

The Florida Senate
COMMITTEE MEETING EXPANDED AGENDA
EDUCATION POSTSECONDARY
Senator Calatayud, Chair
Senator Simon, Vice Chair

MEETING DATE: Tuesday, January 14, 2025
TIME: 8:30—10:30 a.m.
PLACE: 301 Senate Building

MEMBERS: Senator Calatayud, Chair; Senator Simon, Vice Chair; Senators Berman, Fine, Harrell, Jones, Rodriguez, and Thompson

TAB		BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1		Presentations on State University System Institutes and Centers		Presented
		<ul style="list-style-type: none">• Board of Governors Office• FAU Center of Excellence in Biomedical and Marine Biotechnology• FIU Center of Excellence for Hurricane Damage Mitigation & Product Development• FSU High-Performance Material Institute• UF Lastinger Center for Learning		

Other Related Meeting Documents



Centers & Institutes Overview

Ms. Emily Sikes, Vice Chancellor of Academic and Student Affairs

January 14, 2025

www.flbog.edu



Better Together.
Together, WE ARE #1.

Purpose of Centers & Institutes



Collective Expertise

Harness the interdisciplinary knowledge of researchers, faculty, & students



Drive Innovation

Provide valuable services & fuel advancements in a wide array of areas



Community Impact

Address challenges & create solutions that shape a better future

Over 500 Centers & Institutes in the State University System

Board of Governors Regulation



3 Categories of Centers & Institutes

State of Florida

Legislative

University

Accountability of Centers & Institutes

- ✓ University boards of trustees must adopt policies to administer centers & institutes
- ✓ The Board office is notified when a university establishes, modifies, or disbands a center or institute
- ✓ Universities must list all centers & institutes on their webpage
- ✓ Universities must annually report:
 - A list of all active university centers & institutes
 - Certification of compliance with all Florida laws & Board Regulations
 - Summary of recent reviews & audit findings

State of Florida Centers & Institutes



1 Number of State of Florida Centers & Institutes



The Florida Small Business
Development Center Network
(UWF)



Collaborative effort between multiple state universities with 1 host university



Focused on research or service needs with a broader statewide interest

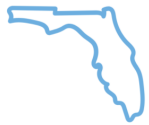


Approved by the Board of Governors



Governed by a memorandum of understanding & subject to reporting requirements in Board Regulation

Legislative Centers & Institutes



Established by the Florida Legislature



Purpose is identified by the Legislature



Subject to reporting requirements in Florida Statutes & Board Regulation



35 Number of Legislative Centers & Institutes

UF | Hamilton Center for
Classical and Civic Education
UNIVERSITY of FLORIDA

University Centers & Institutes



515 Number of University Centers & Institutes



Established by universities to conduct teaching, research, or service in areas of specific interest



May partner with more than 1 university



Subject to reporting requirements in Board Regulation



Better Together.
Together, WE ARE #1.



Center of Excellence

IN BIOMEDICAL AND MARINE BIOTECHNOLOGY

1004.225 Florida Technology Development Act

\$10,000,000 (9/2003)



Gregg Fields, Ph.D.
VICE PRESIDENT FOR
RESEARCH

Center of Excellence in Biomedical and Marine Biotechnology:

AREAS OF SUPPORT

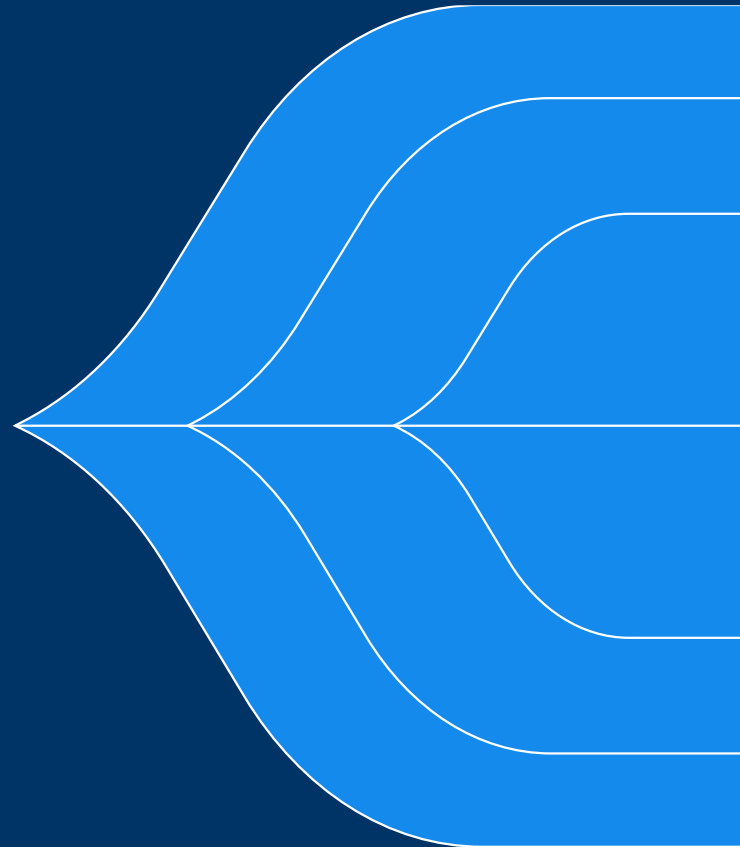
1. Address numerous aspects of the discovery and development of **new medicines** by utilizing Florida's unique **marine resources**, coupled with **cutting-edge genomic and bioinformatics technology**.
2. Develop research programs in **cancer, neurodegenerative diseases** and **cardiovascular disease**.
3. Develop **new remote sensing technologies**.
4. Foster and enhance the development of a **highly-skilled, high-wage workforce**.
5. Establish a **core biotechnology facility**.

*Ocean Science
for a Better World®*





Center of Excellence in Biomedical and Marine Biotechnology



Research Institutes

Cancer Center of Excellence

NeuroInnovate Center

**Marine Biomedical
and Biotechnology
Research**

Imaging and Video Technologies

Biotechnology Core Facilities

**School of Environmental,
Coastal and Ocean Sustainability**

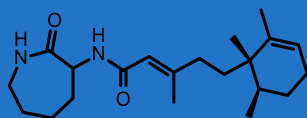


Natural Products Chemical Diversity:

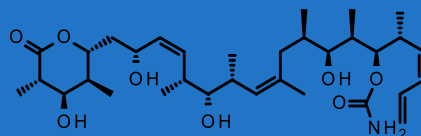
MATERIALS FROM MARINE PLANTS, INVERTEBRATES AND MICROBES



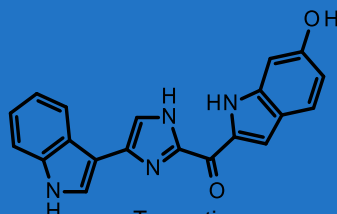
22-X-00-4-010
Asteropus sp.



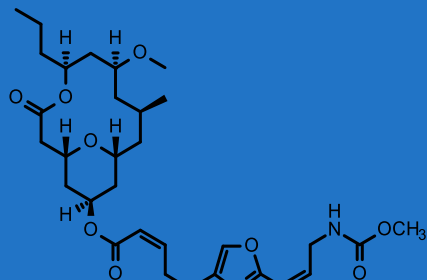
Sollasin C



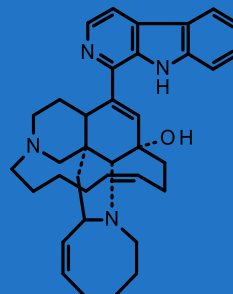
Discodermolide
Anti-mitotic



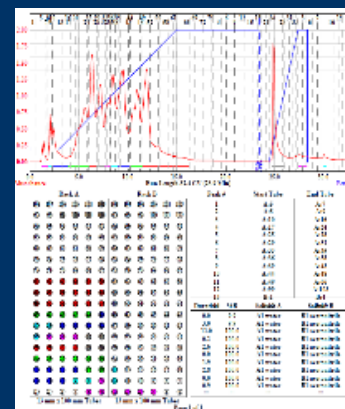
Topsentin
antiinflammatory



Neopeltolide
ATP synthesis Inhibitor



Manzamine A
autophagy inhibitor



Enriched fractions



Sequencing of Bacterial and Deep-Sea Organism Genomes

A vast, ever-growing library of rare bacteria sourced directly from the untapped deep-ocean.

PROMISING EARLY SEQUENCING RESULTS



17K bacteria were collected from 3K ft. below the surface of the Atlantic Ocean.



Five of the first six bacteria sequenced were unique and had never been described before.



Within the 5 unique bacteria, 149 of the 150 genes encoded were unique.

