



17th ANNUAL UHD STUDENT RESEARCH CONFERENCE PRESENTED BY CITGO



Sponsored by the UHD Scholars Academy

A showcase of academic excellence demonstrated by UHD undergraduates and graduates majoring within the Marilyn Davies College of Business, Colleges of Humanities and Social Science, Public Service, Sciences and Technology, and University College.

Friday, April 6, 2018

8:00 – 8:30 am	Registration and Continental Breakfast (Welcome Center)
8:30 – 9:00 am	Welcoming Remarks (Milam/Travis and Tour Room) – <i>Dr. Mary Jo Parker, Scholars Academy, Executive Director, UHD</i> <i>Mr. Ed Hugetz, Provost, UHD, Mentored Research as a High Impact Activities</i> <i>Dr. Akif Uzman, Dean, College of Sciences and Technology, UHD</i>
9:00 – 9:15 am	Introduction of SRC Committee Chairs and Members Introduction of other Special Guests
9:15 – 9:30 am	CITGO Representative – Mr. Joel McEwen
9:30 – 9:35 am	Introduction of STEM Keynote Speaker – <i>Dr. Mian Jiang, Associate Professor of Chemistry, Research Mentor, UHD</i>
9:35 – 9:50 am	STEM Keynote Speaker – Dr. Nameera Baig, UHD Alumna
9:50 – 12:00 pm	Oral Presentations
12:00 – 12:05 pm	Introducing the Inclusion of the non-STEM Keynote <i>Dr. Leigh Van Horn, Interim Dean, College of Public Service</i>
12:05 – 12:10 pm	Introduction of non-STEM Keynote Speaker – <i>Dr. Judith Harris, Assistant Professor, Criminal Justice, College of Public Service, UHD</i>
12:10 – 12:25 pm	Non-STEM Keynote Speaker – Dr. Whitney Threadcraft-Walker, UHD Alumna
12:25 – 1:30 pm	Complimentary Box Lunch for Presenters (oral/poster) & Research Mentors (Welcome Center)
1:30 – 2:15 pm	Open Poster Session I (Room A300)
2:15 – 3:00 pm	Open Poster Session II (Room A300)
3:00pm	Conference checkout; Conference E-post survey; Conference gift (Mural Area)

Conference Co-Chairs:

Dr. Ruth M. Johnson, Associate Professor of Psychology, UHD
Dr. Rachna Sadana, Associate Professor of Biology, UHD

Conference Planning Committee:

Dr. Kleio Avrithi, Assistant Professor of Engineering Technology
Dr. Maria Bhattacharjee, Associate Professor of Urban Education
Dr. Youn-Sha Chan, Associate Professor of Mathematics and Statistics
Dr. Irene Chen, Professor of Urban Education
Dr. Poonam Gulati Salhotra, Director of the Center for Community Engagement and Service Learning
Dr. Judith Harris, Assistant Professor of Criminal Justice
Dr. Jillian Hill, Assistant Professor of English
Dr. Mian Jiang, Associate Professor of Chemistry, Natural Sciences Department
Dr. Kenneth Johnson, Associate Professor of Geology
Dr. Hong Lin, Professor of Computer Science
Dr. John Linantud, Associate Professor of Political Science
Dr. Michelle Moosally, Chair and Associate Professor of English
Dr. Lisa Morano, Professor of Biology and Microbiology, Natural Sciences Department

Dr. Whitney Botsford Morgan, Associate Professor of Management and Insurance
Professor Mitsue Nakamura, Lecturer of Mathematics and SA Peer Mentor Coordinator
Dr. Chu Nguyen, Chair of Finance, Accounting and Enterprise Information Systems
Ms. Julie Norton, Executive Director of Strategic Partnerships, Office of the President
Dr. Mary Jo Parker, Executive Director, UHD Scholars Academy
Dr. Lucille Pointer, Professor of General Business, Marketing and Supply Chain
Dr. Gene Preuss, Associate Professor of History
Dr. Akif Uzman, Dean, College of Sciences and Technology
Dr. Sarah Walker, Associate Professor of Management and Insurance
Ms. Shonesia Wilson, Program Coordinator, UHD Scholars Academy

