

November 6, 2014

To: Harbor Branch Oceanographic Institute, Inc. Foundation Board

From: Megan Davis, Ph.D., FAU HBOI Interim Executive Director

Re: FAU Harbor Branch Highlights (Since April 24, 2014 HBOIF Board Meeting)

1. FAU's Strategic Plan: FAU's President Kelly and Provost Perry are spending time with faculty in open dialog from October to December. They will visit 60 FAU academic and research units with the purpose to gather insights and information to help with shaping FAU's strategic plan. We are excited to have the President and Provost visit HBOI on November 19th for the HBOI faculty forum discussion about Harbor Branch's strong leadership role in marine science and ocean engineering.
2. Harbor Branch's Strategic and Implementation Plan: We are in our third year of Harbor Branch's Strategic Plan and Implementation Plan. We continue to expand our research, partnerships and stewardship activities internally, with FAU colleges, with HBOIF, our community, partners, and sponsors.

Here are several highlights related to the research themes. Many of these and more will be featured in Harbor Branch's annual report that is due to be completed in December.

- a. Theme: Ocean Exploration –
 - i. Harbor Branch established and now utilizes an Exploration Command Center for telepresence-based ocean exploration missions for researchers and students.
 - ii. Advances in ocean exploration also include a science sled that was designed and built at Harbor Branch. It is in the final completion and testing stage. This science sled will be used with a remote operated vehicle (ROV) to enable collections during cruises.
- b. Theme: Understanding Marine Ecosystem Function –
 - i. Indian River Lagoon Observatory is expanding its LOBO network in the Indian River Lagoon and St. Lucie Estuary with funding from HBOI Foundation and State funding. The contract for the \$2M state funding is being finalized with Department of Environment Protection. The first HBOIF LOBO of three has arrived and will be installed in November. The other two LOBOs are due to arrive in November. All sites have been approved by US Coast Guard and we anticipate that the HBOIF LOBOs will be online in January.
 - ii. Marine Mammal Research and Conservation – Program continues to expand its partnerships with other stranding network partners. A new ambulance with a new branded look is due to be delivered to Harbor Branch in November and will be a resource for the stranding network. The stranding pool repairs have been completed and the filtration system is being upgraded.
 - iii. The Population and Behavioral Ecology Research Group have built a strong collaboration with Old Vero Ice Age Site Committee and Mercyhurst University on a new project that will use Harbor Branch's ancient DNA lab to explore aging the samples from the Old Vero Man site.

- c. Theme: Wise Use of Marine Resources –
 - i. Marine Biomedical and Biotechnology Research Program with the assistance of Harbor Branch funding received a High Content Imaging machine, which will accelerate observations and screening of compounds. This Research Group developed a new partnership with Vaccine and Gene Therapy Institute (VGTI) to explore Harbor Branch's compounds in VGTI assays.
 - ii. The Integrated Multi-Trophic Aquaculture team of aquaculturists, ecologists, microbiologists and engineers continue to operate and test this novel system with new species and feeding techniques.
 - d. Theme: Innovative Technology Development
 - i. Harbor Branch's ocean engineers and physical oceanographers are working together to use glider platforms to develop novel sensor observations along with modeling currents, eggs and plankton distribution, and water quality in the coastal waters.
3. Education Activities: Harbor Branch participated in two FAU Expo events for High School Students. There were nearly 17,000 students, with their parents and friends that came to the two events. FAU colleges, departments, and units highlighted their research and education opportunities. It was an enormous success for FAU.

Indian River Lagoon Graduate Student Fellowships were awarded to 7 FAU graduate students who are conducting research on the Indian River Lagoon with faculty at Harbor Branch. These Fellowships are supported by FY2014 Love Your Lagoon Proceeds.

Indian River Lagoon Symposium: Lessons, Challenges and Opportunities (Feb 5-6), call for presentations has been released. The second day of the symposium is called Citizen Science. We expect another great turnout for both days.

4. Research Funding and Activities: In the past 6 months, Harbor Branch scientists and engineers received 50 grants and contracts awards totaling \$5,464,223. The largest award was year 6 funding from NOAA for the Cooperative Institute in Ocean Exploration, Research and Technology (\$1,766,029; PI S. Pomponi). There were 18 Specialty License Plate awards totaling \$1,995,406 (various PIs) in addition to the HBOI Foundation LOBO award (\$559,295). For more information on the awards see below.

FAU is in the process of conducting a search for a Vice President for Research, HBOI Interim Executive Director is on the search committee and has been engaged in discussions with the candidates. This is an important position for the University and will greatly benefit Harbor Branch by providing support for research growth and improving the efficiencies of submission and monitoring awards.

5. Faculty Hiring Plan:

The newest HBOI Foundation faculty hire, Dr. Marty Riche, Aquaculture Nutritionist, started in September. The Biosynthesis faculty member has signed a formal offer letter and will start in March 2015. The Marine Technologist faculty member has verbally accepted the position and his formal offer letter has been sent for signature (start date June 2015). The Fish

Ecologist/Biologist applications are being reviewed. The remaining two new positions, Bioinformatics and Biological Oceanographer, job descriptions are being developed for posting.

