2016
Conference for Undergraduate Research at FIU

Wednesday, March 30
Graham Center Ballrooms
9:00 AM – 4:00 PM

Thursday, March 31
Graham Center Ballrooms
9:00 AM – 4:00 PM

Florida International University
Modesto A. Maidique Campus
Schedule of Events

Please note that this schedule is subject to change

Wednesday, March 30, 2016

Graham Center Ballroom

8:00 AM – 9:00 AM  
Registration

9:00 AM – 4:00 PM  
Recruitment Fair

9:00 AM – 10:00 AM  
Poster Session #1

11:00 AM – 12:00 PM  
Poster Session #2

2:00 PM – 3:00 PM  
Poster Session #3

GC 140

10:00 AM – 11:00 AM  
Undergraduate Research Engagement
Serena Magrovan & Pamela Kerouac (The College Board)

1:00 PM – 2:00 PM  
FIU Department of Chemistry
Yi Xiao, Ph.D.

3:00 PM – 4:00 PM  
Miscommunicating Mitochondria: Consequences for Aging and Disease
Jeremy Chambers, Ph.D.

GC 150

10:00 AM – 11:00 AM  
ENRICH Sweetwater
Cecile Houry, Ph.D.
Schedule of Events

Thursday, March 31, 2016

Graham East Ballroom

9:00 AM – 10:00 AM Jeremy Chambers Lab
Jeremy Chambers, Ph.D.

10:00 AM – 11:00 AM Yi Xiao Lab
Yi Xiao, Ph.D.

11:00 AM – 12:00 PM Quantitative Electrophysiology in Neuroscience
Jorge Riera Diaz, Ph.D.

12:00 PM – 1:00 PM Lunch

1:00 PM – 2:00 PM Computational Molecular Biology
Jessica Siltberg-Liberles, Ph.D.

2:00 PM – 3:00 PM Mathematics
Laura De Carli, Ph.D.

3:00 PM – 4:00 PM FIU-MDC
Francisco Coro, Ph.D.

Graham Center Ballroom

9:00 AM – 10:00 AM Investigation on Inhibitors of Enzyme Activities in Genomic Processes for Novel Therapeutic Interventions
Yukching Tse Dinh, Ph.D.

10:00 AM – 11:00 AM ABC-UTC Work in Bridge Engineering
Atorod Azizinamini, Ph.D.
11:00 AM – 12:00 PM  
Computer Science  
*Francisco Ortega, Ph.D.*

12:00 PM – 1:00 PM  
**Lunch**

1:00 PM – 2:00 PM  
Fernandez-Lima Research Group  
*Francisco Alberto Fernandez Lima, Ph.D.*

2:00 PM – 3:00 PM  
Computer Science  
*S.S. Iyengar, Ph.D.*

3:00 PM – 4:00 PM  
The Academic Success Initiative  
*Myrian Herlle*

**Graham West Ballroom**

9:00 AM – 10:00 AM  
Museums and Research  
*Regina Bailey, M.F.A.*

10:00 AM – 11:00 AM  
MAST at Homestead  
*SRI Students*

11:00 AM – 12:00 PM  
Stephen Winkle Lab  
*Stephen Winkle, Ph.D.*

12:00 PM – 1:00 PM  
**Lunch**

1:00 PM – 2:00 PM  
Redox-Active Metal Oxides  
*Raphael G. Raptis, Ph.D.*

3:00 PM – 4:00 PM  
Mummification  
*Gretchen Scharnagl, M.F.A.*
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<td>10:00 AM – 11:00 AM</td>
<td>International Studies &amp; Business</td>
<td>Neuroscience &amp; Physics</td>
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<td>Student Panel</td>
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Wednesday Poster Session 1
9:00 - 10:00 A.M.
GC Ballrooms