If similar result are reached by the entire 17K library, we will have 400K+ unique genes

47,000

organisms isolated from ocean depths of 1,000-3,000 ft below sea level

Estimated yield of up to

1,000,000

unique compounds

Potential yield of up to

13,500

unique genes (based on early screening)



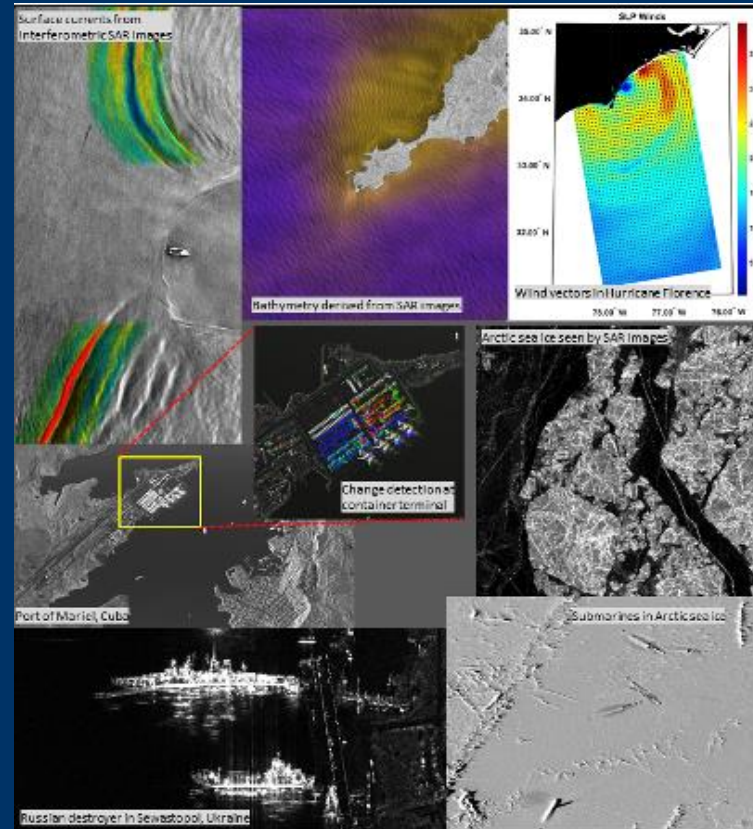
Joint Center for Persistent Remote Ocean Surveillance

UNIVERSITY OF MIAMI, FLORIDA ATLANTIC HARBOR BRANCH OCEANOGRAPHIC INSTITUTE, U.S. DEPARTMENT OF THE NAVY
OFFICE OF NAVAL RESEARCH, CENTER FOR SOUTHEASTERN TROPICAL ADVANCED REMOTE SENSING

HBOI-FAU



CSTARS-UM



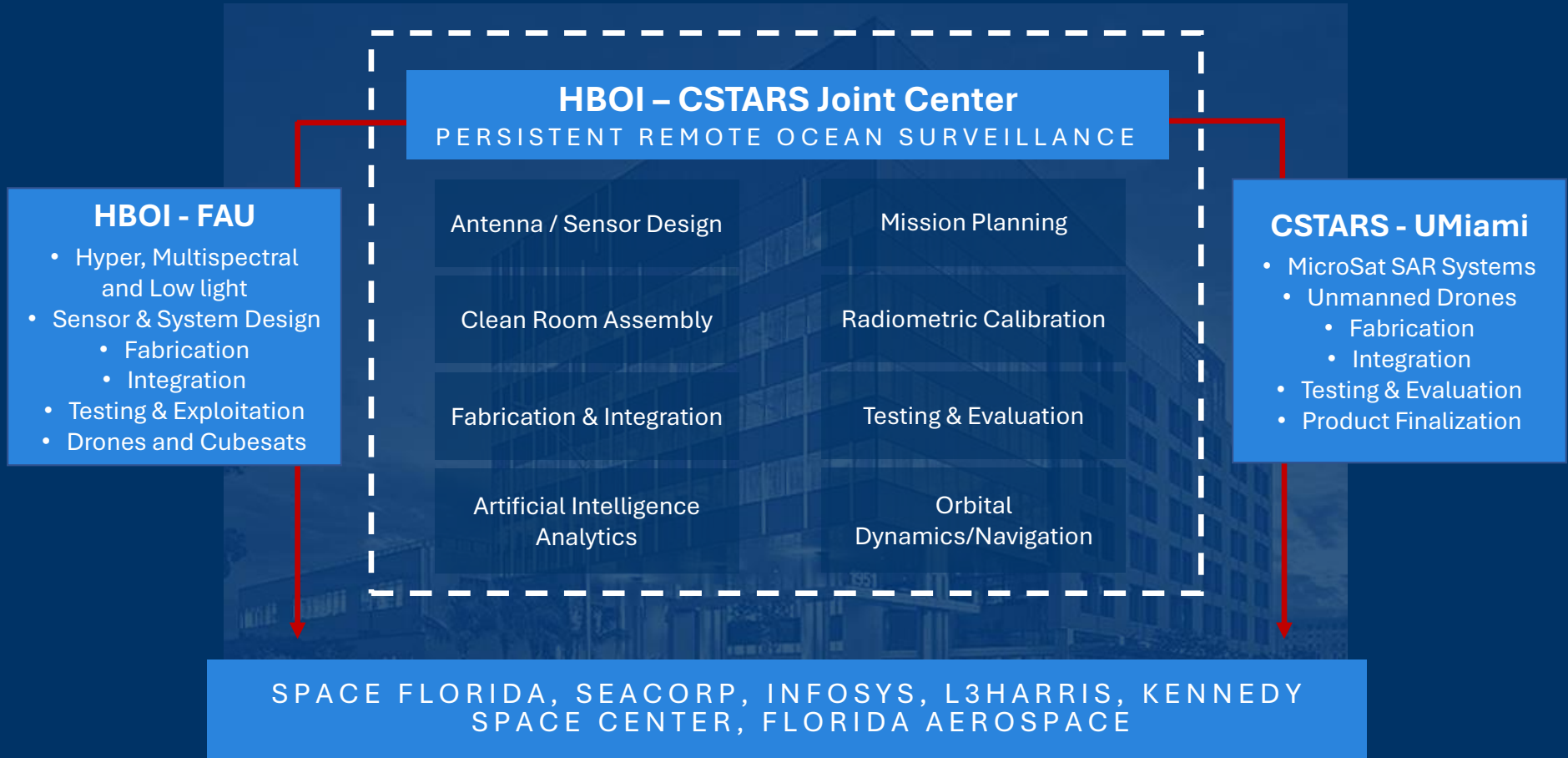
\$21M

Contracts from the U.S. Office of Naval Research to examine the dynamics of bioluminescence in oceanic waters, as well as collaboration to develop new sensing technology for CubeSats and small satellites.



Joint Center for Persistent Remote Ocean Surveillance

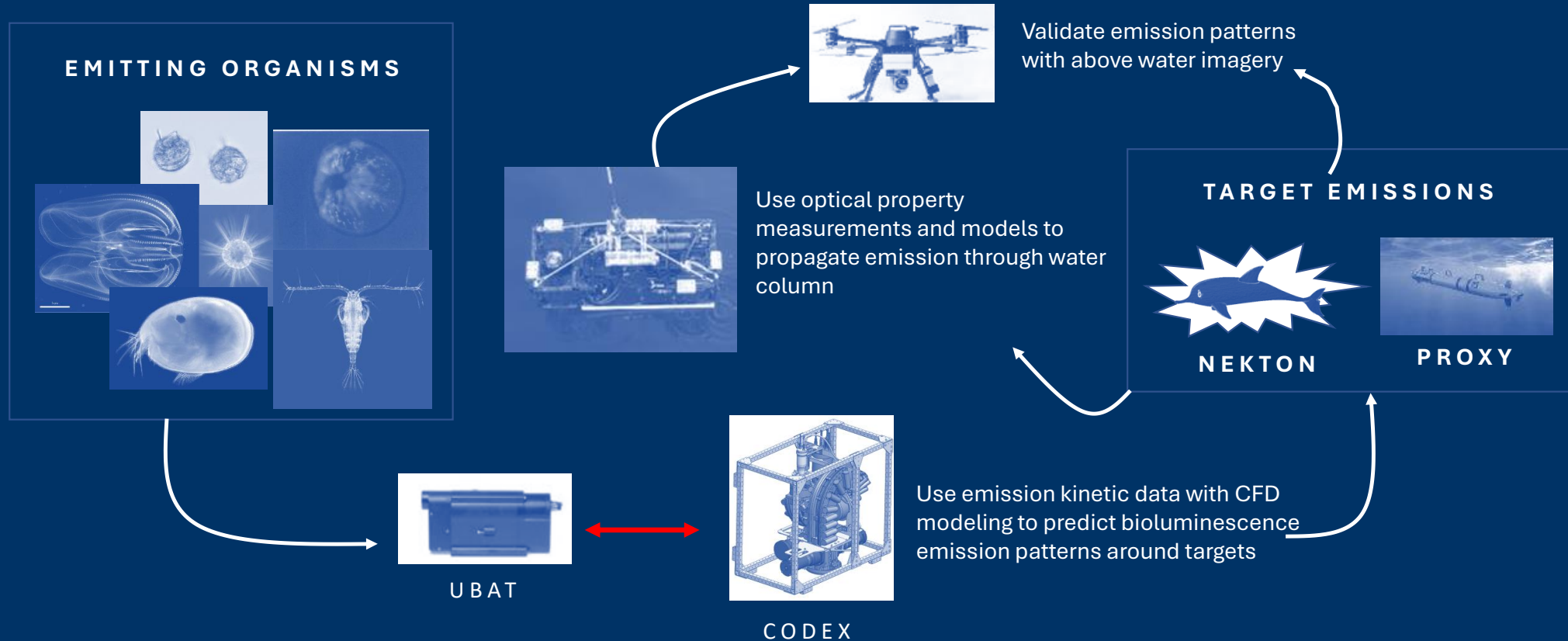
UNIVERSITY OF MIAMI, FLORIDA ATLANTIC HARBOR BRANCH OCEANOGRAPHIC INSTITUTE, CENTER FOR SOUTHEASTERN TROPICAL ADVANCED REMOTE SENSING





Next Generation Sensor Systems for Natural Oceanic Bioluminescence Assessments

UNIVERSITY OF MIAMI, FLORIDA ATLANTIC HARBOR BRANCH OCEANOGRAPHIC INSTITUTE, CENTER FOR SOUTHEASTERN TROPICAL ADVANCED REMOTE SENSING





Florida Atlantic and OP Solutions



Developing technology improvements for the next generation of **video compression**. Video compression technology enables streaming video applications to transmit high quality video. FAU-developed intellectual property has been accepted as part of the next generation video codec **Versatile Video Coding** (VVC).

Under a sponsored research agreement, OP Solutions pays Florida Atlantic set fees for certain patent activities:

100

Provisional applications have been assigned

20

US patents have been issued

11

US patents have been determined to be standard essential

70

US utility applications have been assigned

47

PCT applications have been assigned

To date we have received **\$232,500** for patent activity fees.

Under a sponsored research agreement, OP Solutions supports Florida Atlantic research activities: *To date we have received **\$1.5M** for research.*



School of Environmental, Coastal, and Ocean Sustainability (ECOS)



Partnership between the Charles E. Schmidt College of Science and Harbor Branch Oceanographic Institute.