Additional HBOI faculty hires: A DVM Researcher position was posted and applications will be reviewed the middle of November. This position will assist primarily with marine mammal research and will have DVM responsibilities at HBOI and other FAU areas. John Scarpa's replacement position was approved by the Provost office, however, a search has not started for this position.

HBOI Foundation and HBOI Visit to Scripps Institution of Oceanography: Our visit to Scripps Institution of Oceanography, one of our sister oceanographic institutes, was very inspiring. We spent time with Margaret Leinen, who arranged for us to visit many of the lead Institution's scientists and engineers that work on similar research as Harbor Branch. We enjoyed the opportunity to hear about their work and many of them had either visited Harbor Branch, collaborated with Harbor Branch researchers, or were familiar with Harbor Branch's research. Everyone expressed a keen interest in knowing more about what we do and complimented our research. Being able to visit the Scripps' campus and Birch Aquarium with HBOIF Board Members and President provided us all new insights that led to discussions about Harbor Branch's research opportunities and how to expand the value Harbor Branch provides to our the community.

6. Harbor Branch Faculty Assembly: Over the course of this year the Harbor Branch faculty members have been meeting regularly to discuss research, education, and operational topics, which include dialogs with the Interim Executive Director. This has been a productive way to discuss these topics and the Faculty Assembly provides recommendations to the Interim Executive Director on a range of topics. The Faculty Assembly completed their bylaws that were recently approved by HBOI Interim Executive Director and the Provost.

7. Operations:

As part of our Harbor Branch Strategic Plan themes: Enhance Harbor Branch Community, Wise Use of Harbor Branch Resources, and Cultivating Partnership we are working on a number of items such as:

Harbor Branch contracted Master Executive Chefs to assist with a financial analysis and plan to provide direction for the Link Port Café to be an economically sustainable café.

HBOI is evaluating ways to open the campus to the public for a variety of organized tours that could include tours such as research tours, historical tours, and nature tours. Harbor Branch is working on a JSL II (Harbor Branch's Submarine) ocean exploration display near the café that would be included as one of the tour exhibits. We are also working on quarterly tours of the campus for Harbor Branch employees.

We are progressing with the hiring of the HBOIF funded Development Team. In addition to HBOI staff, HBOIF staff and FAU staff have served on the three respective Search Committees. We conducted a full search for the Development Director, however, our top candidate did not accept the offer of the position due to relocation. The search has been expanded and selected applicants will be interviewed over the next two months. Applicants for the Assistant Development Director position are being interviewed. We have two very promising candidates

HARBOR BRANCH

FLORIDA ATLANTIC UNIVERSITY*

Ocean Science for a Better World®

for the Development Program Administrator and a decision on this position will be made in November. 70 candidates in total have applied for these positions.

Working in partnership with HBOIF and a marketing firm, Harbor Branch's communication and marketing team have developed a strategic marketing plan for Specialty License Plates to increase sales and the visibility of the research that is conducted with the proceeds of the sales.

HBOI Awards by Sponsor

5/1/14 - 11/5/14 (6 months)

50 Awards

PI Name (Co-PI not listed)	Title	Post-Award Date	Amount
National Oceanic & Atmospheric Administration (12 Awards)			
Cherubin, Laurent	Integrated MODels for Evaluating Climate Change	09/23/2014	20,013
Pomponi, Shirley	CIOERT - Renewal - Years 6-10	08/28/2014	150,000
Pomponi, Shirley	RED-Year 6 Cooperative Institute Pomponi UNCW	09/30/2014	411,500
Pomponi, Shirley	RED-Year 6 Cooperative Institute Pomponi - UM	09/30/2014	337,000
Pomponi, Shirley	RED-Year 6 Cooperative Institute Wright/Pomponi	09/30/2014	44,099
Pomponi, Shirley	RED-Year 6 Cooperative Institute Pomponi	09/30/2014	58,142
Pomponi, Shirley	RED-Year 6 Cooperative Institute Reed/Pomponi	09/30/2014	72,236
Pomponi, Shirley	RED-Year 6 Cooperative Institute Voss/Pomponi	09/30/2014	115,095
Pomponi, Shirley	RED-Year 6 CI Pomponi-Telepresence	09/30/2014	140,327
Pomponi, Shirley	RED-Year 6 Cooperative Institute Dalgleish/Pomponi	09/30/2014	250,000
Pomponi, Shirley	RED-Year 6 Cooperative Institute Reed/Pomponi MPA	09/30/2014	87,640
Pomponi, Shirley	RED-Year 6 CI Pomponi-SRI -Fish Image Detection	09/30/2014	99,990
NOAA Total			1,786,042

Harbor Branch Oceanographic Institute Foundation (19 Awards)

