

# *Board of Trustees Meeting*

June 6, 2025



# *Sponsored Research Awards Highlights*

January 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Jie Chen</b> College of Engineering – Mechanical Engineering	Public Health Service-National Institutes of Health-National Institute of Dental and Craniofacial Research	Dose Analysis for Translating Animal Based Vibrational Force Study for Accelerating Orthodontic Tooth Movement to Clinic	\$1,320,505.00
<b>Senay Purzer</b> College of Engineering – Engineering Education	National Science Foundation	Socially Transformative Engineering Pedagogy (STEP) for a Sustainable Future	\$2,586,924.00
<b>Gregory Scofield</b> PARI Hypersonics Lab – Hypersonics Advanced Manufacturing Technology Center	Air Force Office of Scientific Research	Novel Testing Methods for Measuring Critical Gas Phase Interactions in Hypersonic Ground Test	\$1,200,000.00
<b>Michelle Thompson</b> College of Science – Earth, Atmospheric, and Planetary Sciences	National Aeronautics and Space Administration	Purdue Resources Empowering Coordinated Investigations for Sample Exploration (PRECISE)	\$5,220,382.00

# *Sponsored Research Awards Highlights*

February 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Arnab Banerjee</b> College of Science – Physics and Astronomy	W.M. Keck Foundation	Uncovering Elusive Kitaev Topological States with Metasurfaces	\$1,200,000.00
<b>Eduardo Barocio Vaca</b> College of Engineering – Composite Manufacturing and Simulation Center	U.S. Department of Energy	Additive Manufacturing of Modular Tool Designs for Large-Scale Wind Blade Manufacturing	\$1,999,578.00
<b>Antonio Bianchi</b> College of Science – Computer Science	Defense Advanced Research Projects Agency	FLARE: A Multi-layered Approach to Exploit-chain Generation	\$2,269,537.00
<b>Rajamani Gounder</b> College of Engineering – Chemical Engineering	Susteon Inc. / Advanced Research Projects Agency – Energy	ECHO-SAF: Electrified CO <sub>2</sub> Hydrogenation to Olefins for Sustainable Aviation Fuel	\$1,750,000.00
<b>Michael Langemeier</b> College of Agriculture – Agricultural Economics	Chicago Mercantile Exchange	CME Group farm Economy Barometer Project	\$4,044,703.00
<b>Andrew Mesecar</b> College of Agriculture – Biochemistry	Indiana University / Public Health Service-National Institutes of Health-National Institute on Aging	IUSM TREAT-AD Center	\$4,275,877.00
<b>Partha Mukherjee</b> College of Engineering – Mechanical Engineering	U.S. Department of Energy	MonaLiSa: Mechanistic Modeling and Analytics of Li-S Batteries	\$1,752,714.00
<b>R. Byron Pipes</b> College of Engineering – Composite Manufacturing and Simulation Center	Institute for Advanced Composites Manufacturing Innovation / U.S. Department of Energy	IACMI 2.0 - Total	\$4,100,000.00

# *Sponsored Research Awards Highlights*

February 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Senay Simsek</b> College of Agriculture – Food Science	Riley Children's Foundation	Heartland Children's Nutrition Collaborative	\$1,250,000.00
<b>Zhong-Yin Zhang</b> College of Pharmacy – Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Cancer Institute	Primary Screening and Hit Follow Up to Identify the First Selective Inhibitors of PLC?1 and PLC?2	\$1,507,558.00
<b>Fu Zhao</b> College of Engineering – Environmental and Ecological Engineering	U.S. Department of Energy	Integrated Technoeconomic, Lifecycle, and Circularity Analyses Tool for EV Batteries	\$1,631,000.00

# *Sponsored Research Awards Highlights*

March 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Daniel DeLaurentis</b> Centers & Institutes	Stevens Institute of Technology / U.S. Department of Defense	DCTC WRT-1098- Research in support of the Defense Civilian Training Corps (DCTC) Program Development, Piloting, and Instrumentation	\$999,082.00
<b>Catherine Hill</b> College of Agriculture – Entomology	Gates Foundation	NECTAR Pillar 2: Toolkit for Natural Products Focused Screening on the African Pharmacopeia	\$1,690,247.00
<b>Guillermo Paniagua-Perez</b> College of Engineering – Mechanical Engineering	Universidad Politecnica de Madrid / European Research Council	Discovering Flow Control in Turbine Diffusing Passages-DIFFUSE	\$3,904,372.00
<b>Tom Shih</b> College of Engineering – Aeronautical and Astronautical Engineering	Ames Laboratory / U.S. Department of Energy	Thermal Management of Advanced Gas Turbines with Zero-to-Near-Zero CO2 Emission	\$1,200,000.00
<b>Steven Son</b> College of Engineering – Mechanical Engineering	Defense Advanced Research Projects Agency	Solid Propellant Liquid Infusion Technology (SPLIT) concept demonstration.	\$999,999.00
<b>Zhong-Yin Zhang</b> College of Pharmacy – Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Cancer Institute	Structure/Function of Protein Tyrosine Phosphatases	\$1,765,823.00

