Tuesday, March 17
Graham Center Ballrooms
10:00AM - 4:00PM

Wednesday, March 18
Graham Center Ballrooms
10:00AM - 4:00 PM

Florida International University
Modesto A. Maidique Campus
The FIU Undergraduate Research Conference is one of the largest undergraduate research conferences in the State of Florida. Almost 150 students are participating this year. The event features sixteen panels, three panel discussions, nearly 100 posters and seven student and professional workshops.

Special thanks to units and individuals who provided their support: George Simms, Assistant Vice Provost for Student Access and Success and McNair Program Director, Courtney Aiken, MBRS-RISE Program Coordinator, and Amy Reid, Program Coordinator for MARC U*STAR. The University Graduate School, Herbert Wertheim College of Medicine, the College of Law, the College of Public Health and Social Work, and the International Forensic Research Institute.

I would also like to thank Dean Lesley A. Northup for her unwavering support for undergraduate research, Professors Anthony McGoron and Thomas J. Liguori who co-direct the Advanced Research and Creativity in Honors (ARCH) program, Honors College Undergraduate Research Coordinator Allen L. Varela, Honors College Media and IT expert Juan C. Lopez, Director of Student Programs Umer Rahman, Volunteer Coordinator Danny Tapanes, and the staff and students of the Honors College who made this conference possible.

The 2016 FIU Undergraduate Research Conference will take place on March 30-31, 2016 in the Graham Center Ballrooms of the Modesto A. Maidique Campus.

Juan Carlos Espinosa
Associate Dean
### Tuesday Poster Session 1

**10:00 am - 11:00 am**  
**East and Center Ballrooms**

| 2.  | Arianna Aguiar (Guillermo Grenier) | “University City or Little Managua? ‘Studentification’ in Sweetwater, FL” |
| 3.  | Nicole Alonso & Roboan Guilien (Fenfei Leng & Jeremy Chambers) | “A Rapid and Sensitive High – Throughput Screening Method to Identify Compounds Targeting Protein---Nucleic Acids Interactions” |
| 4.  | Vesna Babaragic (Nadja Schreiber Compo) | “Effect of Alcohol Intoxication on Eyewitness Testimony” |
| 5.  | Stephen Ballesteros (Yiding Cao) | “Concentrated Solar Power to Produce Steam” |
| 6.  | Edmundo Barriga (Jorg Reinhold) | “GlueX Monte Carlo Studies” |
| 7.  | Charles Benitez (Juan Carlos Espinosa) | “Middle Circle: Programming the World” |
| 10. | Aida Cardenas (Leslie Richardson) | “Hierarchies of Eating Disorders: Fat-Phobia and Internalized Beauty Ideals in Online Communities” |
| 12. | Ekson Dacius (Heidi von Harscher) | “College Student Stress and Diaphragmatic Breathing” |
| 15. | Daniela Florit (Manuel Alejandro Barbieri) | “Genomic Studies of HLA Region Gene Expression during Pseudomonas Aeruginosa Infection” |
| 16. | Oscar Gil (Ranu Jung) | “Understanding and Improving Sensorimotor Control in People with Neurological Disabilities or Limb loss (Such as Spinal Cord Injury, Cerebral Palsy, Amputation) Neuroprostheses) Neural Engineering Devices for Interfacing with the Nervous System” |
| 17. | Anthony Giordano (Wei-Chang Lin) | “Novel In---Vitro Model of Epilepsy Using iPSC Techniques” |
| 18. | Victoria Gonzalez (Katie Hart, Rosmary Ros & Paulo Graziano) | “Parents’ Perception of Medication Treatments for Preschool Children with or at – risk for ADHD” |
| 20. | Daniel Irigoyen (Juan Carlos Espinosa) | “Skunkworks: From R&D to the Classroom” |
| 21. | Marianne Jimenez, Vanessa Vieites (Bethany C. Reeb-Sutherland) | “Mother-Infant Reciprocity and the Development of Joint Attention in 12 Month Old Infants” |
| 22. | Dianelis Lazo (Astrid Arraras) | “The Other Face of Cuban Medical Diplomacy: Domestic Impact” |
| 23. | Jiali Lei (Nikolaos Tsoukias) | “Gene Expressions on Freshly Isolated Cells: Endothelial Cells and Smooth Muscle Cells” |
| 24. | Thandi Lyew (Jeremy Pettit) | “The Influence of Anxiety on Verbal Memory in Multiracial and Monoracial Students” |
| 26. | David Ocampo (Markus Thiel) | “An Analysis on the Authority of the Papacy within the Church and Its Application to the Authority of the P-5” |
| 27. | Victoria Ramos (FLU Chemistry) | “Characterization of the Photophysical, Thermodynamic and Structural Properties of the Terbium (III) – KchiP3 Complex” |
| 28. | Betsy Rodriguez (Dan Merselis) | “Epigenomic Acclamation of Corals in Coastal Areas” |
Tuesday Poster Session 2
1:00 pm - 2:00 pm
East and Center Ballrooms