Oral Presentations:

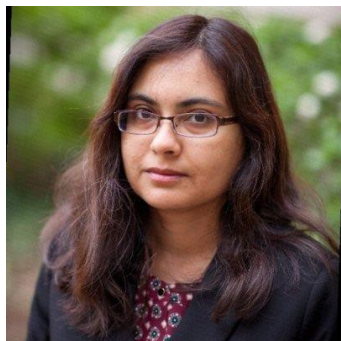
Kimberley Kissoon - Exopolysaccharides Drive Cell Density-Dependent Colony Expansion of Socially Motile *Myxococcus xanthus* Cells
Trung Le - Bacterial Biofilms on Various Plastics in Waterways
Charles Livermore - Domain Mapper: A Tool for Investigation and Visualization of Multivariate 3D Data in R
Sandra Lopez-Lugo - Changes in the Cytoskeleton of Mucopolysaccharidosis (MPS) Patients
Leslie Rojas - Project X: A Low-Cost Infant Incubator
Khusro Saeed - CAN Bus Emulator Station
Charles Vaughn - Improvisational Theatre, Coordinated Management of Meaning in Action

The UHD Scholars Academy (SA) is an academically competitive program in the College of Sciences and Technology (CST) that promotes scholarship and student success for undergraduate students majoring in Science, Technology, Engineering and Mathematics (STEM).

One Main Street, 725-North; Houston TX 77002-1001

Phone: 713-222-5344; Fax: 713-223-7410; scholars@uhd.edu; www.uhd.edu/scholars

UHD ALUMNAE KEYNOTE SPEAKERS



STEM Keynote Speaker:

Nameera Baig, PhD

**E. & J. Gallo Winery, Postdoctoral Researcher
Modesto, California**

Presentation Title: “Shining Light on the Secret Lives of Microbes: My Journey from Undergraduate Research to Industry”

Bio Sketch: I am currently working as a postdoctoral researcher at Ernest and Julio Gallo Winery in Modesto California, where I am leading the development of methods for the rapid detection and characterization of wine spoilage microorganisms. I graduated summa cum laude from the University of Houston-Downtown (UHD) with a Bachelor’s degree in Chemistry and a minor in Applied Mathematics in May 2012. While at UHD I had the opportunity of conducting research under the mentorship of Professors Mian Jiang and Byron Christmas. I was also selected to conduct research at the Department of Molecular Physics, Łodz University of Technology in Poland during the Summer of 2009. Undergraduate research spurred my desire to pursue a career as a research scientist. My research mentors at UHD inspired me to become an analytical chemist. While at UHD I served as a Scholars Academy peer mentor, was awarded the Red Rose Scholarship from 2010 to 2012, and honored with the Excellence in Inorganic Chemistry, Excellence in Chemistry and Excellence in Freshman Chemistry awards from the Department of Natural Sciences. I received my Ph.D. in chemistry from the University of Notre Dame in May 2017. My Ph.D. research work was focused on studying biofilm communities of the opportunistic human pathogen *Pseudomonas aeruginosa*. At Notre Dame I was awarded the Berry Family Graduate Fellowship in Advanced Diagnostics & Therapeutics for my research work on pathogenic bacteria.

Presentation Abstract: My passion for analytical chemistry began at the University of Houston-Downtown where I conducted research on the development of electrochemical sensors under the mentorship of Dr. Mian Jiang. I was fascinated with the chemistry of life processes and the idea of measuring and characterizing biological molecules. I wanted to pursue research work which would enable me to understand biology from an analytical chemistry perspective. In graduate school I was captivated by the beneficial and deleterious effects of microorganisms on human life, whether it is fermenting grape juice to wine or causing deadly and debilitating diseases. The complex dynamics of microbial life, including mechanisms implicated in cell-cell signaling, virulence, antibiotic resistance, pathogenesis and metabolism are awe-inspiring and warrant an in-depth understanding by merging information across multiple scientific disciplines. Therefore, the overarching theme of my research work is the consolidation of information from microbiology and analytical chemistry for studying microbial communities at the molecular level. My goal is to employ techniques in analytical chemistry namely, Raman spectroscopy and mass spectrometry to decipher the complexity of microbial communities, especially those that impact human life, by characterizing microbial signaling molecules, virulence factors and cellular macromolecules.



