

**THURSDAY, FEBRUARY 22, 2024**  
**RESEARCH, INNOVATION & STRATEGIC PARTNERSHIPS COMMITTEE MEETING**

Lewis Von Thaer, chair  
Reginald A. Wilkinson  
Juan Jose Perez  
Brad Kastan  
George Skestos  
Taylor A. Schwein  
Phillip Popovich  
Hiroyuki Fujita (*ex officio*)

Location: Sanders Grand Lounge, Longaberger Alumni House  
2200 Olentangy River Rd, Columbus, Ohio 43210

Time: 1:00 – 2:30 pm

**Public Session**

*ITEMS FOR DISCUSSION*

1. *Committee Chair's Remarks – Mr. Lou Von Thaer* 1:00-1:05pm
2. *Quarterly Highlights for Research, Innovation and Knowledge including a conversation with 2023 Nobel Prize Laureate in Physics, Dr. Pierre Agostini – Dr. Peter Mohler, Dr. Pierre Agostini (via zoom) and Dr. Lou DiMauro* 1:05-1:20pm
3. *Ohio State's Research and Development Expenditures Highlights – Dr. Peter Mohler* 1:20-1:25pm

ITEM FOR ACTION

4. Approval of November 2023 Committee Meeting Minutes – Mr. Lou Von Thaer 1:25-1:30pm

**Executive Session**

1:30 – 2:30 pm

# **Research, Innovation and Knowledge – Quarterly Highlights**

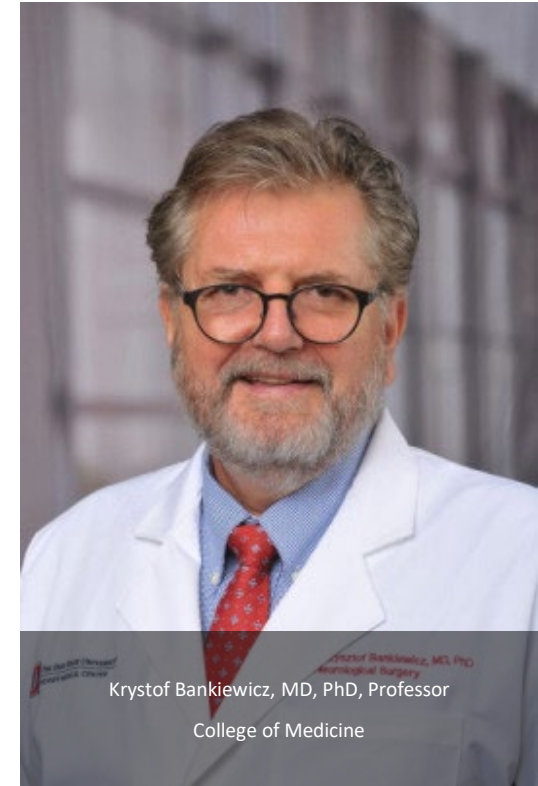
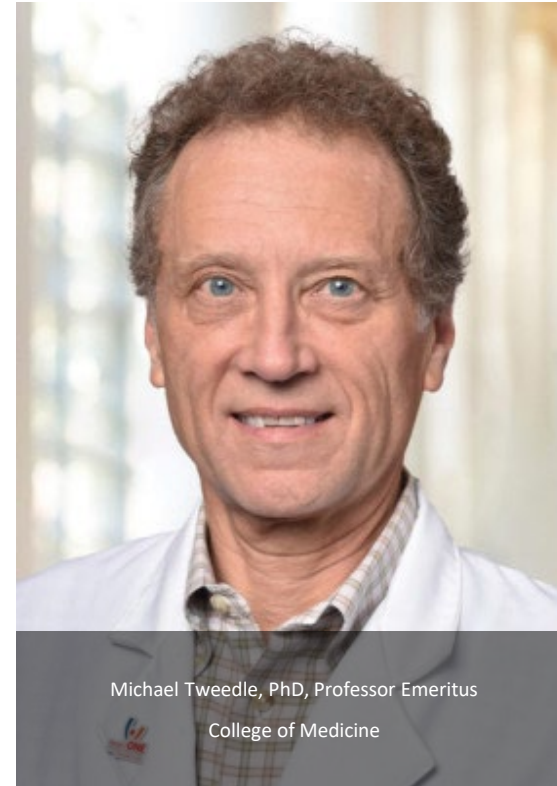
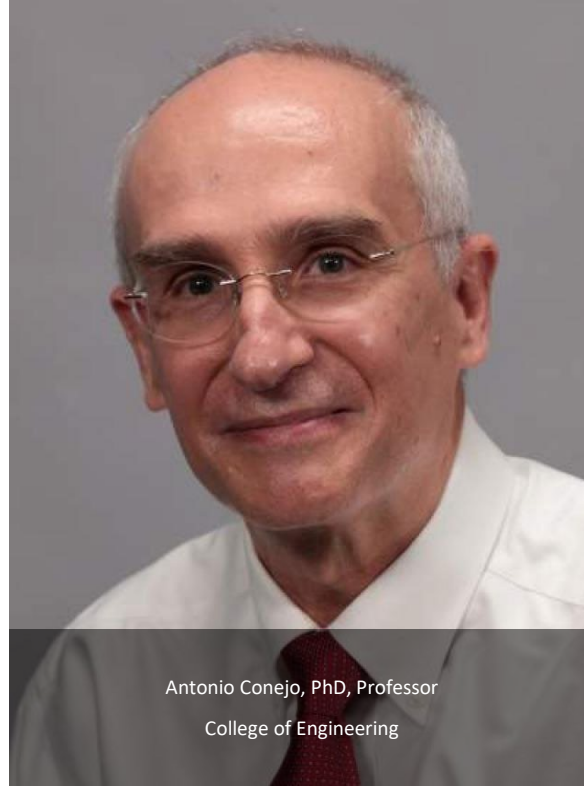
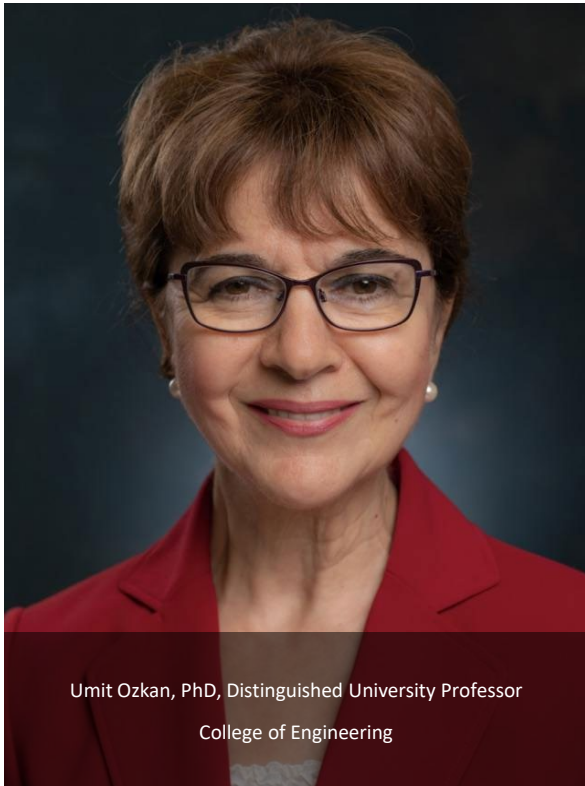
February 2024



