



UNIVERSITY SYSTEM
of MARYLAND

Agenda Item 2

IMET Strategic Plan Briefing

SUMMARY OF ITEM FOR ACTION
INFORMATION OR DISCUSSION

TOPIC: Presentation of the new strategic plan for the Institute of Marine and Environmental Technology -- Dr. Russell Hill, Director and Professor at IMET (information item)

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: June 8, 2017

SUMMARY: The Committee will be briefed on the new strategic plan for the Institute of Marine and Environmental Technology (IMET), emphasizing the Institute's innovation and entrepreneurship programs. These programs include the Ratcliffe Environmental Entrepreneur Fellowship, mentorship resources, the Harbor Launch Incubator @ IMET, and others. Through its programs, IMET has launched several spin-off companies and is creating a vibrant entrepreneurial ecosystem.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR'S RECOMMENDATION: This item is for information purposes.

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

SUBMITTED BY: Tom Sadowski (410) 576-5742 / Suresh Balakrishnan (301) 445-2783



Russell Hill

**Entrepreneurship and Economic Development
at the Institute of Marine and Environmental Technology
(IMET)**

IMET Mission

- protection and restoration of coastal marine systems
- sustainable use of marine resources
- improvement of human health
- Contribute to training and economic development in MD

IMET is a joint University System of Maryland Research Inst:

UMB, UMBC and UMCES

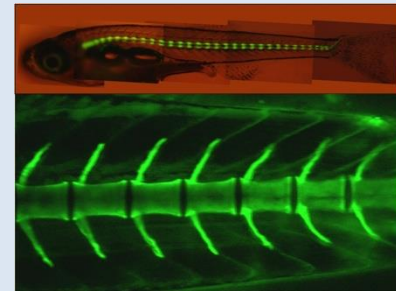


*Institute of
Marine and
Environmental
Technology*



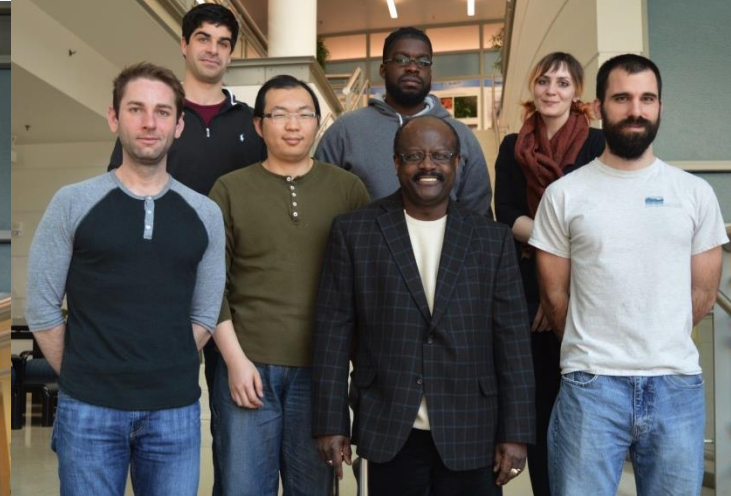
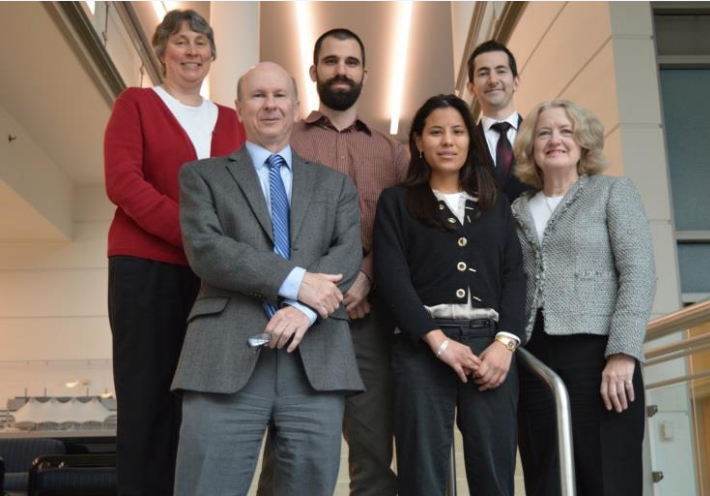
IMET Research

- **Sustainable Aquaculture Production**
- **Environment, Animal and Human Health**
- **Energy, Climate Change and Global Health**
- **Innovation and Entrepreneurship**





Ratcliffe Environmental Entrepreneur Fellowship (REEF) Program





Ratcliffe Environmental Entrepreneur Fellowship (REEF) Program

<u>Mentors</u>	<u>Instructors</u>
Ted Olsen; CEO of Path Sensors Inc.	Ken Malone; CEO Early Charm Ventures
Jason Brooke; CEO of Vasoptic Medical LLC	Gianna Arnold; Partner at Saul Ewing
Steve Dubin; Venture Investor	Jennifer Dodson; CEO of Adashmore Creative
Rachel King; CEO of Glycomimetics	Na Young Ji; Assistant Professor of Psychiatry at Johns Hopkins
Blake Patterson; CEO of Cerecor	Jamie Lacey-Moreira; Principle at PressCommPressComm
Jay Steinmetz; CEO of Barcoding Inc.	Nick Landau; Partner at Bradley Arant Boult Cummings LLP
Delali Dzirasa; CEO of Fearless	Stuart Kaplow; Attorney and Principal at Stuart D. Kaplow, P.A.
Audra Stinchcomb; CEO of Alltranz	Terry Cook; Sr. Associate Vice President for Administrative Services at UMBC
Kevin Keenahan; CEO of Tissue Analytics, Inc.	Dalton Tong; Senior Lecturer at Johns Hopkins Carey Business School
Jenny Regan; CEO of Key Tech	Kelli Booth; CFO at Tarsier Optics Inc.
Kelvin Liu; CEO of Circulomics	Nick Hammond, Associate Vice President at UMCES
Bill Niland; CEO of Harpoon Medical	David Balcom; Vice President at UMCES