1. Yara Abdelaziz (Vanessa Mendez, John Landrum, Anisa Khan) "Quantification of Fat in Human Milk: A Comparison of Two Methods"
2. Crystal Areu (Janet McDaniel) "The Notoriety of the Borgia Name"
3. Eric Ahreut (Debra Lee Davis) "Application of Gamification in Education"
5. Estefani Arroyo (Christine Lisetti) "Design of Medical Avatar"
6. Alexis Areanal (Phil Stoddard) "Hormonal Regulation of Energetic Trade-Off for Communication in Male Weakly Electric Fish"
7. Cesar Barrabi (Starlie Belnap) "Prenatal Light Exposure differences and hatch success in Bobwhite Quail"
8. Edmundo Barriga (Joerg Reinhold) "GlueX: Start Counter Data Analysis"
9. Christian Beltran (James Sutton) "The Merits of Being a Fool: Politically-Charged Characters Influencing Shakespeare’s Audience"
10. Sophia Boucher (Jacob McPherson) "Wireless Transstibial Prosthetic Alignment Tool"
11. Philip Bourgi (Philip Bourgi) "Unified Studies Movement"
12. Carolina Brea (Jose Almirall) "The Investigation of the Analysis of Flakka"
13. Zoila Brummer (Jamie Theobald) "How Size Affects the Flight Patterns of Drosophila"
14. Hatim Bukhari (Hatim Bukhari) "Graphical Analysis of the Iraq War Logs Released by WikiLeaks"
15. Gianna Casteleiro (Marisela Agudelo) "The Epigenetic Effects of Alcohol, AM630, and JWH-015 on Mmonocyte-Derived Dendritic Cell Function"
16. Brian Castillo (Luai Mustafa, Michael Christie) "Generalized Maxwell Electrical Model for Viscoelastic Response in Bone"
18. Geeticka Chauhan (Christine Lisetti) "Building an Ontology for Health Dialogs with Virtual Health Agents"
19. Ileana Corsi (Evelyn Gaiser) "Analysis of the Seasonal Trends in Density and Diversity of Freshwater Microalgae from Lake Annie, Venus FL, and the Effects of Environmental Drivers in Algal Ecology"
20. Vicente Cortesi (Frederick Perry) "International Law of Terrorism"
21. Gabriel Coto (Ruben Garrote) "The Arche: A Tale of Creation, Destruction, and Discovery"
22. Christina Currails (Christina Currais) "Bioremediation with White-Rot Fungi"
23. Barbara Dominguez (Rachel Cowan) "External Demands of Manual Wheelchair Propulsion"
24. Carmen Echavarria (Juan Acuna) "Effects of Miami’s Societal Taboos in Women: STDs, Unintended Pregnancies, Overall Health"
25. Jessica Fernandez (Geoff Povin) "Physics Education Research: Interactions with High-Achieving Students, as Measured by Incoming GPA, and Student Course Grade. Verbal Recognition of Performance by Peers or Instructors and Student Course Grade"
26. Katia Florit (Rob T. Guerette) "How The Criminal Justice System Uses Operant Conditioning"
27. Charlotte Garfinkel (Cheryl Holder) "Does the Education & Pipeline Program Improve Education Exposure and Self-Efficacy Among Participants?"
28. Bianca Gutierrez (Nathalie Desrayaud) "Effects of Gender on Conflict Management Style in High and Low Stakes Situations"
29. David Harper (David Harper) "On the Symmetries of Second Order PDEs"
30. Maria Emilia Gonzalez Haesler (Cecile Houry) "ENRICH Sweetwater"
31. Susana Herrera (Logesh Mathivathanan, Raphael G. Raptis) "Biologically-Inspired Dinuclear Copper Oxygenation Catalysts: Synthesis, Characterization, and Reactivity Studies"
32. Laura Gonzalez Insua (Devon Graham, Peter Machonis) "Everyglades: Economic and Cultural Endevours"
33. Todd Jolly (Frank Luca) "The History of the Indoctrination of Boys to War Play"
34. Alejandra Laverde (Gloria Figueroa, Tiyash Parira, Gianna Casteleiro, Marisela Agudelo) "Modulation of Apoptotic Factors by Monocyte Derived Dendritic Cells Treated With Synthetic Cannabinoids and Alcohol"
35. Juan Loayza (Wilmer Arellano, Erick Canizares, Gabriel Rodriguez) "StarLine CubeSat Avionics"
36. Alexis Lopez (Ana Luszczynska) "Addressing Institutionalized Classism in the Educational System Through Young Adult Fiction"
37. Jessica Lopez (Jaroslava Mikoskova) "Conformational Dynamics in Vertebrate Hexa-Coordinate HemoglobinS"
38. Marilaura Maldonado (Cecile Houry) "ENRICH Sweetwater"
39. Gabriel E. Maravi (Devon Graham, Peter Machonis) "Re-Engineering the Everglades"
40. Denise Medina (Glenda Castellanos) "Structural Changes in Bone Marrow Stem Cells to Oscillatory Flow: Relevance to Valve Development"
41. Iiti Mehta (Iiti Mehta) "Infrared Temperature Sensor for Temperature Profile of Double Shell Tanks"
42. Christones Michel (Osama Mohammad) "Wireless Charging Vehicle"
43. Alberto Mizrahi (Laura De Carl) "Exponential Riesz Bases on Triangular Domains"
44. David Salgado Montanez (Devon Graham, Peter Machonis) "Educational Everyglades"
45. Joanna Mohanna (Cecile Houri) "ENRICH Sweetwater"
46. Dennisse Montero (Kendra J. Adams, Diana Aga, Francisco Fernandez-Lima) "Characterization of Poly-Brominated Diphenyl Ethers Using NanoESI-TIMS-MS and Molecular Modeling"
47. Connor Nelson (Devon Graham, Peter Machonis) "River of Thoughts"
48. Dany Noguera (Diego Torres, Iris Boce, Anthony Steven Dick) "Inferior Longitudinal Fasciculus and Early Literacy Skill in Young Children"
49. Jana Nudelman (Thomas Breslin) "The Effect of China’s Development on Russia and Japan’s Economy, Military, and Environmental Initiatives Since 1979"
50. Mailin Oliva (Laura Serbus) "Effect of Dietary Vitamins on Wolbachia Titer in Drosophila Melanogaster Oogenesis"

51. Randy Pierrot (JuanCarlos Espinosa) "Beating Life (Percussion Performance Piece)"

52. Carlos Pulido (Carlos Pulido) "Use of Ground Spectral Data and Multispectral Imagery Derived from an UAV to Differentiate Between Stressed Avocado Trees Infected by Raffaela lauricola and Non-Stressed Trees"

53. Rodrigo Ramon (Roozbeh Atri, Ou Bai) "Working to Empower Those in Need of Neurological Rehabilitation"

54. Darlene Ramos (Jorge Riera Diaz) "Laminar Differences in the Effects of Cortical Spreading Depression"

55. Francisco G. Ramos (Cecile Houry) "ENRICH Sweetwater"

56. Lorena Ramos (Catherine Coccia) "Program to Decrease Obesity Risks Among Elementary School Students"

57. Linda Reddy (Rhona Trauvitch) "Project 42: Mathematical Analyses of Fictional Realities"

58. Joanna Rivero (Geoff Potvin) "Discipline-Based Education Research"

59. Cristian Rodriguez (Jose Miguel Cruz) "Russia: The Failing Superpower"

60. Caressa Rolle (Samantha Paustian-Underdahl, Asia Eaton) "Pregnancy Disclosure Study: A Comparison of African American Gender Experiences"

61. Ana Rojas (Belen J. Fadrique, Catherine H. Bravo Avila, Kenneth Feeley) "Using Functional Traits to Understand Climate Change Thresholds on Tropical Species"