Multidisciplinary, multi-unit initiative to establish a **comprehensive environmental hub** at FAU, uniting diverse academic and research entities.

Provide **training, leadership, guidance, workforce development**, and **cooperative research** to enhance South Florida's ecological and urban environments.

Mission: Enhance environmental research, teaching, and community engagement, leveraging FAU's capabilities through partnerships with academic departments, government agencies, non-profits, and other institutions.



ECOS Interdisciplinary Research Areas:

SCIENCES, EDUCATION,
ENGINEERING



Location: Where the Everglades meets the Atlantic, and the major metro areas in between.

Marine Ecosystem Conservation: coral reef conservation, coastal studies, sea turtle tagging, shark migration, sea grass, Everglades/wetlands and wading birds, fisheries ecology, marine mammals and wildlife.

Ocean Health: harmful algal blooms, marine plastics and toxins, marine biomedical and biotechnology.

Infrastructure and Regional Planning: sea-level rise impacts to transportation, urban flooding and resiliency planning, storm surge disaster evacuation.

Aquaculture and Food Security: Sustainable seafood, sea vegetable cultivation.

Tech Innovation and National Defense: Ocean engineering, remote sensing, optics.



Florida Atlantic Research Institutes



HBOI

Harbor Branch Oceanographic
Institute



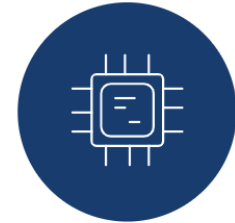
I-BRAIN

Stiles-Nicholson Brain Institute



I-HEALTH

Institute for Human Health
and Disease Intervention



I-SENSE

Institute for Sensing and
Embedded Network Systems
Engineering

**Coastal & Food Security
Environmental Monitoring
Clean Energy
Drugs From the Sea**

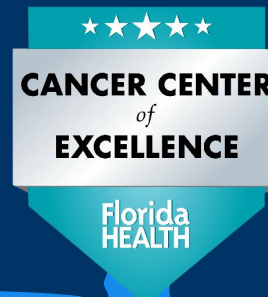
**Human Health:
Neurodegenerative
Diseases; Substance Use,
Abuse and Resiliency**

**Human Health: Cancer;
Infectious Diseases;
Dementia (Clinical)**

**Sensor Systems
Data Science
Applications to AI**

Cancer Center of Excellence:

AN EXCLUSIVE DESIGNATION BY THE FLORIDA LEGISLATURE



Designation conferred on Florida institutions excelling in:

- Patient-centered coordinated care
- Rigorous research and training
- Public education

Designations Since 2013 Program Launch:

- H. Lee Moffitt Cancer Center and Research Institute
- Mayo Clinic Florida
- University of Miami Sylvester Comprehensive Cancer Center
- University of Florida Health Cancer Center: University of Florida Health Shands Hospital, University of Florida Health Proton Therapy Institute, and Orlando Health's Orlando Regional Medical Center
- **Memorial Cancer Institute and Florida Atlantic University, 2021**
- Cleveland Clinic Florida Maroone Cancer Center, 2023

197

Cancer Center of Excellence members, with representation from:

- Florida Atlantic University
- UF Scripps
- Memorial Cancer Institute
- Gift of Life
- Cleveland Clinic Florida
- Delray Medical Center
- South Florida Proton Therapy Institute
- Broward Health



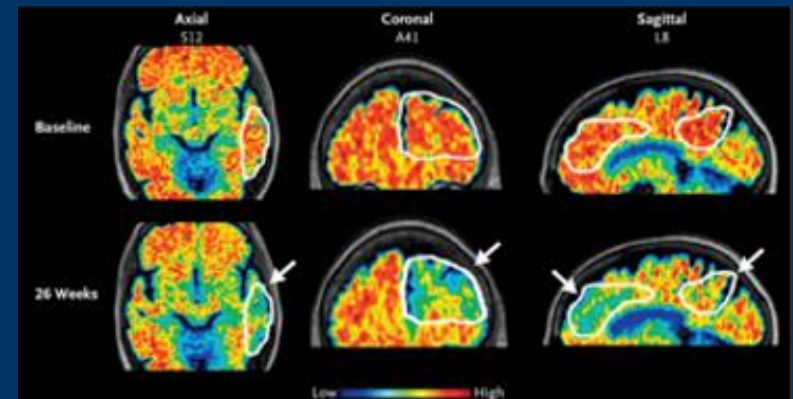
Clinical Trial of Magnetic Resonance Guided Focused Ultrasound (MRgFUS) for the Treatment of Alzheimer's Disease



FAU AND INSIGHTEC PARTNER
TO TREAT NEUROLOGICAL
DISORDERS



FAU, DELRAY MEDICAL
CENTER, INSIGHTEC TEAM UP
ON GROUNDBREAKING STUDY



N. Engl. J. Med. **390**, 55-62 (2024)



Florida Atlantic MRgFUS “NeuroInnovate”

RESEARCH AND TRAINING CENTER

Human MRI: GE SIGNA™

Premier, **\$4M** grant from the Center for Advanced Human Imaging (Boca Raton campus)

Animal FUS: \$0.15M, not applied for yet (Jupiter campus)

Mass spectrometer: Agilent Technologies 1100 Series G1956B, purchased and upgraded by DOR (Jupiter campus)

Human FUS: \$2M Community Project Funding request, US House of Representatives Appropriation Bill 2025 (Boca Raton campus)

Metabolomics NMR: \$2.5M State LBR (Boca Raton campus)

Mass spectrometer: Thermo Scientific Orbitrap Exploris™ 240, \$0.5M grants from BOG and FAU Tech Fee (Jupiter campus)

Animal MRI: \$4M State LBR (Jupiter campus)

Animal fluorescence imager: IVIS Lumina Series 100-240V, upgraded by DOR (Jupiter campus)

Initial Clinical Trial: State of Florida Board of Governors appropriation “Research University Alzheimer’s Research Using Exablate Neuro-focused Ultrasound”



Selective Current MRgFUS Clinical Trials

NCT05857852: Low-Intensity Focused Ultrasound for Cocaine Use Disorder

NCT05879120: Randomized Study of Neo-adjuvant and Adjuvant Pembrolizumab With and Without Targeted Blood Brain Barrier Opening Using Exablate MRI-guided Focused Ultrasound (Exablate MRgFUS) for Recurrent Glioblastoma

NCT03321487: Blood-Brain Barrier Opening Using MR-Guided Focused Ultrasound in Patients With Amyotrophic Lateral Sclerosis

NCT05469009: Safety and Feasibility of Exablate Blood-Brain Barrier Disruption for Mild Cognitive Impairment or Mild Alzheimer's Disease Undergoing Standard of Care Monoclonal Antibody (mAb) Therapy

Current Florida Atlantic research agreements with Delray Medical Center, West Palm Beach VA Hospital, Memorial Healthcare System and Broward Health Medical Center

Total Research Expenditures



FY 23-24

\$109M

FY 22-23

\$95M

FY 21-22

\$76M

FY 20-21

\$72M

FY 19-20

\$67M

FY 18-19

\$64M

Total Research Expenditures reflect all Sponsored Research including public service grants, outreach programs, curriculum development, and non-research training grants.



R1 Ready

Florida Atlantic is on the precipice to achieve Carnegie Classification of Institutions of Higher Education's highest and most coveted Very High Research Activity status (R1) for the next adjustment officially announced in early 2025.

Achieving R1 status

The esteemed designation by Carnegie uses benchmarks in research expenditures ($\geq \$50\text{M}/\text{year}$) and doctoral graduates ($\geq 70/\text{year}$). Florida Atlantic transitioning to R1 in 2025 is based on 2022-2023 levels of research expenditures (\$78M) and doctoral graduates (125).

How has FAU approached R1?

- Talent Acquisition: Senior Faculty hires
- Research Acceleration: Institutes
- Infrastructure Expansion: Cutting-edge technology acquisition
- Doctoral Degrees: Additional support for dissertation completion

2025



Contribution to the Florida Board of Governors Strategic Plan

"Transform and revitalize Florida's economy and society through research, creativity, discovery and innovation."

- Drug discovery program
- Innovative imaging methods



"Deliver knowledge that can advance the health of Florida's residents and provide economic opportunity in Florida."

- Financial support and mentoring of graduate and undergraduate students in STEM based research, providing learning opportunities for future success in biotechnology careers

"Support students' development of the knowledge, skills and aptitudes needed for success in the global society and marketplace."

