium (T) fuel

$E = mc^2$  is  
sure a good  
idea!





# Facility-scale Devices for Fusion Research

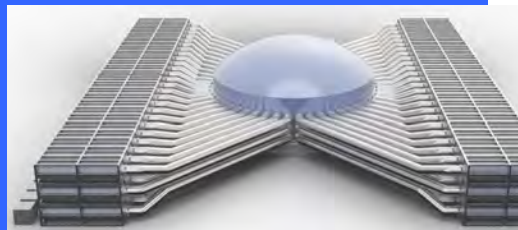
## Inertial Confinement Fusion

## Magnetic Confinement Fusion

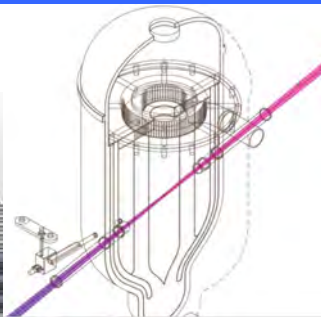
### Public User Facility



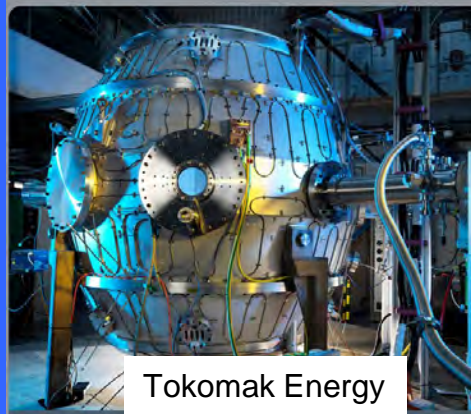
### Private companies



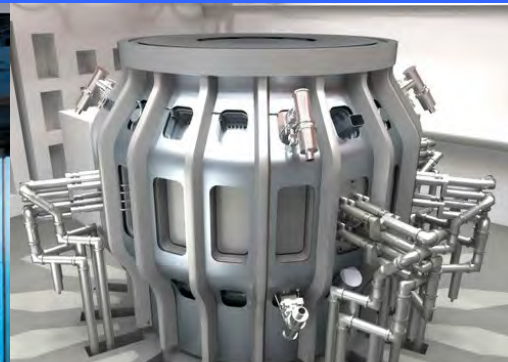
Pacific Fusion



Xcimer Energy



Tokomak Energy



Commonwealth fusion systems



# Why Now?

- **Decades of investment** in science of fusion mostly by DOE (in US)
- **Two key technological advancements** (breakthroughs) are driving huge reemergence of interest:
  - 1) Lawrence Livermore National Laboratory (LLNL) Experiment **demonstrates ignition** for first time (December 2022)
  - 2) **Magnetic confinement devices built** using novel superconducting materials
- More than \$9 Billion in investments in private investment in last few years

# Break through #1: Ignition

- The laser was first demonstrated in 1960 by T. Maiman at Hughes Research Lab in Malibu, CA
- John Nuckolls of *LLNL* suggested an inertial confinement scheme to compress heat and confine the plasma
- The National Ignition Facility (NIF) was completed in 2009
- On December 5<sup>th</sup> 2022 fusion ignition was achieved—1.5 times more fusion energy than the laser energy used

