

Sponsored by the UHD Scholars Academy

Funded by the  
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U.S. Department of Education (P120A130040),  
U.S. Nuclear Regulatory Commission (NRC-27-10-1121, NRC-HQ-12-G-38-006),  
The Brown Foundation, Inc., and UH-Downtown

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

**Friday, April 11, 2014**

8:00 - 9:00 am	Registration and Continental Breakfast, Coffee House
9:00 am	<i>Dr. Mary Jo Parker, Director, Scholars Academy, UHD</i> Introduction of UHD President, Auditorium
9:00 am	<i>Dr. William Flores, President, University of Houston-Downtown</i> Welcoming Remarks, UHD Wilhelmina Cullen Robertson Auditorium
9:10 am	<i>Dr. Lisa Morano, Chair, Department of Natural Sciences, UHD</i> Introduction of Keynote Speaker, Auditorium
9:10 - 9:40 am	<i>Jennifer Abrams, 2007 UHD Alumnus</i> <i>Graduate Research Assistant, Graduate School of Biomedical Sciences,</i> <i>University of Texas Health Science Center at Houston</i> Keynote Speaker, Auditorium
9:40 - 10:40 am	Oral Presentations, Session I, Auditorium
10:50 - 11:50 pm	Oral Presentations, Session II, Auditorium Introductions by <i>Drs. Weining Feng and Aimee Roundtree, SRC Co-Chairs</i>
11:50 am	<i>Dr. Mary Jo Parker, Director, Scholars Academy, UHD</i> Introduction of External Community Speaker, Auditorium
11:50 - 12:10 pm	<i>Tuwanda M. Smith, Esq., Manager, Minority Serving Institutions Program,</i> <i>United States Nuclear Regulatory Commission</i> External Community Speaker, Auditorium
12:10 - 1:20 pm	Lunch Break
1:20 - 3:30 pm	Open Poster Sessions, Room A300

## Conference Co-Chairs:

**Dr. Weining Feng, Associate Professor of Engineering Technology, UHD**  
**Dr. Aimee Roundtree, Associate Professor of English, UHD**

## Conference Planning Committee:

**Dr. Maria Bhattacharjee, Associate Professor of Urban Education, UHD**  
**Dr. David Branham, Associate Professor of Social Sciences, UHD**  
**Dr. Irene Chen, Professor of Urban Education, UHD**  
**Mr. Rene Garcia, Program Manager, UHD Scholars Academy**  
**Dr. Kenneth Johnson, Associate Professor of Geology, UHD**  
**Dr. Matthew Johnson, Assistant Professor of Criminal Justice, UHD**  
**Dr. Lisa Morano, Chair of Natural Sciences Department, UHD**  
**Dr. Mary Jo Parker, Director, UHD Scholars Academy**  
**Dr. Lucille Pointer, Chair of Management, Marketing & Business Administration, UHD**  
**Dr. Gene Preuss, Associate Professor of History, UHD**  
**Dr. Ruth Robbins, Professor of Finance, Accounting and CIS, UHD**  
**Dr. Edwin Tecarro, Associate Professor of Mathematics, UHD**  
**Dr. Akif Uzman, Interim Dean, UHD College of Sciences and Technology**  
**Dr. Jeong-Mi Yoon, Professor of Mathematics and Statistics, UHD**

## Oral and Poster Presentations:

- 58 - Alesha Rimmelin**, "Molecular Phylogenetics of Rhinoclemmys: A Re-Assessment of the Taxonomic Status of Mexican Species"  
Co-Author: **John L. Carr, Department of Biology, University of Louisiana at Monroe**  
UHD Faculty Mentor: **Dr. Amy Baird**  
Project Location: University of Houston-Downtown
- 20 - Francisco Colón**, "Development of a New Method for the Chemical Abstraction and Identification of Diatom Tests from a Clay Soil Matrix"  
UHD Faculty Mentor: **Dr. Brad Hoge**  
Project Sponsors: National Science Foundation; Texas Workforce Commission  
Project Location: University of Houston-Downtown
- 21 - Mariana Cortes**, "Computational Investigation of Gd(III) Ligands used as Contrast Agents for Magnetic Resonance Imaging"  
UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown
- 41 - Christa Landowski and Reyna Valdez**, "Preliminary Screening of 144 Synthetic Compounds Identifies 10 Novel Compounds with Potential to be Developed into Anti-Cancer Drugs"  
Co-Authors: **Michal Kaczmarek and Katarzyna Karpinzka**  
UHD Faculty Mentor: **Dr. Rachna Sadana**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

