

7-2015

## ORED Communicator - July 2015

Office of Economic Research and Development, Florida International University

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## Momentum with innovation, technology transfer and entrepreneurship @ FIU



July 2015  
Issue

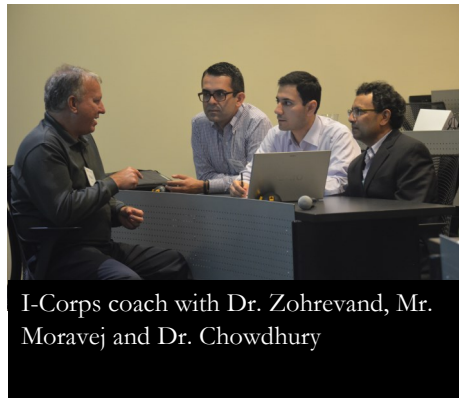
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In order to develop and nurture an entrepreneurial culture in the nation, the National Science Foundation (NSF) established the **Innovation Corps Teams Program (I-Corps)**. The program aims to transfer scientific and engineering discoveries into commercially viable products and services. I-Corps connects NSF-funded researchers with the business community and entrepreneurs to foster innovation and technology transfer.



I-Corps coach with Dr. Zohrevand, Mr. Moravej and Dr. Chowdhury

One FIU team recently participated in the fast-paced and rigorous program. The “**Innovative Hurricane Damage Mitigation Systems**” team included Dr. Arindam Gan Chowdhury, Dr. Amir Mirmiran, PhD student Mohammadtaghi Moravej and Dr. Pedram Zohrevand, the team’s mentor. Dr. Zohrevand is an Assistant City Engineer of the City of Fort Lauderdale. The team was looking at the commercialization feasibility of new high performance hurricane damage mitigation technology developed by Dr. Chowdhury and Dr. Mirmiran.

The “**Analytical Chemistry for Everyone: What’s in your Air?**” team will be going through the NSF I-Corps program during the summer. The team includes Dr. José Almirall, Dr. Natasha Kreitals (visiting postdoctoral fellow at the IHRC) and Mr. Digno Caballero (mentor), a former Senior VP of Strategic Projects at Bacardi. The team will be looking at the commercialization potential of Dr. Almirall’s research in Capillary Microextractor of Volatiles (CMV) technology as a potential research laboratory consumable for scientists currently using SPME and Tenax tubes for air sampling, and for other applications for use by the general public. The team (pictured at right) recently participated at e-Merge Americas event held in April.

If you have received NSF funding in the last five years, have interest in the NSF I-Corps Teams Program and would like further information, please contact FIU’s Director of Technology Management and Commercialization [Peter Hernandez](#) at (305) 348-3051.

Teams representing biomedical engineering technologies from Dr. Ranu Jung and Dr. Anuradha Godavarty finished first and second place at the annual **StartUp Quest Pitch Day**. StartUp Quest uses technologies from the different state universities in multiple disciplines ranging from software engineering to bioscience. At this year’s Broward Pitch Day, FIU sponsored three teams. Each team was paired with two mentors who are CEOs, entrepreneurs, and business people from various backgrounds. The mentors have extensive experience in bringing technology to market and providing support to team members throughout the 10-week preparation process.

The winning pitch was presented by team **Hercules MedSystems**. Their technology was taken from the Adaptive Neural Systems (ANS) laboratory that created an advanced prosthetic system to restore sensation to an upper-extremity amputee. The system has sensors embedded into the prosthetic hand that help provide the amputee with the sensations of fingertip force and hand opening. The system development received federal support from the National Institute of Biomedical Imaging and Bioengineering and the National Institute of Child Health Development.

The second place winners, team **LightScan Health Systems**, worked with Anuradha Godavarty and her research on a hand-held breast cancer pre-screening device. Team LightScan created a business plan and an investor pitch that focused on the affordability and non-invasive nature of the device. It has the potential to provide widespread pre-screening to breast cancer patients throughout the world. This technology received federal support from the National Cancer Institute.