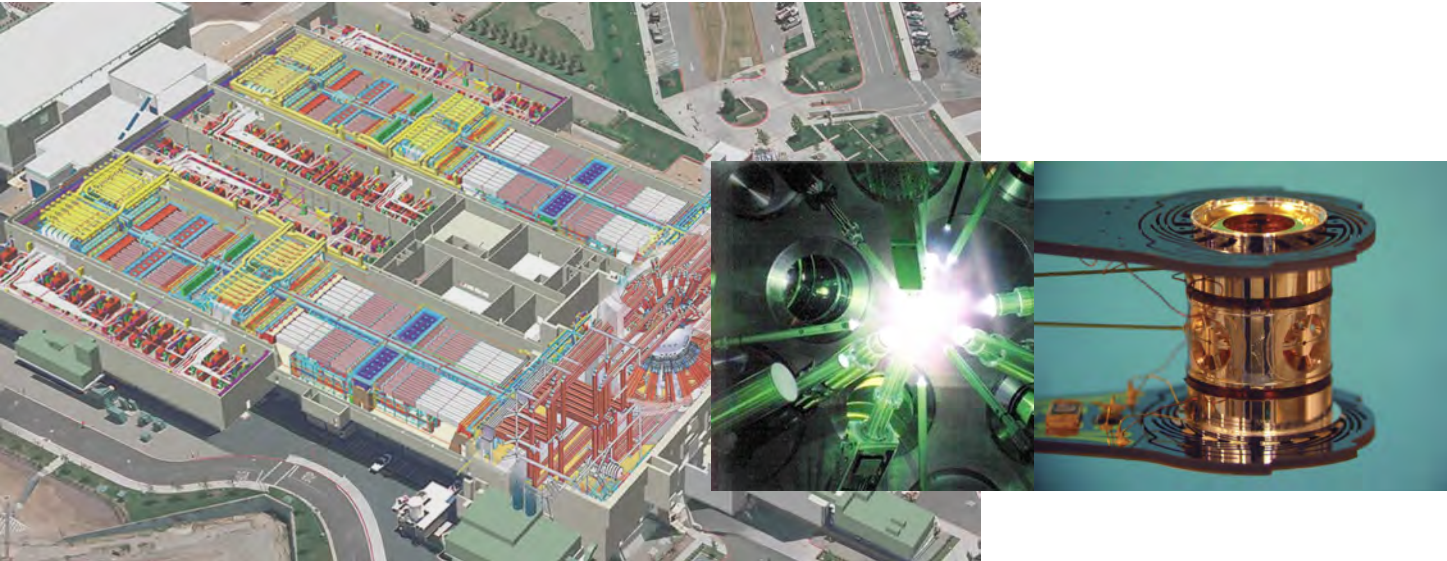


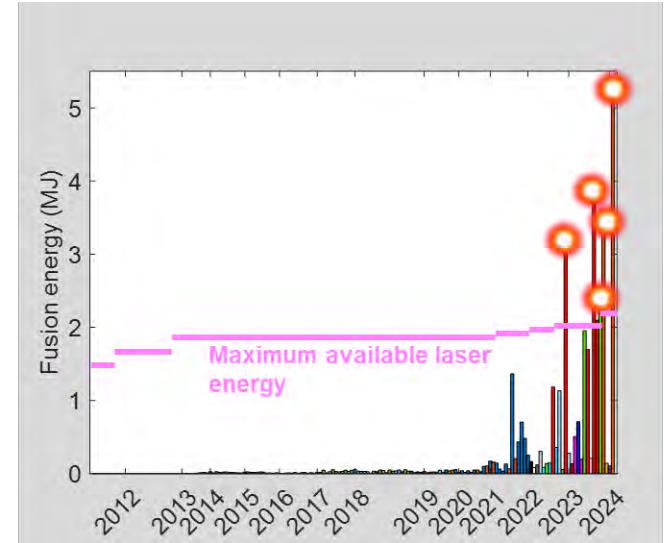
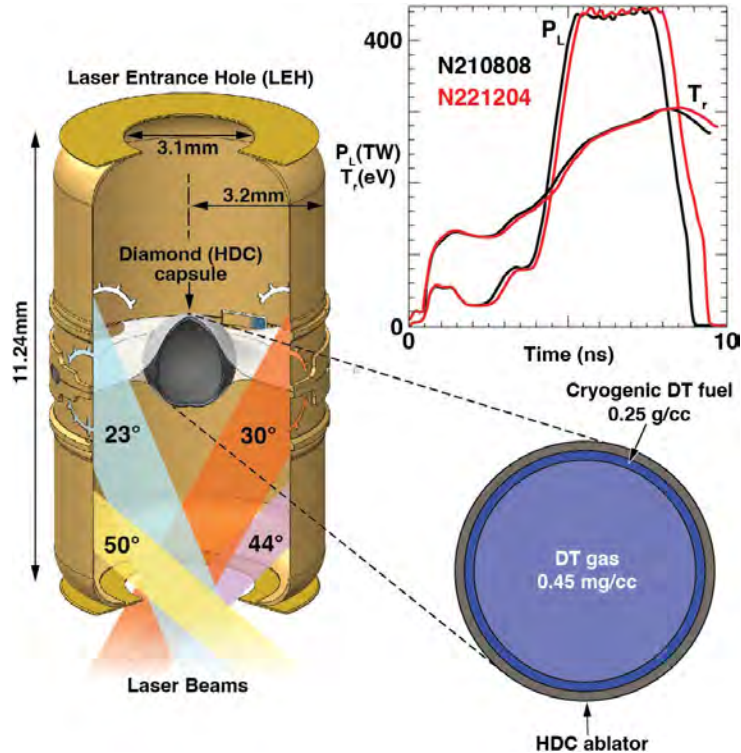
Image: LLNL



# Break through #1: Ignition (continued)

'Achievement of Target Gain Larger than Unity in an Inertial Fusion Experiment'

Produced 3.15 MJ  
for 2.05 MJ delivered



Ignition has been repeated five times since. Highest gain has been 2.36

H. Abu-Shawareb et al, *Physical Review Letters* (2024)

# Break through #2: Superconducting magnets for magnetic confinement devices

- In 1987 Wu et al (PRL) reported superconductivity in Y-Ba-Cu-O

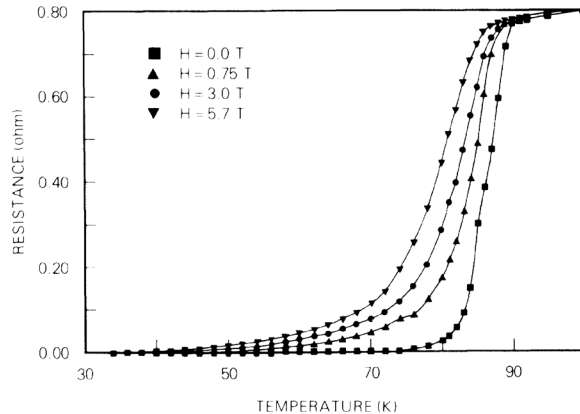
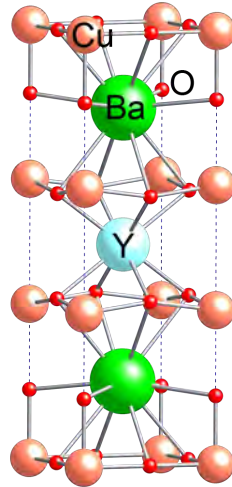


FIG. 1. Temperature dependence of resistance determined in a simple liquid-nitrogen Dewar.