# *Sponsored Research Awards Highlights*

April 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Emily Dykhuizen</b> College of Pharmacy – Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Cancer Institute	Development of Inhibitors to Selectively Target the CBX8 Chromatin Reader Domain	\$2,145,615.00
<b>Shelley MacDermid Wadsworth</b> College of Health and Human Sciences – Human Development and Family Science	Henry M. Jackson Foundation for the Advancement of Military Medicine / Uniformed Services University of The Health Sciences	Extending the Reach of SBHP, FY 25, Y6 (NGB)	\$1,394,486.00
<b>Jose Enrique Pietri Cotty</b> College of Agriculture – Entomology	Public Health Service-National Institutes of Health-National Institute of Allergy and Infectious Disease	Biological Vector Borne Transmission of Salmonella by Cockroaches	\$1,127,357.00
<b>Karthik Sankaranarayanan</b> College of Agriculture – Agricultural and Biological Engineering	National Science Foundation	Ideas Lab: USPRD:Programmable Small Molecule Biosynthesis	\$7,199,398.00

# *Sponsored Research Awards Highlights*

May 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Xiaoping Bao</b> College of Engineering – Chemical Engineering	Public Health Service-National Institutes of Health-National Cancer Institute	CAR Neutrophils Produced in Vivo to Remodel Tumor Microenvironment and Treat Glioblastoma	\$3,211,159.00
<b>Luciano Castillo</b> College of Engineering – Mechanical Engineering	Office of Naval Research	ONR Blue Integrated Partnership (BIP 2.0): A Consortium for Mentoring a Vibrant STEM Workforce Ready to Solve Tomorrow's Grand Challenges	\$9,892,031.00
<b>Qingfei Zheng</b> College of Pharmacy – Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Development of a Chemical Biology Toolbox to Investigate Histone Monoamination	\$1,535,587.00

# *Resolutions of Appreciation*

<b>Phil and Joan Low</b> Purdue Institute for Drug Discovery	<b>\$20M</b>
<b>Greg and Amy Baker</b> College of Pharmacy	<b>\$20M</b>
<b>Sam and Marsha Allen</b> Mitch Daniels School of Business	<b>\$8M</b>
<b>Anonymous</b> College of Health and Human Sciences	<b>\$6M</b>
<b>Anonymous</b> College of Science and College of Health and Human Sciences	<b>\$4.4M</b>
<b>Anonymous</b> Purdue Institute for Cancer Research and Intercollegiate Athletics	<b>\$3M</b>
<b>Jaquish &amp; Kenninger Foundation</b> Purdue Military Research Institute	<b>\$2.5M</b>



# *Resolutions of Appreciation*

<b>Lennar Foundation</b> Purdue Polytechnic Institute	<b>\$2M</b>
<b>Gates Foundation</b> College of Agriculture	<b>\$1.6M</b>
<b>Riley Children's Foundation</b> College of Agriculture	<b>\$1.25M</b>
<b>Chaney Family Foundation</b> Mitch Daniels School of Business	<b>\$1M</b>
<b>Kenneth Neavel</b> College of Science	<b>\$1M</b>
<b>William and Sherry Young</b> Davidson School of Chemical Engineering	<b>\$1M</b>
<b>Rick Ralston</b> College of Engineering	<b>Undisclosed</b>

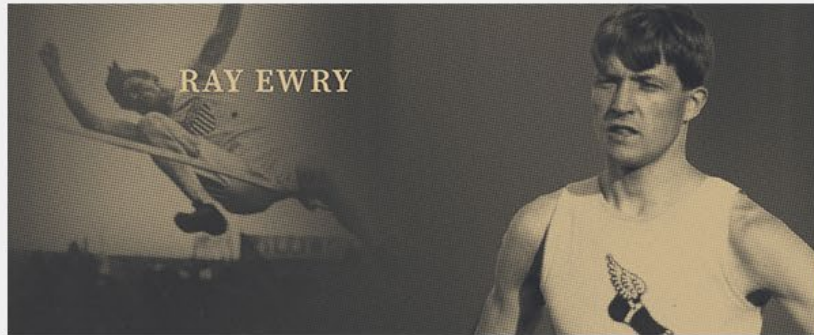
# *Namings*

- Request to name the Construction Management Technology Construction Lab the Lennar Foundation Construction Lab
  - Donor: Lennar Foundation
- Request to name the Open Collaboration area in the Mitch Daniels School of Business the Chaney Family Collaboration Hub
  - Donor: Chaney Family Foundation