- Work in cancer drug discovery and neurodegenerative diseases addresses growing challenges in health care, especially in Florida's aging population.
- Defining whether there are new and emerging toxins in harmful algal blooms and identifying methods to reduce or eliminate toxins if present



Center of Excellence (COE) for Hurricane Damage Mitigation & Product Development

Wall of Wind Hurricane Simulator



Wall of Wind Testing Capabilities

- 12-fan system up to 160 mph winds with water intrusion
- Wind effects on infrastructure systems
- Destructive tests to study failure modes
- Testing to develop hurricane mitigation devices

Wall of Wind Hurricane Simulator



Center of Excellence Funded by State in 2008: \$7.5M



2-FAN WOW

2005



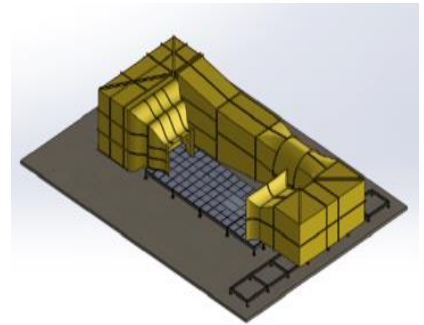
RENRE 6-FAN WOW

2007



12-FAN WOW

**2009 - Center of
Excellence Award**



Future 200 mph



Center Funding 2009 to 2024

Total External Funding—\$104M

- **Grants:** \$89M—Includes NSF funding for NHERI (Natural Hazards Engineering Research Infrastructure) - 2015 to present; MsRI - NICHE (Mid-scale Research Infrastructure-1: National Full-Scale Testing Infrastructure for Community Hardening in Extreme Wind, Surge, and Wave Events Design)
- **Other External Funding (Fees for Use of WOW)—\$15M**

Industry-University Cooperative Research Center (IUCRC) - Industry and government agencies

ENSTALL™



Berkshire Hathaway
Specialty Insurance®



FIU

Center Contributions to Science and Hurricane Damage Reduction

➤ **Codification Contributions**

- Canopies attached to low-rise and mid-rise buildings (ASCE 7-16 and ASCE 7-22)
- Rooftop pavers (ASCE 7-22)
- Elevated homes (ASCE 7-22)
- Partial Turbulence Simulation (ASCE 49-21) to enable testing at LARGE-SCALES

➤ **Knowledge Advancements for Wind Engineering Topics Related to:**

- Manufactured homes
- Elevated homes (buildings on stilts)
- Water intrusion through windows and sliding glass doors
- Infrastructure (such as traffic signal systems and electrical transmission systems)
- Photovoltaic (PV) systems and other rooftop equipment
- Wind-borne debris trajectories

➤ **Innovations**

- US patents:
 - The **A**erodynamic **M**itigation and **P**ower **S**ystem (**AMPS**)
 - Hurricane Resistant Concrete Roof System
 - Roof Shingles Having Perforations
- Startup company “AeroEdge USA LLC” -- Use of WOW contributed to the development, validation, and patenting of the “AeroEdge” device to reduce hurricane damage, particularly to home roofs.

Other Center Impacts

National Recognition

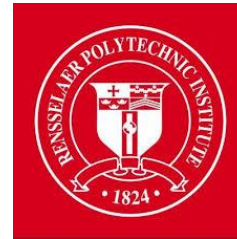
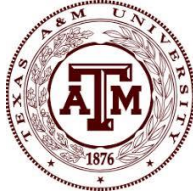
- In 2018 the American Society of Civil Engineers honored the WOW with the **Charles Pankow Award for Innovation**.
- WOW received extensive national media coverage -- *Discovery Channel, IMAX, The Wall Street Journal, USA Today, ABC World News, PBS NewsHour, and Good Morning America.*

Workforce Development, STEM Education and Growing Wind Engineering Research

- Student production (graduate & undergraduate)
 - **30+** PhD and **15+** MS students graduated with expertise in **hazards mitigation and resilience**
- Placement of graduates in highly regarded organizations/industry (examples below)
 - **AECOM**
 - **Berkshire Hathaway Specialty Insurance**
 - **Thornton Tomasetti**
 - **Verisk**
 - **Walker Consultants**
 - **Walter P. Moore**
 - **Wiss, Janney, Elstner Associates, Inc.**
- K-12 teacher training & wind engineering modules development for schools
- Public education through museum partnership

Center Impacts – Major Universities Using WOW

Stanford
University



FIU

Hurricane Loss Model

- The Florida Public Hurricane Loss Model (FPHLM) provides a means of evaluating hazard insurance rate requests independently of the proprietary models used by private insurers.
- The model addresses the standards issued by the Florida Commission on Hurricane Loss Projection Methodology and incorporates the current state-of-knowledge in meteorological, engineering, actuarial, statistical, and computer science.

The Future

1. Addressing Stronger Storms

- Wind-Only Physical Design Testbed (under construction) to go to 200 mph hurricane gusts and include vortices embedded in hurricanes
- Future expansion includes Surge-Wave-Flood simulation

2. Collaboration with Industry

- Continuation of IUCRC program
- Recently secured EDA Tech Hub award

3. Disaster Readiness

- Disaster Risk and Resilience in the Americas (DRRA)
- FIU has established the Academy for International Disaster Preparedness (Master of Arts in Disaster Management and Bachelor of Arts in Disaster Management)

A wide-angle photograph of a university campus at sunset. In the foreground, there are lush green palm trees and a well-maintained lawn. In the middle ground, several modern university buildings are visible. On the left, a large building with a mix of glass and light-colored panels. In the center, a smaller building with a prominent 'YU' logo on its facade. To the right, another large, light-colored building. The sky is filled with large, soft clouds that are illuminated from below by the setting sun, creating a warm orange and pink glow. The overall atmosphere is peaceful and scenic.

Thank You! Questions?

High Performance Materials Institute Update

Stacey S. Patterson, Ph.D.

Vice President for Research,

Florida State University



HIGH PERFORMANCE MATERIALS INSTITUTE

State University System of Florida
awarded FSU \$4M to establish the
Florida Center of Excellence in Advanced
Materials (CEAM) - 2006

OUR MISSION

Lead the nation in development of cost-effective, high-performance composites and multifunctional nanomaterials and product prototypes.

Develop an **interdisciplinary research team** to conduct world-class research towards making high-performance materials **scalable, affordable and energy efficient**.

Develop **unique capabilities** for concept-prototype development, nanomanufacturing, advanced manufacturing.

Be a leading institute for **undergraduate and graduate study and degree production** in the related areas.

Accelerate **technology transfer and commercialization** of the developed technologies to create local, state and national impact.

A Competitive Landscape

High-performance materials is a \$69B¹ industry in 2024—and continuing to grow.

The focus is to develop and produce innovative materials with superior properties and functionality.

Requires comprehensive state-of-the-art analytical and scale-up research facilities.

Key industry sectors include:



AEROSPACE



ELECTRONICS



AUTOMOTIVE



ENERGY



DEFENSE & SECURITY



¹ Advanced Materials Market Size, Share, and Trends 2024 to 2034, Precedence Research, November 2023. www.precedenceresearch.com/advanced-materials-market.

**HPMI makes
Florida more
competitive —
and attractive
to key industry
partners.**



**Aerospace composites and
advanced manufacturing**

Nanomaterials and sensors

Nanocomposites

**Artificial Intelligence and
Machine Learning**



Spotlight: Aerospace & Defense Impact



Manufacturing roll-to-roll Buckypaper for multiple R&D projects with AFRL, Lockheed Martin, ATK, Boeing, Raytheon

Composites for better thermal protection to support US hypersonic capabilities



Materials to support US deep-space exploration with NASA

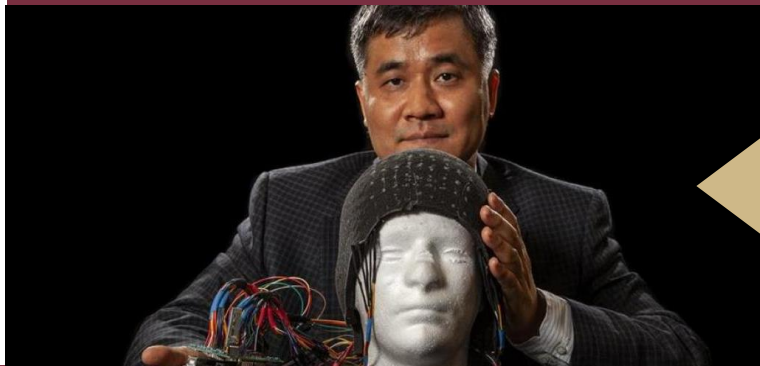


Spotlight: Health Impact



Custom-fitted Carbon Fiber braces for athletes at FSU

Improved prosthetics for wounded military personnel for Department of Veterans Affairs



Developed new football helmet material for powerful protection against head injuries

HPMI COMPETITIVE ADVANTAGE

END-TO-END PROCESSES

Connects basic research to prototype to manufacturing at scale

WORLD-CLASS TALENT

Combines highly-qualified, multi-disciplinary faculty, post-docs; graduate students, and undergraduate researchers with government and industry partners

CONNECTIONS

Creates synergies with partner centers, institutes, and research groups in Florida and beyond – set the foundation for new Materials Science and Engineering Department

WORKFORCE DEVELOPMENT

Produces 5-8 Ph.D. graduates and more than 50 undergraduates and REU students each year

INDUSTRY- ACADEMIC PARTNERSHIP

Builds collaborative networks that allow for co-development and faster market penetration

HPMI has delivered a high return on the state's one-time \$4M investment

\$45.7M

*in total research expenditures since 2006¹
including \$6.7M in 2024*

Federal competitive grants
won since 2006

170

Total U.S.
Patents

60

Journal publications
annually

~40

Fortune 100
partners in 2025

>50

¹ excludes expenditures at FAMU with HPMI

BUILDING ON ESTABLISHED STRENGTHS

LEVERAGING EXCELLENCE

HPMI supports the FAMU-FSU College of Engineering - the nation's only joint college and engineering education institution with research productivity and expenditures equal to peer institutions more than double in size.

Leveraging Affiliated Research Labs, Centers and Institutes, it has been widely hailed for **aligning academic curriculum with industry needs** through quality teaching and research.



FAMU-FSU
College of Engineering



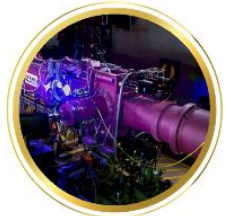
HPMI
High Performance
Materials Institute



MagLab
National High Magnetic
Field Laboratory



**STRATEGIC RESEARCH
& ENGINEERING**



AME
Aero-Propulsion, Mechatronics &
Energy Center



CAPS
Center for Advanced
Power Systems



FCAAP
Florida Center for Advanced
Aero-Propulsion

EVOLVING WITH ADDITIONAL RESOURCES



IGNITE - TALLAHASSEE

40,000sf first of its kind in the region
incubator/accelerator



Danfoss Turbocor Expansion

44,000sf facility dedicated to research
and development in advanced
manufacturing



FSU Interdisciplinary Research & Commercialization Building (IRCB)

125,000sf of new space for a new, collaborative
interdisciplinary research



Center for Advanced Power Systems Expansion

New 6,400sf for research and testing including a high voltage
work area and a Faraday cage

**INNOVATION PARK
OF TALLAHASSEE
CURRENT PROJECTS**

INNOVATION PARK

Innovation Park of Tallahassee boasts more than 1 million square feet of space in 17 buildings, housing over 30 organizations ranging from **preeminent university research facilities** to **specialty manufacturing companies** and **state and federal government research** spaces.