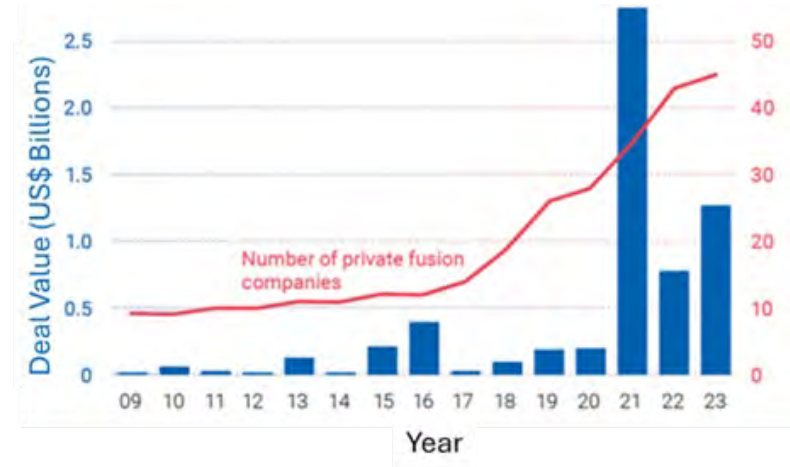
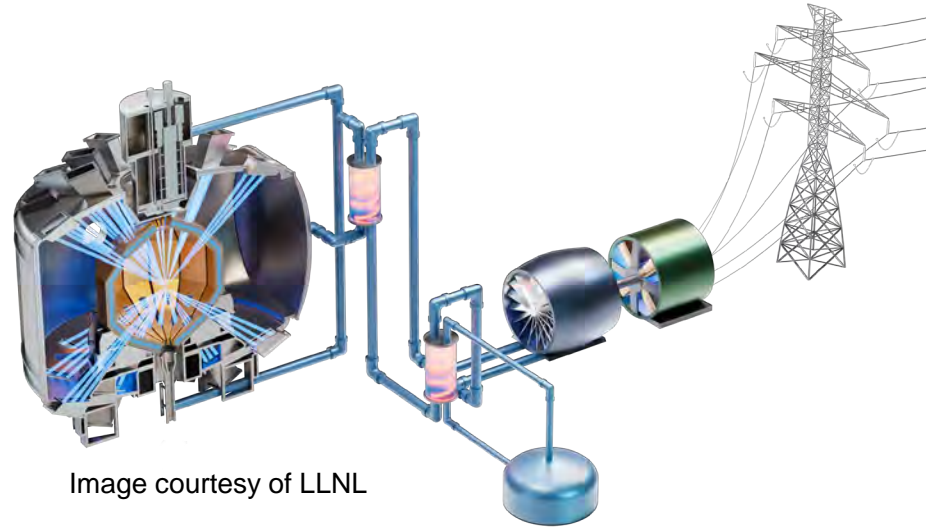
- Y-Ba-Cu-O is one example of a family of materials collectively called rare earth, barium containing copper oxide or REBCO

- Superconducting magnet coils can deliver substantially more electric current density → *higher magnetic field allowing more compact MCF devices (i.e. tokomaks)*



REBCO based coil at Commonwealth fusion systems

# Break throughs have driven Investments



Adapted from T. Hausen, Optics and Photonics News



# Fusion History, Heritage and Future at UC San Diego

UC San Diego has a long history of impactful fusion research, two examples of pioneers:

- Dr. Marshall Rosenbluth was a professor at UC San Diego (1960-1967, 1987-1993). He was a world-renowned leader in plasma physics, plasma instabilities and fusion.
- Dr. Robert Conn, Professor and Dean of Engineering (1994-2002) National Academy of Engineering citation:

“for pioneering contributions in the fields of fusion engineering, fusion plasma analysis, and fusion reactor design”

- Today UC San Diego performs \$1.73 Billion in sponsored research
- The highly ranked Jacobs School of Engineering is one of the largest (by student numbers and research expenditures) in the country.
- Have nearly 10,000 engineering students (BS, MS and PhD)

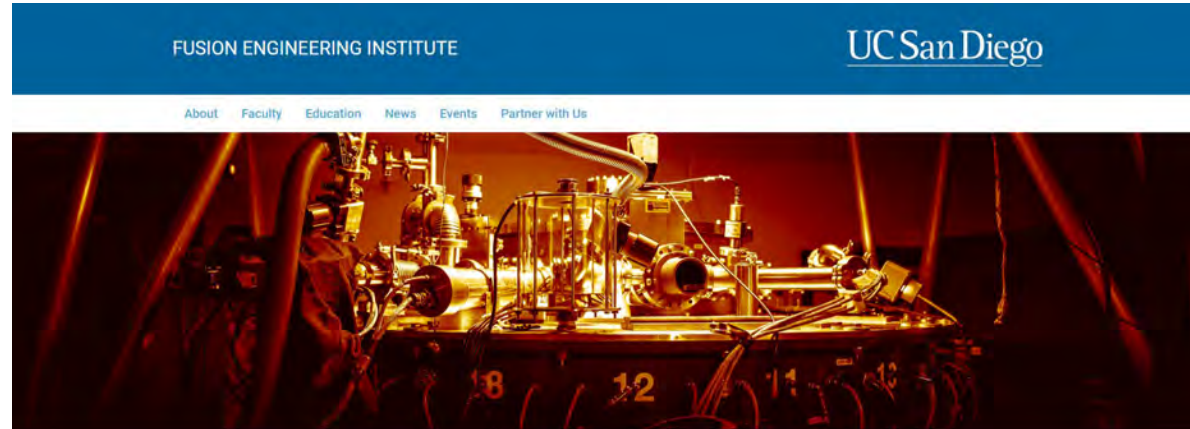
→ We are making investments in fusion research and education





# Fusion Engineering Institute

- Launched Oct 2024
- Founding members include 20 Principal Investigators
- Expertise both Magnetic and Inertial confinement
- Plasma physics, materials science, supercomputing (AI/ML), etc.
- Hiring new faculty members in Fusion Engineering
- ~30-35 PhD students/postdocs doing fusion relevant research
- Plans to expand PhDs , offer MS curriculum and BS involvement



**It's engineering time.**

Some key expansion areas: Fusion materials, Diagnostics, Laser and target technologies

<https://fei.ucsd.edu/>

# UC Workshops for Fusion Energy

UC San Diego  
JACOBS SCHOOL OF ENGINEERING



- **Eight UC campuses:** UC San Diego, UC Irvine, UC Davis, UC Berkeley, UC Los Angeles, UC Riverside, UC Santa Barbara, UC Sata Cruz
- **University of California Office of the President (UCOP)**
- **National Laboratories:** Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Lawrence Berkeley National Laboratory, Stanford linear accelerator
- **U.S. Department of Energy**
- **Industry** (Established and start up companies):
  - General Atomics, Woodruff Scientific, Focused Energy, Xcimer Energy, TAE technologies, Blue Light Fusion, Pacific Fusion, Longview Fusion Energy Systems

# Key Research Areas

- Materials development and diagnostics
- Lasers, optics and controls systems
- High performance computing, AI and Data for fusion
- Plasma physics and modelling



# Engineering challenge #1: Materials for fusion

# Requirements for Plasma Facing Components

The materials of plasma-facing components (PFCs) in future fusion devices is subject to **extreme conditions**:

- Large plasma particle and heat fluxes
- high temperature ( $> 1,500$  K)
- electric currents,
- high energy neutrons