**A conversation  
with Nobel  
Laureate Pierre  
Agostini and Prof.  
Lou DiMauro**



# Faculty recognized for excellence by national academies



New Inductees in the  
National Academy of Engineers

New Inductees in the  
National Academy of Inventors



# First in US: Ohio State, state of Ohio launch multi-generational behavioral health study

SOAR (State of Ohio Adversity and Resilience) is a research initiative that includes a series of pivotal first-of-its-kind studies to uncover the root causes and risk factors of mental illness including addiction.

Catalyzed by an initial \$20 million from the state of Ohio, these studies will examine the biological, psychological and social factors that put Ohioans at risk and will inform and guide new strategies for prevention, recovery and resilience.



## **First in US: Advanced spectrometer installed at Ohio State**

Ohio State is now home to the first 1.2 Gz nuclear magnetic resonance spectrometer in the US.

Equipment will be used by researchers at Ohio State and across the globe to advance life science and materials research. One example of research includes examining the structure of biological molecules, with the goal of advancing the understanding of diseases, such as cancer, viral infections and Alzheimer's.

Funding for the spectrometer comes from the National Science Foundation.



# Ohio State researchers engaged in National Science Foundation Engines project

Great Lakes ReNEW will develop and commercialize new ways to extract valuable minerals and toxic forever chemicals from wastewater.

The six-state consortium, led by a Chicago-based nonprofit, spans research institutions, industry, investors, government and nonprofit organizations with a shared goal of developing and commercializing better “selective separation” technologies.