The park's mission is to promote the region's **research and development assets** and foster the attraction, startup and growth of private innovative companies that create high-wage jobs in Leon County and the NW Florida region.

OUR VISION: INNOVATION ECOSYSTEM

SKYROCKETING ENTREPRENEURSHIP

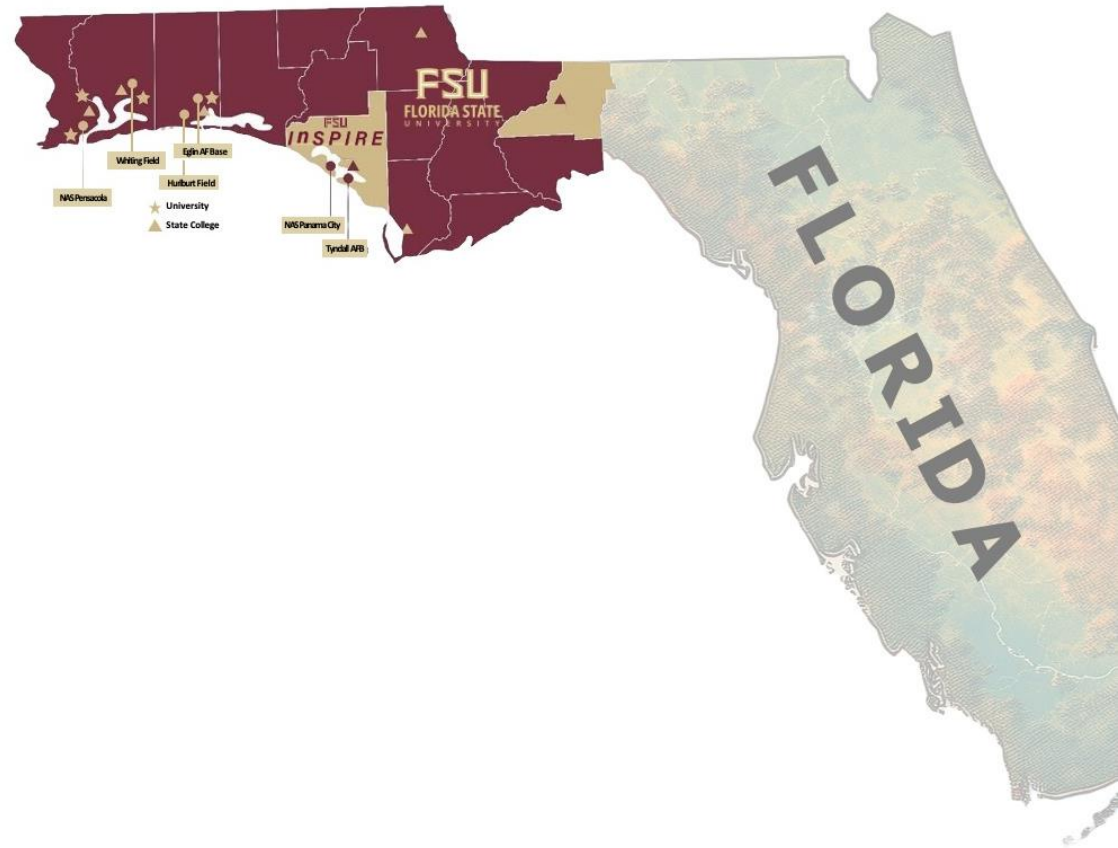
Foster **collaboration**, provide access to **leading-edge facilities**, and secure **substantial funding** for translational work.

NIMBLE, SCALABLE RESEARCH & DEVELOPMENT

Deliver **end-to-end research**, tech developer prototype demonstration, and comprehensive **systems testing and evaluation**.

HIGHLY SKILLED TALENT

Develop the **skilled and diverse workforce** to support and staff a thriving aerodynamics and advanced manufacturing ecosystem in Northwest Florida.





Thank you.



Stacey S. Patterson, Ph.D.
(stacey@fsu.edu)

UF Lastinger Center for Learning

Florida Senate Education Postsecondary Committee
January 14, 2025

Phil Poekert, Ph.D.
Director

UF | Lastinger Center for Learning
UNIVERSITY *of* FLORIDA

Agenda

- Introduction
- History of support for Florida education
- Innovating for the future

“

*“Helping teachers teach
and students learn”*

-Allen & Delores Lastinger

Introduction

UF Lastinger Center for Learning

About Us

We **prioritize the voices
of the communities**
we serve

We **research develop,
and scale** educational
innovations

We are **rooted in
public-private partnerships**

We serve **1M+ students**
and **50k+ educators** annually

We were **founded in 2002**
by UF alumni, Allen and
Delores Lastinger

Our Work

UF Lastinger Center for Learning

Develops innovations, establishes partnerships,
engages in research and legislative & community advocacy
to inform and advance the Center's work
“helping teachers teach and students learn.”

Develops & Implements

Professional Learning Programs

Programs designed to meet the needs of educators in early learning, literacy and mathematics and target three critical milestones.

1. **Kindergarten readiness**
2. **3rd grade reading proficiency**
3. **9th grade algebra proficiency**

Develops & Administers

State Initiatives

Entrusted by the state to develop and administer state-supported programs, the Center impacts the lives of children and educators in every county in the state of Florida.

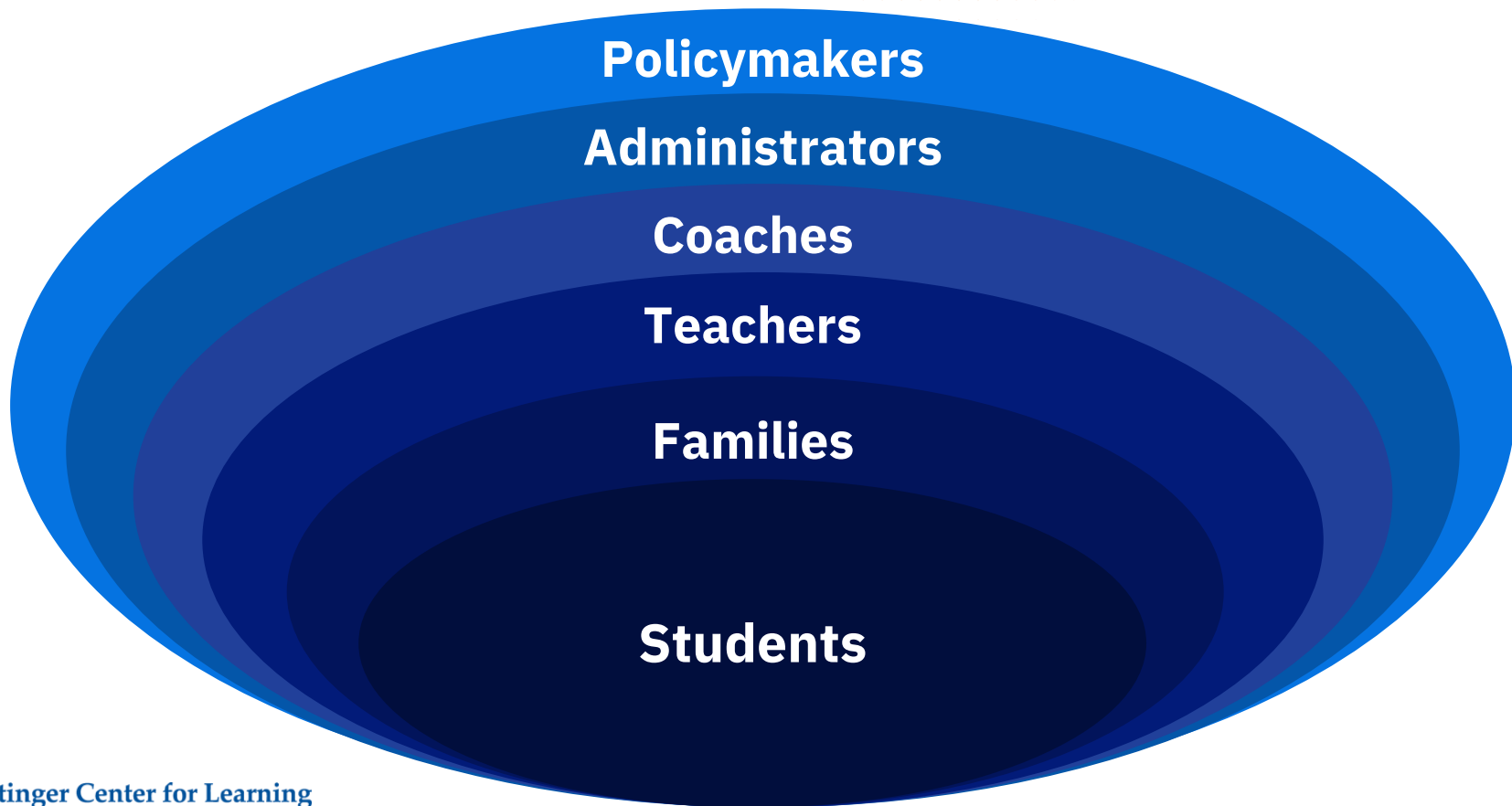
1. **New Worlds Reading Initiative (2021)**
2. **The Florida Tutoring Advantage (2024)**