**The materials should have:**

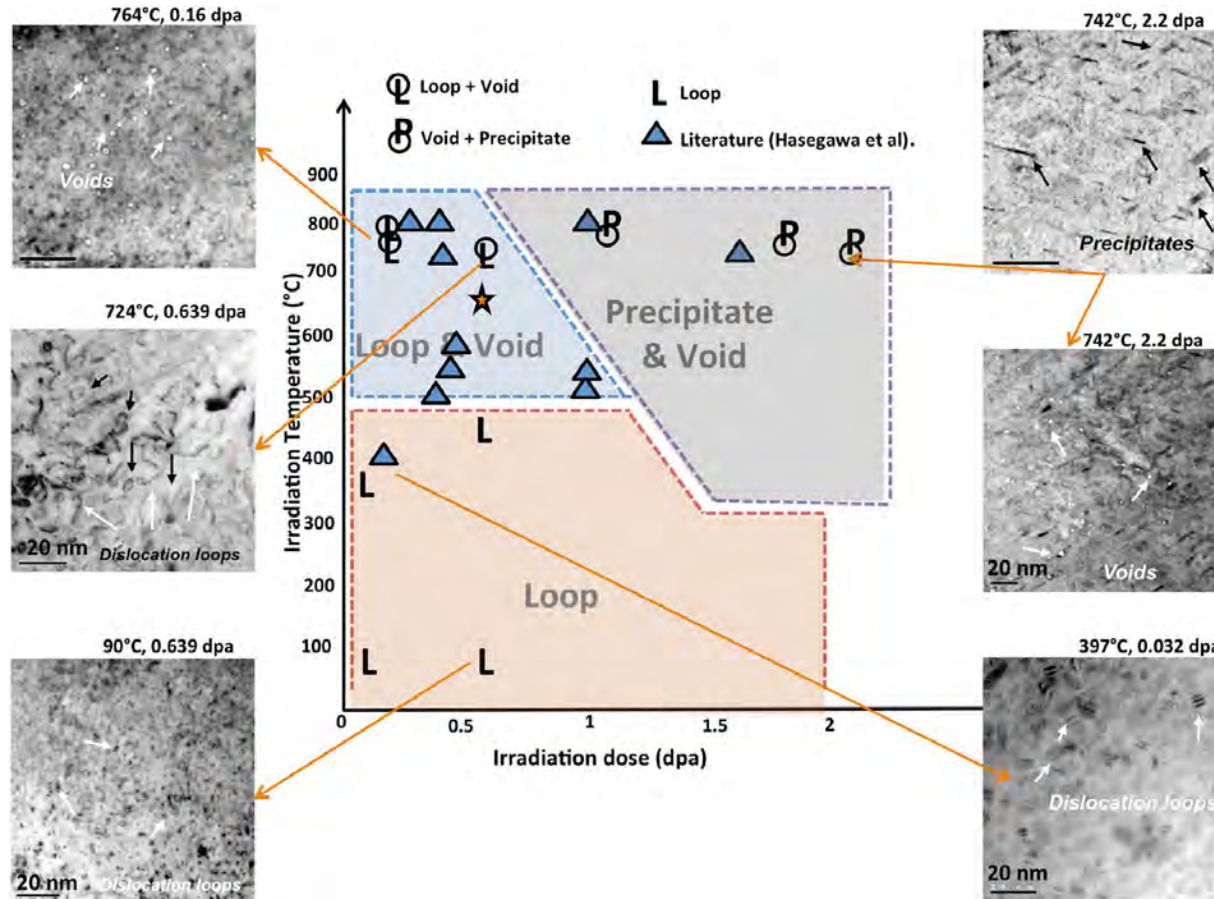
- a low erosion rate
- Low surface morphology change
- low vapor pressure (compatible with plasma operation),
- low retention of hydrogen isotopes (tritium),
- low activation by neutrons, and small degradation of its physical properties (e.g. heat and electric conductivity, ductility, etc.) for many years of the operation.
- Material compatibly with materials such as Li



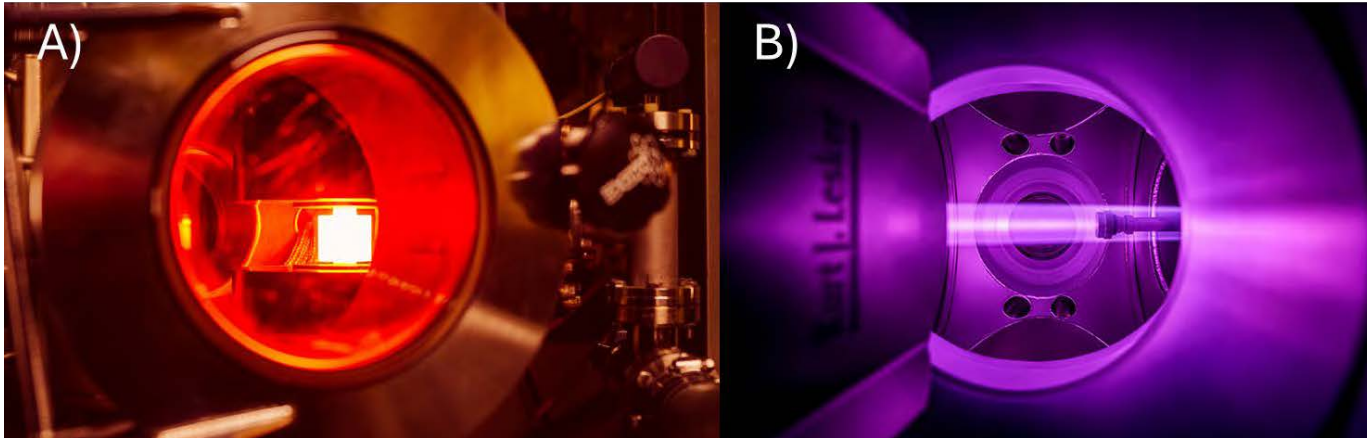
THEME: Not just material composition, but how it is fabricated, is important.



# Microstructural variation under various irradiation conditions



# Material synthesis, processing, characterization and performance testing



Recording and keeping track of progress is key!!!