62. Crys Russo (Devon Graham, Peter Machonis) "Beauty and the Bladder"

63. Hector Sanabria (Aparajita Singh) "Simulating a 20 GHz BowTie MIM Rectenna"

64. Michael Segura (Devon Graham, Peter Machonis) "Toxic Mercury Levels in our Backyard?"

65. Carlos Serrano (Abdolrahim Javadzadeh) "Adjunct Professors in FIU: Victims of a Neoliberal Education"

66. Najm Shaikh (Catherina Chang-Martinez) "Pediatric Obesity in Child Care Centers in Miami-Dade County"

67. Sarah Solomon (Cecile Houry) "ENRICH Sweetwater"

68. Diep Tran (Devon Graham, Peter Machonis) "Tale of the Everglades' Tails"

69. Steven Ungar (Jeremy May, and Steven F. Oberbauer) "Relationship between Moisture Content and Normalized Difference Vegetation Index in Four Arctic Moss Communities"

70. Juan Vazquez (Deodutta Roy) "NRF1 Regulated Communities of Genes Across Personal Genomi and Epigenomic Multiple Networks Driving the Development of Breast Cancer"

71. Pablo Velasquez (Robert Lickliter) "Robotic Hens: Exploring the Prenatal Determinants of Social Preferences in Bobwhite Quail Chicks"

72. Stephanie Victoria (John Tsallikis) "Utilizing a Values-Based Approach Within the Green Marketing Discipline: Tapping into Biophilia Using Advertising Appeals"

73. Demetrius Villa (JuanCarlos Espinosa) "High Speed Rail in America – Economical/Political Impacts and Lessons from Japan"

74. Jevron Wright (Iris Broce, Luis Cabrera, Diego Torres, Dany Noguera, Anthony Dick) "Fiber Pathways Supporting Early Literacy in Young Children"

75. Haixiang Yu (Zongwen Wang, Yi Xiao) "A Cooperative-Binding Split Aptamer Assay for Rapid, Specific and Ultra-Sensitive Fluorescence Detection of Cocaine in Saliva"
Wednesday Poster Session 2
11:00 – 12:00 P.M.
East and Center Ballrooms

1. Venus Betancourt (Sandy L. Gonzalez, Eliza L. Nelson) “Creation of a Spanish Language Measure Inclusive of a Diverse Hispanic Population through Renorming of the IDHC:PG”

2. Meagan Collins (Nadja Schreiber Compo) “Interviewing Intoxicated Witnesses”

3. Rebecca Cortizo (Valentina Bruk-Lee) “Always on the Clock: Examining the Relationship Between Engagement and Technology Assisted Supplemental Work”

4. Joel Greenup (Bennett Schwartz) “Alice in Wonderland Syndrome”

5. Giselle Haitz (Giselle Haitz) “The Relationship Between Physical Activity, ADHD Symptoms, and Executive Functioning”

6. Marianne Jimenez (C. Reeb-Sutherland) “Mother-Infant Reciprocity and the Development of Joint Attention in 12-Month-Old Infants”

7. Anna K. Leonard (Michelle L. Ramos, Michele Bechor, Jeremy W. Pettit, Bethany C. Reeb-Sutherland) “Examination of the N2 Component in Youth with and without an Anxiety Disorder”

8. Sergio Marquez (Rosalie Odean, Elsa Bravo, Shannon Pruden, Angela Laird, Jessica Bartley, Eric Brewe, Alina Nazareth) “Mental Rotation in Undergraduate Physics Students”


10. Sandra Mira (Gisela Jorge, Julia Martinez, Jennifer Mora, Gabriela Sanchez) “Individual Differences in Intersensory Perception are Associated with Pre-Literacy Skills”

11. Luis Montoya (JuanCarlos Espinosa) “Learning How to Learn”


13. Paola Mora (Andrea Dominguez, Vanessa Vieites, Bethany Reeb-Sutherland) “Non-Clinical Levels of Depression may Enhance Learning and Memory Outcomes as a Function of Acute Anxiety”

14. Stephanie Morris (Joseph Raiker) “Does Feedback During Learning Effect Performance on a Learning task in Young Adults and is this Related to Symptoms of Attention Deficit Hypertension Disorder (ADHD)”


20. Linette Rodriguez (Erica Musser) “Child Emotion Regulation in Response to Emotion- and Fact-Based Questioning Following a Stressor”


23. Jenelly Sotomayor (Julia Martinez) “Trajectories Longitudinal Study”

24. Isamar Vilanova (Isamar Vilanova) “Association Between Anxiety and Substance Use in College Students”

Wednesday Poster Session 3
2:00 – 3:00 P.M.
GC Ballrooms

1. Sam Abbassi (Sam Abbassi) "A Clinical Investigation of a Ruptured Cerebral Aneurysm"

2. Franklin Abdo (Franklin Abdo) "Developing Line-of-Sight-Visibility-Based Motion Planning Algorithms Using Computer Simulations"

3. Sebastian Aguilar (Lei Guo) "The Angular Dependence of the Beam Helicity Asymmetry for the Collision of a Photon With a Proton Producing Two Protons and an Anti-Proton"

4. Ayman Ahmed (Jeremy Chambers) "Sub-Mediated Signaling Sensitizes Uterine Cancer Cells to Chemotherapy"

5. Amro Alashi (Coraly Diaz) "Nicks & Children’s Hospital Research Institute Research Assistantship"

6. Emilio Baglietto (Geoff Potvin) "Predicting Students’ Interests in Energy-Related Careers: The Importance of High School Exposure"

7. Jonathan Bernal (Francisco Ortega) "Desktop Infrared Vision Hardware and Software Gesture Recognition"

8. Maria Betancourt (Enzo Cole, Mateo Diaz) "Optimization and Design of a Solar Thermal Collector System for an Eco-vehicle"