2. Madiha Ahmed (Stanislaw Wnuk) “Inhibition of S-ribosylhomocysteinase (LuxS) by SRH Analogue”

3. Reinier Alvarez, Kevin Cabrera (Matthew DeGennaro) “Mapping Ionotropic Receptor Expression in Aedes aegypti Olfactory Tissue”

4. Elsa Bravo, Rosalie Odean (Shannon M. Pruden) “Preschoolers' Comprehension of Spatial Terms”

5. Nataly Rodriguez (Alberto Cruz, Jose Alberte, Stephanie Sardinas, Aida Ramon & Thomas Pita) “Peer Leaders’ Perceptions of Learning Experiences”

6. Shahinaz Elmahmoudi (Juan Carlos Espinosa) “Middle Circle: Programming for Non-Programmers”

7. Catalina Garzon (Sanjoy Bhattarcharya) “Mass Spectrometric Lipidomic Analyses of Human Aqueous Humor”

8. Leidy Gonzalez (Mauricio Rodriguez-Lanetty) “Understanding the role of Dimethylsulfoniopropionate as a Potential Chemotactic Cue for Coral-Associated Bacteria”

9. Karla Gutierrez (Jacob Sudol) “Getting Lost”


11. Andrea M. Ohanian, Adam W. Hernandez, Hans Gonzembach, Oliver Ljustina, Elizabeth A. Lago, Claudia B. Gonzalez & Gabriel de la Iglesia (John Withey) “Drivers of Bird-Window Collisions in Florida International University’s Modesto A. Maidique Campus”


15. Grethel Miro (David Becker) “Optimizing the Synthesis of AZN”

16. Eddie Ocasio (Manuel Alejandro Barbieri) “Using THz Spectroscopy to Detect Lung Cancer”

17. Valeria Paz (Michael Heithaus) “Using Stable Isotopes to Investigate Trophic Interactions of Bottlenose Dolphins (Tursiops truncatus) in the Coastal Everglades”

18. Ricardo Perez-Dulzaides (Laura Serbus) “Proteomic Analysis of Wolbachia Symbiosis within the Drosophila Ovary”

19. Szandra Peter (Robert Burgman) “Present-day Pattern Variations in the Central and Eastern Pacific El Nino”

20. Meilyn Planas (Nezih Pala) “Terahertz Testing”


23. Josue Santana (Jorge Riera) “Modeling and Simulation of Light-Activated Ca2+ Signaling in Astrocytes”

24. Prashanth Shanmugham (Bala Totapally) “Does Obesity Affect Outcomes in Children Admitted From Trauma Centers?”

25. Jessie Sportsman (Lidia Kos) “Identification and Characterization of the Pre-Metastatic Niche in a Mouse Model of Metastatic Melanoma”


27. Rafael Torres & Yinchen Song (Wei-Chiang Lin & Jorge Riera Diaz) “A Neurovascular Decoupling During Ictal Activity in Rats with Focal Epilepsy”


