

Summer Undergraduate Research Symposium

Friday, July 23, 2021



Symposium Agenda

Summer Undergraduate Research Fellowship Program (SURF)
NSF Research Experience for Undergraduates (REU)

University of Miami Summer 2021

Morning Session

- | | |
|---------------------|---|
| 9:30 AM – 10:00 AM | Opening Remarks from Program Directors, Dr. Priyamvada Rai and Dr. Burton Rosenberg |
| 10:00 AM – 11:45 AM | SURF Student Oral Presentations
See Next Page for Presenters |
| 11:45AM – 12:00 PM | Break |
| 12:00 PM – 1:15 PM | REU Student Oral Presentations
See Next Page for Presenters |

Afternoon Session

- | | |
|-------------------|---|
| 1:15 PM – 1:55 PM | Lunch Break |
| 2:00 PM – 3:00 PM | Keynote Speaker: Janaki Sharma, M.D.
“A Brief Primer for Stumbling into a Research Career” |
| 3:10 PM – 3:30 PM | Awards & Closing Remarks |

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SURF Student Oral Presentations

- | | |
|---------------------|--|
| 10:00 AM - 10:10 AM | <p>Nisa Ilsin
"THE FUNCTION OF STAT3 AND STAT5 IN NORMAL AND TRANSFORMED LYMPHOCYTES"
<i>Mentor: Dr. Alejandro Villarino</i>
<i>Department of Microbiology & Immunology</i></p> |
| 10:10 AM - 10:20 AM | <p>Yoland Victor
"DETERMINING THE ROLE OF THE mTOR PATHWAY IN THE ENDOSYMBIOTIC RELATIONSHIP BETWEEN ACYRTHOSIPHON PISUM AND BUCHNERA APHIDICOLA BY CHARACTERIZING NUTRIENT SENSORS"
<i>Mentors: Dr. Daniel Isom/Dr. Alexandra Wilson</i>
<i>Departments of Molecular & Cellular Pharmacology (Dr. Isom) & Biology (Dr. Wilson)</i></p> |
| 10:20 AM - 10:30 AM | <p>Christopher Zeuthen
"UNDERSTANDING THE SUBCELLULAR MECHANISMS OF ACUTE TREATMENT WITH GROWTH HORMONE ON MOUSE CARDIOMYOCYTES"
<i>Mentors: Drs. Wayne Balkan & Joshua Hare</i>
<i>Department of Medicine</i></p> |
| 10:30 AM – 10:40 AM | <p>Helena Raposo
"UNCOVERING SEX-RELATED DIFFERENTIAL GENE EXPRESSION PATHWAYS IN DOPAMINERGIC NEURONS"
<i>Mentor: Dr. Luis Tuesta</i>
<i>Department of Psychiatry & Behavioral Sciences</i></p> |
| 10:40 AM - 10:50 AM | <p>Abraham Profeta
"EVALUATING THE EFFECTS OF PCK2 KNOCKDOWN ON RAD51 FOCI FORMATION AND ITS ROLE IN OVARIAN CANCER"
<i>Mentor: Dr. Sophia George</i>
<i>Department of Obstetrics, Gynecology & Reproductive Sciences</i></p> |

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SURF Student Oral Presentations

10:55 AM - 11:05 AM

Juana Quirno Costa

“EVALUATION OF RETINAL LAYERS AND QUANTIFICATION OF RETINAL GANGLION CELLS IN HYPERTENSIVE AND NORMOTENSIVE DBA/2J MICE”

Mentor: Dr. Sanjoy Bhattacharya

Department of Ophthalmology

11:05 AM - 11:15 AM

Douglas Obenrader

“TOWARD PREDICTING GPCR COUPLING TO G α SUBUNIT SUBTYPES”

Mentor: Dr. Daniel Isom

Department of Molecular & Cellular Pharmacology

11:15 AM - 11:25 AM

Ashlee Sealy

“UTILIZING COMPUTATIONAL METHODS TO IDENTIFY POTENTIAL SMALL MOLECULE KINASE INHIBITORS OF THE BUB1B KINASE”

Mentor: Dr. Stephan Schürer

Department of Molecular & Cellular Pharmacology

11:25 AM - 11:35 AM

Laura Misiara Lincheta

“PROFILING THE REDOX CHANGES ASSOCIATED WITH PROGRESSION TO INCURABLE PROSTATE CANCER”