9. Nicole Bugay (Osama Mohammad) "Development of Battery Control and Power Conversion for Renewable Energy Utilization"

10. Jennifer Bustillos (Juan Agarwal) "Triobological Behavior of Three-Dimensional Printed Graphene Reinforced Polyacrylic Acid Composites"

11. Michelle Cavalaris (Mary Lou Pfeiffer) "Causes and Proposed Solutions for Dental Anxieties and Dental Phobias in Relation to Age and Ethnicity"

12. Stephanie Cortina (Robert Dicklitter) "The Effects of Prenatal Light Experience on the Development of Motor Coordination in Bobwhite Quail"

13. Carolina Del Rio (Jeremy Chambers) "C-Jun N-terminal Kinase (JNK) Regulates Mitochondrial Dynamics"

14. Christian Dougnac (JuanCarlos Espinosa) "Ontological Anarchy"

15. Gabrielle Estevez-Inoa (Anuradha Godavarty) "Optimization of a Peristaltic Drug Pump"

16. Jenny Estinville (Mary Lou Pfeiffer) "Dangers of Health Disparities and Prevention"

17. Melissa Flores (Caterina Chang-Martinez) "Different Determinants of Childhood Obesity"

18. Justin Franco (Gretchen Scharnagl) "Analysis of the Major Events and Factors which Shaped the Evolution of the Modern Political Boundaries of South America"

19. Eric Garcia (Charafeddine Azzouzi, Oliver Ullrich) "A Simple Model of Cruising for Garage Parking"


22. Bhargav Guntupalli (Bhargav Guntupalli) "Ambient Filtration Method to Rapidly Prepare Highly Conductive, Paper-Based Porous Gold Films for Electromechanical Biosensing"

23. Myrian Herle (Alfredo Santoyo, Nordleen Defrias, Jake Lopez, Alberto Camacho, Sheila Alemay) "The Academic Success Initiative: A Transformative Tutoring Experience in the School of Computing and Information Sciences"

24. Jessica Hernandez (Jorge Riera Diaz) "Discrimination of Acoustic Stimuli With Different Temporal Patterns by Females of an Erebid Moth With Two-Celled Ears"


26. Andrea Jo (Alfonso Rodriguez) "Are We What We Eat? A Statistical Study of the Effect of Malnutrition in Early Childhood on Societal Economic Development"

27. Ruth Laverde (Kevin McGraw, Nan Fang, John Landrum) "Preliminary Isolation and Characterization of Two Novel Carotenoid Binding Proteins"

28. Jiali Lei (Stephen Wigley, Suset Rodriguez, Maanasa Jayachandran, Elizabeth Solis, Stephanie Gonzalez, Anuradha Godavarty, Ph.D., Francisco Perez-Clavijo) "Lower Extremity Wound Imaging Using a Hand-Held Near-Infrared Optical Scanner"

29. Jesse Limonta (Jesse Limonta) "Locating High Affinity Binding Sites of the Carcinogen 4-Nitroquinoline-1-Oxide on PhiX174 DNA Using Restriction Enzyme Activity Assays"

30. Pingping Liang (Haixiang Yu, Bhargav Guntupalli, Yi Xiao) "A Paper-Based Device for Rapid Visualization of NADH Based on Dissolution of Gold Nanoparticles"

31. Yulie Lugo (Erica Musser) "Analysis of Parent-Child Interactions and the Child’s Physiological Response"

32. Gindy Ly (Alan Mckenzie) "Detection and Quantitation of Isomeric Compounds From Biological Samples Using TIMS-MS"

33. Maria Manrique (Jennifer Medina, Maria Manrique, Walter Van Hamme) "The HAT-P 7 and HAT-P 11 Star-Planet Systems"

34. Juan Sebastian Marquez (Oui Bai, Roizbeh Atri) "Development of Simulated Amputee Gait Evaluation Platform"

35. Juan Medina (Stephen Winkle) "Cooperativity and Competition in the Binding of 4-Nitroquinoline-1-Oxide and Actinomycin D to PhiX174 DNA"

36. Jacqueline Moats (Suzanne Koptur) "Regional and Isoform-Specific Alterations to Glutamic Acid Decarboxylase in the Aged Brain: Relationship to Cognitive Decline"

37. Kristina Morales (John Kominoski) "Quantifying Changes in Soil Microbial Carbon Use in Freshwater Coastal Wetlands Exposed to Crossed Gradients in Salinity and Phosphorous: Implication for Sea Level Rise"

38. Connor Nelson (JuanCarlos Espinosa) "Elements of Horror"

39. John Pendas (Geoff Potvin) "Optics Model - Curriculum Development and Evaluation for Modeling Instruction Electricity and Magnetism"

40. Michael Perez (Jamie Theobald) "Determining the Mechanism of Repellency Against Insects in DEET"

41. Daniel Quintero (Arvind Agarwal) "CTC Quantity Assessment Through Microfluidic Detection Device"

42. Ali Qureshi (Amin Baghalian) "Determining Defects Inside a Hollow Cylinder"

43. Stephen Revesz (James Webb) "The Outburst of Blazar Object Bl Lacertae: Observations and Analysis of its Energetics"

44. Francesca Brianna Riccio-Ackerman (Liliana Rincon Gonzalez) "Study of Sensory Perception of Humans for Use in Prostheses"

45. Edwin Robledo (Trevor Solorzano, Arash Dadkhah, Anuradha Godavarty) "NIROS for Non-Contact Hemodynamic Imaging: Instrument Development"
46. Nicolle Rodriguez (Catherina Chang-Martinez) "Hispanic Families Cultural Perceptions of Overweight Status in Preschool Children Enrolled in Low-Income Child Care Centers in Miami Dade County"

47. Yvette Rodriguez (Robert Lickliter, Bethany Reeb-Sutherland) "Elevated Prenatal Progesterone Causes an Increased Heart Rate in Northern Bobwhite Quail (Colinus virginianus) Neonates"