Recent Milestone | *HB 1361: Education (2024)*

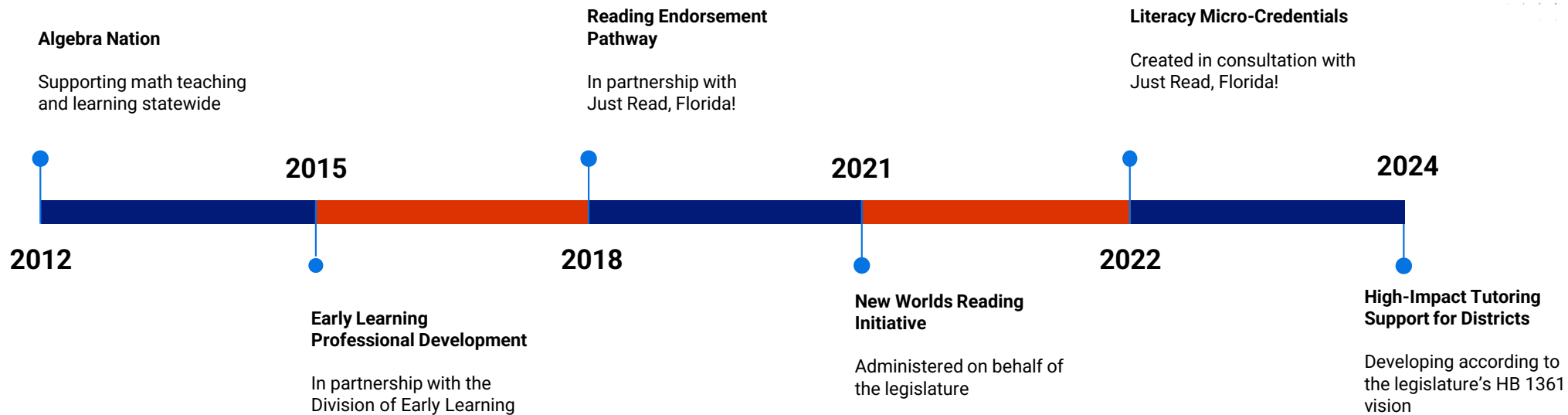
Creates a Lastinger Center statute and describes duties

1. **Develop and administer programs** to improve student achievement outcomes in early learning, literacy, and mathematics.
2. **Provide professional learning** for educators to improve the quality of instruction in early learning, literacy, and mathematics.
3. **Provide technical assistance** and support to school districts and schools in improving student achievement.
4. **Conduct and publish research** on teaching and learning in early learning, literacy, and mathematics as well as professional learning for educators.

An Ecosystem Supporting Students



History of Support for Florida Education



Since 2012 Algebra Nation



Algebra Nation

- Created in response to the Algebra 1 end-of-course requirement
- Provides statewide support for math teaching and learning
- Evolved into Math Nation



Since 2015 Early Learning Professional Learning

in partnership with





Partnering with the Division of Early Learning to Provide Professional Learning

- Over 1,000 hours of online course content in English and Spanish
- For teachers, coaches, and directors
- In-person and online training, communities of practice, and coaching
- **Over 41,000 educators served since 2015**

Early Learning Course Content Exemplar



Since 2018 Reading Endorsement Pathway

in partnership with



UF | Lastinger Center for Learning
UNIVERSITY of FLORIDA

named in s. 1001.215



Partnering with Just Read, Florida! to provide Literacy Professional Learning

- Online, on-demand pathway for teachers to earn their Reading Endorsement
 - ◆ Over 3,700 teachers have earned their endorsement
- New Reading Coach Endorsement now available
 - ◆ 297 coaches have earned their endorsement



Supporting an Ecosystem for Early Literacy in Florida

ADMINISTRATORS

- Flamingo Literacy
- Instructional Leadership

COACHES

- FDOE Literacy Coach Endorsement
- Flamingo Literacy Playbooks

TEACHERS

- Flamingo Literacy Matrix
- Flamingo Small Group Literacy Instruction
- Flamingo Reading App
- Birth-Grade 12 Micro-Credential

FAMILIES

- New Worlds Reading Initiative



Since 2021

New Worlds Reading Initiative

**new
worlds
reading** }

New Worlds Reading Initiative Vision



Creates at-home libraries for eligible students



Builds additional community & statewide partnerships



Instills excitement for reading through a statewide promotional campaign



Develops teacher experts in the science of reading through micro-credentials and creates home-school connections in literacy



Develops families and caregivers' confidence & capacity to support children's reading

Book Selection

- Partners with Scholastic
- Collaborates with Florida Department of Education to review and approve books
- Books available in English, Spanish, Haitian Creole, and braille
- Families select “book sets” based on specific topics of interest



Beyond the Books

- At-home literacy resources for families and caregivers helping their children practice reading
- Community engagement reading events with local and regional non-profits
 - 1,000 events last year!
- Professional learning for teachers related to New Worlds Reading books
 - Over 1,200 teachers since 2023
- Literacy micro-credentials for educators
- And more!



Reach So Far

1 Million

Eligible children
across the state of
Florida

398K+

Students served
since December
2021

8M+

Books and resources
shipped since
December 2021

Regional Partners



Hands Together
for Haitians



Since 2022

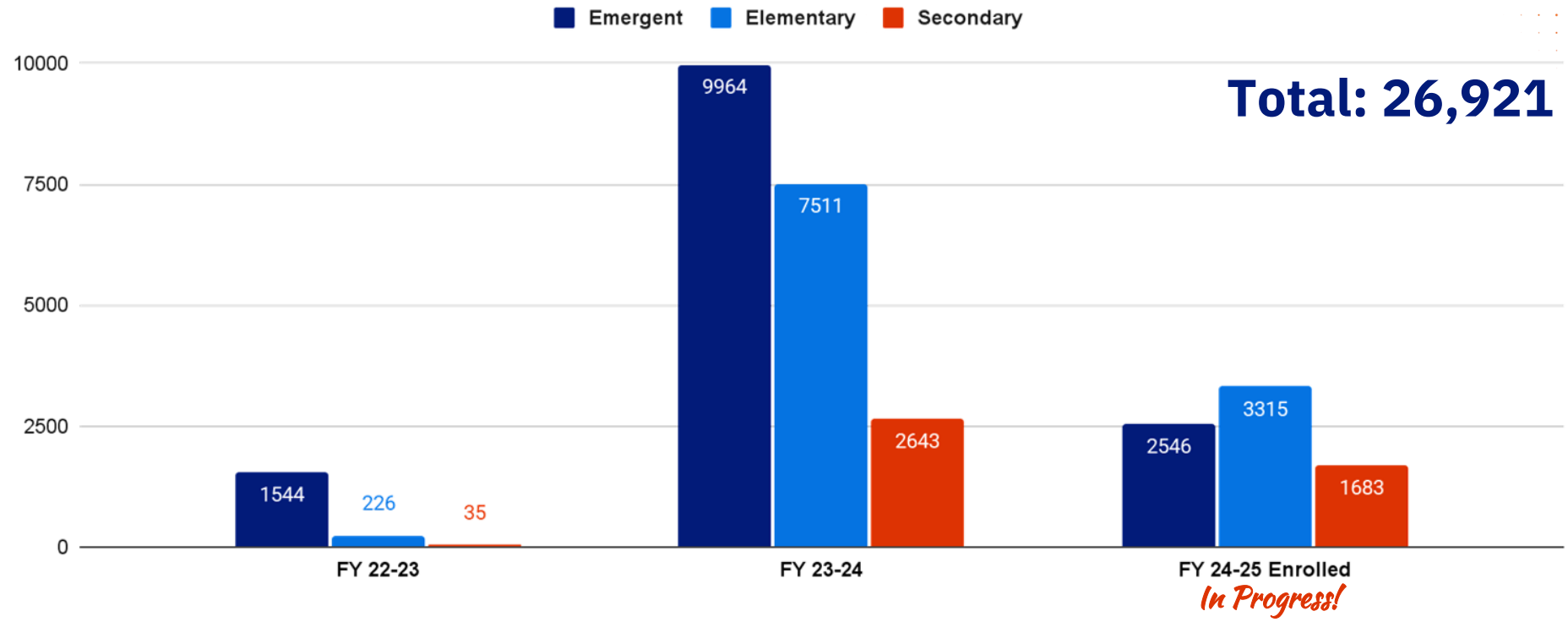
Early Literacy Micro-Credentials



Early Literacy Micro-Credentials

- Created by SB 2524 in consultation with Just Read, Florida!
- 3 competency-based micro-credentials:
 - Emergent, Elementary, and Secondary
- 60 hours of online, on-demand science-of-reading training
- Since January 2023, more than 21,000 have earned their micro-credential

Literacy Micro-Credentials Earned



Since 2024 The Florida Tutoring Advantage



HB 1361: Education | New Tutoring Program

1. Provide best practice Science of Reading and math tutoring guidelines to districts.
2. Establish standards for districts to participate in the program.
3. Provide online tutoring and automated software for those with a substantial math/reading deficiency.
4. Provide grant funds to districts to pay tutor stipends.
5. Provide technical assistance to districts, including math and literacy professional learning.