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: 713-222-5356; [scholars@uhd.edu](mailto:scholars@uhd.edu); [www.uhd.edu/scholars](http://www.uhd.edu/scholars)

**23 - Rafael de la Flor**, “Quantum Mechanical Studies of Gadolinium(III) Ligands used for MRI Contrast Agents”  
UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsors: Texas Workforce Commission and U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**55 - Gregg Pelt**, “African American Students Academic Performance in Predominately White Institutions”  
UHD Faculty Mentor: **Dr. Stacie Craft DeFreitas**  
Project Location: University of Houston-Downtown

**5 - Shamsa Ali**, “Investigation of T-cell receptors interacting molecule (TRIM) on natural killer cells in mice.”  
Co-Authors: **Suzette Khan and Nicolle Patterson**  
UHD Faculty Mentor: **Dr. Emily Corse**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: MD Anderson Cancer Center

**92 - Iris Silva and Maria Maldonado**, “Microbiology and Urban Education Students Collaborate to Teach Third Graders about Composting”  
Co-Authors: **Sandy Gramajo and Fersen Leiva**  
UHD Faculty Mentors: **Drs. Maria Bhattacharjee and Poonam Gulati**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: Crockett Elementary School and UHD

## Poster Presentation Session I (1:20PM-2:25PM):

**1 - Anjum Abha**, “Cloning and Expression of Staphylococcus aureus Colonization and Virulence Factors”  
UHD Faculty Mentor: **Dr. Gabriela Bowden**  
Project Location: University of Houston-Downtown

**3 - Tawfiq Ahmed, Akhirah Avant, and Sara Osman**, “Contagion: Race Against The Human Race”  
Co-Authors: **Graham Wilson, Faisal Khan, Janeffer Casarez, Sara Sulekha, Reihana Elsayed**  
UHD Faculty Mentor: **Ms. Mitsue Nakamura**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**5 - Shamsa Ali**, “Investigation of T-cell receptors interacting molecule (TRIM) on natural killer cells in mice.”  
Co-Authors: **Suzette Khan and Nicolle Patterson**  
UHD Faculty Mentor: **Dr. Emily Corse**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: MD Anderson Cancer Center

**7 - Kathryn Arnst**, “Enduring Personality, Ethnic differences, and designing effective interventions for unhealthy eating behaviors”  
UHD Faculty Mentor: **Dr. Christine Bachman**  
Project Location: University of Houston-Downtown

**9 - Rebecca Barbosa, Lindsay Denson, and Martin Flores**, “Interdisciplinary Study between Natural Science and Business for the Development of Marketing Strategies for Texas Vineyards”  
UHD Faculty Mentors: **Drs. Madeline Johnson and Lisa Morano**  
Project Sponsor: U.S. Department of Agriculture  
Project Location: University of Houston-Downtown

**11 - Suraj Basnet**, “Molecular Phylogenetic Study of Pocket Gophers (Genus Geomys) in Texas”  
UHD Faculty Mentor: **Dr. Amy Baird**  
Project Location: University of Houston-Downtown

**13 - Erica Berrios, Thanh Nguyen, and Nadia Nourhussein**, “Dynamics of Structures: The Pedestrian Bridge”  
UHD Faculty Mentor: **Dr. Jorge Tito-Izquierdo**  
Project Location: University of Houston-Downtown

**15 - Camille Burton and Aubrey McKenzie**, “Women’s Body Perspectives Between the Classes”  
UHD Faculty Mentor: **Dr. Christine Bachman**  
Project Location: University of Houston-Downtown

**17 - Jimmy Chahine**, “Garden Sustainability Project”  
Co-Authors: **Reyna Valdez and Joe Correon**  
UHD Faculty Mentors: **Drs. Vassilios Tzouanas, Faiza Khoja, Lisa Morano and Jorge Tito-Izquierdo**  
Project Location: University of Houston-Downtown

**19 - Jim Chisholm**, “Thermal Analysis of Welded Copper Canister Nuclear Waste Storage System Components”  
UHD Faculty Mentor: **Dr. Janusz Grebowicz**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**21 - Mariana Cortes**, “Computational Investigation of Gd(III) Ligands used as Contrast Agents for Magnetic Resonance Imaging”  
UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**23 - Rafael de la Flor**, “Quantum Mechanical Studies of Gadolinium(III) Ligands used for MRI Contrast Agents”  
UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**25 - Lisa Gaines-Brooks, Risa Garcia, and Tracey-Ann Hall**, “The Role of Participant Characteristics in Blame Attributions for Intimate Partner Violence”  
UHD Faculty Mentor: **Dr. Cindy Stewart**  
Project Location: UHD and University of Tennessee Knoxville