Non-STEM Keynote Speaker:

Whitney Threadcraft-Walker, PhD

**In-Custody Population Coordinator, Harris County, TX
Policy Analyst, Earl Carl Institute for Legal & Social Policy, Inc.
Houston, TX**

Presentation Title: “Calculated Risks: Error Analysis in Assessment and Behavioral Prediction”

Bio Sketch: Whitney Threadcraft-Walker, Ph.D. is the In-Custody Population Coordinator for Harris County, TX, where she identifies macro-level trends among subgroups of offenders. In addition to tracking changes across incarcerated populations, Dr. Walker provides data support to Harris County’s Criminal Justice Coordinating Council. To date she has analyzed the impact of the federally ordered bond reform on failure to appear rates, as well as bond forfeiture rates. Additionally, she has created a profile of justice involved persons with mental illness in Harris County’s jails. Dr. Walker serves as the Associate Director of Research and

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Publications at the Earl Carl Institute for Legal and Social Policy, Inc., where she trains second and third year law students in research design and data analysis to ready their original manuscripts for publication.

Dr. Walker assisted in the National Science Foundation-funded project with Baylor College of Medicine's Initiative on Neuroscience and Law that designed a tablet based risk assessment application to investigate offender decision-making characteristics through a range of cognitive traits. She is a member of Harris County's Racial and Ethnic Disparities Committee and Jail Population Management Committee, where she conducts quantitative data analysis to reduce racial and ethnic disparities throughout the justice system for the safe and equitable management of persons interacting with Harris County's justice system. Dr. Walker also provides data support to the Center for Justice Research, funded by the Koch Foundation.

Whitney Threadcraft-Walker earned her B.S. from the University of Houston Downtown, as well her masters of criminal justice. She received her Ph.D. in 2017 from the Barbara Jordan Mickey Leland School of Public Affairs at Texas Southern University. Her research can be found in the *Huffington Post*, *Journal of Criminal Justice*, as well as *Corrections: Policy, Practice and Research*.

Presentation Abstract: Is there a relationship between having a job and committing a new criminal offense? What about having a degree or stable place of residence? For years, risk assessment instruments have used factors like employment and educational attainment to predict the likelihood of reoffending. Whitney Threadcraft-Walker uses examples from her own educational journey to demonstrate the theory behind actuarial risk assessments. From theoretical concepts to algorithms and praxis, Dr. Threadcraft-Walker explains the pros and cons of one of the fastest growing areas of interest in criminal justice research.

STUDENT RESEARCH CONFERENCE PRESENTED BY CITGO



CITGO Representative:

Mr. Joel McEwen

Information Analyst in JAVA Development

Presentation Title: "I Do Not Know"

Bio Sketch: A native Houstonian, Joel is the youngest of 3 children. Both of his parents are from the West Indies who came to the US and met each other in New York. They have been married for 40 years. Joel graduated from Alief Elsik High School where he first developed an interest in working with computers. After high school Joel didn't follow the traditional route to go straight to college. Joel joined the workforce working at a fast food restaurant and then at a hospital doing security in Beaufort, South Carolina. That is when he realized that he wanted better for himself and a better life than his parents. It took a full year but Joel eventually found himself enrolled at Savannah State University in Savannah, Georgia where he chose the major of Computer Science Technology. After studying at Savannah State University for 2 years Joel decided it was time to return home and enrolled at Texas Southern University. While enrolled at TSU he was able to become a LSAMP Scholar, member of the Computer Science Club and join Omega Psi Phi Fraternity Inc. He graduated from Texas Southern University with a Bachelor of Science in Computer Science and minor in Business Administration. After graduation from TSU he did not find a job in his career field right away. After 6 months of numerous applications/interviews with different companies Joel was offered a job in Fairfax, Virginia with IBM as an IT Specialist. Just days later he was offered a position at CITGO Petroleum here in Houston, Texas and for the past 10 years he has worked as an Information Analyst doing different roles within IT. Joel has been married for 5 years to his wife who is a Duty Constable. Getting to where he is today was not an easy task. He faced many set back and disappointment but he also found that through all his disappointments an accomplishment followed.