The Florida Tutoring Advantage

New pilot program in math and reading tutoring

**Session
2024**

**School Year
24-25**

**School Year
25-26**

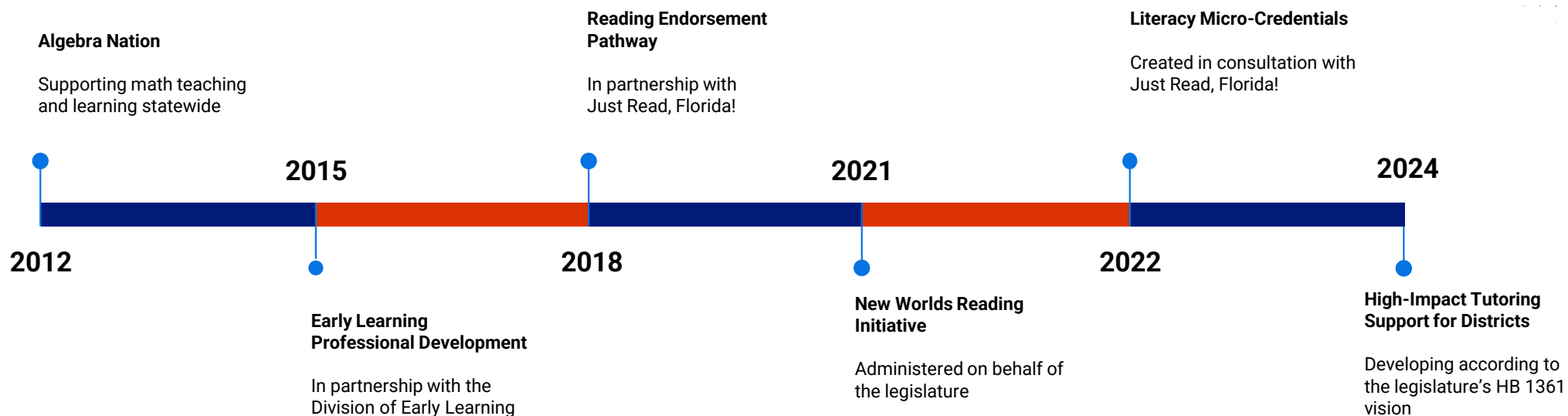


**House Bill 1361
creates the new
tutoring program**

**Develop and pilot
program components**

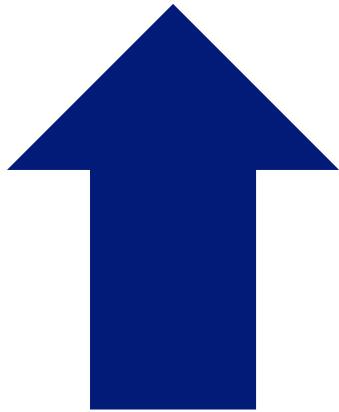
**Build to statewide
implementation**

History of Support for Florida Education

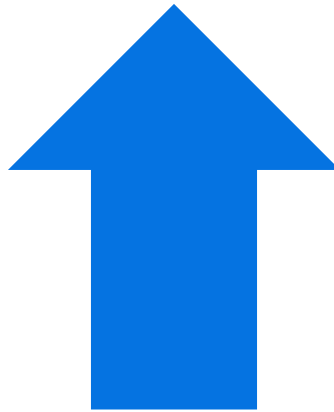


Impact

Continuing to Improve



**Educator
Knowledge**

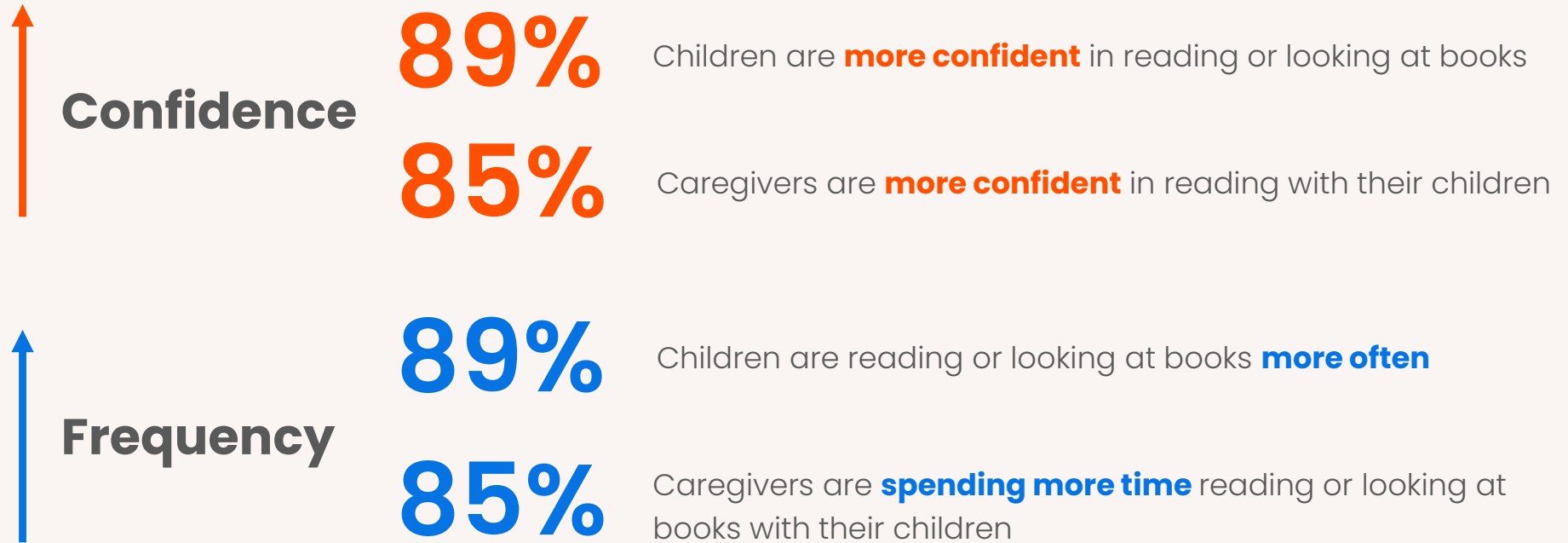


**Classroom
Practice**



**Student
Outcomes**

Impact on Home Literacy Practices



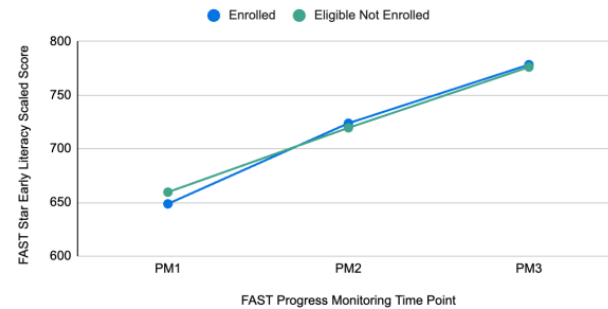
Based on approximately 15,816 survey responses received between May–July 2024.

K-5 Enrolled Students Grew Faster Than Non-Enrolled Students

- All enrolled students began with statistically significantly lower scores than non-enrolled students
- At PM2/3 enrolled students grew significantly faster than non-enrolled students

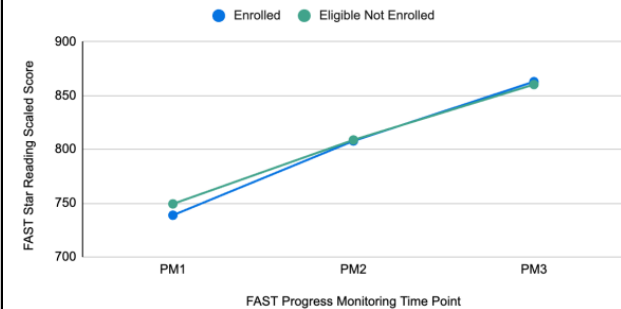
Estimated Mean FAST Star Early Literacy Scaled Scores

Grade: K-2



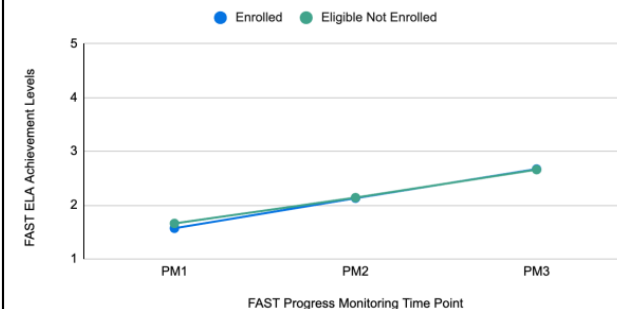
Estimated Mean FAST Star Reading Scaled Scores

Grade: 1-2



Estimated Mean FAST ELA Achievement Levels

Grade: 3-5

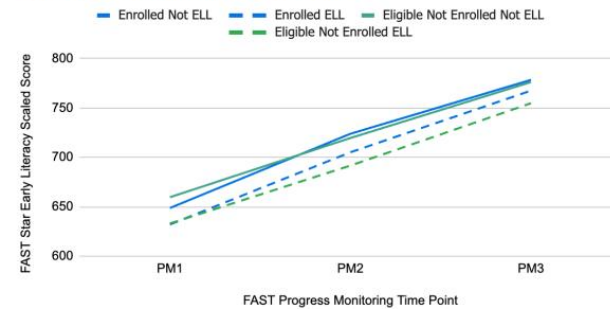


K-5 Enrolled EL Students Grew Faster Than Non-Enrolled Students

- Enrolled EL students began with lower scores than non-enrolled EL students
- Enrolled EL students grew faster than:
 - Non-enrolled EL students
 - Non-enrolled non-EL students
- By PM2, enrolled EL students scored higher than non-enrolled EL students
- By PM3, enrolled EL students narrowed gaps with non-enrolled non-EL students

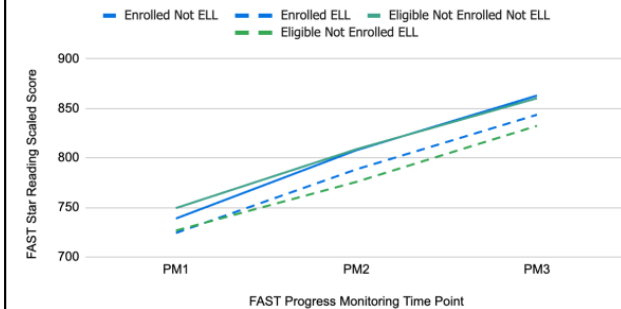
Estimated Mean FAST Star Early Literacy Scaled Scores

Grade K-2: Comparing Enrollment and ELL Status



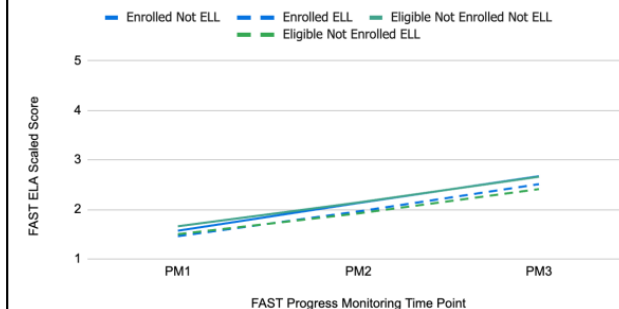
Estimated Mean FAST Star Reading Scaled Scores

Grade 1-2: Comparing Enrollment and ELL Status



Estimated Mean FAST ELA Scaled Scores

Grade 3-5: Comparing Enrollment and ELL Status



Innovating for the Future Mathematics



lasting listening tour

UF | Lastinger Center for Learning
UNIVERSITY *of* FLORIDA



Listening Tour - *That's a WRAP!*

By the NUMBERS

10
Weeks

30
Towns &
Cities

6,331
Survey
Responses

16
Policy
Makers

112
Focus
Groups
with

27
School
Districts

42
Lastinger
Center Staff

60
Teachers &
Administrators

18
Songs on
the Playlist

500
Voices



The Shepherd Problem



Listening Tour | *Briefs*

Brief 1 | Student Experiences in Mathematics

Brief 2 | Importance of School Mathematics Beyond High School

Brief 3 | Teacher Experiences and Opportunities

Brief 4 | Mathematics Beyond the School Day

Brief 5 | Early Learning and Math Education



Read the briefs!