# ***PURDUE FOR LIFE FOUNDATION UPDATES***

Board of Trustees Stated Meeting – June 6, 2025



**VICTORIES & HEROES**

**YOUR CAMPAIGN FOR PURDUE**



# ***Victories & Heroes: Your Campaign for Purdue***

## **Processes to Date**

- Quiet phase July 2022 – January 2025
- Public phase February 2025 – early 2030
- Identified top 250 campaign prospects
- Launched Campaign Planning Committee (internal)
- Launched Campaign Steering Committee on April 30 (external)
- Structured around four strategic initiatives
- Case statement and marketing materials in production for October kickoff
- Will track dollars raised and engagement (giving, volunteering, attending, communicating)

# ***Victories & Heroes: Your Campaign for Purdue***

## **Campaign Steering Committee**

**Co-chairs:** Vanessa Castagna, Bill Elmore, and John and Fran Edwardson

Sam and Marsha Allen  
Snehal Antani  
Irene and Brian Binash  
Bill Bindley  
Janine Black and Barry Arkles  
Drew and Brittany Brees  
Chris and Susan Burke  
Marc Carlson and Jacque DuPont  
Jim and Carol Cure  
Bill Dudley  
Norm and Liubov Gilsdorf

Jason and Virginia Girzadas  
Mike and Rhonda Graff  
Dave and Alice Hagar  
Marc and Sharon Hagle  
Brenda and Mike Harris  
Keith Krach  
Marshall and Susan Larsen  
Chris and Melinda Lister  
Tim and Jane McGinley  
Norm and Karyn Nabhan  
Matt and Sherry Painter

Patti and Eric Poppe  
Marv and Melanie Richardson  
Rusty and Patti Rueff  
Jen and Jim Rumsey  
Bill and Carla Young  
John and Lori Zehner

# *Victories & Heroes: Your Campaign for Purdue*

## Activities and Events

- Regional events in Austin, Atlanta, D.C., Colorado Springs, Orange County, SF Bay Area, with **more than 750 attendees**
- Coming next to Chicago (6/12), New York City (6/21), Philadelphia (6/25), and Boston (6/27)
- October 24–25: West Lafayette campaign launch
  - First Campaign Steering Committee meeting
  - PC Event and Mackey Arena celebration
  - Victories & Heroes-themed Boilermaker Boulevard
  - Homecoming football game

# ***Victories & Heroes: Your Campaign For Purdue***

## **Priorities**

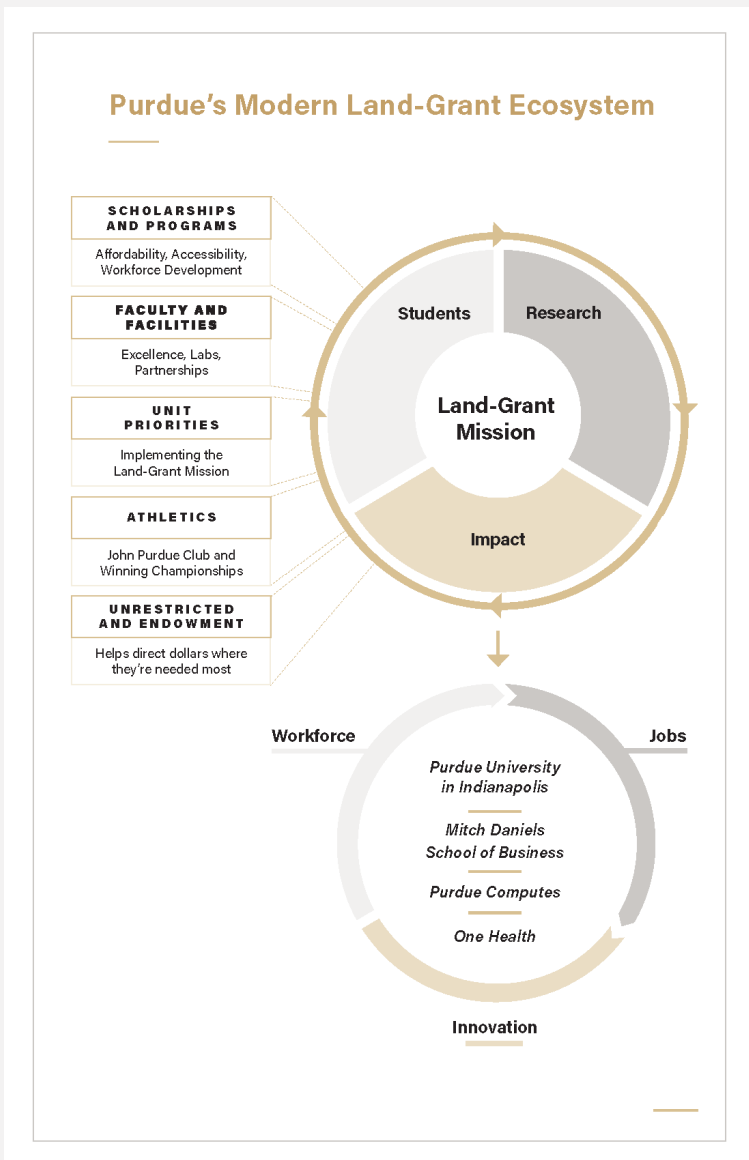
- **Strategic Initiatives:**
  - Purdue University in Indianapolis
  - Mitch Daniels School of Business
  - Purdue Computes
  - One Health
- **Unit Priorities:**
  - Intercollegiate Athletics
  - Academic colleges, schools, and departments
  - Auxiliary programs
- **Usage:**
  - Scholarships
  - Professorships
  - Research
  - Facilities
  - Programs
  - Unrestricted