Mentor: Dr. Priyamvada Rai

Department of Radiation Oncology

11:35 AM – 11:45 AM

Robert DiCaprio

“AN ATTENUATED INTERFERON RESPONSE INHIBITS ISGYLATION IN INDUCED PLURIPOTENT STEM CELLS”

Mentor: Dr. Emmanuel Thomas

Department of Pathology & Laboratory Medicine

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REU Student Oral Presentations

12:00 PM - 12:10 PM

Annie DeForge

"MODELING CORTICAL NEURAL SURROUND EFFECTS
USING DEEP NEURAL NETWORKS"

Mentor: Dr. Odelia Schwartz

Department of Computer Science

12:10 PM - 12:20 PM

Christian Jerry

"LANGUAGE DURING COVID-19: THE EFFECTS OF
MASKS ON PRESCHOOLERS PROXIMITY &
VOCALIZATIONS"

Mentor: Dr. Daniel Messinger

Department of Psychology

12:20 PM - 12:30 PM

Maya Murry

"EXPANDING THE HORIZONS OF REHABILITATIVE
NEUROSCIENCE WITH DEEP NEURAL NETWORKS"

Mentor: Dr. Vance Lemmon

The Miami Project to Cure Paralysis

12:40 PM - 12:50 PM

Nestor Orozco-Llamas

"DENOISING OF RFID RECORDINGS USING KALMAN
FILTERS"

Mentor: Dr. Daniel Messinger

Department of Psychology

12:50 PM – 1:05 PM

Santiago Cortes & Thomas Spangler

"INCORPORATING THE GAMESS PROGRAM INTO THE
GAML SOFTWARE"

Mentor: Dr. Orlando Acevedo

Department of Chemistry

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REU Student Oral Presentations

1:05 PM - 1:15 PM

Kevin Wu

"INTEGRATED COMPUTATIONAL GESTURAL AND TIMBRAL
MAPPING FOR MUSICAL EXPRESSIONS"

Mentor: Dr. Mitsunori Ogihara

Department of Computer Science

Keynote Speaker

Summer Undergraduate Research Fellowship Program (SURF)
NSF Research Experience for Undergraduates (REU)

Janaki Sharma, M.D.



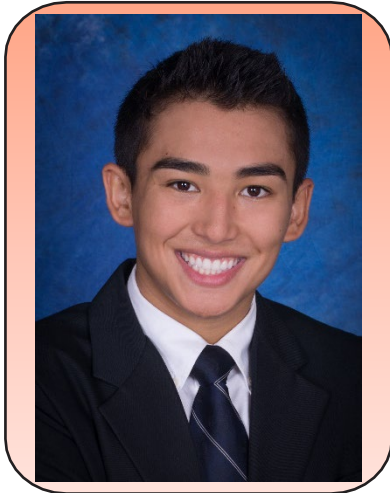
“A Brief Primer for Stumbling into a Research Career”

Dr. Janaki Sharma is an oncologist and assistant professor of medicine specializing in the treatment of genitourinary malignancies. Her clinical and research interests are in development of novel therapeutics for prostate cancer. She currently holds the Paul Calabresi Career Development Award (K12). She completed medical school at the University of Kansas followed by internal medicine residency at Albert Einstein College of medicine in New York. She also pursued advanced training in oncology and geriatrics there.

Student Participants

Summer Undergraduate Research Fellowship Program (SURF)