Prof. John Lenhart, College of Engineering, leads this work at Ohio State.



**GREAT LAKES  
ReNEW**

# Starlab Space Selects SpaceX's Starship for Historic Launch

In January, Starlab Space, a joint venture of Voyager Space and Airbus, announced that it had selected SpaceX's Starship to launch the new station on a single flight.

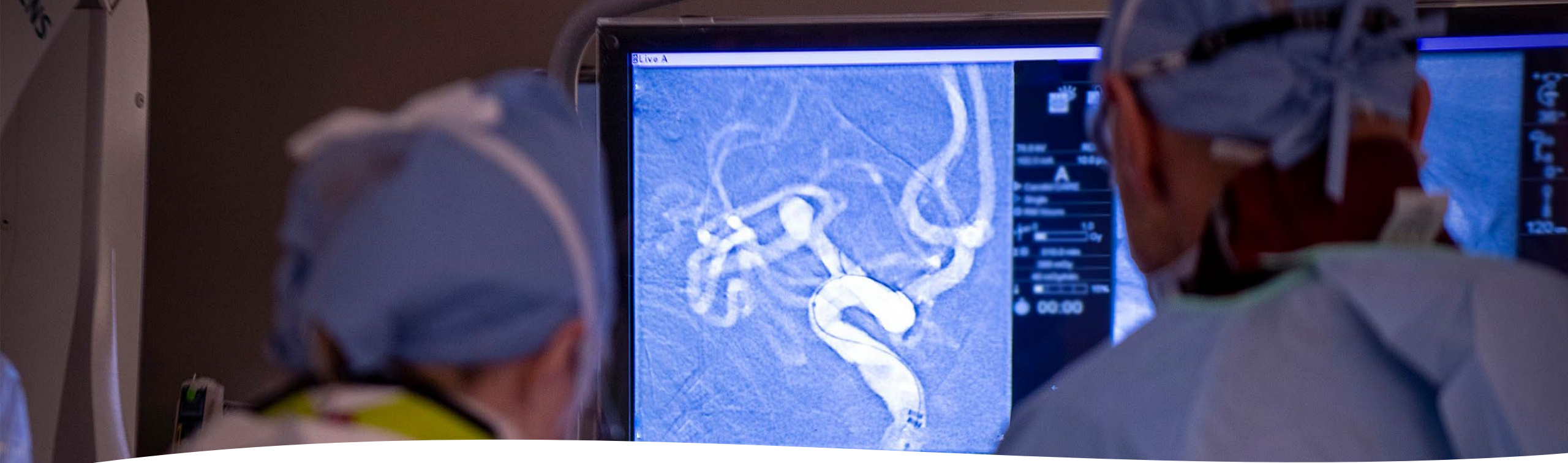
Starlab is set to succeed the International Space Station when the ISS retires in 2030.

The Starlab Ground Location is part of the George Washington Carver Science Park being developed by Ohio State and Voyager. It will serve as the earthbound location for the orbiting observatory, where students, researchers and scientists will prepare experiments on the ground before launching them into space.



Photo courtesy of Voyager Space





## **Ohio State medical startup announces new fundraise**

Stroke is the fourth leading cause of death in the United States. Basking Biosciences, co-founded by Ohio State Wexner Medical Center's Shahid Nimjee, is developing drug therapies to treat certain types of strokes and provide better outcomes for patients. The company announced last month that it had closed on an additional \$55 million financing.

Basking will utilize the funds to accelerate clinical development of certain drug therapies that have had positive Phase 1 results.

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# Ohio State Startup: Koloma News

Ohio State's 2023 Innovator of the Year, Tom Darrah, co-founded Koloma, a geologic hydrogen company.

Koloma announced a \$245 million Series B fundraise earlier this month. This amount is on top of a \$90+ million Series A fundraise announced last year.

Ohio State has retained the company for Ohio as Koloma is opening an office and lab space in the Energy Advancement and Innovation Center in the heart of the innovation district.