The Math Matrix Micro-Credential

The Math Matrix equips math teachers and coaches with the skills and knowledge to effectively improve student achievement in math.

- Emphasizes math thinking and reasoning needed in the workforce
- Equips teachers to make math **relevant** and **engaging** for students
- Builds math subject matter knowledge and teaching skills



Over 1300 currently enrolled!

Innovating for the Future

Artificial Intelligence & Data Science

Data Science

The Lastinger Center's cloud Data Lagoon connects student and educator data to improve education practice, through our innovations and our partnerships.

100,000

educator
accounts
in our learning
management
system

1 Terabyte

of data in the
Lastinger Center
Data Lagoon

2 Billion

records
aggregated in the
Data Lagoon from
8 different
sources

Artificial Intelligence

Vollee AI Automated Assessment

To scale our impact, we partnered with TeraWe to develop an AI model to auto-grade assignments in the Early Literacy Micro-Credentials program.

This innovation

- Speeds learner progress
- Provides consistent, high-quality feedback
- Offers learners more formative practice

ALTER-Math

This multi-university partnership, with 5-year funding from Schmidt LEVI, leverages Data Lagoon data to develop a AI-driven chat-based teachable agent to improve mathematics learning.

The application

- Uses teach-to-learn principles
- Places students in the role of peer tutor
- Focuses on mathematics misconceptions

Innovating for the Future Partnership Highlights

Books & Cooks

Free meals & free books during weekly classes with:

- Children's books
- Cooking demonstrations
- Nutrition education
- Caregiver-child reading activities

Scan the QR code to learn more:



Highlights

- Two issues being distributed in summer 2025- 32 pages of content!
 - VPK- 1: High Five
 - 2-5: Highlights
- Featuring English, Spanish, and Haitian Creole
- Tailored to include literacy rich content from New Worlds Reading
 - Interactive with Kibeam



Kibeam

UF Lastinger Center / Kibeam Wand™ Reading System Pilot

- Screen-less technology for engagement
- Checks understanding
- Encourages children to tilt, point, and swirl the device as they engage with a paper book

**Expanding with 50,000 1st and 2nd grade
New Worlds Reading students this year**



Where to Find Us?

lastinger.center.ufl.edu

newworldsreading.com



352 - 273 - 4103



lastinger@coe.ufl.edu



Gainesville, Florida



Lastinger Center for Learning
UNIVERSITY of FLORIDA



@LastingerCenter

lastinger.center.ufl.edu

1/14/2024

The Florida Senate
APPEARANCE RECORD

Centers

Meeting Date
Postsecondary Ed

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

Committee

Amendment Barcode (if applicable)

Name **Emily Sikes**

Phone **850-245-5113**

Address **325 West Gaines Street**

Email **emily.sikes@flbog.edu**

Street

Tallahassee

FL

City

State

Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without
compensation or sponsorship.

☐ I am a registered lobbyist,
representing:

☒ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022JointRules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

SENATE JOURNAL

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

FAU COE

Bill Number or Topic

01/14/2025

Meeting Date

Ed Post Secondary

Committee

Name Gregg Fields

Phone 561-799-8577

Address FAU-777 Glades Road

Email FieldsG@fau.edu

Street

Boca Raton FL 33431

City

State

Zip

Speaking: ☐ For ☐ Against ☒ Information

OR

Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☒ I am appearing without
compensation or sponsorship.

☐ I am a registered lobbyist,
representing:

☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate
APPEARANCE RECORD

Meeting Date

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

Committee

Amendment Barcode (if applicable)

Name Richard Olgon Phone 305-348-1607

Address 11200 SW 8th St. AHC5, 200 Email olgonr@fiu.edu
Street

Miami, FL 33199
City State Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☒ I am appearing without
compensation or sponsorship.

☐ I am a registered lobbyist,
representing:

☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate
APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

Presentation - HIPMI

Bill Number or Topic

Amendment Barcode (if applicable)

Meeting Date

Committee

Name

Phone

Address

Street

Email

City

State

Zip

Speaking:

☐

For

☐

Against

☒

Information

OR

Waive Speaking:

☐

In Support

☐

Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐

I am appearing without
compensation or sponsorship.

☐

I am a registered lobbyist,
representing:

☐

I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

UNIVERSITY CENTERS

JAN 14, 2025

Meeting Date

Bill Number or Topic

EDUCATION POSTSECONDARY

Committee

Deliver both copies of this form to
Senate professional staff conducting the meeting

Amendment Barcode (if applicable)

Name PHILIP POEKERT

Phone 352-273-4103

Address 0711 NORMAN HALL
Street

Email poekert@ufl.edu

GAINESVILLE FL 32601
City State Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without
compensation or sponsorship.

☒ I am a registered lobbyist,
representing:
UNIVERSITY
OF FLORIDA

☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022JointRules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Presentation-HPMI

1/14/25

Meeting Date

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

(s) Edu Post sec.

Committee

Amendment Barcode (if applicable)

Name Dr. Suvranu De - College of Engineering

Phone

Address FSU - 222 S. Copeland St.

Email sde@eng.fsu.edu

Tallahassee

City

FL

State

32306

Zip

Speaking: ☐ For ☐ Against ☒ Information

OR

Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

CourtSmart Tag Report

Room: SB 301
Caption: Senate Education Postsecondary Committee

Type:
Judge:

Started: 1/14/2025 8:30:29 AM
Ends: 1/14/2025 9:59:37 AM
Length: 01:29:09

8:30:28 AM Chair Calatayud calls the meeting to order
8:30:32 AM Roll call
8:30:36 AM Quorum announced
8:30:51 AM Chair with opening comments
8:32:12 AM Tab 1 Presentations on State University System Institutes and Centers
8:32:32 AM Introduction of Emily Sikes
8:32:45 AM Presentation by Emily Sikes, Board of Governors Office
8:40:37 AM Question
8:40:38 AM Senator Harrell
8:40:53 AM Dr. Sikes
8:41:39 AM Senator Harrell
8:42:08 AM Dr. Sikes
8:42:16 AM Senator Harrell
8:42:22 AM Dr. Sikes
8:43:33 AM Chair Calatayud
8:43:51 AM Presentation by Dr. Gregg Fields, FAU Center of Excellence in Biomedical and Marine Biotechnology
9:01:11 AM Chair Calatayud
9:01:19 AM Presentation by Dr. Richard Olson, FIU Center of Excellence for Hurricane Damage Mitigation & Product Development
9:02:11 AM Chair Calatayud
9:02:15 AM Presentation continues
9:19:32 AM Chair Calatayud
9:19:52 AM Comment
9:19:55 AM Senator Rodriguez
9:20:08 AM Introduction of Dr. Stacy Patterson
9:20:24 AM Presentation by Dr. Stacy Patterson, FSU High-Performance Material Institute
9:32:15 AM Chair Calatayud
9:32:29 AM Question
9:32:31 AM Senator Simmon
9:32:44 AM Dr. Patterson
9:33:08 AM Chair Calatayud
9:33:27 AM Introduction of Dr. Philip Poekeret
9:33:42 AM Presentation by Dr. Philip Poekert, UF Lastinger Center for Learning
9:53:49 AM Chair Calatayud
9:54:04 AM Comments
9:54:07 AM Senator Jones
9:54:24 AM Dr. Poekeret
9:55:15 AM Senator Harrell
9:56:28 AM Chair Calatayud
9:56:46 AM Comments
9:56:47 AM Senator Berman
9:57:20 AM Senator Harrell
9:58:14 AM Chair Calatayud
9:59:17 AM Senator Berman moves to adjourn
9:59:25 AM Meeting adjourned



THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:

Appropriations Committee on Pre-K - 12 Education,
Vice Chair
Education Postsecondary
Education Pre-K - 12
Fiscal Policy
Judiciary
Military and Veterans Affairs, Space, and
Domestic Security
Rules

**SENATOR GERALDINE F. "GERI"
THOMPSON**
15th District

January 15, 2025

The Honorable Chair Calatayud
Chairwoman
404 South Monroe Street
Tallahassee, FL 32399

Dear Chair Calatayud,

I am writing to formally request a leave of absence due to a medical condition from the Committee on Education Postsecondary during the interim committee meetings scheduled from January 13 through February 21, 2025. While I regret being unable to actively participate in Senate proceedings during this period, this temporary leave is essential to enable me to return to my duties fully restored.

I greatly appreciate your understanding and support during this time. If additional documentation or details are needed, please let me know.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Geraldine F. Thompson".

Senator Geraldine F. Thompson
FL Senate District 15

Cc: Matthew Bouck, Staff Director
Alexander Brick, Deputy Staff Director
Secret Williams, Administrative Assistant
Maggie Gerson, Staff Director

REPLY TO:

- ☐ 511 W. South Street, Suite 205, Orlando, Florida 32805 (407) 245-0194
- ☐ 205 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5015

Senate's Website: www.flsenate.gov

BEN ALBRITTON
President of the Senate

JASON BRODEUR
President Pro Tempore