

Biomolecular Sciences Institute: a truly interdisciplinary institute

April 2015
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FIU's Biomolecular Sciences Institute (BSI) is one of the university's newest centers. Established in 2014, the BSI strives to advance nanotechnology and further the fields of cancer biology and neurodegenerative disorders through research on genomic stability and stress response; to create opportunities for academic mentorship of undergraduate, doctoral, and postdoctoral students; and to foster the growth of FIU's new doctoral degree program in biochemistry.

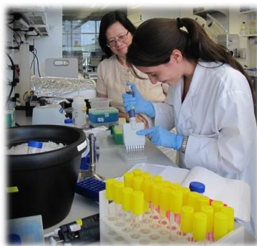


Dr. Yuk-Ching Tse-Dinh
Director

The Institute is led by Yuk-Ching Tse-Dinh, PhD, Professor of Chemistry and Biochemistry. Dr. Tse-Dinh, who earned a Ph.D. in biological chemistry from Harvard University, relocated to FIU from New York Medical College in 2012. Her highly-respected program of

research examines the structure and function of DNA topoisomerases as the basis for discovery of antibacterial and anticancer drug leads from synthetic molecules and natural products. In addition to her expertise in designing biomedical and biomolecular studies, Dr. Tse-Dinh has a background in theoretical chemistry.

Nearly 40 FIU faculty members are affiliated with the BSI. In keeping with the collaboration mandates for new centers and institutes, the BSI comprises FIU professors from nine departments (Biological Sciences, Chemistry and Biochemistry, Physics, Biomedical Engineering, Electrical and Computer Engineering, Mechanical and Materials Engineering, Cellular Biology and Pharmacology, Human and Molecular Genetics, and Environmental and Occupational Health) across four colleges (Arts and Sciences, Engineering and Computing Sciences, Herbert Wertheim College of Medicine, and Robert Stempel College of Public Health).



Under the strong leadership of Dr. Tse-Dinh, the BSI's launch was smooth, and its

early efforts have been remarkably productive. A number of new grant applications have been submitted by BSI faculty to the Bill and Melinda Gates Foundation, the National Science Foundation, and the National Institutes of Health. In recent months, three new collaborative research projects received external support. In December 2014, Dr. Fenfei Leng learned that his research proposal, aimed at identifying small molecule inhibitors that may have the potential to treat cancers such as lung, prostate and leukemia, was accepted into the 2014 Florida Translational Research Program at the Sanford-Burnham Research Institute. Last month, the Mary N. Porter Designated Fund of the Community Foundation of Broward County awarded funds to the BSI to support investigation of a novel treatment for advanced prostate cancer. In addition, Dr. Tse-Dinh and two BSI collaborators, Jeremy Chambers, PhD, and Yuan Liu, PhD, received funds from Mr. Alan Potamkin and Dr. Brigitt Rok-Potamkin for research directed towards identification of predictive biomarkers for the progression and treatment of glioblastoma, a malignant tumor of the brain or spine. To stimulate new research collaborations across departments at FIU, the Institute sponsored the BSI Sandbox Team Seed Funding Program, which provides small grants for highly meritorious pilot projects;



awards will be announced this spring.

Despite the challenges of establishing the BSI's infrastructure and securing external funds for its support, BSI faculty have also focused on educational activities during the first year of operations. As part of the BSI Lecture Series, nine distinguished speakers traveled to FIU in the past eight months to present on topics of broad scientific interest, such as DNA repair, mechanisms of genomic instability, and genomic aptamers and polymers, as well as more disease-specific applications, such as diabetes and melanoma. Similarly, BSI faculty traveled to share their research findings. The various BSI research groups were particularly well represented at the January 2015 meeting of the Florida Drug Acceleration Program Collaborator Conference, which was organized by the Torrey Pines Institute for Molecular Studies.