# Victories & Heroes: Your Campaign for Purdue

## Goals and Impact

- Galvanizing support to strengthen our land-grant mission
- Reinventing the land-grant university for the 21st century
  - Leveraging investments in students, programs, faculty, research, athletics, unit priorities, and unrestricted and endowment gifts toward our four strategic initiatives
  - Creating impact through jobs, workforce, and innovation



# 2025 Purdue Day of Giving

## Results + Impact

- \$105,071,882 Raised
  - Two \$20M gifts
  - 20 gifts greater than \$1M
- 36,875 gifts
  - 6,771 gifts from students
  - 2,901 first-time donors
  - Alumni in the class of 2023 gave the most gifts
- Campaign Impact
  - \$31,795 raised for *Victories & Heroes: Your Campaign for Purdue* fund



New this year, a gift from Jeannie (BS pharmacy '61) and Jim Chaney allowed two students to each earn a \$10,000 scholarship. Isabella Bartol (pictured), a sophomore nursing student, and Adeesh Mahesh Desai, a master's student in robotics, were the recipients.

# Victories & Heroes: Your Campaign for Purdue

## FY25 Impact



Peter (EE'67) and Ann Lambertus have given **\$30 million** to support Purdue's College of Engineering and invest in the goal of making the college the most consequential engineering program in the country. These unrestricted funds will allow the dean to pursue strategic opportunities that will attract top talent, propel innovative research, and expand the global impact of Purdue Engineering.



Greg (P'99) and Amy Baker have **launched the Center for Health Analytics and Therapeutic Intelligence in the College of Pharmacy with a \$20 million gift**. The center will leverage real-world data, artificial intelligence, and advanced analytics to revolutionize the way medications are studied, evaluated, and applied—driving smarter, optimized, and more equitable therapeutic decisions for individuals and populations.



John (IE'71) and Fran Edwardson have **named the Edwardson School of Industrial Engineering with their \$17.5 million gift**, which will be leveraged to provide matching funds for faculty and graduate students, providing \$25 million in total impact. Their gift will provide endowments for undergraduate students, graduate fellowships, and eight new faculty professorships, as well as discretionary funding for the school's head.



Presidential Scholar for Drug Discovery and Ralph C. Corley Distinguished Professor of Chemistry Phil Low and his wife Joan have **launched the Low Institute for Therapeutics**. Their \$20 million gift will develop multiple drug families concurrently to bring 10 drug families patented by Dr. Low to market—dramatically decreasing the time from Phase 1 trials to commercialization. These therapeutics will improve health and save lives worldwide.