# ...And more exciting progress coming soon



Energy Advancement and Innovation Center Opening



Student Entrepreneurs' Center Opening



First Cohort Starts

# Research Expenditures Report

Peter Mohler

Executive Vice President



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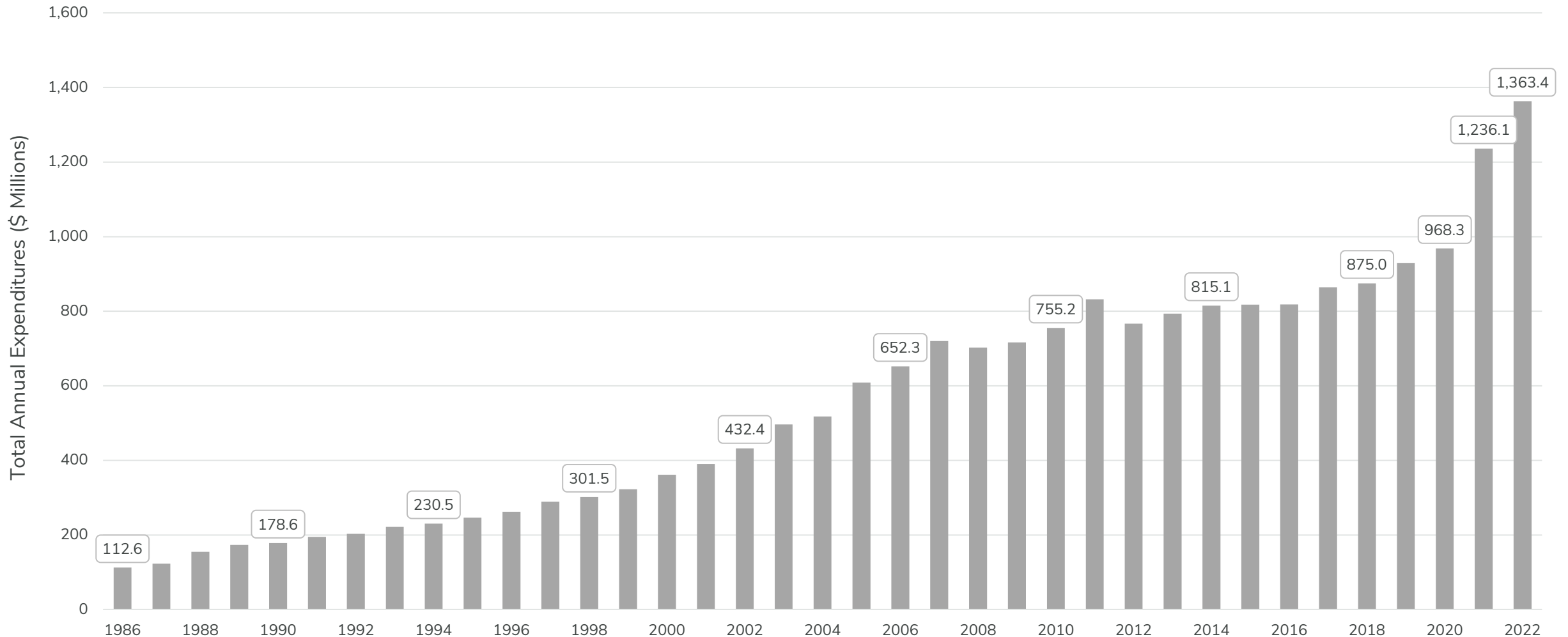
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# Ohio State R&D expenditures