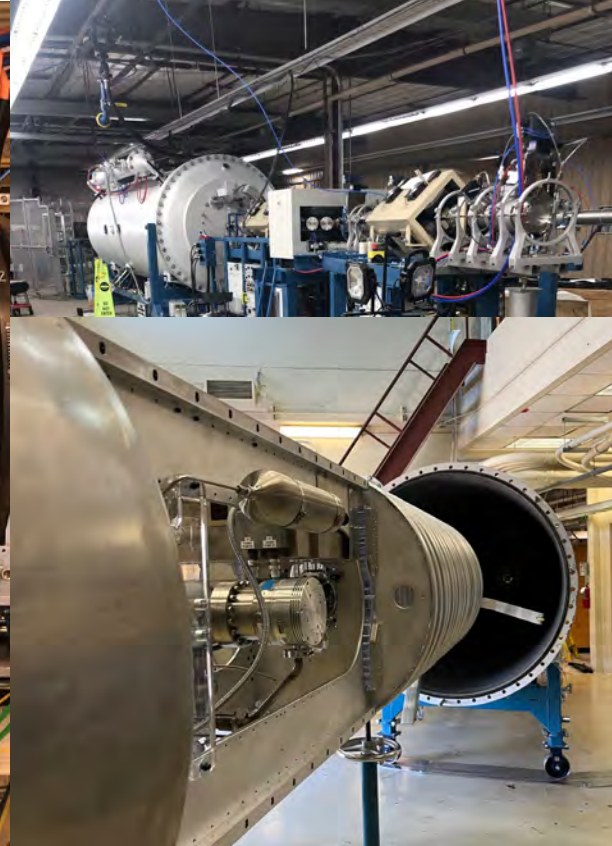
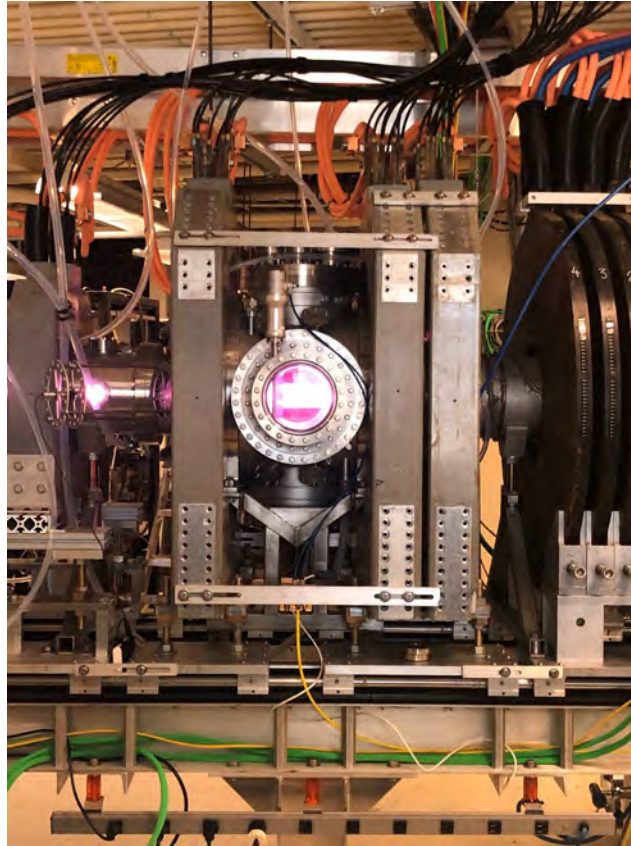
# Fusion Material Performance Testing at UC San Diego

The PISCES group led by Prof. G. Tynan has built a material test bed that allows *simultaneous* exposure to plasma and high flux ions (neutron surrogates)

The POSEIDON device couples the PISCES-RF plasma device to a dual ion-source 3.0 MV terminal voltage tandem ion accelerator.

Co-exposure to ions and plasma is key.

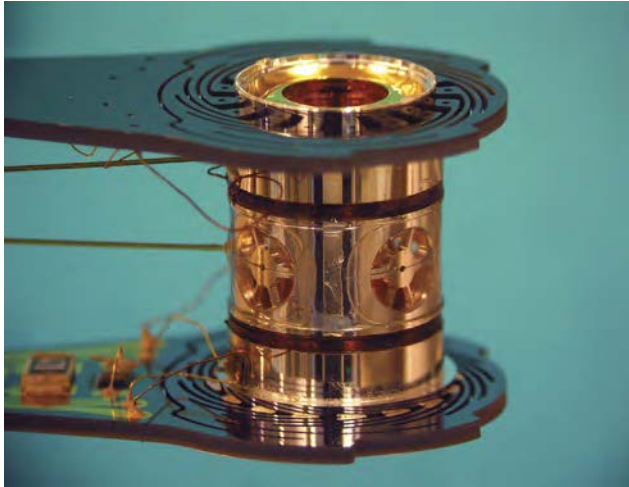
**Possibility of adding radiation hardened electronics testing capabilities**



# Engineering challenge #2: Fuel capsule target design

# The path towards energy

## Scientific breakthrough



Power plant: Key is Repetition rate!