Upcoming Events

April 2015

- **April 1, 3:30 to 4:45 pm**, AHC4, Room 402, “Using Program Evaluation in Research Workshop” with [Leonard Bickman](#). To RSVP, [click here](#).
- **April 2, 12 to 1 pm**, AHC5 # 300, “Impact of Estrogenic Chemicals on the Growth of Microvascular Lesions and its Implications in Vascular Disease,” presented by [Quentin Felty](#).
- **April 2, 2 pm**, ECS 349, “Short Tutorial on Argument Mining from news and Social Web” presented by [Georgios Petasis](#), part of the School of Computing and Information Sciences Invited Lecture Series.
- **April 3, 2 pm**, ECS 341, “Web-Scale Workflow and Analytics” presented by [Brian Blake](#), part of the School of Computing and Information Sciences Invited Lecture Series.
- **April 7, 2 pm**, ECS 243, “Cognitive Systems—A New Era of Computing” presented by [Oded Cohen](#), part of the School of Computing and Information Sciences Invited Lecture Series.
- **April 9, 2015, 3:30 to 4:45 pm**, SIPA 103, “What Does a Mathematical Proof Really Prove?” presented by [Otávio Bueno](#).
- **April 10, 11 am to 12 pm**, EC 1105, “ECE Seminar Series” presented by [Spyros Tragoudas](#).
- **April 10, 2 to 3 pm**, ECS #241, “The Human Side of Computing” presented by [Vicki Hanson](#), part of the School of Computing and Information Sciences Distinguished Lecture Series.
- **April 11, 10 am to 4:30 pm**, GC West Ballroom, “[Conference in Statistical Methods & Mentoring](#).” Speakers from around the country will be presenting on the latest developments in statistical methods and mentoring.
- **April 15, 12 to 1:30 pm**, AHC1, Room 110, “[Summer Planning & Networking Workshop](#).” To RSVP, [click here](#).
- **April 16, 10 to 11 am**, WC #130, “The Biology of Aging: Targets, Biomarkers and Interventions,” presented by [Christiaan Leeuwenburgh](#)
- **April 16, 3 pm**, ARC’s EC #2186, “History of Hydraulic Research in the US Army Corps of Engineers” presented by [José E. Sánchez](#), Director of the Coastal and Hydraulics Laboratory, US Army Engineer Research and Development Center.
- **April 17, 10 am to 12 noon and 1 to 4 pm**, AHC4, Room 402, “[Book Publishing Workshop](#).” This workshop is designed to provide **junior faculty in the humanities** with information and advice on academic book publishing. A morning roundtable will feature perspectives from university press editors and published FIU faculty members. Reservations are available to meet one-on-one in 25-minute sessions with the editors in the afternoon of the same day. **To RSVP, and/or reserve a session with an editor, [click here](#).**
- **April 24, 2 pm**, PG5 #134, “The Process of Making Breakthroughs in Engineering” presented by [Thomas Kailath](#), part of the School of Computing and Information Sciences Distinguished Lecture Series.

Awards Received—February 2015

FIU researchers were awarded \$3,660,296 in February 2015. Below is a listing of awards received.

PI: Marisela Agudelo

COM IMMUNOLOGY

Award Action Type: Initial

AWARDING SPONSOR: National Institutes of Health

TITLE: EtOH-induced Immunomodulation: Role of Histone Deacetylases

AWARD: \$ 248,588

PI: Elizabeth P Anderson

SOUTHEAST ENV RESEARCH CTR

Award Action Type: Initial

AWARDING SPONSOR: John D. and Catherine T. MacArthur Found

TITLE: Catchment-scale management for ecosystem, health, economic

AWARD: \$ 275,000

PI: Joann Mann Arnowitz
JEWISH MUSEUM OF FLORIDA-FIU
Award Action Type: Initial
AWARDING SPONSOR: Miami-Dade County Cultural Affairs
TITLE: JMOF-FIU Major Cultural Institutions (MCI) FY 14-15 **AWARD:** \$ 71,386

PI: Melissa Lorrain Baralt
MODERN LANGUAGES
Award Action Type: Initial
AWARDING SPONSOR: Emory University
TITLE: Bilingualism and cognitive development in preterm Hispanic infants **AWARD:** \$ 13,767

PI: Kevin Mershon Boswell
BIOLOGY
Award Action Type: Increase
AWARDING SPONSOR: Industrial Economics Inc
TITLE: Analysis of acoustic data from Deep Water Horizon **AWARD:** \$ 100,000

PI: Jason R Chandler
ARCHITECTURE
Award Action Type: Increase
AWARDING SPONSOR: FIU Foundation
TITLE: Miami Urban Neighborhood Building Studio **AWARD:** \$ 29,100

PI: Mario R De La Rosa
CRUSADA
Award Action Type: Increase
AWARDING SPONSOR: Pacific Institute for Research & Evaluat
TITLE: Drinking and Driving Among Recent Latino Immigrants **AWARD:** \$ 84,652

PI: Mark Alan Finlayson
COMPUTER INFO SCIENCES
Award Action Type: Initial
AWARDING SPONSOR: National Science Foundation
TITLE: CI-P: Toward Unified Tool Support for Linguistic Corpus Annotation **AWARD:** \$ 31,286

PI: Zhaohui J Fu
LIBRARY OPERATIONS
Award Action Type: Initial
AWARDING SPONSOR: U.S. Geological Survey
TITLE: Digitization of Historical Aerials **AWARD:** \$ 14,000