## Upcoming Events

- **July 27, 2015, 12:00 pm to 1:00 pm, WC 130, [Aldrin V. Gomes](#), Ph.D., Associate Professor, Department of Neurobiology, Physiology, and Behavior, University of California, Davis, will be speaking about an investigation into the molecular mechanisms associated with nonsteroidal anti-inflammatory drugs (NSAIDs) cardiotoxicity which suggest that proteasome dysfunction (decreased activity) and apoptosis are responsible for most of the cardiotoxicity. This event is co-sponsored by the Biomolecular Sciences Institute and the School of Integrated Science and Humanity. For more information [click here](#).**

## Awards Received—May 2015

FIU researchers were awarded \$4,636,030 in May 2015. Below is a listing of awards received.

**PI:** Joann Arnowitz

**JEWISH MUSEUM OF FLORIDA-FIU**

**Award Action Type:** Initial

**AWARDING SPONSOR:** City of Miami Beach

**TITLE:** JMOF General Support Grant FY14-15

**AWARD:** \$ 49,500

**PI:** Kevin Boswell

**BIOLOGY**

**Award Action Type:** Increase

**AWARDING SPONSOR:** Industrial Economics Inc

**TITLE:** Analysis of acoustic data from Deep Water Horizon

**AWARD:** \$ 66,000

**PI:** Kevin Boswell

**BIOLOGY**

**Award Action Type:** Pre-Award

**AWARDING SPONSOR:** University of Miami

**TITLE:** Examining the status and distribution of reef fish spawning

**AWARD:** \$ 20,000

**PI:** Kevin Boswell

**BIOLOGY**

**Award Action Type:** Initial

**AWARDING SPONSOR:** Prince William Sound Science Center

**TITLE:** HRM - Non lethal sampling: In situ estimation of juvenile herring sizes

**AWARD:** \$ 54,928

**PI:** Eric Thomas Brew

**COE TEACHING AND LEARNING**

**Award Action Type:** Initial

**AWARDING SPONSOR:** National Science Foundation

**TITLE:** Graduate Research Fellowship Program

**AWARD:** \$ 11,410

**PI:** Kathryn Elizabeth Brogan

**DIETETICS AND NUTRITION**

**Award Action Type:** Initial

**AWARDING SPONSOR:** Wayne State University

**TITLE:** Project for Enhancement and Alignment of the Continuum of Care for HIV

**AWARD:** \$ 13,357

**PI:** Maria C Donoso

**EARTH AND ENVIRONMENT**

**Award Action Type:** Increase

**AWARDING SPONSOR:** US Agency for International Development

**TITLE:** Tanzania Integrated Water, Sanitation and Hygiene (iWASH)

**AWARD:** \$ 299,960

**PI:** Nazira El-hage  
**COM IMMUNOLOGY**  
**Award Action Type:** Continuation  
**AWARDING SPONSOR:** National Institutes of Health  
**TITLE:** Role of Autophagy in Microglia-induced NeuroAIDS in Substance Abuse      **AWARD:** \$ 312,916

**PI:** James Fourqurean  
**BIOLOGY**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** Office of Naval Research  
**TITLE:** Deep Saturation Dive Training      **AWARD:** \$ 153,873

**PI:** James Fourqurean  
**BIOLOGY**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Park Service  
**TITLE:** Dry Tortugas National Park Seagrass Communities Assessment      **AWARD:** \$ 30,000

**PI:** James Fourqurean  
**BIOLOGY**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Ocean Reef Community Foundation  
**TITLE:** Family Science Nights      **AWARD:** \$ 2,000

**PI:** Arindam Gan Chowdhury  
**CIVIL AND ENVIRON ENGINEERING**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** NSF I-Corps: "Innovative Hurricane Damage Mitigation Systems"      **AWARD:** \$ 40,000