48. Alfred Salas (Andres Tremante) "Intake Manifold Optimization and Cylinder Head Modification"

49. Kaira Sanchez (Evelyn Mojica, Andres Caicedo, Santiago Norena, Jordi Gillio, Rick Vega) "2016 Shell Eco-Marathon Battery Electric Vehicle (BEV)"

50. Andersson Sanchez (Stanislaw Wnuk) "Reduction of Sugar Lactones to Lactols with Super-Hydride"

51. Lauren San Diego (Changwon Yoo) "Analysis of Alzheimer Gene Interactions Using Bayesian Networks"

52. Andres Sola (Evelyn Gaiser) "Assessing Drivers of Spatial and Temporal Trends of Nutrient Ratios in the Southern Everglades"

53. Vaishali Sharma (Leonard Elbaum) "Sound: Powerful or Powerless?"

54. Noah Spiner (Nezih Pala) "Optical Spectrometer"

55. Joaquin Van Thienen (Robert Saba) "Existentialism & Borderline Personality Disorder in \। The Tunnel\"

56. Elizabeth Tinoco (Stephen Winkle) "Examining the Effects of the Binding of the Carcinogen 4-Nitroquinoline-1-Oxide to DNA PhiX174 on DNA Structure Using Mung Bean Nuclease and Topoisomerase I Assays"

57. Diego Torres (Danny Noguera, Iris Broce, Anthony Steven Dick) "Relation of Inferior Fronto-Occipital Fasciculus Microstructure to Language in Children"

58. Rosemary Trewin (Mary Lou Pfeiffer) "Sepsis-Awareness and Recognition"

59. Rebecca Valls (Emmanuel Dacosta-calheiros, Edward Marques, Eric von Wettberg) "Effect of various nitrogen fertilizers on chickpea leaf and root morphology"

60. Justin Varkey (Anthony McGoron) "Eye Size in Drosophila Melanogaster and How It Affects Peripheral Motion Vision"

61. Zongwen Wang (Yi Xiao) "Utilizing Nuclease Screening of Ligand-Aptamer Complexes to Enhance Specificity of an Aptamer-Based Cocaine Assay"
Wednesday Workshops

GC 140

10:00 AM – 11:00 AM

Undergraduate Research Engagement
Chairs: Serena Magrogan & Pamela Kerouac (The College Board)

Serena Magrogan and Pamela Kerouac from The College Board will be having a panel session on the importance of undergraduate research engagement.

1:00 PM – 2:00 PM

FIU Department of Chemistry
Chair: Yi Xiao, Ph.D.

Professor Xiao’s research interests lie in the areas of biosensors and biomaterials and their applications in solving a broad range of problems in vitro and in vivo. The goals of her research are directed towards employing new biomaterials, nanomaterials and new platforms to design ultra-sensitive sensors for specific in vitro or in vivo sensing in complex sample at the point-of-care.

3:00 PM – 4:00 PM

Miscommunicating Mitochondria:
Consequences for Aging and Disease
Chair: Jeremy Chambers, Ph.D.

The goal of Dr. Chambers’ research is to understand how perturbations in communication between our cellular powerhouses (mitochondria) and other parts of the cell influence aging and related diseases. The focus of his lab is to examine how signaling complexes on the mitochondrial surface affect mitochondrial function and specific aspects of physiology in order to advance our knowledge of the pathophysiology of aging.
This panel focuses on a seminar launched in Fall 2011 by the Honors College. Engaged in 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.

- Yeilcolm Hernandez, Marilaura Maldonado, Laura Perez & Cecile Houry “Healthcare Disparities for Senior Citizens in Sweetwater”

- Joelle Mouhanna, Claudia Arenas, Natalie Moussa, Stephan Mouhanna, Kylie Alvarez & Cecile Houry “Factors Affecting Access to Primary Healthcare in Residents Aged 60 and Older in the City of Sweetwater”

- Maria Emilia Gonzalez Haesler

- Sarah Solomon

- Francisco G. Ramos
Thursday Workshops

Session A
9:00 AM – 10:00 AM

East Ballroom

Jeremy Chambers Lab
Chairs: Jeremy Chambers, Ph.D.

The goal of Dr. Chambers’ research is to understand how perturbations in communication between our cellular powerhouses (mitochondria) and other parts of the cell influence aging and related diseases. The focus of his lab is to examine how signaling complexes on the mitochondrial surface affect mitochondrial function and specific aspects of physiology in order to advance our knowledge of the pathophysiology of aging.

- Aymun Ahmed (Jeremy Chambers) “Regulation of Glutaminolysis in Uterine Cancer”
- Carolina Del Rio (Jeremy Chambers) “C-Jun N-Terminal Kinase (JNK) Regulates Mitochondrial Dynamics”
- Yvette Rodriguez (Robert Lickliter) “Elevated Prenatal Progesterone Causes an Increased Heart Rate in Northern Bobwhite Quail (Colinus Virginianus) Neonates”
- Gabriela Goldberg (Jeremy Chambers) “Monitoring Nerve Agents and Their Antidotes for Any Potential Toxicity in Neuronal Cells”
- Ashley Juan (Jeremy Chambers) “Characterizing the Abundance of Proteins Involved in Cell Death in Glioblastoma Cells”
ENROLL NOW

PEOPLE NEED TO BE HEARD

Ph.D. in Clinical Psychology
Lines of research:
- Addictive Disorders Treatment
- Cultural Psychosocial Interventions
- Links between stress, traumatic stress, coping styles, drug cravings, and the course of substance use disorders

Psy.D. in Clinical Psychology
With five concentrations:
- Child Psychology
- Clinical Neuropsychology
- Forensic Psychology
- Health Psychology
- General Practice

M.S. in Psychology
With majors in:
- Mental Health Counseling
- Marriage and Family Therapy
- School Counseling