***THANK YOU***



PURDUE FOR LIFE  
FOUNDATION

# *One Health Investments*

Life Science and  
Chemistry + Research  
Building

+

One Health Innovation  
District

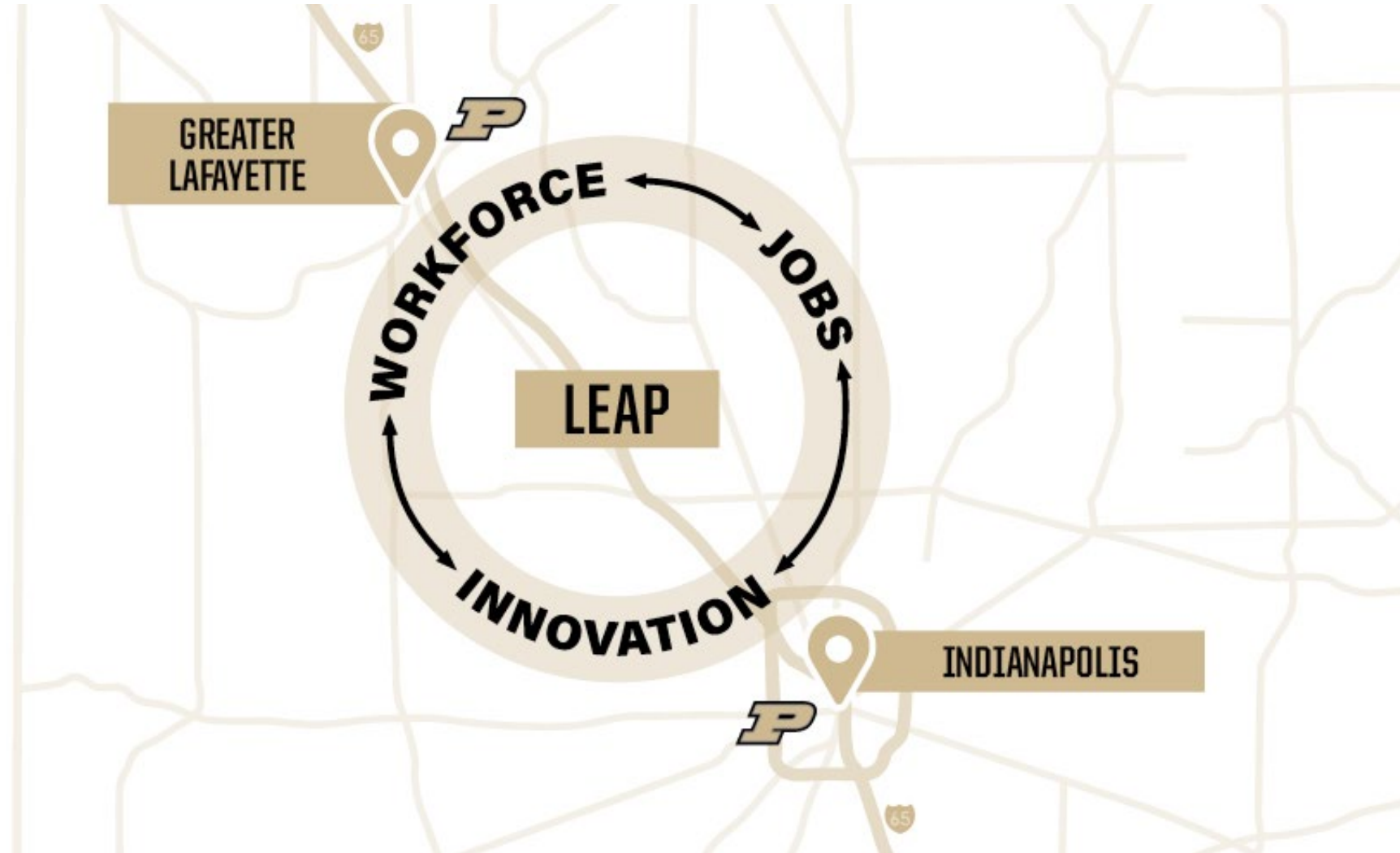
## New Degree Programs

- Biomolecular design (joint across Chemistry, Computer Science and Biology)
- Dual BS/MS in advanced chemistry
- Professional master's in advanced pharmaceutical engineering (joint Chemistry and Chemical Engineering)

## Strategic Faculty Recruiting in Advanced Chemistry

- Joint across Chemistry, Chemical Engineering, Biochemistry and Medical Chemistry/Molecular Pharmacology
- To advance chemical and biochemical processes that are safe, reliable and efficient
- Enable onshoring of pharmaceutical production through safe, reliable and efficient technologies

# *America's Hard Tech Corridor*





# *Lilly-Purdue 360: The Largest University-Industry Partnership*

**From molecules to medicines to patients**

**\$250M 2025-32**

## **Vision:**

The Lilly/Purdue Strategic Research Alliance and the Lilly Scholars program at Purdue are **national exemplars** of the power and impact of collaboration in scientific research and student development.

The Lilly-Purdue 360 initiative will deepen and expand our partnership by focusing on:

**drug discovery, product development, manufacturing and workforce development**

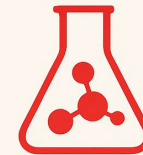


## **Mission:**

In an era of rapid technological advancement, the Lilly and Purdue alliance will **lead** advancements in drug discovery, development, and manufacturing and improve workforce training.