Cherubin, Laurent	Ventilation rates of the IRL through its inlets	09/30/2014	51,420
Davis, Megan	Protect Wild Dolphins (PWD) Stranding Response	05/08/2014	295,380
Davis, Megan	Protect Florida Whales (PFW) - Stranding Response	06/16/2014	159,311
Hanisak, M. Dennis	Land/Ocean Biogeochemical Observatories (LOBOs)	06/27/2014	559,295
Hanisak, M. Dennis	Supplement: IMTA - Macroalgae	08/28/2014	33,333
Hanisak, M. Dennis	Supplement: IRL Observatory (IRLO)	09/22/2014	200,986
Lapointe, Brian	Supplement: IRL Macroalgal Blooms	09/25/2014	59,014
Laramore, Susan	Supplement: IMTA biofloc and fresh seaweed	08/28/2014	33,000
Laramore, Susan	Cultured and Wild Sunray Venus Clams	09/22/2014	35,000
Mazzoil, Marilyn	Dolphin abundance in vicinity of LOBOs	09/30/2014	34,978
McCarthy, Peter	IMTA: Efficient degradation of waste products	08/28/2014	33,500
McCarthy, Peter	Microbial source tracking in the IRL	09/09/2014	25,000
McCarthy, Peter	Vibriosis in the IRL: Potential threat to human health	09/30/2014	12,500
O'Corry-Crowe, Greg	Population Biology & Behavioral Ecology Program	05/29/2014	229,288

O'Corry-Crowe, Greg	Immunogenetic Profiling of Florida Whales	09/30/2014	24,964
O'Corry-Crowe, Greg	Ancient DNA analysis of whale teeth	09/30/2014	14,624
Ouyang, Bing	Cost-effective larval fish enumeration	09/23/2014	34,992
Schaefer, Adam	Supplement: Epidemiology & Population IRL Dolphins	05/05/2014	58,742
Wills, Paul	Supplement: IMTA for land-based Aquaculture	08/28/2014	100,079
HBOIF Total			1,995,406

St. John's River Water Management District (2 Awards)

Hanisak, M. Dennis	IRL: Algal bloom investigation: Drift Macroalgae	10/14/2014	261,998
Hanisak, M. Dennis	IRL: Evaluation of transplanting seagrass	10/14/2014	30,000
SJRWMD Total			291,998

School Board of Saint Lucie County (2 Awards)

Hanisak, M. Dennis	LPA Harborside: Science & Education Partnership	08/20/2014	20,845
Hanisak, M. Dennis	MOA: Science & Education Partnership	08/20/2014	236,507
SBSLC Total			257,352

National Institutes of Health (1 Award)

Wright, Amy	Marine Invertebrate-Derived Antimalarial Agents	07/15/2014	182,483
NIH Total			182,483

Florida Aquaculture Review Council (2 Awards)

Hanisak, M. Dennis	Culture of the Aquatic Plant Egeria densa	08/01/2014	81,654
Laramore, Susan	Increasing Shrimp Production in Florida	08/07/2014	65,827
FLARC Total			147,481

University of Miami - Fed Flow (1 Award)

Hanisak, M. Dennis	REPP - Connectivity - Pulley Ridge	10/21/2014	126,022
UM-FFT Total			126,022

Martin County (1 Award)

Lapointe, Brian	2014-2015 Martin County Septic Tank Study	09/12/2014	124,500
MC Total			124,500

Air Force Office of Scientific Research (1 Award)

Ouyang, Bing	Airborne Compressive Sensing Topographic Lidar	05/05/2014	119,996
AFOSR Total			119,996

Naval Facilities Engineering Command (1 Award)

Lapointe, Brian	Eutrophication at Naval Station GTMO, Cuba	08/25/2014	116,753
NAVFAC Total			116,753

Amy's Island Seafood (1 Award)

Wills,Paul	Collaborative Research: IMTA Aquaculture	10/16/2014	76,800
AIS Total			76,800

Florida Sea Grant- Fed Flow (1 Award)

Voss, Joshua	Estuarine impacts on coral health	06/10/2014	69,316
FSG - FFT Total			69,316

Florida Atlantic University Foundation (3 Awards)

McCarthy,Peter	IRL Graduate Research Fellowships	09/30/2014	65,881
Hanisak, M. Dennis	Link Foundation Program at Harbor Branch	07/14/2014	48,000
Wright, Amy	Training in biomedical marine research	08/27/2014	15,000
FAUF Total			63,000

University of Florida (1 Award)

Wright,Amy	Modulatory compounds from marine organisms	09/22/2014	50,000
UF Total			50,000

Indian River State College (1 Award)

Laramore, Susan	IRSC Aquaculture Degree Program	07/14/2014	32,234
IRSC Total			32,234

St. Johns River Water Management District - Federal Flow Through (1 Award)

Lapointe, Brian	IRL: Sources of Nitrogen and Phosphorus inputs	05/20/2014	24,840
SJRWMD - FFT Total			24,840
GRAND TOTAL			\$5,464,223