Poster Presentation Session I (1:30PM-2:15PM):

2 - Nereida Arias, Douglas Lopez, "Accessibility of Prevention and Intervention for Mental Health in Schools"

Co-Author: **Douglas Lopez**

Research Mentor: **Dr. Stephanie Coleman**

Project Location: University of Houston-Downtown

4 - Carolina Castro, Karina Filipovich, "Floating Concrete Barrier Wall"

Research Mentor: **Dr. Arash Rahmatian**

Project Location: University of Houston-Downtown

6 - Jill Costa, "Examination of an Intervention to Address Jail Overcrowding"

Co-Author: **Haci Duri**

Research Mentor: **Dr. Lori Lovins**

Project Location: University of Houston-Downtown

8 - Yaisa Dodd, Nia Griffith, Jacqueline Tarango, "Analysis of Microbes and Chemicals in Houston Water Post Hurricane Harvey"

Co-Author: **Jacqueline Rocha**

Research Mentors: **Dr. Poonam Gulati Salhotra, Dr. M. Gabriela Bowden**

Project Location: University of Houston-Downtown

10 - Ignacio Hernandez, Ivan Rocha, "R.E.U. on Solid Mechanics"

Research Mentor: **Dr. Youn-Sha Chan**

Project Location: University of Houston-Downtown

12 - Aaron Torres, "Theoretical Studies of Radiofluorinated Gallium Complexes with Potential Use as PET Imaging Agents"

Research Mentor: **Dr. Maria Benavides**

Project Location: University of Houston-Downtown

14 - Trung Le, "Bacterial Biofilms on Various Plastics in Waterways"

Co-Author: **Asma Aziz**

Research Mentors: **Dr. Poonam Gulati Salhotra, Dr. Janusz Grebowitz**

Project Location: University of Houston-Downtown

16 - Yadira Gamez, Abdul Haseeb, "The Influence of Ethnic Identity on Cross-Racial Friendships"

Research Mentor: **Dr. Erlanger A. Turner**

Project Location: University of Houston-Downtown

18 - Charles Punnathara, "Supercapacitors Based on Transition-metal Cyanoferrates for Renewable Energy"

Research Mentor: **Dr. Mian Jiang**

Project Location: University of Houston-Downtown

20 - Opemopi Ajape, Dandra Bigot, Serena Gill, "Are Victims of Intimate Partner Violence Expected to Save Themselves?"

Co-Author: **Janiece Montena**

Research Mentor: **Dr. Cindy Stewart**

Project Location: University of Houston-Downtown

22 - Patrick Graham, "The Truth About Acupuncture"

Research Mentor: **Dr. L. Kirk Hagen**

Project Location: University of Houston-Downtown

24 - Santiago Gutierrez, "Sugar and ADHD in *D. melanogaster*"

Research Mentor: **Dr. Yuanyuan Kang**

Project Location: University of Houston-Downtown

26 - Vy Hong, "Anticancer Efficacy Determination of Components from *Thymus Vulgaris* Using Breast Cancer Cells In Vitro"

Research Mentors: **Dr. Hamida B. Qavi, Dr. Tyra Hessel**

Project Location: University of Houston-Downtown

28 - Yanzhi Huang, "Game Development with Explorations on Object-oriented Technologies"

Research Mentor: **Dr. Ling Xu**

Project Location: University of Houston-Downtown

30 - Chisomnazu Ibe, "What Impact Does Religion Have on an Individual's Perception of Women With or Without Makeup?"