**27 - Irene Girgis**, “Turmeric Inhibits Streptococcus salivarius in Dental Biofilms”  
Co-Author: **Merlin Herrera**  
UHD Faculty Mentor: **Dr. Poonam Gulati**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**29 - Martha Cecilia Guerra**, “Developing a Novel Apoptotic Sensor”  
Co-Author: **Casey Zhu**  
UHD Faculty Mentors: **Drs. Daniel Wagner and Jonathan J. Silberg**  
Project Sponsors: National Science Foundation; Texas Workforce Commission  
Project Location: Rice University

**31 - Karina Henriquez**, “New Assay for Acetate Based on the Oxidation of Azure Dyes by KBrO<sub>3</sub> and KClO<sub>3</sub>”  
UHD Faculty Mentor: **Dr. Mian Jiang**  
Project Location: University of Houston-Downtown

**33 - Masako Hino**, “The Effect of Thermal History on Crystallization of Polypropylene (PP) and Polyethylene terephthalate (PET)”  
Co-Author: **Jim Chisholm**  
UHD Faculty Mentor: **Dr. Janusz Grebowicz**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**35 - Tiffany Jasso and Carmen Hernandez**, “Does it Really Take a Village to Raise a Child?: Exploring the Concept of Non-Parental Discipline”  
UHD Faculty Mentor: **Dr. Susan Henney**  
Project Location: University of Houston-Downtown

**37 - Ebony Johnson, Jacqueline Tamashiro, and Monica Rodriguez**, “Ozone Variations: Weekdays”  
Co-Author: **Eric Flores**  
UHD Faculty Mentors: **Drs. Penny Morris-Smith and Donald Musselwhite**  
Project Sponsor: NASA  
Project Location: UHD & UH-Central

**39 - Danial Khan**, “The Efficacy of three Distinct Components from Saffron with Anticancer Activity against Breast Cancer Cells In vitro”  
UHD Faculty Mentors: **Drs. Tyra Hessel and Hamida Qavi**  
Project Sponsor: Texas State Legislature - JAMP  
Project Location: University of Houston-Downtown

**41 - Christa Landowski and Reyna Valdez**, “Preliminary Screening of 144 Synthetic Compounds Identifies 10 Novel Compounds with Potential to Be Developed into Anti-Cancer Drugs”  
Co-Authors: **Michal Kaczmarek and Katarzyna Karpinzka**  
UHD Faculty Mentor: **Dr. Rachna Sadana**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**43 - Minh Le and Andrew Yen**, “Level Measurements and Control with an Ultrasonic Sensor”  
UHD Faculty Mentor: **Dr. Weining Feng**  
Project Location: University of Houston-Downtown

## Keynote Speaker:

**Jennifer Abrams, Ph.D. Candidate**  
**Graduate Research Assistant,**  
**Graduate School of Biomedical Sciences,**  
**University of Texas Health Science Center at Houston**

*Biography:* Jennifer Abrams obtained a B.S. in biotechnology from the University of Houston-Downtown. While an undergraduate, she performed research analyzing coastal prairie soil fungi by denaturing gradient gel electrophoresis under the guidance of Dr. Philip Lyons. She is currently pursuing a Ph.D. in microbiology and molecular genetics at the University of Texas Medical School and Graduate School of Biomedical Sciences in the laboratory of Dr. Kevin A. Morano, where she studies the diversity of three families of cytosolic Hsp70 nucleotide exchange factors in *S. cerevisiae*.



*Presentation Title:* “Undergraduate Research: The First Step on the Path to a Successful Career in Science”

*Presentation Abstract:* My interest in science became apparent to me as a child, but I was only aware that it was an actual career option once I became an undergraduate at University of Houston-Downtown and was allowed to do a research project of my own under the guidance of Dr. Philip Lyons and The UHD Scholars Academy. This not only ignited my interest in research, but also gave me the opportunity to experience science from a different perspective. I did not know exactly what type of science career would be best for me, but I knew the two things that were most important to me: one was that I become an expert in my field of choice and that I love what I do. The novelty of what I was studying and the freedom to test my ideas led me to realize that research was one way to achieve my dreams. Undergraduate research gave me experience in scientific research, communication, and networking all the tools necessary to be accepted to and complete my Ph.D. training at The Graduate School for Biomedical Sciences at Houston. While in graduate school, my research project titled “Functional Specificity of Yeast Cytosolic Hsp70 Nucleotide Exchange Factors,” was completed with the mentorship from Dr. Kevin Morano, and I recently submitted my work for publication in The Journal of Biological Chemistry. This project is essential for understanding the role of chaperones in protein homeostasis as it relates to neurodegenerative diseases. In addition to my thesis project, I was able to publish a co-first author review and a novel technique that I developed in the lab. I am currently pursuing a postdoctoral position with Dr. Jason Gestwicki, who works on isolating small molecules that affect the function of molecular chaperones in order to develop drugs to treat neurodegenerative disease. I am still on the journey to achieving the career that is ideal for me, but undergraduate research is what set me on the right path and taught me how to overcome the difficult obstacles that has led me to where I am today.