M.S. in Industrial/Organizational Psychology
- Online
- On campus

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Albizu University-Miami was established in 1980. It is regionally accredited by the Middle States Commission on Higher Education (MSCHE) and licensed by the Commission for Independent Education (CIE) of the Florida Department of Education. The Doctor of Psychology (Psy.D.) Program is accredited by the American Psychological Association (APA). The Master Program of Speech and Language Pathology is accredited by the American Speech-Language-Hearing Association (ASHA). Carlos Albizu University adheres to a policy of nondiscrimination with respect to admissions, employment, and institutional activities. CAU does not discriminate on the basis of race, color, creed, sex, gender orientation, age, religion, disability, life styles or national origin against any applicant, student, faculty member or employee with respect to admission, hiring, promotion or any other activity included in the academic and/or service programs.
Yuk-Ching Tse-Dinh conducted her Ph.D. thesis research in the laboratory of Professor James C. Wang, who discovered the ubiquitous class of enzymes, DNA topoisomerases, as master manipulators of genomes. Current research interests include: Development and implementation of cell based and enzyme based HTS assays to identify topoisomerase inhibitors; SAR and optimization of topoisomerase inhibitor structures to generate specific antibacterial or anticancer drug leads.

- Angelo Andres (Thirunavukkarasu Annamalai, Yuk-Ching Tse-Dinh) “Screening for Novel Leads Towards Antibacterial Compounds Targeting Mycobacterium Tuberculosis Topoisomerase I”
- Marco Zamora Bulla (Yukching Tse Dinh)
- Jose Chang (Yukching Tse Dinh)
- Shayna Sandhaus (Yukching Tse Dinh)

Regina Bailey is an art historian who has overseen accreditation for both the Art Museum at FIU and the Bass Museum in Miami, Beach, FL. She has used her policies and procedures for their technical assistance program. She is also a peer reviewer for the American Association of Museums and has served as a panelist for the Art in Public Places for Dade County and the State of Florida and the State of Florida Division of Cultural Affairs.
Professor Xiao’s research interests lie in the areas of biosensors and biomaterials and their applications in solving a broad range of problems in vitro and in vivo. The goals of her research are directed towards employing new biomaterials, nanomaterials and new platforms to design ultra-sensitive sensors for specific in vitro or in vivo sensing in complex sample at the point-of-care.

- Pingping Liang (Haixiang Yu, Bhargav Guntupalli, Yi Xiao) “A Paper-Based Device for Rapid Visualization of NADH Based on Dissolution of Gold Nanoparticles”


- Daniel Roncancio (Haixiang Yu, Xiaowen Xu, Shuo Wu, Ran Liu, Joshua Debord, Xinhui Lou, Yi Xiao) “A Label-Free Aptamer-Fluorophore Assembly for Highly Sensitive and Specific Detection of Cocaine”

- Juan Canoura (Zongwen Wang, Haixiang Xu, Brian Ng, Daniel Ronancio, Yi Xiao) “Utilizing Nuclease Screening of Ligand-Aptamer Complexes to Enhance Specificity of an Aptamer-Based Cocaine Assay”

- Bhargav Guntupalli (Bhargav Guntupalli) “Ambient Filtration Method to Rapidly Prepare Highly Conductive, Paper-Based Porous Gold Films for Electrochemical Biosensing”
Center Ballroom

ABC-UTC Work in Bridge Engineering
Chair: Atorod Azizinamini, Ph.D.

Dr. Atorod Azizinamini was appointed by the College of Engineering and Computing at FIU as the Chair of the Department of Civil and Environmental Engineering at FIU in January of 2011. Dr. Azizinamini holds a Ph.D. degree from the University of South Carolina. He is a registered professional engineer in several states. He has carried out numerous research studies in the Structural Engineering field and has published more than 200 journal papers, books and technical articles. He routinely gives keynote talks at major national and international conferences.

- Dr. David Garber
- Dr. Kingsley Lau
- Dr. S. J. Lee

West Ballroom

MAST at Homestead
Chair: Amy Reid

- Brian Gomez (Megan Erdozain, Danique Stewart, Ricardo Hausz, Sharan Ramaswamy) “Hemocompatibility of Emerging Cardiovascular Devices”
- Alexa Banaag (Shayna Sandhaus, Yuk-Ching Tse-Dinh) “Seeking Topoisomerase I Inhibitors for Novel Antibacterial Candidates”
- Richard Guerrero (Alex Zamora, Jesse Blanchard) “Can the Feeding Guild of Nonnative Species Be Predicted Using External Morphology?”
- Teddie O’Connor (Anthony Castellanos, David Caligaris, Nathalie Agar, Francisco Fernandez-Lima) “Development of Subcellular Strategies for Tridimensional Molecular Mapping”
- Dianabel Imas (Carla Abad, Rosalie Odean, and Shannon M. Pruden) “Examining Pre-Kindergarten Educators’ Spatial Anxiety”
**GC 140**

**International Studies & Business Panel**

- Jana Nudelman (Thomas Breslin) “The Effect of China's Development on Russia and Japan's Economy, Military, and Environmental Initiatives Since 1978”

- Jose Diaz (Jose Diaz) “The Economic Impact of Denying a College Degree to Undocumented Immigrant Students in Florida”

- Andrea Jo (Alfonso Rodriguez) “Are We What We Eat? A Statistical Study of the Effect of Malnutrition in Early Childhood on Societal Economic Development”

- Demetrius Villa (JuanCarlos Espinosa) “High Speed Rail in America – Economical/Political Impacts and Lessons From Japan”

**GC 150**

**Neuroscience & Physics Panel**

- James Webb (Daniel Puentes, Stephen Revesz) “Stocker AstroScience Telescope Operation Workshop”

- Daniel Puentes (Brian Raue, Lei Guo, Adam Freese) “The Evolution of \( t \) Dependence in Meson Photoproduction”