Research Mentor: **Dr. Travis Crone**

Project Location: University of Houston-Downtown

32 - Kimberley Kissoon, "Exopolysaccharides Drive Cell Density-Dependent Colony Expansion of Socially Motile *Myxococcus xanthus* Cells"

Co-Authors: **Pintu Patra, Isabel Cornejo, M. Gabriela Bowden, Oleg Igoshin**

Research Mentor: **Dr. Heidi B. Kaplan**

Project Location: UTHealth-McGovern Medical School

34 - Nina Lalonde, "Online Brain State Classification with Robot Control"

Co-Author: **Esteban Duran**

Research Mentor: **Dr. Yuchou Chang**

Project Location: University of Houston-Downtown

36 - Nina Lalonde, "Transferring Knowledge in Cognitive Data for Human-Robot Interaction"

Research Mentor: **Dr. Yuchou Chang**

Project Location: University of Houston-Downtown

38 - Charles Livermore, "Domain Mapper: A Tool for Investigation and Visualization of Multivariate 3D Data in R"

Research Mentor: **Dr. J. Patrick King**

Project Location: University of Houston-Downtown

40 - Sandra Lopez-Lugo, "Using Molecular Phylogenetics to Test for a New Species of Bats in the Genus *Chiroderma*"

Research Mentor: **Dr. Amy Bickham Baird**

Project Location: University of Houston-Downtown

42 - Hyma Kanithi, Sandra Lopez-Lugo, "Monitoring Houston's Waterways Following Hurricane Harvey"

Research Mentors: **Dr. M. Gabriela Bowden, Dr. Poonam Gulati Salhotra**

Project Location: University of Houston-Downtown

44 - Jasmine Major, "'Mrs. Warren:' Using an Ecomap Approach to Assessment and Evidence-Based Social Work Interventions"

Research Mentor: **Dr. Heather Honore Goltz**

Project Location: University of Houston-Downtown

46 - Takese McKenzie, "Modeling Attention-Deficit/ Hyperactivity Disorder in *Drosophila*"

Research Mentor: **Dr. Yuan Yuan Kang**

Project Location: University of Houston-Downtown

48 - Hector Melchor, "Yield and Ultimate Strength of Steel at Elevated Temperature"

Co-Author: **David Gonzales**

Research Mentor: **Dr. Kleio Avrithi**

Project Location: University of Houston-Downtown

50 - Kristina Davenport, Kristen Moreno, Catherine Ojode, "They All Look Alike to Me: Own-Race Bias in a Diverse, Urban Population"

Research Mentor: **Dr. Ruth Johnson**

Project Location: University of Houston-Downtown

52 - Thu-Nhien T. Gonzalez, Jordan Nassirian, Juan Nunez, "Atmospheric Particulate Matter: Greater Houston Area-Fall 2017"

Co-Author: **Leydi Serrano**

Research Mentors: **Dr. Penny Morris-Smith, Dr. Philip Lyons**

Project Location: University of Houston-Downtown, Gulfton, Mission Bend South

54 - Courtney Cavazos, Vutha Nhim, "Multiple Methods for Determination of Sap Flow and Stem Water Potential in Healthy and Droughted Soybeans"

Co-Authors: **Matthew Capobianco, Allison Chang, Sarah Oldfield, Regina Solomon**

Research Mentors: **Dr. Michael Tobin, Dr. Sergiy Koshkin**

Project Location: University of Houston-Downtown

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56 - Fiona Ong, "Thermal Analyses of the Hexa-amine Halides of Cobalt (III)"
Co-Authors: **Ervin Arslan, Dr. Roger A. Lalancette, Dr. Ivan Bernal**
Research Mentor: **Dr. Janusz Grębowicz**
Project Location: University of Houston-Downtown

58 - Michael Shkatov, "Computational Analysis of Topoisomerase I Inhibitor Zn (II) Complex with Cancer Fighting Properties"
Research Mentor: **Dr. Maria G. Benavidez**
Project Location: University of Houston-Downtown