**Graduate School of Biomedical Sciences**

## External Community Speaker:

**Tuwanda M. Smith, Esquire**  
**Manager, Minority Serving Institutions Program,**  
**United States Nuclear Regulatory Commission**

*Presentation Title:* “The Minority Serving Institutions (MSIs) Program – A NRC Federal Education Investment Program”

*Presentation Abstract:* The Minority Serving Institutions (MSIs) Program was established in 2006 to help MSIs in their efforts to: (1) achieve academic excellence in STEM education and training; (2) develop human capital (faculty and students); (3) build capability, capacity and infrastructure; (4) effectively compete for grants, cooperative agreements, contracts and resources; (5) participate in Federal and public programs and funding opportunities; and (6) produce a diverse skilled STEM workforce. For the past four years, NRC has assisted the University of Houston-Downtown (UHD) by funding UHD’s project to increase underrepresented students in the nuclear industry.

This partnership with UHD has helped to create and sustain a direct pipeline for STEM students entering undergraduate and graduate level nuclear sciences, establish industry partnerships, increase offsite field trips, and fund summer scholarly research opportunities and seminar series.



**45 - Amber Martin, Shequita Dickerson, and Francis Cortez**, “Examining the own-gender bias in facial-processing: Are we better at detecting changes in the opposite sex or our own?”  
UHD Faculty Mentors: **Drs. Stephanie Babb and Ruth Johnson**  
Project Location: University of Houston-Downtown

**47 - Lea Means**, “Dynamics of Mixed Species Bacterial Biofilms”  
Co-Authors: **Nnenna Kpando and Caroline Barbosa**  
UHD Faculty Mentor: **Dr. Poonam Gulati**  
Project Sponsor: National Science Foundation  
Project Location: University of Houston-Downtown

**49 - Gabriel Morales**, “Information Design”  
UHD Faculty Mentor:  
Project Location: University of Houston-Downtown

**51 - Gerardo Moreno**, “Forensic Accountants in the Courtroom”  
Co-Authors: **Joel Medina, Anum Memon, Mario Mondragon, Kelly Moynihan, Phuong Nguyen, Trang Nguyen and Rosalba Oropeza**  
UHD Faculty Mentor: **Dr. Linda Bressler**  
Project Location: University of Houston-Downtown

**53 - Nelcy Munoz, Daniel Alacinejad, and Bryan Lee**, “Sysco Applying Linear Programming”  
UHD Faculty Mentors: **Drs. Lucille Pointer and Elias Keedy**  
Project Location: University of Houston-Downtown

**55 - Gregg Pelt**, “African American Students Academic Performance in Predominately White Institutions”  
UHD Faculty Mentor: **Dr. Stacie Craft DeFreitas**  
Project Location: University of Houston-Downtown

**57 - Phylcia Real, Stephanie Guidi, and Hiba Khurshid**, “Do “they” really all look alike? Analyzing the own-race bias across different ethnicities”  
UHD Faculty Mentors: **Drs. Stephanie Babb and Ruth Johnson**  
Project Location: University of Houston-Downtown

**59 - Anisleidy Rivero**, “Body Dissatisfaction and Religious Authority Figures”  
UHD Faculty Mentor: **Dr. Travis Crone**  
Project Location: University of Houston-Downtown

**61 - Shea Snelling**, “The Effects of Authoritarian and Benevolent God Concepts on Anxiety, Shame, and Religious Attitudes”  
UHD Faculty Mentor: **Dr. Travis Crone**  
Project Location: University of Houston-Downtown

**63 - Roman Torres**, “Mucosal Response to Staphylococcus aureus”  
UHD Faculty Mentor: **Dr. Gabriela Bowden**  
Project Location: University of Houston-Downtown