This partnership will support Purdue's One Health initiative, trailblazing new paths for the discovery, development, and manufacturing of next-generation medicines and delivering impactful outcomes for Lilly, Purdue, and patients nationally and globally.

## **Four Key Goals**



Accelerate the journey of Molecules to Medicines



Reduce risks in Translational Research



Build resilient and green manufacture and supply chains



Implement innovative Workforce Development strategies

# ***Lilly-Purdue* 360**

## **Talent Flow at Scale**

LPRC Student Engagement

Lilly Scholars, Internships, Talent Development Academy

### **Discovery at Scale**

Genetic Medicines

Next Generation Therapeutics (NGTx)

Automated Drug Discovery

Digital Biomarker  
Discovery

### **Product Research and Development at Scale**

Lilly Medicine Foundry

Green Chemistry

CMC Digital Transformation

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LEAP District Training  
and Development

### **Manufacturing at Scale**

Aseptic MFG Technology

Global Robotics Program

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Young Institute Consortium  
Membership



## FEATURED NEWS

# Low Institute For Therapeutics (LIFT)

**Blazing a new trail for early-stage innovation: Purdue announces creation of Low Institute for Therapeutics (LIFT) through a generous gift by Phil and Joan Low**

APRIL 29, 2025 | PURDUE NEWS

SHARE     

WEST LAFAYETTE, Ind. — Prostate cancer. Malaria. Influenza. All diseases one step closer to eradication thanks to the tireless, lifelong efforts of professor Philip Low. Now he's planning to usher his world-changing innovations into a new era.

The creation of the Low Institute for Therapeutics (LIFT) was announced Tuesday (April 29) at an event on campus. The institute will work toward accelerating lifesaving therapeutics from the lab and into the world by funding necessary early-stage trials in partnership with Purdue University and Purdue Research Foundation.



# Therapeutics from Purdue IP (Dr. Low) Spinouts

## FDA Approved



Royalty: \$128M to date



Royalty: \$900k to date



Royalty: \$100k to date



ENDOCYTE

(Acquired for \$2.1B by)



NOVARTIS

## Pre-clinical / In Clinical Trials



Estimated Valuation: \$435M

Valuation Contributors:

- \$100M Oversubscribed Series C (Jan 2025)
- AbbVie collaboration worth up to \$1.4B



Immunome

Market Cap: \$646.5M



ERADIVIR

Estimated Valuation: \$43M-\$100M

Valuation Contributors:

- Closed Series A, \$10.25M (March 2025)

# *Young Institute Update: 2024-25*

- **Young Institute Consortium** with Lilly and Merck as founding members launched in January 2025 — \$15M
- **10,000 sft Research and Training Facility** build-out at Indiana Manufacturing Institute
- **4th Indiana Life Sciences Manufacturing Summit** — March 2025
- **“Making Medicines in America” summit on Capitol Hill** — May 2025 based on proposed M-USA institute (\$70M NIST + \$180M non-fed match budget/5 years)



Sec. David Adams keynote at IN Life Sciences Summit, 3/2025



Facility Groundbreaking, 10/2024



Onshoring summit on Capitol Hill, 5/2025



# *Young Institute: Workforce Training*

- **BSL-3 cGMP Mobile Cleanroom** for hands-on training on injectables manufacturing — donation by Lilly, installed at IMI in February 2025
- **NIIMBL eXperience @Purdue** — weeklong experiential training on biomanufacturing for undergraduates; 1st time in Midwest
- **Purdue lead on \$51M Heartland Bioworks EDA Tech Hub** — first cohort of Biotrain Graduate Fellows (\$3.8M/5yr) at Purdue will start in summer 2025 to deliver curriculum for 600 Purdue UG and 1,200+ industry trainees



GermFree mobile cleanroom for hands-on training on cGMP fill-finish of injectables