**PI:** Cheng-Tin Gan  
**CIVIL AND ENVIRON ENGINEERING**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Florida Department of Transportation  
**TITLE:** Development of 2016 Florida Transit Information System (FTIS)      **AWARD:** \$ 114,507

**PI:** Nicholas R Gelpi  
**ARCHITECTURE**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** FIU Foundation  
**TITLE:** Woodcrete: The Concrete for a Sustainable Future      **AWARD:** \$ 72,750

**PI:** Jeffrey A Groom  
**NURSING UNDERGRADUATE**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** Sheridan HealthCorp Inc.  
**TITLE:** Sheridan HealthCorp Faculty Support Agreement      **AWARD:** \$ 127,548

**PI:** Mohammed A Hadi  
**CIVIL AND ENVIRON ENGINEERING**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** URS Corporation  
**TITLE:** FITSEVAL Testing and Utilization Support      **AWARD:** \$ 3,539

**PI:** Katie Hart  
**CENTER FOR CHILDREN AND FAM**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Children's Trust  
**TITLE:** Read to Learn Summer Reading Explorer's Program **AWARD: \$** 135,526

**PI:** Leonel E Lagos  
**ARC APPLIED RESEARCH CENTER**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** Office of Environmental Management  
**TITLE:** FIU's Research Support to DOE OEM **AWARD: \$** 121,862

**PI:** Leonel E Lagos  
**ARC APPLIED RESEARCH CENTER**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** General Infomatics Inc.  
**TITLE:** Cyber Space Technology Research and STEM Development **AWARD: \$** 30,000

**PI:** Angela Marie Richmond Laird  
**PHYSICS**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** UT Health Science Center San Antonio  
**TITLE:** Meta-Analysis in Human Brain Mapping **AWARD: \$** 110,762

**PI:** Tao Li  
**COMPUTER INFO SCIENCES**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** BDD: Data-Driven Techniques to Address Critical Information Exchange Needs in Disaster **AWARD: \$** 299,998

**PI:** Tao Li  
**COMPUTER INFO SCIENCES**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** BDD: Data-Driven Techniques to Address Critical Information Exchange Needs in Disaster: REU supplement **AWARD: \$** 16,000

**PI:** Wenzhi Li  
**PHYSICS**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** Nanostructured Electrochemical Materials **AWARD: \$** 293,784

**PI:** Joongho Moon  
**CHEMISTRY**  
**Award Action Type:** Continuation  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** CAREER: Self-assembled Biodegradable Conjugated Polymers **AWARD: \$** 94,044