**65 - Destiny Trevino, Zakariya Mahmud, and Doris Amaro**, “Exploring Genetic Engineering”  
Co-Authors: **Precious Awagu, Antonio Gloria, Lamont Cranfield, Isais Gonzalez**  
UHD Faculty Mentor: **Ms. Mitsue Nakamura**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**67 - Mau Troung and Vi Lai**, “Synthesis & Characterization of Ceramic Nanoparticles with Different Morphology”  
Co-Authors: **A. Wypych, J. Ulański**  
UHD Faculty Mentor: **Dr. Janusz Grebowicz**  
Project Location: Lodz University of Technology – Politechnika Lodzka, Lodz, Poland

**69 - Alisa Turchaninova and Eloy Perez**, “Applications of Partial Differential Equations to Chromatography”  
UHD Faculty Mentor: **Dr. Katarina Jegdic**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**71 - Angela Vang, Mandira Lamichane, and Resha Shrestha**, “New Assay for Sugar Based on Transition Metal Hydroxide Fumes”  
UHD Faculty Mentor: **Dr. Mian Jiang**  
Project Location: University of Houston-Downtown

**73 - Holly Vernon**, “Spanish Language Maintenance in the Sephardic press of early 20th-century New York”  
UHD Faculty Mentor: **Dr. Reynaldo Romero**  
Project Location: University of Houston-Downtown

**75 - Seenya Vincent and Jacqueline Washington**, “Molecular modeling of transition metal complexes of tetradentate Schiff base ligand”  
UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**77 - DaNae Woodard**, “Activity of T. fusca and A. acidocaldarius OSBS enzymes”  
Co-Authors: **Mariana Lopez, Denis Odokonyero**  
UHD Faculty Mentor: **Dr. Margaret Glasner**  
Project Location: Texas A&M University

## Service Learning Poster Presentation Session I (1:20PM-2:25PM):

**79 - Rebecca Barbosa and Joanna Castaneda**, “The Beacon: Serving the Homeless of Houston”  
UHD Faculty Mentor: **Dr. Mary Jo Parker**  
Project Sponsor: Texas Workforce Commission  
Project Location: The Beacon

**81 - Isabel Cornejo and Prisilia Cruz**, “STEM to Inspire the Future”  
UHD Faculty Mentor: **Dr. Mary Jo Parker**  
Project Sponsor: Texas Workforce Commission  
Project Location: Klein Intermediate School

**83 - Rajni Dhadral and Charles Punnathara**, “Not Just Service, It’s a Ritual for Humanity”  
Co-Authors: **Milo Falconi, Namrata Kayastha, Sharlicia McEachine, Vivita Sedai, Sunday Edose, Kevin Castillo**  
UHD Faculty Mentor: **Dr. Mary Jo Parker**  
Project Sponsor: Texas State Representative Sylvester Turner  
Project Location: Polly Ann McRoberts Elementary School

**85 - Brett Jensen and Carolina Perez Lopez**, “Children’s Museum of Natural Science Service Project”  
Co-Author: **Caroline Barbosa**  
UHD Faculty Mentor: **Dr. Mary Jo Parker**  
Project Sponsor: Texas Workforce Commission  
Project Location: Houston Children’s Museum of Natural Science

**87 - Guadalupe Lee, Princy Thomas, and Sara Valliani**, “Promoting STEM at Clifton Middle School”  
Co-Authors: **Joshua Jimenez, Viridiana Monroy, Nadia Nourhussein, Ngoc Vo, Mona Youngblood**  
UHD Faculty Mentor: **Dr. Mary Jo Parker**  
Project Sponsor: Texas State Representative Sylvester Turner  
Project Location: Clifton Middle School and UHD

**89 - Viridiana Monroy and Isela Castejon**, “Service Learning Project: Testing Organic vs. Conventional Produce in First Grade”  
Co-Authors: **Joanna Castaneda and Alba Rubi Banegas**  
UHD Faculty Mentors: **Drs. Maria Bhattacharjee and Poonam Gulati**  
Project Sponsor: Texas State Representative Sylvester Turner  
Project Location: Crockett Elementary School and UHD

**91 - Semira Taheri, Najah Khan, and Jessica Fuentes**, “Teaching Science In Elementary Schools: A Microbiology and Urban Education Collaboration”  
UHD Faculty Mentors: **Drs. Maria Bhattacharjee and Poonam Gulati**  
Project Sponsor: Texas State Representative Sylvester Turner  
Project Location: Crockett Elementary School and UHD

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## Poster Presentation Session II (2:25PM-3:30PM):

**2 - Waqar Ahmad**, “Theoretical Studies of Transition Metal Complexes of 4-amino-5-(pyridyl)-4H-1,2,4-triazole-3-thiol”

UHD Faculty Mentor: **Dr. Maria Benavides**  
Project Sponsor: U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**4 - Viktor Akhanov**, “The Human Mucosal Response Against Staphylococcus aureus Virulence Factors”