	<u>Mentors</u>	<u>Instructors</u>	<u>Students</u>	<u>Total</u>	<u>% of Total</u>
Male	23	6	8	37	66%
Female	4	6	9	19	34%
Minority	8	7	12	27	48%
Total Participants	27	12	17	56	

Enrichment Activities: REEF Externships

- Promote hands-on, practical experience with the private sector
- Building on existing relationships
- REEF program internship so far have included:
 - InnoVital Systems (private engineering firm)
 - Food and Drug Administration (FDA)
 - National Institute of Standards and Technology (NIST)
 - Maryland Institute College of Art (MICA)
 - Johns Hopkins Center for a Livable Future (CLF)
 - National Aquarium
 - Resphera Biosciences
 - BREP



Baltimore Entrepreneur Office Hours



Entrepreneur in Residence Program



Providing Mentorship:

- Business plan refinement
- Advice on sources of funding
- Introductions to people and institutions
- Spur new company development





Harbor Launch Incubator @ IMET

- **Small Business and Legal Advice**
- **Networking Activities**
- **Access to University Core Facility**
- **24 hour Security and Card Access**
- **24 hour Onsite Gym Access**
- **Meeting Room Availability**
- **IT and Communications Services**
- **Public Transportation Access**



Phase I BUILD



1st Company, Manta Biofuel
Ratcliffe Funding

Lindsay (Manager)

Name -- Harbor Launch

Steve Davey (EIR)

Wet Labs

“Went Public”

Summer 2015

Fall 2015

Winter '16



Phase II PROMOTE

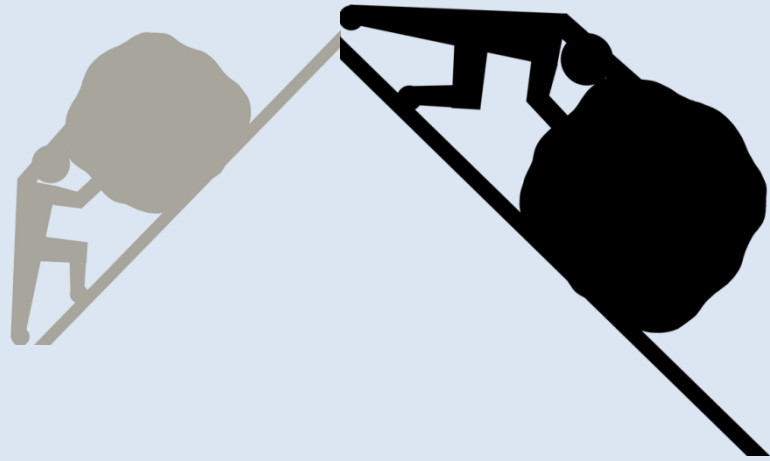
 BUSINESS

Mar. 10, 2016 9:20 am

IMET's Harbor Launch incubator offers sweeping views, serious science



**Phase III
HOLD ON!**



1st Graduate

Flavocure

**Apr
Mar**

IntraMont

Jan '17

Pataigin

LINKSciences

Oct 2016

NDBbio

Sep 2016

**Novel Microdevices
BDP (affiliate)**

Aug 2016

Affiliate Program

Jun 2016



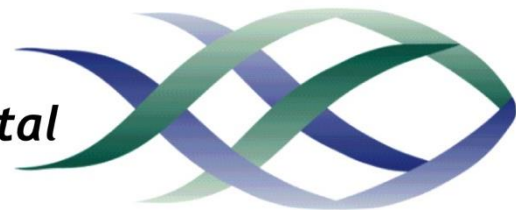
IMET Spin-off Companies

- **REEF Program:**

- **Manta Biofuels LLC. Ryan Powell. 10 employees**
- **Bright Bio LLC. Saddef Haq.**
- **Blue Bloods LLC. Mary Larkin.**
- **SeaMuse LLC. Sara Rowland.**

- **Faculty Companies:**

- **VakSea. Dr. Vik Vakharia**
- **AlgaBT. Dr. Yantao Li**
- **RemBac. Dr. Kevin Sowers**



IMET Ecosystem Companies

epistem

intralytix
SAFETY BY NATURE™

- Bright Bio
- AlgaBT

NOVEL
MICRODEVICES

Latham
BIOPHARM GROUP

VAKSEA
circulomics

FLAVOCURE
BIOTECH

PATHSENSORS

LINK
Sciences



NDBbio



GE Healthcare



NATIONAL
AQUARIUM.



EnviroTech

pataigin

seamuse

IntraMont Technologies, Inc.



Inspire. Educate. Engage



Manta Biofuel
Renewable Crude Oil

LMRCSC-IMET Summer Interns



11th IMBC 2016

International Marine Biotechnology Conference
“Health, Wealth, and Innovation”

August 29 – September 2, 2016

Baltimore, MD, USA

More information can be found at www.theimba.org

Ninth Symposium on Harmful Algae in the U.S.

Training the Next Generation



WELCOME TO
BALTIMORE
H N

Baltimore, Maryland
November 11-18, 2017

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