- Sam Abbassi (Sam Abbassi) “A Clinical Investigation of a Ruptured Cerebral Aneurysm”

- Jervon Wright (Iris Broce, Luis Cabrera, Diego Torres, Dany Noguera, Anthony Dick) “Fiber Pathways Supporting Early Literacy in Young Children”

- Francesca Brianna Riccio-Ackerman (Liliana Rincon Gonzalez) “Study of Sensory Perception of Humans for Use in Prostheses”
Dr. Jorge Riera obtained a B.S. in Physics at the University of Havana (1988), a M.S. in Biophysics as “Junior Associate” of the International Centre for Theoretical Physics, Trieste (1995-1998), and a Ph.D. in Physics at the University of Havana with a CNRS fellowship at the Pitie-Salpetriere Hospital, Paris. Dr. Riera’s main scientific interest is to develop methods for the integration of different neuroimaging modalities based on the modeling of mesoscopic phenomena in the cerebral cortex. Members from Dr. Riera’s lab use these methods to develop clinical tools for the diagnosis, monitoring and treatment of several brain disorders, like epilepsy, dementia, stroke and migraine. In this session, members of Dr. Riera’s lab will discuss some aspects of “quantitative electrophysiology” relevant to neuroscience research.

- Darlene Ramos (Jorge Riera Diaz) “Laminar Differences in the Effects of Cortical Spreading Depression”
- Yisel Frometa (Jorge Riera Diaz)
Research in the Winkle Lab focuses on the interactions of small molecules such as antiparasitic agents, carcinogens and anticancer drugs, with DNA and on the interactions of proteins with DNA. We are interested in how these species alter the structure and functioning of DNA and in how altering the structure of the bound molecule affects such alterations.

- Jessie Limonta (Stephen Winkle) “Locating High Affinity Binding Sites of the Carcinogen 4-Nitro-Quinoline-1-Oxide on PhiX 174 DNA”

- Juan Medina (Stephen Winkle) “The Binding of Carcinogen 4-Nitroquinoline-1-Oxide and Actinomycin D to PhiX174 DNA”

- Tayliz Rodriguez (Stephen Winkle) “Effects of Heterocyclic Diamidine Antiparasitic Agent Binding to DNA on Restriction Enzyme Kinetics”

- Elizabeth Tinoco (Stephen Winkle) “Examining the Binding of 4-Nitroquinolise-1-Oxide to PhiX174 DNA Using Mung Bean Nuclease and Topoisomerase I Assays”

- Javier Valdes (Stephen Winkle) “Selectivity, Cooperativity and Competition in the Binding of Heterocyclic Diamidines to DNA”

Session D
12:00 PM – 1:00 PM

LUNCH
Session E
1:00 PM – 2:00 PM

East Ballroom
Computational Molecular Biology
Chair: Jessica Liberles, Ph.D.

Biology is rapidly becoming a BIG DATA science, creating exciting opportunities to discover, invent, and to tell stories. In our realm of computational biology, we reconstruct the evolutionary history of proteins, and analyze it in the context of protein structure. This endeavor, aided by computer science and mathematics, links biology with the chemistry and physics of proteins. As we gain insights into how proteins have worked over long time scales, we can use that knowledge to understand the proteins that cause human disease. Here, we present select examples of our research, from BIG DATA projects to cancer-causing proteins to Zika virus.


Center Ballroom
Fernández-Lima Research Group
Chair: Francisco Alberto Fernandez Lima

The current research interest of the Fernandez-Lima Research Group is focused on the development of new generation instrumentation and methodologies for biomedical and behavioral research. In particular, the Fernandez-Lima Research Group is interested in the characterization of the chemical environment at the single cell and sub-cellular level of model cell systems and tissue sections using a “molecular microscope”.

Dr. Raptis obtained his Ph.D in Inorganic Chemistry from Texas A & M University. His research is focused on the synthesis of novel metal complexes with unusual topologies, electron transfer and magnetic properties. The synthesis and study of a new class of iron-based MRI contrast agents has been a major theme of his recent work. The study of porous metal-organic frameworks (MOFs) for the selective sorption of gases is a new direction currently pursued by Dr. Raptis’ laboratory.


- Zimarayn Urdaneta (D.I. Kreiger, Raphael G. Raptis) “Studies Toward Copper Pyrazolate Based Water Oxidation”

- Raphael G. Raptis (Raphael G. Raptis) “Redox-Active Metal Oxides”

**GC 140**

**Biology Panel**

- Mailin Oliva (Laura Serbus) “Molecular Mechanisms Responsible for the Effect of Host Diet on Wolbachia Titer in Oogenesis”

- Juan Vazquez (Deodutta Roy) “NRF1 Regulated Communities of Genes Across Personal Genomi and Epigenomic Multiple Networks Driving the Development of Breast Cancer”

- Michelle Bravo (Tiffany Troxler) “Improving Health Benefits in Underserved Communities Through Carbon Sequestration”

- Soh-Yoke Bravo (Tiffany Troxler) “Improving Health Benefits in Underserved Communities Through Carbon Sequestration”


Psychology Panel

- Jennifer Mora (Rebecca Cortizo, Archana Manapragada, Valentina Bruk-Lee) “Safety First: Does Thinking About the Consequences Matter?”

- Rebecca Cortizo (Jennifer Mora, Archana Manapragada, Valentina Bruk-Lee) “Always on the Clock: Examining the Relationship Between Engagement and Technology Assisted Supplemental Work”

- Philip Bourgi (Philip Bourgi) “Unified Studies Movement”

Session F
2:00 PM – 3:00 PM

East Ballroom
Mathematics
Chair: Laura De Carli

Dr. Laura De Carli works in harmonic analysis and functional analysis. Her research interests include: Bases and frames in Hilbert spaces, Weighted Inequalities for the Fourier transform, Unique continuation properties of solutions of elliptic equations, Restriction properties of the Fourier transform, Uniform estimates of orthogonal polynomials and special functions.