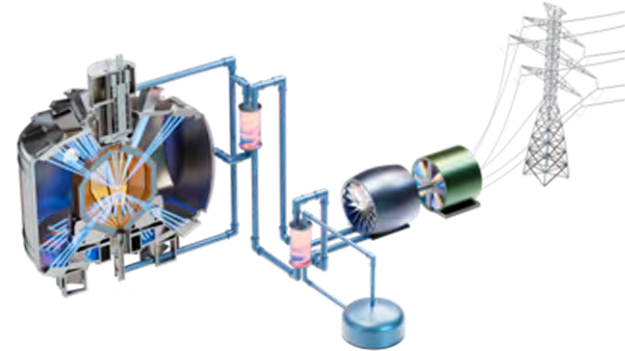
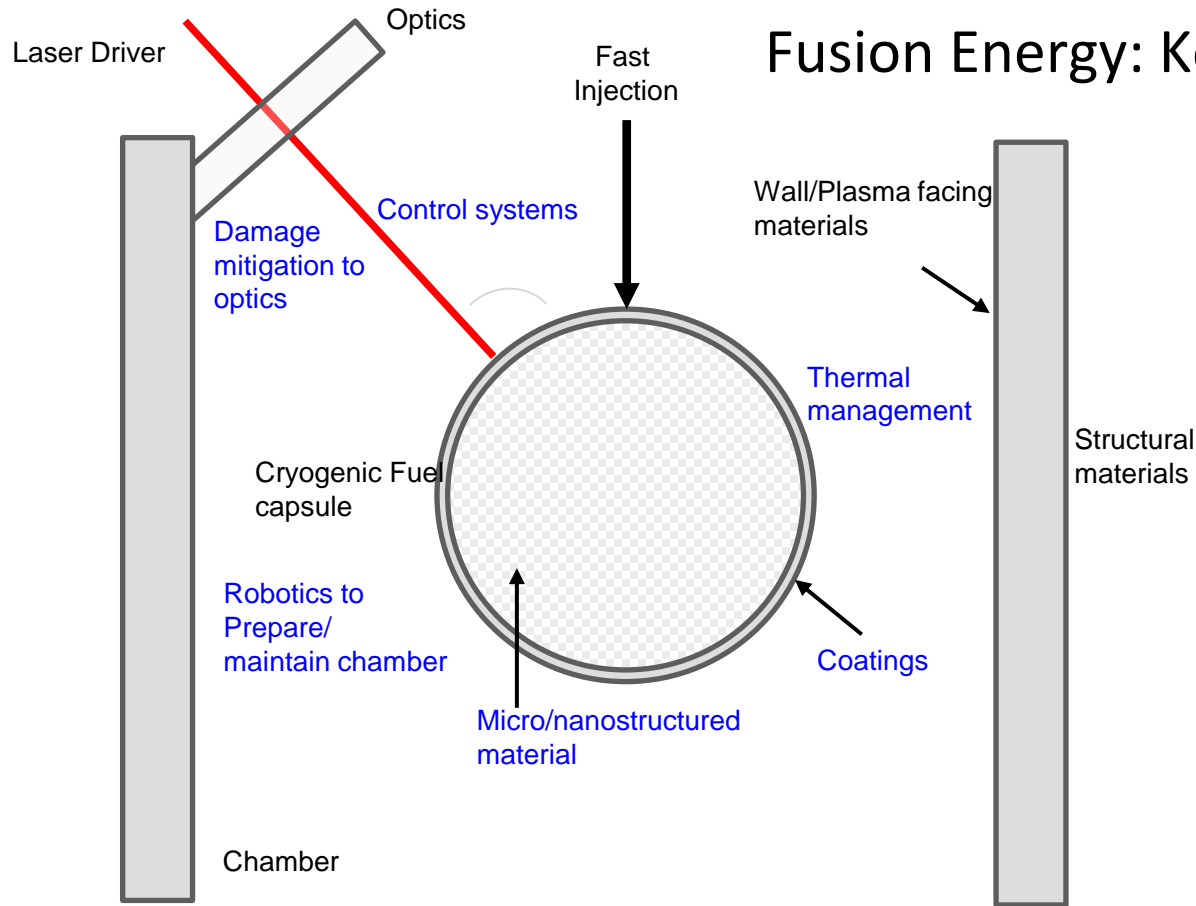


Image Courtesy of Lawrence Livermore National laboratory

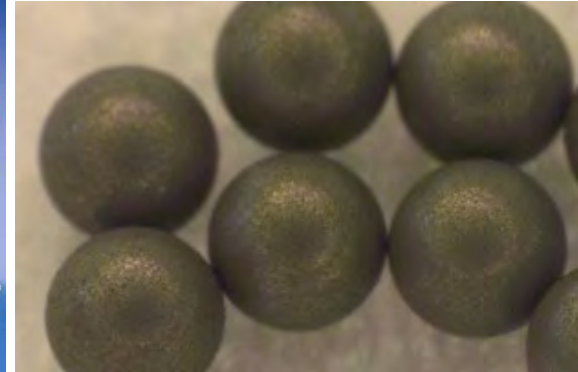


# Fusion Energy: Key is Repetition rate!

Many concepts on going,  
Comonly thought that  
**1-10 samples need to be shot per  
Second (1-10 Hz)**

# Various capsules

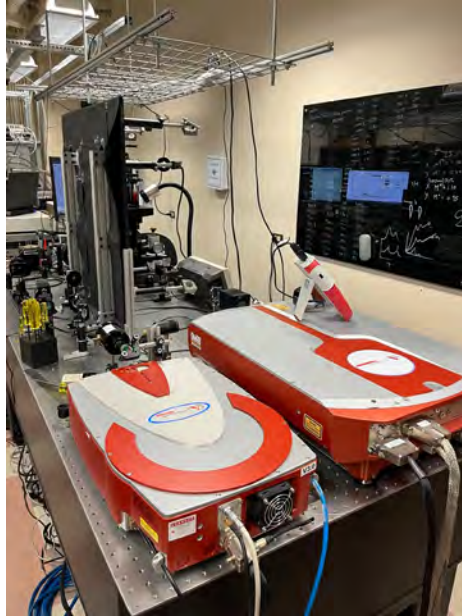
Capsule materials and size/geometry make substantial difference on ablation and performance