UHD Faculty Mentor: **Dr. Gabriela Bowden**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**6 - Liz Amaro and Linda Onyirimba**, “Role of Soil Texture on Fruit and Wine Color: An Analysis of Six Texas Hill Country Vineyards”

Co-Authors: **Aaron Corsi, and Dr. Jay Neal of UH**  
UHD Faculty Mentors: **Drs. Lisa Morano and Ken Johnson**  
Project Sponsor: U.S. Department of Agriculture  
Project Location: UHD and UH

**8 - Hazel Ayala, Helda Compean, and Charles Garcia**, “How does a History of Violence Affect Blame Attributions?”

UHD Faculty Mentor: **Dr. Cindy Stewart**  
Project Location: UHD, and University of Tennessee Knoxville

**10 - Rebecca Barbosa**, “Creating Soil Geochemistry Fingerprints of Texas Hill Country Syrah Vineyards”

Co-Authors: **Aaron Corsi, and Dr. Jay Neal of UH**  
UHD Faculty Mentor: **Dr. Lisa Morano**  
Project Sponsor: U.S. Department of Agriculture  
Project Location: UHD and UH

**12 - Suraj Basnet, Richard Wrangpetch, Jose Barrera and Brigitte Goble**, “Investigation of Phylogenetic Relationships of Shrew Populations Using Genetic Markers”

UHD Faculty Mentors: **Amy Baird, Yuanyuan Kang, and Mehdi Esmailiyan**  
Project Location: University of Houston-Downtown

**14 - Kristen Brown**, “The Geochemistry of Weinsburg Type Granites of the Moldanubian Batholith in the Czech Republic”

Co-Author: **Chris Zdenek**  
UHD Faculty Mentor: **Dr. Kenneth Johnson**  
Project Sponsors: Texas Workforce Commission and U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**16 - Oralio Campos, Daniel Yates, and Lupe Batalla**, “Juror Characteristics in Relation to the Death Penalty”

UHD Faculty Mentor: **Dr. Kristen Capuzzo**  
Project Location: University of Houston-Downtown

**18 - Chanmalis Chea and Reyna Valdez**, “Detection of the Plant Pathogen Xylella fastidiosa from an Experimental Vineyard to Find Grapevine Resistance to Pierce’s Disease”

UHD Faculty Mentor: **Dr. Lisa Morano**  
Project Sponsor: U.S. Department of Agriculture  
Project Location: University of Houston-Downtown

**20 - Francisco Colón**, “Development of a New Method for the Chemical Abstraction and Identification of Diatom Tests from a Clay Soil Matrix”

UHD Faculty Mentor: **Dr. Brad Hoge**  
Project Sponsors: National Science Foundation; Texas Workforce Commission  
Project Location: University of Houston-Downtown

**22 - Mariana Cortes**, “Development of Model Formulation Using Exothane 108”

Co-Authors: **Mau Troung and Nguyen Luu**  
UHD Faculty Mentor: **Dr. Bryon Christmas**  
Project Sponsors: Texas Workforce Commission and U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**24 - Erika Flores**, “Plastic Degradation by Marine Microbes”

UHD Faculty Mentor: **Dr. Poonam Gulati**  
Project Location: Galveston, TX and UHD

**26 - J. Ivette Galvan and Carmen Hernandez**, “Investigating the outgroup homogeneity effect across race and gender: Do other groups really all look alike?”

UHD Faculty Mentors: **Drs. Ruth Johnson and Mary Portillo**

Project Location: University of Houston-Downtown

**28 - Lidia Gomez, Diana Gracia, and Blanca Prior**, “Summer Ozone Levels in Houston”

Co-Author: **Maurilia Perez**  
UHD Faculty Mentors: **Drs. Penny Morris-Smith and Donald Musselwhite**  
Project Sponsor: NASA  
Project Location: UHD & UH-Central

**30 - Sameer Habib, Kenah Garcia and Mahesh Basyal**, “Nootropic Drugs and their Effects on the Body and Society”

Co-Authors: **Huy Bui, Israel Cervantes, John Santibanez, Myishia Thomas, Nhat Tu Le**  
UHD Faculty Mentor: **Ms. Mitsue Nakamura**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**32 - Sonia Herrera, Chevonne Parris, and Andrea Cagle**, “How Perceived Self-Efficacy Relates to Goal Perceptions and Affect”

Co-Author: **Beatriz Guerra**  
UHD Faculty Mentor: **Dr. Melissa Raymundo**  
Project Location: University of Houston-Downtown