60 - Leslie Rojas, "Project X: A Low-Cost Infant Incubator"
Co-Authors: **Jordan Oldham, Jonathan Juarbe, Rudy Jasso**
Research Mentor: **Dr. Vassilios Tzouanas**
Project Location: University of Houston-Downtown

62 - Khusro Saeed, "CAN Bus Emulator Station"
Research Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown

64 - Tasha Crockett, Lakeltra Jones, Donisha Shepherd, Armando Villegas, "American Healthcare Accessibility"
Research Mentor: **Dr. Stephen Wernet**
Project Location: University of Houston-Downtown

66 - Charles Vaughn, "Improvisational Theatre, Coordinated Management of Meaning in Action"
Research Mentor: **Mrs. Abigail Koenig**
Project Location: University of Houston-Downtown

68 - Stefany Villanueva, "Comparison of Locomotion Assays in *D. Melanogaster*"
Research Mentor: **Dr. Yuan Kang**
Project Location: University of Houston-Downtown

70 - Peter Harkins, Layne Pruitt, Anna Wheless, "Construction of an EPS-Deficient *Myxococcus xanthus* Strain"
Research Mentor: **Dr. Gabriela Bowden**
Project Location: University of Houston-Downtown

72 - Hanna Batayneh, Sohyeon Lee, "Nonlinear Dynamical Models on Neurons"
Research Mentor: **Dr. Youn-Sha Chan**
Project Location: University of Houston-Downtown

74 - Danniela Herrera, Manuel Reyes, Shaynah St. Vallier, Aundreana Wallace, "Chemical Analyses of Greater Houston Waterways Post Hurricane Harvey"
Research Mentors: **Dr. Poonam Gulati Salhotra, Dr. M. Gabriela Bowden, Dr. Mian Jiang**
Project Location: University of Houston-Downtown

76 - Mariangela Gamez, "Misleading Errors in Legal Translation: Documents from Harris County District"
Research Mentor: **Dr. Rey Romero**
Project Location: Harris County

Poster Presentation Session II (2:15PM-3:00PM):

1 - Muhammad Abdullah, "Isolation and Annotation of Cluster C and N Phags"
Research Mentors: **Dr. Saha Sanghamitra, Dr. Rachna Sadana**
Project Location: University of Houston-Downtown, HHMI Janelia Research Campus

3 - Alex Benavidez, "Identification by MALDI-ToF of Plant Endophytes from Two Corn Varieties at Different Maturation Stages"
Co-Author: **Michael LaMontagne**
Research Mentors: **Dr. Lisa Morano, Dr. Michael LaMontagne**
Project Location: University of Houston-Downtown, University of Houston Clear Lake

5 - Jose Chavez, Caleb Epps, "Own-Gender Bias and Sex Differences in Facial Processing"
Research Mentors: **Dr. Ruth Johnson, Dr. Stephanie Babb**
Project Location: University of Houston-Downtown

7 - Thai Do, "The Power of the Transfer of Knowledge and the Testing Effect through Chinese Characters"
Research Mentor: **Dr. Kit Cho**
Project Location: University of Houston-Downtown

9 - Daliya Ali, Mariam Dadani, Zainab Dadani, Nelopher D'silva, Mina Hemmati, Duc M. Nguyen, "Fungal Induction on Pulmonary Cells and Lung Cancer Cell Lines Affecting their Morphology and Cell Survival"
Co-Author: **Thunhien T. Gonzalez**
Research Mentors: **Dr. Phillip C. Lyons, Dr. Mesias Pedroza**
Project Location: University of Houston-Downtown

11 - Michael E. Bustamante, Andrew Cline, Julio Enriquez, Ignasio Hernandez, Skylar Hoffert, Trung Le, Moises Nunez, Jordyn Stanek, Aaron Torres, "The Advancement of Mars Colonization through Agricultural Development"
Research Mentors: **Dr. Jeffery Martz, Dr. Lisa Morano**
Project Location: University of Houston-Downtown

13 - Yesenia Escalera, "Risk Analysis of Sanitary Landfills"
Research Mentor: **Dr. Kleio Avrithi**
Project Location: University of Houston-Downtown