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Robert DiCaprio

University of Miami

*Mentor: Dr. Emmanuel Thomas
Department of Pathology & Laboratory
Medicine*



Nisa Ilsin

Rice University

*Mentor: Dr. Alejandro Villarino
Department of Microbiology &
Immunology*



Laura Misiara Lincheta

University of Miami

*Mentor: Dr. Priyamvada Rai
Department of Radiation Oncology*

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Douglas Obenrader

University of Michigan-Ann Arbor

Mentor: Dr. Daniel Isom

*Department of Molecular & Cellular
Pharmacology*

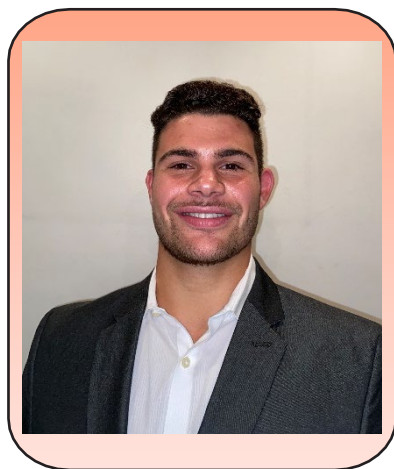


Abraham Profeta

Cornell University

Mentor: Dr. Sophia George

*Department of Obstetrics, Gynecology &
Reproductive Sciences*



Juana Quirno Costa

Florida International University

Mentor: Dr. Sanjoy Bhattacharya

Department of Ophthalmology



Student Participants

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Helena Raposo

Oregon State University

Mentor: Dr. Luis Tuesta

*Department of Psychiatry & Behavioral
Sciences*

Ashlee Sealy

University of Miami

Mentor: Dr. Stephan Schürer

*Department of Molecular & Cellular
Pharmacology*

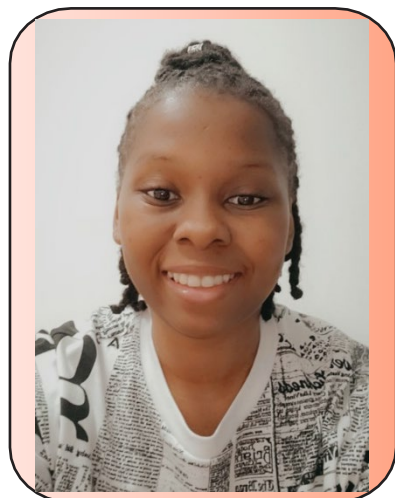


Yoland Victor

University of Miami

Mentors: Dr. Daniel Isom/ Dr. Alexandra Wilson

*Departments of Molecular & Cellular
Pharmacology (Dr. Isom) & Biology (Dr. Wilson)*



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Christopher Zeuthen

Emory University

Mentors: Dr. Wayne Balkan/ Dr. Joshua Hare

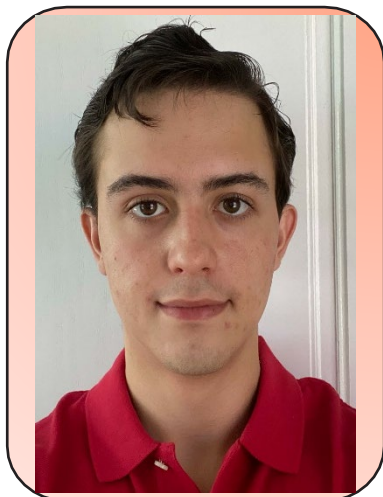
Department of Medicine



Student Participants

NSF Research Experience for Undergraduates (REU)

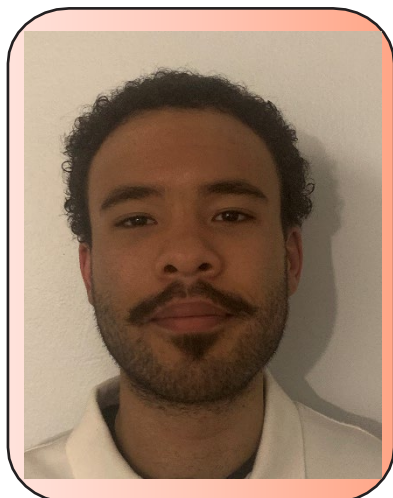
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Santiago Cortes

Johns Hopkins University
Mentor: Dr. Orlando Acevedo
Department of Chemistry

Annie DeForge
Bentley University
Mentor: Dr. Odelia Schwartz
Department of Computer Science



Christian Jerry
Indiana University
Mentor: Dr. Daniel Messinger
Department of Psychology

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Maya Murry

Cornell University

Mentor: Dr. Vance Lemmon

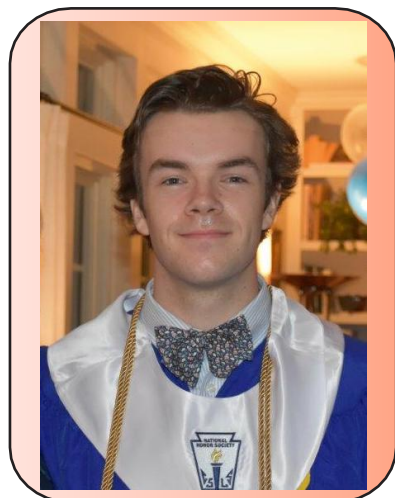
The Miami Project to Cure Paralysis

Nestor Orozco-Llamas

Middlebury College

Mentor: Dr. Daniel Messinger

Department of Psychology



Thomas Spangler

University of North Carolina Wilmington

Mentor: Dr. Orlando Acevedo

Department of Chemistry

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Kevin Wu

University of Miami

Mentor: Dr. Mitsunori Ogihara

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