Fiscal years 1986 - 2022



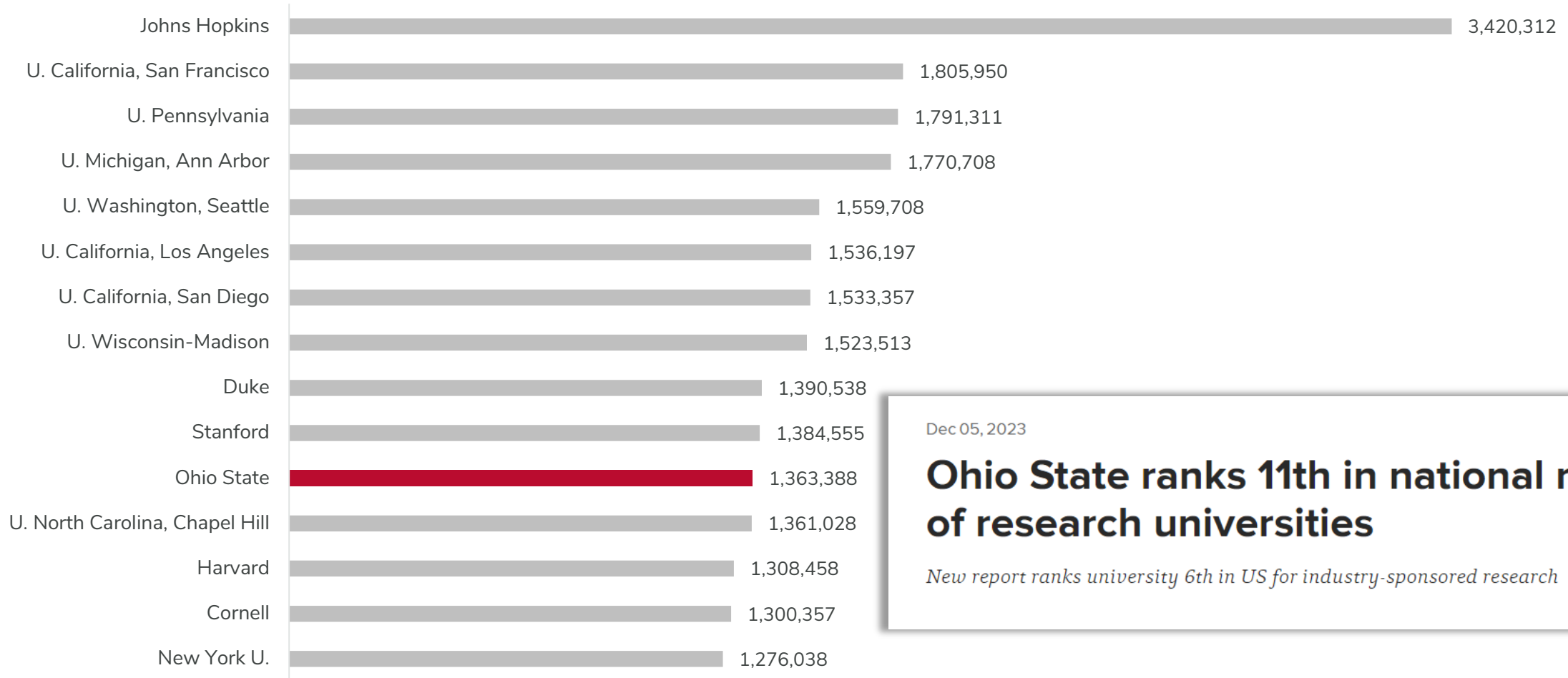
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Source: NSF HERD Annual Expenditures.

# NSF research expenditure rankings for FY22

Total expenditures across all institutions



Dec 05, 2023

**Ohio State ranks 11th in national ranking of research universities**

*New report ranks university 6th in US for industry-sponsored research*

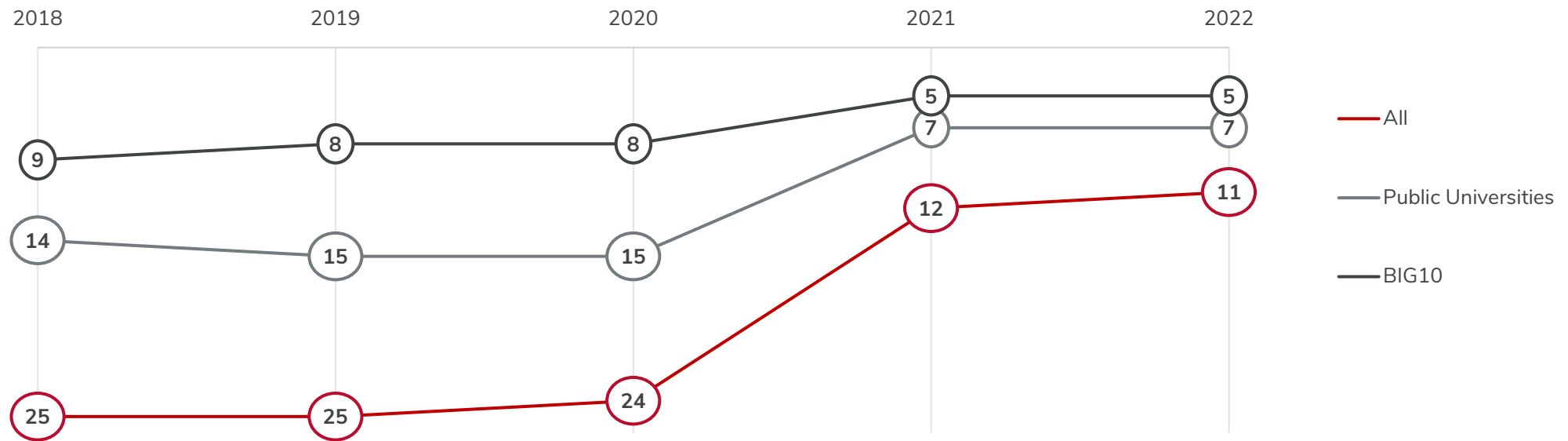


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# HERD Survey: Ranking trends