**34 - Zachariah Jaco**, “The Differences in Pyrolysis Enthalpy of Kerogen Concentrate from Different Localities”

UHD Faculty Mentor: **Dr. Janusz Grebowicz**  
Project Location: University of Houston-Downtown

**36 - Escat Jimenez Leon**, “A New Method to Quantify Homocysteine”

UHD Faculty Mentor: **Dr. Mian Jiang**  
Project Sponsor: Texas Workforce Commission  
Project Location: University of Houston-Downtown

**38 - Henderson M. Jones and Linus Kingler**, “SEA-PHAGE Research Project”

Co-Authors: **Henderson McKelvy Jones, and Linus Kingler**  
UHD Faculty Mentor: **Dr. Rachna Sadana**  
Project Sponsor: Howard Hughes Medical Institute and Texas Workforce Commission  
Project Location: University of Houston-Downtown

**40 - Elizabeth Kowalis and Shebna Cheema**, “Gprk2 Linkage to the Alcohol Sensitivity in Drosophila melanogaster”

Co-Author: **Dr. Greg Roman, Research Mentor, Department of Biology and Biochemistry, University of Houston**  
UHD Faculty Mentor: **Dr. Yuanyuan Kang**  
Project Sponsors: National Institute of Alcohol Abuse and Alcoholism  
Project Location: University of Houston-Downtown

**42 - Minh Le and Andrew Yen**, “Temperature Measurements with Thermocouples as the Instrument”

UHD Faculty Mentor: **Dr. Weining Feng**  
Project Location: University of Houston-Downtown

**44 - Leontios Leodiou, Mehmet Enes Inam, and Edward Torres**, “Up, Up and Away”

Co-Authors: **Isabel Cornejo, Maria Espino, Quincy Ojih, Edgar Sigaran**  
UHD Faculty Mentor: **Ms. Mitsue Nakamura**  
Project Sponsor: Brown Foundation, Inc.  
Project Location: University of Houston-Downtown

**46 - Paola Martinez**, “Modeling the Rate of Formation of cAMP in the Preformed Signaling Complex of G-Proteins and Adenylyl Cyclase”

UHD Faculty Mentors: **Drs. Steven London and Rachna Sadana**  
Project Sponsor: National Science Foundation  
Project Location: University of Houston-Downtown

**48 - Haneen Mohammed and Kendall Wilkinson**, “Wind Power and Control Systems”

UHD Faculty Mentor: **Dr. Weining Feng**  
Project Sponsors: Texas Workforce Commission and U.S. Nuclear Regulatory Commission  
Project Location: University of Houston-Downtown

**50 - Antonio Moreno and Hwan-Ghee Choi**, “Influence of Soil Characteristics on Wine: Comparison of Syrah Wines from Six Texas Hill Country Vineyards”

Co-Authors: **Aaron Corsi, and Dr. Jay Neal of UH**  
UHD Faculty Mentors: **Drs. Lisa Morano and Ken Johnson**  
Project Sponsors: Texas Workforce Commission and U.S. Department of Agriculture  
Project Location: UHD and UH

**52 - Leah Mulkey and Blanca Hinojosa**, “Diatom Anomaly at Greens Bayou Wetlands Mitigation Bank”

UHD Faculty Mentor: **Dr. Bradley Hoge**

Project Sponsors: Brown Foundation, Inc., National Science Foundation, and Texas Workforce Commission

Project Location: University of Houston-Downtown

**54 - Trang Nguyen and Danielle Scott**, “Does Color Make a Difference?”

Evaluating the Effect of Stimulus Choice in a Flicker Paradigm”

UHD Faculty Mentors: **Drs. Mary Portillo and Ruth Johnson**

Project Location: University of Houston-Downtown

**56 - Leshon Rasheed and Chasidy Wofford**, “The Impact of Perceived Racism on African American and Latino College Students”

UHD Faculty Mentor: **Dr. Stacie Craft DeFreitas**

Project Location: University of Houston-Downtown

**58 - Alesha Rimmelin**, “Molecular Phylogenetics of Rhinoclemmys: A Re-Assessment of the Taxonomic Status of Mexican Species”

Co-Author: **John L. Carr, Department of Biology, University of Louisiana at Monroe**

UHD Faculty Mentor: **Dr. Amy Baird**

Project Location: University of Houston-Downtown

**60 - Alba Rubi Banegas**, “The effects of nanocomposited graphene on crystallization of Poly(lactic-co-glycolic) Acid”

Co-Authors: **Stephen Reagin and Masako Hino**

UHD Faculty Mentor: **Dr. Janusz Grebowicz**

Project Location: University of Houston-Downtown

**62 - Shima Taghikhani and Geraldine Lerner**, “Inhibition of Streptococcus mutans in Oral Biofilms With Saffron Extract”

UHD Faculty Mentor: **Dr. Poonam Gulati**

Project Sponsor: Brown Foundation, Inc.