15 - Laela M. Ezzeddine, Bryan Sapon, "The Effects of Social Media Use on Academic Performance"
Co-Author: **Bryan Sapon**
Research Mentor: **Dr. Danya M. Corkin**
Project Location: University of Houston-Downtown

17 - Belen Garcia, Charles Punnathara, Sivanan L. Sawh, "UHD Field Lab Station: Microgrid with SCADA Monitoring System"
Research Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown

19 - Lauren Gelormini, Rachel Redondo, "Does the Placement of Math Problems Influence Learning Experience?"
Research Mentor: **Dr. Kit Cho**
Project Location: University of Houston-Downtown

21 - Jose Miguel Gonzalez, "Fruit Fly Kinematic Tracking App"
Research Mentors: **Dr. Weining Feng, Dr. Yuan Yuan Kang**
Project Location: University of Houston-Downtown

23 - Ashlee Griffin, "Anticancer Efficacy Determination of Components from Turmeric Roots"
Research Mentors: **Dr. Hamida B. Qavi, Dr. Tyra Hessel**
Project Location: University of Houston-Downtown

25 - Sarah Graeber, Andrea Hain, "Comparison of Fungal Community Composition and Soil Factors among Remnant, Restored, and Created Gulf Coast Prairies"
Co-Author: **Ivy Holiday**
Research Mentor: **Dr. Michael Tobin, Dr. Philip Lyons**
Project Location: University of Houston-Downtown

27 - Andrea Guzman, Jianyi Hou, Reyna Valdez, "Investigating Mechanism of Cell Death Caused by Cytotoxic Compounds on Cancer Cell Lines"
Research Mentor: **Dr. Rachna Sadana**
Project Location: University of Houston-Downtown

29 - Ashley Hudson, Regina Solomon, "The Role of Immunosuppression via Activation of the PD1/PD-L1 Immune Checkpoint in Triple-Negative Breast Cancer Progression."
Co-Author: **Alejandro Contreras, M.D./Ph.D.**
Research Mentor: **Dr. Adriana Visbal, Ph.D.**
Project Location: University of Houston-Downtown

31 - Syed Faran Jafri, "Impact of Steel Core Structures in Wood Buildings Drift"
Research Mentor: **Dr. Arash Rahmatian**
Project Location: University of Houston-Downtown

33 - Yishak Kotisso, "Computational Studies of Silver(I) Complexes Containing Heterocyclic carbene (NHC) Ligands"
Research Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown

35 - Nina Lalonde, "Single-Trial P300 Classification Using Little Training Data"
Research Mentor: **Dr. Yuchou Chang**
Project Location: University of Houston-Downtown

37 - Mays Al-Maliki, Alondra Chavez, Chidozie Oguejiofor, Mark Samudio, Tamara Sobhy, Syed Sajid Zaidi, "Is it Possible for "Life" to Exist Outside of Earth"
Research Mentor: **Ms. Mitsue Nakamura**

Project Location: University of Houston-Downtown

39 - Sandra Lopez-Lugo, "Changes in the Cytoskeleton of Mucopolysaccharidosis (MPS) Patients"

Co-Authors: **Karolina Pierzynowska, Lidia Gaffke**

Research Mentor: **Prof. Grzegorz Wegrzyn**

Project Location: University of Gdansk, Gdansk

41 - Paige MacQueen, "Not Just a Bad Dream: Emotion Regulation Mediations the Relationship Between Nightmares and Suicide in Psychiatric Inpatients"

Research Mentor: **Dr. Katrina Rufino**

Project Location: Baylor College of Medicine

43 - Boubacar Maiga, "FundForUs"

Research Mentor: **Dr. Ling Xu**

Project Location: University of Houston-Downtown

45 - Megan McGee, Bichthuy Nguyen, "Anti-Cancer Properties of Caraway Seed and Black Onion Seed Extracts on MCF-7 Breast Cancer Cells In Vitro"