Year over year





## **SUMMARY OF ACTIONS TAKEN**

*November 16, 2023 – Research, Innovation & Strategic Partnerships Committee*

### **Members Present:**

Lewis Von Thae  
Reginald A. Wilkinson  
Juan Jose Perez

Bradley R. Kastan  
George A. Skestos  
Taylor A. Schwein

Phillip Popovich  
Hiroyuki Fujita (ex officio)

**Members Present via Zoom:** N/A

**Members Absent:** N/A

The Research, Innovation & Strategic Partnerships Committee of The Ohio State University Board of Trustees convened on Thursday, November 16, 2023, in person at the Longaberger Alumni House on the Columbus campus. Committee Chair Lewis Von Thae called the meeting to order at 1:00 p.m.

### **PUBLIC SESSION**

#### ***Items for Discussion***

1. **Committee Chair's Remarks:** Mr. Von Thae kicked off the meeting by welcoming Trustees Brad Kastan and George Skestos to the committee.
2. **Quarterly Highlights for Research, Innovation and Knowledge:** Dr. Peter Mohler highlighted a first at Ohio State; Dr. Pierre Agostini, professor emeritus of physics, was announced in October as one of three Nobel prize winners in physics. Ohio State is supporting Professor Agostini and an Ohio State delegation for the December 10 Nobel Ceremony. National and international media interest also continues, and we are actively engaged in promoting this accomplishment as this is a huge moment for Ohio State, our community, the state of Ohio and the field of physics.

Dr. Mohler also shared a few more significant accomplishments in research and innovation. The National Institutes of Health recently renewed its grant to support the Center for Clinical and Translational Science with a seven-year, \$37.9 million Clinical and Translational Science award which supports collaborative research by Ohio State, Ohio State Wexner Medical Center and Nationwide Children's Hospital. Dr. Julie Johnson, from the University of Florida and graduate of Ohio State, has been recruited to be director of the Center for Clinical and Translational Science.

Ohio State continues to be recognized for research excellence in artificial intelligence. Tonya Berger-Wolf, director of the Translational Data Analytics Institute was awarded funding from the National Science Foundation to launch the AI and Biodiversity Change Global Climate Center at Ohio State. The center brings together ecologists and computer scientists from six universities in the United States and Canada, with partners in the UK, Europe and Australia to develop new AI-enabled, data-supported approaches.

Ohio State also announced the creation of a new battery cell research and development center with support from Honda. Schaeffler Americas, JobsOhio and Ohio's Congressional delegation. Slated to open in April 2025, the lab will accelerate the domestic development of battery cell materials and manufacturing technologies while providing an experiential learning setting for advanced battery technology workforce development. With \$22 million in commitments to date, this





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project will include the renovation of a 25,000 square-foot facility in Ohio State's innovation district into a dedicated battery cell research, production and education support space.

(See Attachment X for background information, page number XX)

3. Advancing University Technology Commercialization Efforts: Dr. Mohler introduced Mr. Kevin Taylor, senior associate vice president for technology commercialization, who shared an update on advancing the university's technology and commercialization efforts, which included an overview of Fiscal Year 2022 results and additional process improvements the team is undertaking. Dr. Tom Darrah, professor in the School of Earth Science, provided an overview of his work with the technology commercialization team and his research, which led him to co-found Koloma, a hydrogen/clean energy startup. Koloma was recently highlighted in *Forbes* following its exit from stealth mode.

(See Attachment X for background information, page number XX)

### **Item for Action**

4. Approval of Minutes: No changes were requested to the August 17, 2023, meeting minutes; therefore, a formal vote was not required, and the minutes were considered approved.

### **EXECUTIVE SESSION**

It was moved by Mr. Von Thaer, and seconded by Mr. Skestos that the committee recess into executive session to consider business-sensitive trade secrets required to be kept confidential by federal and state statutes and to consult with legal counsel regarding pending or imminent litigation.

A roll-call vote was taken, and the committee voted to go into executive session with the following members present and voting: Mr. Von Thaer, Dr. Wilkinson, Mr. Perez, Mr. Kastan, Mr. Skestos, Ms. Schwein, Dr. Popovich, Dr. Fujita.

The committee entered executive session at 1:19 p.m., and the meeting adjourned at 2:15 p.m.