Images courtesy of General Atomics

# Ultrafast Laser material printing and processing for fuel capsule manufacturing

Lasers

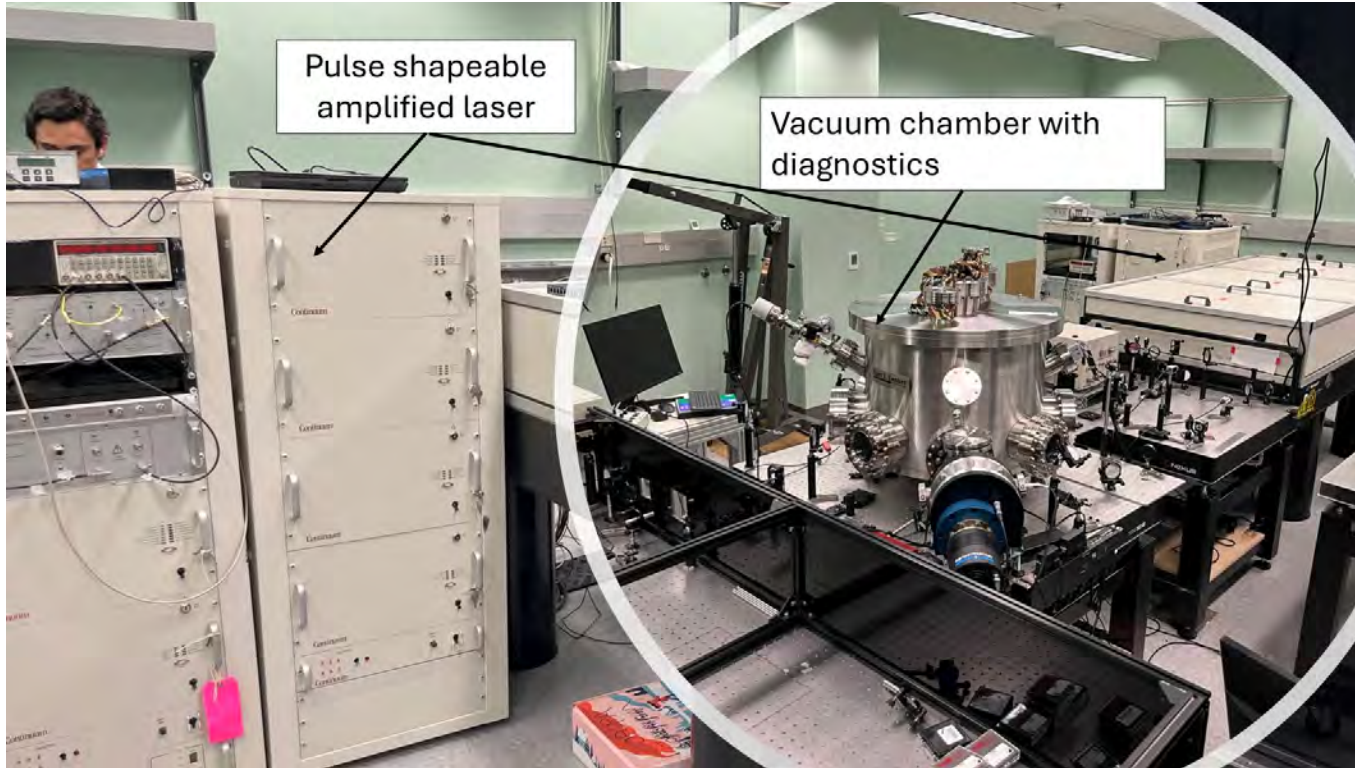


Stages



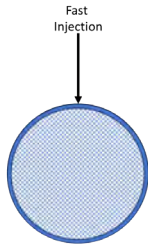


# Laser Facilities at UC San Diego



In addition to fusion research, facilities are also used for other extreme environment testing

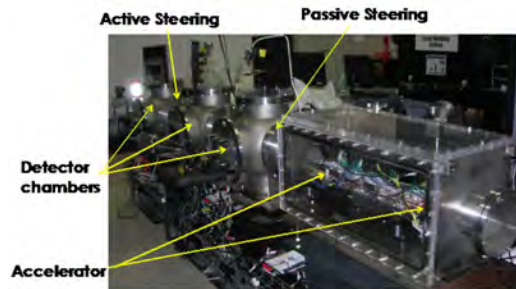
# Target injector and tracking systems



Target Injection

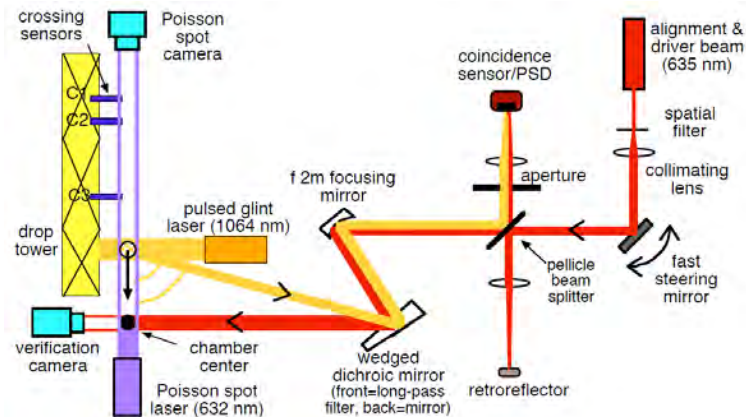


400 m/s gas gun



57 m/s Linear Induction  
Accelerator

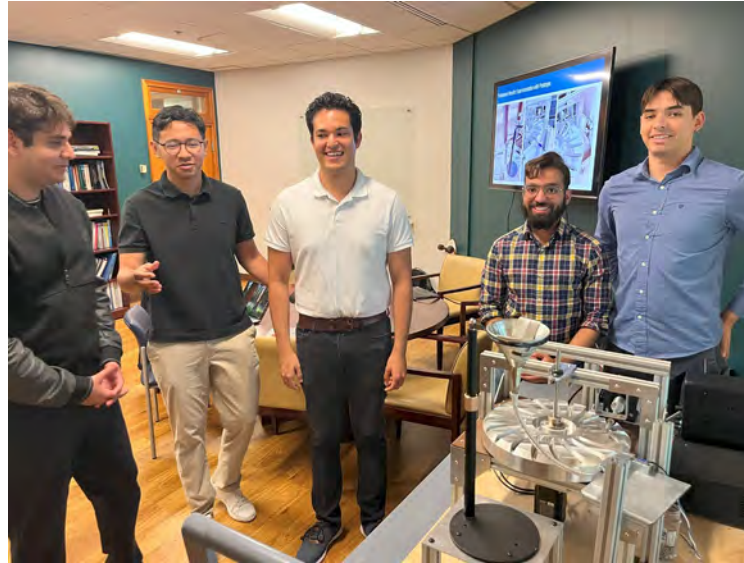
## Target tracking GA in collaboration with UC San Diego



Designing future target injector concepts – GA- UC San Diego collaboration

DOE FIRE Center based

UC San Diego UGs building prototypes



# San Diego Economy development Corporation (EDC) report:

Key findings:

- California leads the nation in fusion energy development.** The state boasts 16 core fusion companies—more than one-third of all U.S.-based fusion companies—and has captured more than \$2.2 billion in cumulative private and public funding.