PI: Evelyn E Gaiser
SOUTHEAST ENV RESEARCH CTR
Award Action Type: Increase
AWARDING SPONSOR: National Science Foundation
TITLE: LTER: FCE LTER III - Coastal Oligotrophic Ecosystems Research **AWARD:** \$ 449,516

PI: Lei Guo
PHYSICS
Award Action Type: Increase
AWARDING SPONSOR: Jefferson Lab
TITLE: Hadron Spectroscopy at Jefferson Lab **AWARD:** \$ 11,939

PI: Ismail Guvenc ELEC AND COMPUTER ENG Award Action Type: Supplemental AWARDING SPONSOR: DOCOMO Innovations Inc TITLE: Compressive Sensing for Improving Accuracy of Fingerprint	AWARD: \$ 20,000
PI: Mohammed A Hadi CIVIL AND ENVIRON ENGINEERING Award Action Type: Initial AWARDING SPONSOR: Florida Department of Transportation TITLE: Utilization of Connected Vehicle Data to Support Traffic	AWARD: \$ 300,000
PI: Katie Christine Hart CENTER FOR CHILDREN AND FAM Award Action Type: Increase AWARDING SPONSOR: Children's Trust TITLE: Read To Learn: Summer Reading Explorers Program	AWARD: \$ 75,000
PI: Michelle M Hospital PSYCHOLOGY Award Action Type: Continuation AWARDING SPONSOR: Ware Foundation TITLE: Enhancing Resilience among At-Risk Minority Youth through Music	AWARD: \$ 45,000
PI: Maria D Ilcheva METROPOLITAN CENTER Award Action Type: Increase AWARDING SPONSOR: Citizens Independent Transportation Trus TITLE: CITT - 2014 Transportation Symposium	AWARD: \$ 14,500
PI: Ranu Jung BIOMEDICAL ENGINEERING Award Action Type: Increase AWARDING SPONSOR: FIU Foundation TITLE: Graduate Fellowship in Biomedical Engineering Fund	AWARD: \$ 9,816
PI: Amelia Maguire COB DEANS OFFICE Award Action Type: Initial AWARDING SPONSOR: University of West Florida TITLE: FSBDC at FIU: SBDC 2015 (U.S. SBA)	AWARD: \$ 465,168
PI: Amelia Maguire COB DEANS OFFICE Award Action Type: Initial AWARDING SPONSOR: University of West Florida TITLE: FSBDC at FIU: PTAC 2014/2015 (U.S. DLA)	AWARD: \$ 25,990
PI: Amelia Maguire COB DEANS OFFICE Award Action Type: Initial AWARDING SPONSOR: University of West Florida TITLE: FSBDC at FIU: State Performance (UWF)	AWARD: \$ 243,720

PI: Amelia Maguire COB DEANS OFFICE Award Action Type: Initial AWARDING SPONSOR: University of West Florida TITLE: FSBDC at FIU: PTAC 2015/2016 (U.S. DLA)	AWARD: \$ 18,563
PI: Francisco Mora LATIN AMERICAN AND CARIB CTR Award Action Type: Supplemental AWARDING SPONSOR: Tinker Foundation Inc. TITLE: Tinker Field Research Grant	AWARD: \$ 15,000
PI: Norman D Munroe OSAS ENGINEERING AND COMPUTING Award Action Type: Initial AWARDING SPONSOR: University of Central Florida TITLE: Hybrid Motor High Powered Rocket Competition 2014-15	AWARD: \$ 1,000
PI: Norman D Munroe MECHANICAL AND MAT ENGINEERING Award Action Type: Initial AWARDING SPONSOR: Technology Student Association TITLE: 2015 UNITE Program	AWARD: \$ 31,734
PI: William E Pelham Jr CENTER FOR CHILDREN AND FAM Award Action Type: Continuation AWARDING SPONSOR: Institute of Education Sciences TITLE: A Summer Prep Program for Middle & High School Students with ADHD	AWARD: \$ 466,282
PI: Jordana Pomeroy FROST ART MUSEUM Award Action Type: Initial AWARDING SPONSOR: Miami-Dade County Cultural Affairs TITLE: Major Cultural Institutions 2014-2015	AWARD: \$ 131,590
PI: Andrea D Raymond COM IMMUNOLOGY Award Action Type: Initial AWARDING SPONSOR: FIU Foundation TITLE: Exosome incorporation of HIV-1 Nef antigen and drug metabolizing	AWARD: \$ 40,000
PI: Leonard Scinto SOUTHEAST ENV RESEARCH CTR Award Action Type: Increase AWARDING SPONSOR: National Park Service TITLE: Assessing Near-Field and Landscape Scale Ecological Effects	AWARD: \$ 40,611
PI: Margaret Harper Sibley CENTER FOR CHILDREN AND FAM Award Action Type: Initial AWARDING SPONSOR: FIU Foundation TITLE: Developing an Internet-Based Family Therapy Program for Adolescents	AWARD: \$ 39,943