**PI:** Heidi Morgan

**CIARA**

**Award Action Type:** Increase

**AWARDING SPONSOR:** University of Chicago

**TITLE:** Open Science Data Cloud(OSDC)PIRE:Training and Workshops **AWARD: \$** 11,149

**PI:** Edward P Murray

**METROPOLITAN CENTER**

**Award Action Type:** Initial

**AWARDING SPONSOR:** City of West Miami

**TITLE:** City of West Miami Comprehensive Plan Update **AWARD: \$** 37,000

**PI:** Madhavan P Nair

**COM IMMUNOLOGY**

**Award Action Type:** Continuation

**AWARDING SPONSOR:** National Institutes of Health

**TITLE:** Multifunctional Nanocarrier to Eradicate HIV from latently infected **AWARD: \$** 357,062

**PI:** Winifred Elysse Newman

**ARCHITECTURE**

**Award Action Type:** Initial

**AWARDING SPONSOR:** Li'l Abner Foundation

**TITLE:** Sweetwater Community Center **AWARD: \$** 8,104

**PI:** Sudheesh Pilakka Kanthikeel

**INSTITUTE OF NEUROIMMUNE PHARM**

**Award Action Type:** Initial

**AWARDING SPONSOR:** National Institutes of Health

**TITLE:** Cocaine mediated downregulation of SAMHD1 facilitates HIV-1 **AWARD: \$** 145,000

**PI:** Bianca Caroline Premo

**HISTORY**

**Award Action Type:** Initial

**AWARDING SPONSOR:** University of Texas at Austin

**TITLE:** Enlightenment on Trial, University of Texas- Austin Residential Fellowship **AWARD: \$** 50,600

**PI:** Raju Rangaswami

**COMPUTER INFO SCIENCES**

**Award Action Type:** Increase

**AWARDING SPONSOR:** National Science Foundation

**TITLE:** CSR: Small: Non-blocking Writes **AWARD: \$** 16,000

**PI:** Jennifer Rehage

**SOUTHEAST ENV RESEARCH CTR**

**Award Action Type:** Initial

**AWARDING SPONSOR:** South Florida Water Management District

**TITLE:** Role of Florida Bay coastal embayments as fish habitat: nursery **AWARD: \$** 15,938

**PI:** Jennifer Rehage

**SOUTHEAST ENV RESEARCH CTR**

**Award Action Type:** Initial

**AWARDING SPONSOR:** Bonfish & Tarpon Unilimited

**TITLE:** Effects of contaminants on coastal fisheries: a literature review **AWARD: \$** 42,609



**PI:** Naphtali D Rishe  
**COMPUTER INFO SCIENCES**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** III. Large: Collaborative Research: Moving Objects Databases for Exploration      **AWARD: \$** 16,000

**PI:** Naphtali D Rishe  
**COMPUTER INFO SCIENCES**  
**Award Action Type:** Continuation  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** CREST-I/UCRC-Industry Ecosystem to Pipeline Research      **AWARD: \$** 12,000

**PI:** Misak Sargsian  
**PHYSICS**  
**Award Action Type:** Continuation  
**AWARDING SPONSOR:** U.S. Department of Energy  
**TITLE:** Theoretical Studies of High Energy Electron-Nuclear Processes      **AWARD: \$** 90,000

**PI:** Misak Sargsian  
**PHYSICS**  
**Award Action Type:** Continuation  
**AWARDING SPONSOR:** Jefferson Lab  
**TITLE:** Hadron Spectroscopy at Jefferson Lab      **AWARD: \$** 12,971

**PI:** Arif Islam Sarwat  
**ELEC AND COMPUTER ENG**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** Collaborative Research:RIPS Type 2: Vulnerability Assessment      **AWARD: \$** 12,000

**PI:** Arif Islam Sarwat  
**ELEC AND COMPUTER ENG**  
**Award Action Type:** Supplemental  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** CPS: Synergy: Collaborative Research: Towards Secure Networked      **AWARD: \$** 16,000

**PI:** Leonard Scinto  
**SOUTHEAST ENV RESEARCH CTR**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Park Service  
**TITLE:** Provide office services and operational technical support to the      **AWARD: \$** 403,627

**PI:** Laurie Jeanne Shrage  
**PHILOSOPHY**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Harvard University  
**TITLE:** Re-Segregation and Liberal Democracy      **AWARD: \$** 64,993

**PI:** Margaret Sibley  
**CENTER FOR CHILDREN AND FAM**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Institute of Education Sciences  
**TITLE:** Developing a Peer to Peer Behavioral Intervention for High School      **AWARD: \$** 413,030

**PI:** Xin Sun  
**COMPUTER INFO SCIENCES**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** CRII:NeTS:Characterizing, Quantifying and Modeling Network Complexity      **AWARD: \$**      74,417

**PI:** Sabri Tosunoglu  
**MECHANICAL AND MAT ENGINEERING**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Francisco A. Diaz Donikian  
**TITLE:** Design and Simulation of a Motorized Back Scrubber Device      **AWARD: \$**      5,523