29. Ifrah Waheed (Shannon M. Pruden) “Does Spatial Content Exposure Effect Cognitive Strategy Selection”
| 2. | Adrian Suarez Ávila (Juan Carlos Espinosa) “On the Threshold of Paradise and Present: Memory in Contemporary Cuban – American Literature” |
| 3. | Tatiana Barriga, Wellington Humes & Alina Nazareth (Shannon M. Pruden) “A Meta-analysis of Neuroimaging Studies of Mental Rotation” |
| 4. | Bibiana Sabates (Kirsten Bohn) “The Effects of Temperature on Foraging Behavior of the Endangered Florida Bonneted Bat” |
| 5. | Maria Carla Cañizares, Otero, Hellen Rivas, Lylybell Oramas, Courtney Christie, Gidnie Dort (Mary Lou Pfeiffer) “Forever-Grades” |
| 9. | Natalie Ceballos & Michael Suarez (Robert Lickliter) “Emotional Reactivity is Reduced Following Early Postnatal Exposure to a Novel Stimulus in Bobwhite Quail Chicks” |
| 10. | Andres Cubas (Tedi Draghici) “Tamed and Compatible Symplectic Forms on Four-Dimensional Almost Complex Lie Algebras” |
| 11. | Gabriela Goldberg (Douglas Kalman) “Do Various Snacks Affect Mood States? A Prospective, Randomized, Parallel Group Clinical Trial” |
| 13. | Victoria Gonzalez (Katie Hart, Rosmary Ros & Paulo Graziano) “Parents’ Perception of Medication Treatments for Preschool Children With or At – Risk for ADHD” |
| 14. | Walter Gonzalez & Andres Arango (Jaroslava Mikosvka) “Insight into the Calmodulin and DREAM Protein Complex Interaction, Mechanism and Function” |
| 15. | Christopher Harriial & Emily Schenk (Francisco A. Fernandez-Lima & Jaroslava Mikosvka) “Conformational Kinetics Study of MP-11 using TIMS-MS and Molecular Dynamics” |
| 16. | Jaime Herrera (Psychology) “Applicant Perceptions of Warmth and Competence Based on Organizational Career Web Pages” |
| 17. | Ian Iglesias (Umer Rahman) “What is the Face of Anti-Indic Discrimination in the Persian Gulf, and How does it Compare & Contrast with Anti-Black Discrimination in the United States?” |
| 18. | Luisa Isla (Joseph Patrouch) “Works Made of People of Color in European Art: Focus on Afro-Europeans in Religious Works” |
| 20. | Oliver Ljustina, (James Stroud) “Mapping the Competition Landscape in Evolutionary Novel Communities” |
| 21. | Barbara Mera, Jonathan Diaz, Jessica Samuell & Anna Quinones, (Kirsten Bohn) “Bat Species Identified at FIU MMC Campus Using Automated Echolocation Recording Systems” |
| 22. | Demi Moreda & Claudia Martinez (Tatiana Trejos & Jose Almirall) “Validation of an Analytical Method for the Identification of SmartWater CSI Forensic Marking Technology” |
| 23. | Karina Quintana, John Gibson, (Stavros Georgakopoulos) “User Effects on Wearable Conformal SCMR System” |
| 24. | Jesus M. Rodriguez (Broward College) “From Flowers to Needles - The Synthesis of Diacetylphormine” |
| 25. | Stephanie Soto (Maria Fuenmayor) “Comparing Production of Halimeda and Penicillus in Florida Bay and Yucatan, Mexico” |
| 26. | Ashley Tschiggfrie & Roboan Guillen (Fenfei Leng) “Expression and Purification of 15N, 13C-labeled HMGA2 for NMR Structural Studies” |
| 27. | Patrick Vega, Joseph Dray, Chris Sanchez, Michael Jantz & Nicholas Noda, (Pratik Shah) “Comet Assay Automation for DNA testing” |
| 28. | Alex Williams (FIU Engineering) “Paper-Based Cell Culture Platform for Rapid Antibiotic Assay” |
Tuesday Workshops

Session 1
11:00 am – 12:00 pm

West Ballroom
Issues in STEM
George Simms (FIU McNair)

GC 243
Undergraduate Research Engagement
Serena Magrogan (College Board)

=====

Session 2
2:00 pm – 3:00 pm

West Ballroom
Research in Chemistry
Darcy Gentleman

GC 243
Undergraduate Research at Scripps Institute
Katrin Karbstein (Scripps Institute)
This is grad school reimagined.

iPad-powered, accelerated programs that put you on the fast track to success

Close to a quarter of our students hail from outside the U.S., so global networking starts the first day of class. All graduate programs utilize our award-winning iPad program. Most master’s programs can be completed in one year, so you save money and fast-forward your career. And every interaction, from admission to career services, is focused on fostering your success.