- David Harper (Laura De Carli) “On the Symmetries of Second Order PDEs”

- Alberto Mizrahi (Laura De Carli) “Exponential Riesz Bases on Triangular Domains”
Center Ballroom
Computer Science
Chair: S.S. Iyengar Lab

Dr. S.S. Iyengar is a leading researcher in fields of distributed sensor networks, computational robotics, and oceanographic applications, and is perhaps best known for introducing novel data structures and algorithmic techniques for large scale computations in sensor technologies and image processing applications. Dr. Iyengar’s cutting edge research has been funded by the National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), and the Office of Naval Research (ONR).

West Ballroom
Between You and Me: What Women Tell Women About Working in Communication

Chairs: Samiyyah Black, Mirza De La Fuente, Sofia De La Vega, Carolina Estrada, Ashley Orozco, Andrew Trabazo, Dr. Lillian Lodge Kopenhaver, Lillian Abreu, Emily Devine, Dr. Robert E. Gutsche, Jr.

This study provides a glimpse at what prominent female leaders in media and communications industries wish to inform young women within the field. For decades, fields of journalism and strategic communication have been dominated by men. In 1998, only 36.9% of journalists in the United States were women and grew to only 37.2% by 2013, according to Nieman Reports. While women have increasingly gained a stronger foothold in these industries in terms of ownership and leadership, they face measurable forms of discrimination and microaggressions. A PRWeek magazine survey found that women were paid 72% of the salary paid to men on average. Through an analysis of a dozen recorded seminars and webinars at FIU’s Lillian Lodge Kopenhaver Center for the Advancement of Women in Communication since 2013, this analysis identifies major themes of empowerment, identity and purpose, perception, innovation, and leadership styles creating a needed conversation toward a more proportional representation of the field’s graduates and other hurdles for women in the profession. With women making up more than half of the workforce in communications in the U.S., these conversations are a necessary step in empowering younger generations of female professionals to become leaders in the workforce and to eliminate barriers. The study, conducted by six students, will be presented in April to a national audience through a whitepaper released by the LLK Center and will help women and men in leadership roles throughout the fields of communication to encourage and support continued innovation through increased diversity.
GC 140
Engineering Panel

- Geeticka Chauhan (Christine Lissetti) “Building an Ontology for Health Dialogs with Virtual Health Agents”
- Laura Reyes (Laura Reyes) “Effect of Boron Nitride Nano-Platelets Additive to Olive Oil as a Natural Lubricant”
- Jenniffer Bustillos (Juan Agarwal) “Tribological Behavior of Three-Dimensional Printed Graphene Reinforced Polylactic Acid Composites”
- Daniela A. Montero Zambrano (Daniela A. Montero Zambrano) “Processing-Structure-Property Correlations in 3D Printed Polymer-Graphene Composite”
- Ali Qureshi (Amin Baghalian) “Determining Defects Inside a Hollow Cylinder”
Francisco Coro is a senior associate professor for the Department of Natural and Social Sciences at MDC’s InterAmerican Campus. With a Ph.D. in Biological Sciences, he has guided thousands of students in subjects such as human anatomy and physiology as well as steered them in scientific research projects on STEM-related initiatives including “Acoustic Behavior of Moths with Two-Celled Ears.” Dr. Coro has published dozens of scientific papers and three university textbooks.

- Monica Navarro (Francisco Coro) “Phonoresponses of Syntomeida Epilais (Lepidoptera, Noctuoidea) Perched Females to Acoustic Stimuli Present in Their Environment”

- Maria Cespedes (Francisco Coro) “Effects of Duty Cycle and Silent Gaps of Acoustic Stimuli Applied to a Moth Species With Two-Celled Ears”

- Jessica Hernandez (Francisco Coro) “Females of a Moth With Two-Celled Ears Discriminate Acoustic Stimuli With Different Temporal Patterns”

- Alexandra Cano

- Gretert Montano

- Rosario Rodriguez

- Laura Diaz
The Academic Success Initiative (ASI) was founded to help students beyond passing their classes. ASI currently engages students in a learning community, which empowers them to evolve in many positive ways. All ASI members enhance their knowledge by exchanging concepts and ideas related to the classes they tutor; they develop teamwork, leadership, and critical thinking skills which are in high demand in today’s industry. This presentation intends to showcase the ASI model, as an enriching experience that promotes a culture of excellence, and demonstrating the effectiveness of the program to help students succeed.

- Alfredo Santoyo
- Nordleen Defrias
- Jake Lopez
- Alberto Camacho
- Sheila Alemany
- Brian LaRusso

Gretchen Scharnagl’s interests include environmental art, social commentary, and specimen logic in her art practice as well as a wide range of community and collaborative artistic ventures. Scharnagl breaks down barriers and forms connections between disciplines and between professor and student. She has presented papers on art in suburbia, environmental art and strategies of teaching. Scharnagl blurs the definition of author, material and what can be art with media that range from pencil drawings to installations to performance.

- Andrea Garcia
- Selina Pirkau
- Natania Quiros
Recruitment Fair

Wednesday, March 30, 2016
9:00 AM - 4:00 PM | Graham Center Ballrooms

Participating Schools:

Barry University
Carlos Albizu University
Cornell University
Columbia University
FIU College of Education
FIU College of Law
FIU Graduate School
FIU Herbert Wertheim College of Medicine
Department of Immunology
FIU Online
FIU Robert Stempel College of Public Health and Social Work
FIU Steven J. Green School of International and Public Affairs
FIU Women and Gender Studies

Florida State University
Keck Graduate Institute
National College of Natural Medicine
National University of Health Sciences
Nova Southeastern University
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