Research Mentors: **Dr. Tyra Hessel, Dr. Hamida Qavi**

Project Location: University of Houston-Downtown

47 - Takese McKenzie, "The Preparation of Cobalt Hydroxide Modified Electrode for Battery and Sensor Application"

Research Mentor: **Dr. Mian Jiang**

Project Location: University of Houston-Downtown

49 - Ramiro Mendoza, "Effect of Extra Stiffeners in a Wooden Frames"

Research Mentor: **Dr. Arash Rahmatian**

Project Location: University of Houston-Downtown

51 - Joly Fahim, Huy Anh Mai, Praneeth Nadimpalli, "Screening synthetic Compounds for Their Cytotoxic Effects on Leukemia Cell Lines"

Research Mentor: **Dr. Rachna Sadana**

Project Location: University of Houston-Downtown

53 - Daniel Nguyen, "The Effects of Brief Meditation on BCI Performance"

Research Mentor: **Dr. Dvijesh Shastri**

Project Location: University of Houston-Downtown

55 - Paul Nixon, "Numerical Simulations of Multi-Phase Flows in Nuclear Reactor Pipes"

Research Mentor: **Dr. Katarina Jegdic**

Project Location: University of Houston-Downtown

57 - Erick Cervantes, Aniket Chaudhari, Chinaecherem Eze, Gabrielle Gozali, Ingrid Mejia, Alejandra B. Parra, Ana Rubio, "Increasing a Human's Natural Healing Process Biologically and Technologically"

Research Mentor: **Ms. Mitsue Nakamura**

Project Location: University of Houston-Downtown

59 - Glaubyane Viana, "Multistage Automated Desalination Station (MADS)"

Co-Author: **Jonathan Smith**

Research Mentor: **Dr. Weining Feng**

Project Location: University of Houston-Downtown

61 - Joaquin Longoria, Irvin Romero, "Synthesis and Characterization of a Novel Polypyridinium Polymer Incorporating a Chiral Monomer"

Research Mentor: **Dr. Robin Jose**

Project Location: University of Houston-Downtown

63 - Ashley Carter, Bianca Gomez, Donihue Sands, Aldercy Vidales, "Who Helps Victims of Intimate Partner Violence?"

Research Mentor: **Dr. Cindy Stewart**

Project Location: University of Houston-Downtown

65 - Boranai Tychon, "The Anticancer Efficacy of Non-polar components from Neem Leaves using Breast Cancer Cells In Vitro"

Co-Author: **Shuja Abbasi**

Research Mentors: **Dr. Tyra Hessel, Dr. Hamida Qavi**

Project Location: University of Houston-Downtown

67 - Denisse Velazquez, "Novel Determination of Species Involved in Solar Energy Storage and Maintenance"

Research Mentor: **Dr. Mian Jiang**

Project Location: University of Houston-Downtown

69 - Lydia Graham, Luis Llanas, Allison McKee, Diana Rodarte, Thanh Vu, "Recreating and Sustaining a Jurassic World-Amusement Park"

Research Mentor: **Ms. Mitsue Nakamura**

Project Location: University of Houston-Downtown

71 - Amanuel Wonbera, "Antiproliferative Efficacy of Allicin and Ajoene from Pearl Garlic using Breast Cancer Cells"

Co-Author: **Esmeralda Martinez**

Research Mentor: **Dr. Qavi Hamida**

Project Location: University of Houston-Downtown

Poster Presentation Session II – Graduate Level Projects (2:15PM-3:00PM):

73 - Emily Ponte, "Leadership Character and Employee Work Ethic: An Application of the Barber Typology to Nonprofit CEOs"

Research Mentor: **Dr. Laila Sorurbakhsh**

Project Location: University of Houston-Downtown

75 - Tze Horng Chin, Brittany Edwards, Lori Ramirez, Xinyao Wang, "Racial, Ethnic, and Gender Differences Among Minorities at Financial Institutions"

Research Mentors: **Dr. Sarah Singletary Walker, Dr. Whitney**

Botsford Morgan

Project Location: University of Houston-Downtown

Acknowledgments

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