- The fusion industry already generates significant economic impact—with even more high-growth potential.** Currently, fusion energy accounts for approximately 4,700 jobs across California and generates \$1.4 billion in annual economic output. The industry has the potential to grow to between \$48 billion and \$125 billion, depending on commercialization's success and state policy decisions.

**California excels in research but faces commercialization challenges.** The state's world-class universities, national laboratories, and private investment ecosystem position California as the global leader in fusion R&D. However, barriers such as regulatory uncertainty, high land costs, grid interconnection delays, and lack of fusion-specific policy frameworks threaten California's ability to retain companies as they transition from R&D to commercial deployment.

**Maintaining fusion leadership requires strategic policy measures and state support.** Success depends on recognizing fusion as clean energy under state law, establishing clear regulatory pathways, preparing industrial sites, and creating coordinated policy support. Without decisive action, California risks losing fusion companies to other states offering more favorable commercialization conditions.

# Summary

Discussed:

- Two recent breakthroughs
- Fusion Engineering Institute at UC San Diego
- Two Specific engineering challenges
  - Materials for fusion
  - Fuel capsule (target) designs for fusion

## Questions?

# CAP Executive Board Input

- Are there other emerging industries we should be considering?
  - Fusion Engineering
  - Healthcare Engineering
  - Future Biomanufacturing
  - AI Tutors/Emerging Intelligence
  - New Approaches to Semiconductors
- Additional skillsets you are looking for that we could address?
- What support can we rely on from you and your company?



# CAP Business

Wil Dyer

Director, Corporate Affiliates Program



## CAP Updates

# Jacobs School Corporate Affiliates Program

UC San Diego



# Thank you for joining us on the CAP Executive Cruise

*September 29, 2025*



**And special thanks to GB  
Singh, Jon Bendert and Solar  
Turbines for hosting us  
aboard the Spirit of Solar!**

# CAP Talent Programs

**Recruiting activities have begun!**

**Share your openings with us:**

- Team Internship Projects (TIP):
  - Students are asking for more!
- Cooperative Education (Co-op):
  - Plan for Summer-December 2026
- Full-Time Openings

Contact our team at [JacobsCAP@ucsd.edu](mailto:JacobsCAP@ucsd.edu)  
(Alice on maternity leave from mid-November through April)



# CAP Talent Programs

## Engage with our talent programs:

- Tailored events for your company
- Info Sessions, Tech Talks, Resume Reviews
- Site tours at your company
- Internships
- Team Internship Program (TIP)
- Cooperative Education (Co-op)



Contact us at [JacobsCAP@ucsd.edu](mailto:JacobsCAP@ucsd.edu)

Learn more at [jacobsschool.ucsd.edu/talent](http://jacobsschool.ucsd.edu/talent)



# Senior (Capstone) Design Projects

## Why Senior Design Projects?

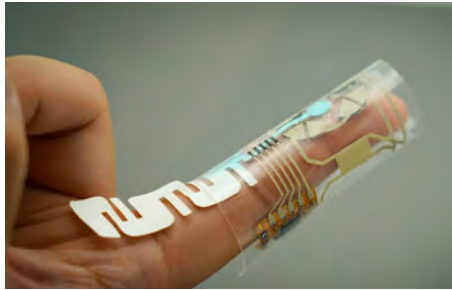
- Team of 3-6 students
- Student skills & fresh ideas in action on your technology
- Mentor students
- IP assigned to sponsor

Contact us at [JacobsCAP@ucsd.edu](mailto:JacobsCAP@ucsd.edu)

Department	Format	Deadline to Submit Proposal
Bioengineering	1 year project	May 1, 2026
Chemical Engineering	Winter & Spring Quarters (consecutive)	Dec 6, 2025
Electrical & Computer Engineering	Winter Quarter & Spring Quarter	Dec 6, 2025
Mechanical & Aerospace Engineering	February - June	Dec 15, 2025 (Projects start in February)
NanoEngineering	Winter & Spring Quarters (consecutive)	Jan 6, 2026



# CAP Partner Invitations to Research Reviews & Symposia



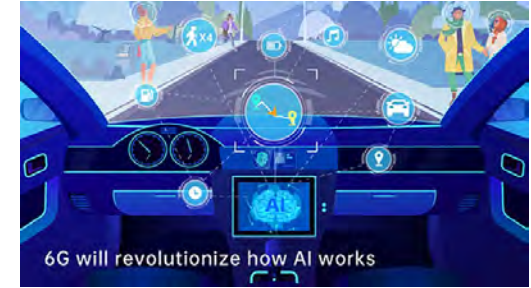
Center for Wearable Sensors  
October 24, 2025



Contextual Robotics Institute  
November 5, 2025



Power Management  
Integration Center  
December 8-9, 2025



Center for Wireless  
Communications  
January 22-23, 2026

Contact: Wil Dyer, [wdyer@ucsd.edu](mailto:wdyer@ucsd.edu)

# AI Major Seeking CAP Executive Input

- Currently two new classes with plans to expand to more in the coming years
- Faculty committee currently developing curriculum
- CAP partners can provide input on relevant topics and help shape the educational outcomes
- Build your AI talent pipeline!



# Current Slate of Important Dates

October 15, 2025	National Security Networking Night
October 24, 2025	Center for Wearable Sensors Research Summit
November 4, 2025	Contextual Robotics Institute “Speed Dating” Recruitment
November 5, 2025	Contextual Robotics Institute Research Forum
December 8-9, 2025	Power Management Integration Center Board Meeting
January 22-23, 2026	Center for Wireless Communications Research Review
<b>February 5, 2026</b>	<b>Winter CAP Executive Board Meeting</b>
April 15, 2026	44 <sup>th</sup> Annual Jacobs School Research Expo

Thank you!

Next CAP Executive Board Meeting:  
February 5, 2026