**NIIMBL eXperience**

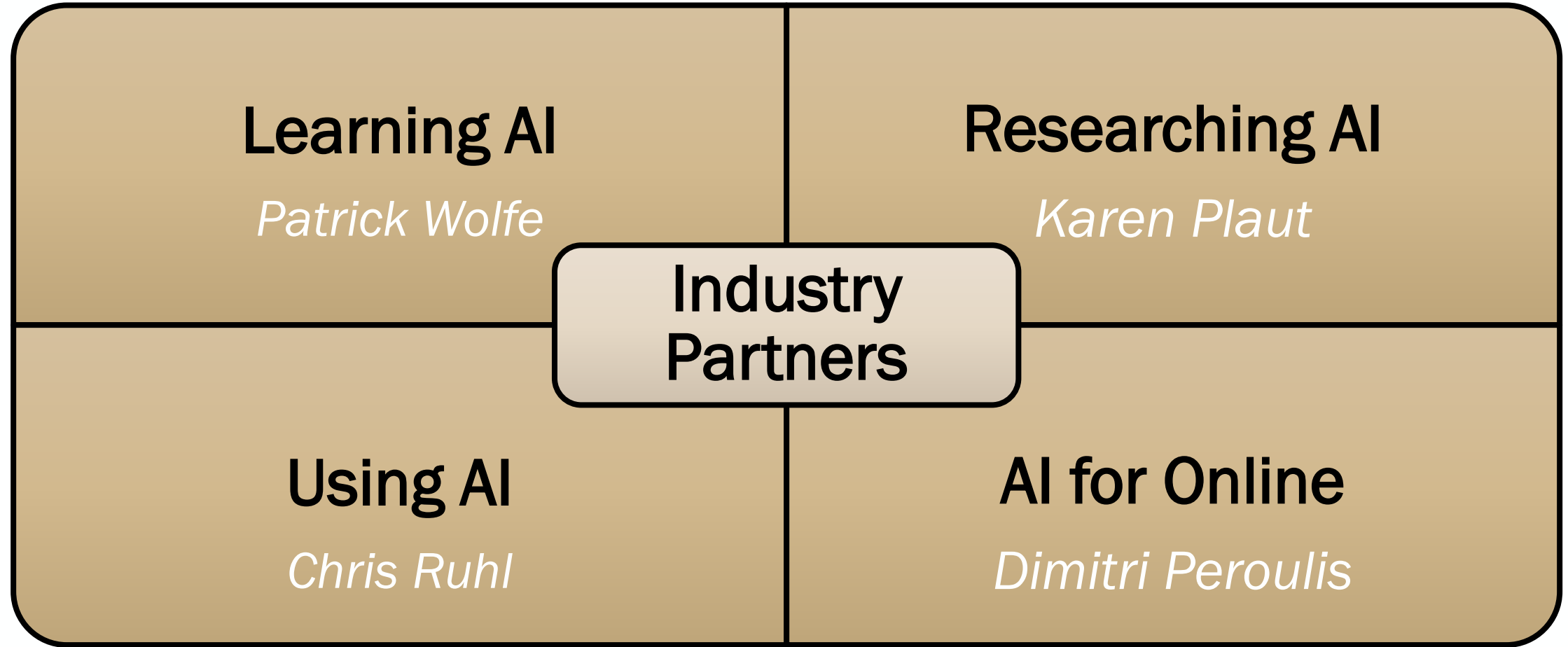
**@Purdue**

Led by Purdue University



June 2-6, 2025, at Purdue University  
in Indianapolis

# *AI@Purdue: Comprehensive Strategy*



# ***AI Strategy – Learning***

In-house technical expertise combined with an opportunity for first-mover advantage

- **Past: AI Teaching and Learning Innovation Hub Projects**
  - From 2022-25, thanks to \$2.8M from the Lilly Endowment, **200+ faculty** across **33 projects** impacted **44 courses** with **thousands of students** to improve learning, instructor effectiveness and course efficiency through AI classroom innovations
- **Present: 2025 Summer AI Academy**
  - **59** faculty representing all colleges will come together as a team to learn, share and implement AI innovations in the Purdue classroom at scale across the curriculum and disciplines
- **Future I: Purdue Is at the Leading Edge of Revolutionizing Academic Advising**
  - Purdue AI Advising tools in beta testing: Listening Companions. Chatbots. Major Change AI Support
  - Advisor- and student-driven and informed by Purdue faculty research
- **Future II: AI Literacy for All in Curriculum**
  - Understanding AI is now essential for all graduates to remain competitive and informed across all professions

# AI Strategy – Online

- AI-enabled personalized learning: excellence at scale
- New tools and data curation: accurate, pertinent and contextually aligned learning
- Partnerships with industry: key to success

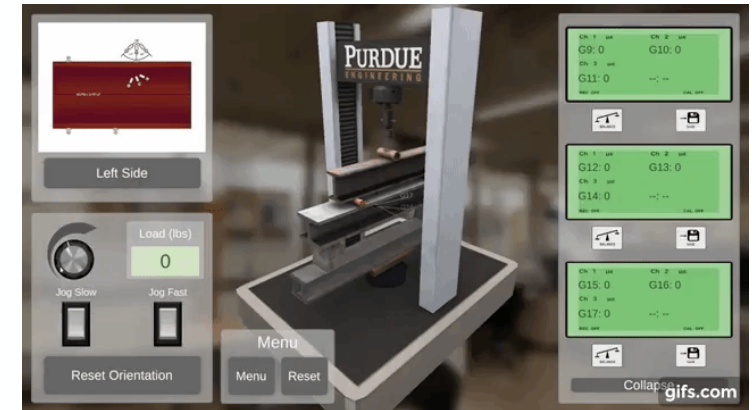


*AI avatars aid in high-quality and efficient production of programs in other languages*



SPONSORED BY  PURDUE UNIVERSITY. 