Project Location: University of Houston-Downtown

**64 - Christina Tran**, “Phylogeography of the Hoary Bats (Lasiurus): Molecular Evidence for Species Diversity and Multiple Invasions of the Hawaiian Islands”

UHD Faculty Mentor: **Dr. Amy Baird**

Project Location: University of Houston-Downtown

**66 - Dat Truong**, “Study of the Thermotropic and Light-Emitting Properties of Polypyridinium Salts Derived from Naphthidine”

UHD Faculty Mentor: **Dr. Robin Jose**

Project Sponsor: Welch Foundation (BJ-0027)

Project Location: University of Houston-Downtown

**68 - Mau Troung and Vi Lai**, “Synthesis & Characterization of Ceramic Nanoparticles with Different Morphology”

Co-Authors: **A. Wypych, J. Ulański**

UHD Faculty Mentor: **Dr. Janusz Grebowicz**

Project Location: Lodz University of Technology – Politechnika Lodzka, Lodz, Poland

**70 - Evelyn Valdez and Tien Dong**, “Comparison Of Leaf Hydraulic Conductance Between An Evergreen and Deciduous Chaparral Shrub”

UHD Faculty Mentors: **Drs. Michael Tobin and Sergiy Koshkin**

Project Sponsors: Brown Foundation, Inc.; National Science Foundation; and Texas Workforce Commission

Project Location: University of Houston-Downtown

**72 - Vinay Vaz**, “Ellipsoid Body Neurons: The Neurological Basis for Alcohol Sensitivity in Drosophila?”

Co-Author: **Dr. Greg Roman, Research Mentor, Department of Biology and Biochemistry, UH**

UHD Faculty Mentor: **Dr. Yuanyuan Kang**

Project Sponsors: National Institute of Alcohol Abuse and Alcoholism; Texas Workforce Commission; and U.S. Nuclear Regulatory Commission

Project Location: University of Houston-Downtown

**74 - German Villalobos, Jennifer Nguyen, and Jaime Alvarez**, “Sleeping Inducing Drugs”

Co-Authors: **Prisilia Cruz, Yazmin Trujillo, Dorcas Mbaeri, and Quintin Jackson**

UHD Faculty Mentor: **Ms. Mitsue Nakamura**

Project Sponsor: Brown Foundation, Inc.

Project Location: University of Houston-Downtown

**76 - Andrew Yen**, “Temperature Control of an Air Heater”

UHD Faculty Mentor: **Dr. Vassilios Tzouanas**

Project Location: University of Houston-Downtown

## Service Learning

### Poster Presentation Session II (2:25PM-3:30PM):

**78 - Shamsa Ali and Judith Gallardo**, “Service Learning Project at Hermann Park Conservancy”

Co-Author: **Raymond Cherian**

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: Hermann Park Conservancy

**80 - Emilia Caylor**, “Girls In STEM”

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: Saint Rose of Lima Catholic Church

**82 - Shanna Daniel**, “Service Learning at The Beacon Homeless Shelter”

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: The Beacon

**84 - Amairani Hernandez**, “Service Learning at Rusk Elementary”

Co-Author: **Kathryn Wenzel**

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: Rusk Elementary School

**86 - Christa Landowski**, “The Houston Food Bank”

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: Houston Food Bank

**88 - Geraldine Lerner**, “Service Project: Car Wash Fundraiser for the Living Hope Wheelchair Association”

Co-Author: **Rickeno Bullard**

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: University of Houston-Downtown

**90 - Elsy Rivera**, “Serving at the Japhet Creek Linear Park”

Co-Author: **DaNae Woodard**

UHD Faculty Mentor: **Dr. Mary Jo Parker**

Project Sponsor: Texas Workforce Commission

Project Location: Japhet Creek Linear Park

**92 - Iris Silva and Maria Maldonado**, “Microbiology and Urban Education Students Collaborate to Teach Third Graders about Composting”

Co-Authors: **Sandy Gramajo and Fersen Leiva**

UHD Faculty Mentors: **Drs. Maria Bhattacharjee and Poonam Gulati**

Project Sponsor: Texas State Representative Sylvester Turner

Project Location: Crockett Elementary School and UHD

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**Thank you for participating in the 13<sup>th</sup> Annual UHD Student Research Conference!**

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