PI: Casey Steadman
THE WOLFSONIAN
Award Action Type: Initial
AWARDING SPONSOR: Miami-Dade County Cultural Affairs
TITLE: Improving the Visitor Experience through Interactive Technology **AWARD:** \$ 9,588

PI: Casey Steadman
THE WOLFSONIAN
Award Action Type: Increase
AWARDING SPONSOR: FIU Foundation
TITLE: Family Programming: Discovering Design **AWARD:** \$ 5,840

PI: Andres Tremante
MECHANICAL AND MAT ENGINEERING
Award Action Type: Initial
AWARDING SPONSOR: American Society of Heating Refrigerati
TITLE: Solar Powered Absorption Cooling System **AWARD:** \$ 5,000

PI: Mary Jo Trepka
CRUSADA
Award Action Type: Initial
AWARDING SPONSOR: National Institutes of Health
TITLE: Neighborhood-Level Determinants of Delayed HIV Diagnosis **AWARD:** \$ 34,005

PI: Joel C Trexler
SOUTHEAST ENV RESEARCH CTR
Award Action Type: Increase
AWARDING SPONSOR: National Park Service
TITLE: Assessing Near-Field and Landscape Scale Ecological Effects of the **AWARD:** \$ 36,901

PI: Ines R Triay Melendez
ARC APPLIED RESEARCH CENTER
Award Action Type: Supplemental
AWARDING SPONSOR: Independent Strategic Management Solutio
TITLE: ISM Solutions Task Order **AWARD:** \$ 3,000

PI: Yukching Tse Dinh
BIOMOLECULAR SCIENCE INSTITUTE
Award Action Type: Initial
AWARDING SPONSOR: Community Foundation of Broward
TITLE: Investigation of a Novel Treatment for Advanced Prostate Cancer **AWARD:** \$ 12,931

PI: Yukching Tse Dinh
CHEMISTRY
Award Action Type: Initial
AWARDING SPONSOR: Community Foundation of Broward
TITLE: Subproject: Investigation of a Novel Treatment for Advanced Prostate Cancer **AWARD:** \$ 27,306

PI: Yukching Tse Dinh
COM CELL BIOLOGY AND PHARM
Award Action Type: Initial
AWARDING SPONSOR: Community Foundation of Broward
TITLE: Subproject: Investigation of a Novel Treatment for Advanced Prostate Cancer **AWARD:** \$ 9,763

PI: Arif Selcuk Uluagac

ELEC AND COMPUTER ENG

Award Action Type: Initial

AWARDING SPONSOR: Georgia Institute of Technology

TITLE: SI2-SSE: A Sustainable Wireless Sensor Software Development

AWARD: \$ 149,811

PI: Edgar Ramos Vieira

PHYSICAL THERAPY

Award Action Type: Initial

AWARDING SPONSOR: Health Foundation of South Florida

TITLE: State-wide Falls Prevention Initiative

AWARD: \$ 53,000

Limited Submission Funding Opportunities

Below are limited submission opportunities with upcoming internal deadlines:

Agency	Program	Institutional Submission Limits	Internal Deadline	Agency Deadline
NSF	<u>Collections in Support of Biological Research (CSBR)</u> (NSF 14-564)	Three per organization. In a single round of the CSBR competition, only one proposal may be submitted from any individual collection within an organization. One organization may not submit more than three proposals to any one CSBR competition.	5/13/2015	7/13/2015
NIH	<u>Developing and Improving Institutional Animal Resources (G20)</u> (PAR-13-219)	One per institution	6/3/2015	8/3/2015
NSF	<u>Improving Undergraduate STEM Education: Pathways into Geoscience</u> (NSF 15-526)	One per institution	6/14/2015	Prelim Proposal Deadline: 8/14/2015 Agency Deadline: 10/05/2015
NIH	<u>Institutional Research and Academic Career Development Awards (IRACDA) (K12)</u> (PAR-13-290)	One per institution	7/24/2015	9/24/2015

Please visit our website at: <http://research.fiu.edu/funding/pages/limited-submissions.html> to review our monthly limited submissions or for further instructions on how to prepare and/or submit your limited submission application.

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
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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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