Competitive pricing. Flexible schedules. Maximum opportunity.

That’s what you’ll find at Lynn. Classes held online or on campus. Learn more at lynn.edu.
Wednesday, March 18
Session A
10:00 am – 11:00 am

East Ballroom
Biological and Biomedical Sciences 1

- Daniela Florit (Manuel Alejandro Barbieri) “Genomic studies of HLA Region Gene Expression During Pseudomonas Aeruginosa Infection”
- Madiha Ahmed (Stanislaw Wnuk) “Inhibition of S-ribosylhomocysteinase (LuxS) by SRH Analogue”
- Catalina Garzon (Sanjoy Bhattacharya) “Mass Spectrometric Lipidomic Analyses of Human Aqueous Humor”
- Eddie Ocasio (Manuel Alejandro Barbieri) “Using THz Spectroscopy to Detect Lung Cancer”

Center Ballroom
Political Science and International Relations

- Ian Iglesias (Umer Rahman) “What is the Face of Anti-Indic Discrimination in the Persian Gulf, and How Does it Compare and Contrast with Anti-Black Discrimination in the United States?”
- Sarah Terrazas (Tudor Parfitt) “The People of Gaza”

West Ballroom
Psychology 1

- Thandi Lyew (Jeremy Pettit) “The Influence of Anxiety on Verbal Memory in Multiracial and Monoracial Students”
- Andres Roque (Jeremy Pettit) “The Effects of Attention Bias Modification Training on Cognitive Biases Perceived Threats in Children with Anxiety”
- Cesar Villa-Garcia (Debra Davis) “User Interface Design for Learning Software: Promoting Facilitation of Learning for Children”
- Elsa Bravo & Rosalie Odean (Shannon M. Pruden) “Preschooler’s Comprehension of Spatial Terms”
Session B
11:00 am – 12:00 pm

East Ballroom
Environmental and Physical Sciences

• Betsy Rodriguez (Mauricio Rodriguez-Lanetty & Dan Merselis) “Epigenomic Acclamation of Corals in Coastal Areas”

• Leidy Gonzalez (Mauricio Rodriguez-Lanetty) “Understanding the Role of Dimethylsulfiniopropionate as a Potential Chemotactic Cue for Coral-Associated Bacteria”

• Valeria Paz (Michael Heithaus) “Using Stable Isotopes to Investigate Trophic Interactions of Bottlenose Dolphins (Tursiops truncatus) in the Coastal Everglades”

Center Ballroom
Psychology 2

• Ifrah Waheed (Shannon Pruden) “Does Spatial Content Exposure affect Cognitive Strategy Selection?”

• Ekson Dacius (Psychology) “College Student Stress and Diaphragmatic Breathing”

• Vesna Babarogic (Nadja Schreiber Compo) “Effect of Alcohol Intoxication on Eyewitness Testimony”

• Vanessa Yanek (Maricel Cigales) “Mand – to Tact Training Transfer Acquisition Rates in Children Diagnosed with Autism Spectrum Disorder with Limited Verbal Skills”

West Ballroom
Political Science

• Dianelis Lazo (Astrid Arraras & Jorge Duany) “The Other Face of Cuban Medical Diplomacy: Domestic Impact”

• David Ocampo (Markus Thiel) “An Analysis on the Authority of the Papacy within the Church and Its Application to the Authority of the P-5”

• Arianna Aguilar (Guillermo Grenier) “University City or Little Managua? ‘Studentification’ in Sweetwater, FL”

• Gordon Kingston (April Merleaux) “Prisons, Profits, and Hard Labor: A Brief History of Convict Labor In Florida”

GC 243
ENRICH Sweetwater Panel Discussion
Chair: Umer Rahman

This panel focuses on a seminar launched in Fall 2011 by the Honors College. Engaged Research in the Community through Honors (ENRICH) uses a service-research to address some of the social, cultural, economic, political, environmental, educational, and health issues faced by the City of Sweetwater and its residents. Students select a topic related to their majors and/or interests. After conducting primary and secondary research on the topic, students work with university faculty members or administrators, city officials, non-profit leaders, and/or corporate agents to develop creative solutions to problems and implement them.