*Inaugural Purdue/Google AI Summit, Nov. 2024: AI's transformative impact on learning, work and workforce development*



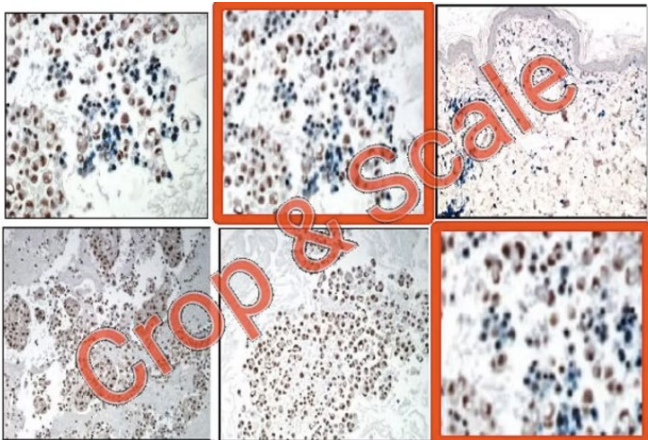
*Purdue announces spatial computing hub, May 2025: In collaboration with Apple, plan to launch a spatial computing hub*



# AI Strategy – Research

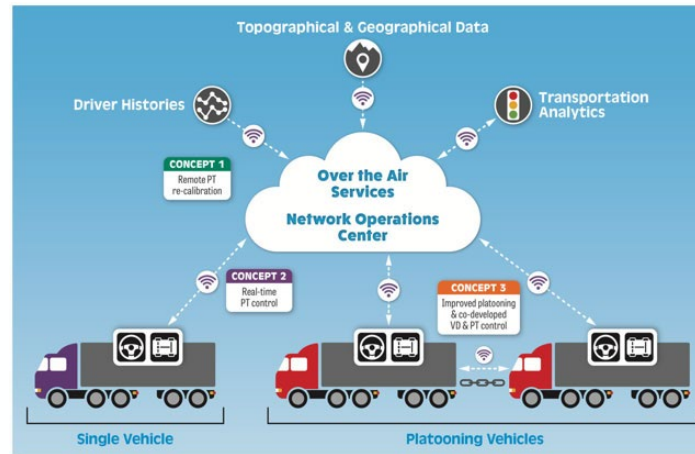
- Use AI tools to improve research efficiency and excellence
- Be the “go to” institution for physical AI (IPAI)
- Partner with national labs, industry and government for AI solutions

Proofig AI



[www.proofig.com/](http://www.proofig.com/)

## NEXTCAR Initiative




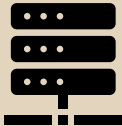



<https://www.purdue.edu/discoverypark/cav/nextcar/index.php>



<https://cymanii.org/>



# AI Strategy – Adoption

Microsoft 365 Copilot	Gautschi	GenAI Studio	Policy	Opportunities
<p><i>Pilot complete, operational July 1, 2025</i></p> <p>140 of 207 paid users active (~70%); ~4K unique users of Copilot via web in April</p> <p>Most common uses: writing, content generation, data analysis, summarization</p> 	<p><i>10-week early-user phase supported 29 PIs and 98 unique users</i></p> <p>Without Gautschi, this 10-week run alone would have cost Purdue \$1.9M on the commercial cloud</p> <p>19 PIs from 8 departments have purchased allocations</p> 	<p><i>AI service running on Purdue resources, available to entire Purdue community since January 2025</i></p> <p>Over 300 active users (1000+ all-time), ~2.5K chats and 329K+ messages in April</p> <p>GenAI use case from Daniels School</p> 	<p><i>Information, Governance and Training Offerings</i></p> <p>AI Website relaunch — January 2025</p> <p>AI Policy and “Use of GenAI and Large Language Models” drafts completed, to be published on Aug. 1, 2025</p> 	<p><i>17 bots automated ~1M transactions, Ivy.ai bots performed ~50k chats for IT, HR, Bursar, etc.</i></p> <p><b>Cybersecurity:</b> Use automation/AI to improve incident response, eliminate attack vector</p> <p><b>Procurement:</b> Automate vendor payments in SAP using ticketing data</p> 

*Thank You*