**PI:** Arif Selcuk Uluagac  
**ELEC AND COMPUTER ENG**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** National Science Foundation  
**TITLE:** CAREER: Securing Side-Channels in Cyber-Physical Systems      **AWARD: \$**      107,418

**PI:** Janie Valdes  
**TRANSFER AND TRANSITION SVCS**  
**Award Action Type:** Supplemental  
**AWARDING SPONSOR:** Florida College System Foundation  
**TITLE:** Credit when it's due      **AWARD: \$**      10,000

**PI:** Miguel Villodas  
**CENTER FOR CHILDREN AND FAM**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** Florida State University  
**TITLE:** An Evidence-Based Parent-Child Relational Intervention for      **AWARD: \$**      60,000

**PI:** Anna H Wachnicka Kosiorek  
**SOUTHEAST ENV RESEARCH CTR**  
**Award Action Type:** Initial  
**AWARDING SPONSOR:** South Florida Water Management District  
**TITLE:** Investigating mechanism of algal blooms in Biscayne Bay (Pilot Study)      **AWARD: \$**      5,873

**PI:** Ophelia I Weeks  
**BIOLOGY**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Institutes of Health  
**TITLE:** FIU MARC U\*STAR Program Yr2 -Ad      **AWARD: \$**      54,432

**PI:** Ophelia I Weeks  
**BIOLOGY**  
**Award Action Type:** Increase  
**AWARDING SPONSOR:** National Institutes of Health  
**TITLE:** FIU MARC U\*STAR Program Yr2-Student      **AWARD: \$**      120,022



## *Limited Submission Funding Opportunities*

Below are limited submission opportunities with upcoming internal deadlines. Other limited submission funding opportunities are at <http://research.fiu.edu/funding/pages/limited-submissions.html>.

Agency	Program	Institutional Submission Limits	Internal Deadline	Agency Deadline
NIH	<a href="#">Institutional Research and Academic Career Development Awards (IRACDA) (K12) (PAR-13-290)</a>	One per institution	7/24/2015	9/24/2015
NIMHHD	<a href="#">Building Population Health Research Capacity in the U.S. Affiliated Pacific Islands (U24) (RFA-MD-15-011)</a>	One application per organization	9/09/2015	LOI due 11/09/2015 Agency Deadline:12/19/2015
NSF	<a href="#">Research Experiences for Teachers (RET) in Engineering and Computer Science (NSF 15-536)</a>	3 proposals per organization	08/28/2015	11/02/2015
NEH	<a href="#">Summer Stipends (20151001-FT)</a>	2 faculty nominations per institution	08/03/2015	10/01/2015

## *Funding Opportunities*

The funding opportunities are in a separate excel file, which includes a filter for agency, date and opportunity number.

## Contact ORED Senior Leadership

Name	Title	Email Address
Andrés G. Gil	Vice President for Research	Andres.gil@fiu.edu
Tonja Moore	Associate Vice President for Research Strategic Planning & Operations	Tonja.moore@fiu.edu
Luis P. Salas	Associate Vice President for Research	Luis.salas@fiu.edu
Mirtha Alberto	Director, <a href="#">Budget &amp; Cost Analysis</a>	Mirtha.alberto@fiu.edu
Henry Artigues	Director, <a href="#">Research Operations &amp; External Partnerships</a>	Henry.artigues@fiu.edu
David Driesbach	Assistant Vice President, <a href="#">Research Information Systems</a>	David.driesbach1@fiu.edu
Christopher Grayson	Director, <a href="#">Research Integrity</a>	Christopher.grayson@fiu.edu
C. Emily Gresham	Assistant Vice President, Innovation & Economic Development	Emily.gresham@fiu.edu
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Horatiu Vinerean	Director, <a href="#">Laboratory Animal Research</a> ; Attending Veterinarian	Horatiu.vinerean@fiu.edu
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Think differently,

go beyond the **world** you know.

Do something great

with the opportunity you are given.

**Be Worlds  
Ahead**

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