===

Session C
1:00 pm – 2:00 pm
East Ballroom
Arts and Humanities

- Luisa Isla (Joseph Patrouch) “Works Made of People of Color in European Art: Focus on Afro-Europeans in Religious Works”

- Maylin Hernandez (Meri-Jane Rochelson) "Androgyny versus Patriarchy: A Histori-cist-Psychoanalytic Reading of Hemingway's The Garden of Eden and Wilkie Collins’s The Woman in White"

- Crystal Abreu (Janet McDaniel) “Sacrilegious Marriage: The Borgia Family”

- Adrian Suarez Avila (Juan Carlos Espinosa)“On the Threshold of Paradise and Present: Memory in Contemporary Cuban-American Literature”

Center Ballroom
Biological Sciences

- Oscar Gil (Ranu Jung) “Understanding and Improving Sensorimotor Control in People with Neurological Disabilities or Limb-loss – Neuroprotheses, Neural Engineering Devices for Interfacing with the Nervous System”


- Brenda Rivera (Jaeson Clayborn) “Mortal Kombat Between Ants and Heraclides Species in the Florida Keys”

- Josue Santana (Jorge Riera Diaz) “Modeling and Simulation of Light – Activated Ca²⁺ Signaling In Astrocytes”
• Kevin Morales (Hansi Kumari, Supurna Dhar, & Kalai Mathee) “Screening for AmpR – Specific Inhibitors to Combat P. aeruginosa Infections

• Nicole Alonso & Roboan Guillen (Fenfei Leng & Jeremy Chambers) “A Rapid and Sensitive High—Throughput Screening Method to Identify Compounds Targeting Protein-Nucleic Acids Interactions”

• Joseph Hernandez (Martin Quirkle) Modified U—Tubes: A Valuable Tool to Help Students Visualize Chemical Reactions and Concepts
The Biscayne Bay Campus Honors classes have been involved for the past several years in an interactive learning laboratory, mapping "Campus as Text" (CAT) for the FIU campus. This mapping experience has evolved into the development of a board game to teach local students (K – 12) about the place they called home, originally designed to teach the treasures of three South Florida counties, Broward, Miami – Dade, and Monroe. The game has evolved into a design on “The Everglades” for each of the “topic” areas that affect this “treasure of South Florida.” The main theme for this educational experience, an instructional game, allowed the Honors students — through mapping — to gain insightful information about their home. This year the students elected to develop the game specifically for “the river of grass” called “The Everglades” due to its importance and preservation of fresh water, flora and fauna and its designation as a World Heritage Site and International Biosphere Reserve. The place is Everglades National Park; the people: the American Indian tribes of South Florida and the locals and the Federal and State of Florida governments interact in historical and current conflicts affecting this river of grass, South Florida’s fresh water system.

===

Session D
2:00 pm – 3:00 pm

East Ballroom
Biological and Biomedical Sciences 2

- Anthony Giordano (Wei-Chiang Lin) “Novel In-Vitro Model of Epilepsy Using iPSC Techniques”
- Jiali Lei (Nikolaos Tsoukias) “Gene Expressions on Freshly Isolated Cells: Endothelial Cells and Smooth Muscle Cells”
- Grethel Miro (David Becker) “Optimizing the Synthesis of AZN”
- Ricardo Perez-Dulzaides (Laura Serbus) “Proteomic Analysis of Wolbachia Symbiosis Within the Drosophila Ovary”

Center Ballroom
Physics and Meteorology

- Edmundo Barriga (Joerg Reinhold) “GlueX Monte Carlo Studies”
- Brian Matilla (Haiyan Jiang) “The Relationship Between Lightning and Precipitation in Tropical Cyclones”
- Szandra Peter (Robert Burgman) “Present – day Pattern Variations in the Central and Eastern Pacific El Nino”
West Ballroom  
FIU and Community Issues

- Hernan Martinez (Ryan Vogel) “The Role of the FIU Nature Preserve in Promoting Physical Activity”
- Yanelle Cruz Bonilla (Broward College) “Social Integration and the International Student Experience”
- Sheyla Marimon (FIU Women & Gender Studies) “Gendercide”
- Dante DiGiacomo (Krisch Jayachandran) “Can Permaculture Design Save the World?”
- Eduardo Ruben Ibarra (Jaeson Clayborn) “Changing Future Landscapes with Urban Farming: Aquaponics Case Study in Miami”

GC 243  
Center for Labor Research and Studies

- Raheem Williams, Jonathan Guerra, Monica Ayala; & Abraham Zuniga “Power Structure Analysis in Miami-Dade County”
- Asim Lynch, Islam Khalil, Sui Cheng & Armando Luzlula “Wage Theft in Florida: Have you had your wages stolen?”
- Victor On-Sang “Black Lives Matter in South Florida”
- Kevin Policem, Jessica Greaux; Michelle Velllex; & Carlos Serrano “Documenting the Working Conditions of Plant Nursery Workers in South Florida”
- Carlos Serrano “The Working Poor: Taxi Drivers in Miami – Dade County”
- Raquel Baker “Immigrant Domestic Workers in South Florida”

===

Session E  
3:00 pm – 4:00 pm  
East Ballroom  
Engineering and Computer Science

- Stephen Ballesteros (Yiding Cao) “Concentrated Solar Power to Produce Steam”
- Meilyn Planas (Nezih Pala) “Terahertz Testing”
- Erick Camacho (Ibrahim Tansel) “Monitoring Manufacturing Operations on Composite Materials Using Vibrometers”
Center Ballroom
Honors College Students Creating New Courses

- Daniel Irigoyen “Skunkworks: From R&D to the Classroom”
- Charles Benitez “Programming the World”
- Shahinaz Elmahmoudi “Programming for Non-Programmers”
- Jose dos Santos “The Middle Circle 3.0”

West Ballroom
Dietetics and Nutrition

- Katerine Diaz (Adriana Campa) “Zinc Status, Alcohol Use and Liver Fibrosis in HIV Mono-Infection and HIV/HCV Co-Infection”
- Gabriela Goldberg (Douglas Kalman) “Do Various Snacks Affect Mood States? A Prospective, Randomized, Parallel Group Clinical Trial”
- Prashanth Shanmugham (Bala Totapally) “Does Obesity Affect Outcomes In Children Admitted From Trauma Centers?”
- Aida Cardenas (Leslie Richardson) “Hierarchies of Eating Disorders: Fat Phobia and Internalized Beauty Ideals in Online Communities”
CONSIDERING A MASTERS?

Accelerate your career in just one year. Merit-based scholarships available including: Global Professionals, Finance Professionals, Women in Business, Entrepreneurial Impact, and more.

Contact: Pilar Valencia, Director of Enrollment | 617.619.1643 | Pilar.Valencia@hult.edu

HIGHLY-RANKED ONE-YEAR DEGREES

One-Year Master Degree Programs
- Master of International Business
- Master of Finance
- Master of International Marketing
- Master of Social Entrepreneurship

Rankings
- #6 Full-time MBA in the USA by Businessweek
- #10 Employer Satisfaction
- #32 Best Business School in the Americas

BOSTON | SAN FRANCISCO | LONDON | DUBAI | SHANGHAI | NEW YORK

HULT
desk optional

The University of Miami Rosenstiel School offers 16 innovative professional master’s degrees in marine, atmospheric & climate sciences in as little as 12 months!

- Marine Mammal Science
- Marine Conservation
- Broadcast Meteorology
- Natural Hazards
- Coastal Zone Management & more

Applications due June 1

mps.rsmas.miami.edu/apply

UNIVERSITY OF MIAMI
ROSENSTIEL SCHOOL OF
MARINE & ATMOSPHERIC SCIENCE
MASTER of PROFESSIONAL SCIENCE