

Sponsored by the UHD Scholars Academy

Funded by the
National Science Foundation (0934913),
Nuclear Regulatory Commission (NRC-27-10-1121),
Texas Workforce Commission Wagner Peyser,
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 12, 2013

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. Ongard Sirisaengtaksin, Professor, Department of Computer & Mathematical Sciences, UHD</i> Introduction of Keynote Speaker, Auditorium
9:10 - 9:40 am	<i>Dr. William Holtkamp, 2007 UHD Alumnus</i> <i>Software Engineer, OpenLink Financial</i> Keynote Speaker, Auditorium
9:40 - 10:40 am	Oral Presentations, Session I, Auditorium
10:50 - 12:05 pm	Oral Presentations, Session II, Auditorium Introductions by <i>Dr. Weining Feng, SRC Co-Chair</i>
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. Youn-Sha Chan, Associate Professor of Mathematics, 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. Akif Uzman, Interim Dean, UHD College of Sciences and Technology
Dr. Jeong-Mi Yoon, Professor of Mathematics, UHD

Oral and Poster Presentations:

21 - Monica Flores, "Country Report: Pakistan"
UHD Faculty Mentor: **Dr. John Linantud**
Project Location: University of Houston-Downtown

30 - Brian Holtkamp, Deary Hudson, Joseph Johnson, Jr., "Social Crime Mapping, Geo Visual Sense Making of Social Data Sets"
UHD Faculty Mentor: **Dr. Ongard Sirisaengtaksin**
Project Location: University of Houston-Downtown

32 - Zachariah Jaco, "Determining Thermal Properties of Oil Shales"
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: University of Houston-Downtown

39 - Adolfo Lara, "Development of Novel Molecular Markers for Species-level Identification of Sea Anemones (Cnidaria, Actiniaria)"
UHD Faculty Mentors: **Drs. Mercer Brugler and Estefania Rodriguez**
Project Location: American Museum of Natural History, New York

85 - Hailey McMinn and Iris Silva-Obando, "Synthesis of Biodiesel using Cooking Oil from the Cafeteria at the University of Houston-Downtown"
UHD Faculty Mentor: **Dr. Tyra Lynne Hessel**
Project Location: University of Houston-Downtown

50 - Tilesh Patel, "Room Temperature Thermotropic Liquid Crystalline Phases of Catanionic Surfactants Derived from Quaternary Ammonium Surfactants and Bis(2-ethylhexyl)sulfosuccinate"
Co-Authors: **Troy Cather, Janusz Grebowicz, Drs. Pradip Bhowmik and Heasook Han (University of Nevada, Las Vegas)**
UHD Faculty Mentor: **Dr. Robin Jose**
Project Location: University of Houston-Downtown

51 - Ashely Poe, Cynthia Edwards, Desirae Mayo, "Good Parents Are Born Not Made: Sociodemographics' Role in Developing Parental Beliefs"
Co-Author: **Walther Heap**
UHD Faculty Mentor: **Dr. Susan M. Henney**
Project Location: University of Houston-Downtown

56 - Angela Rosales, "A Comparison Between a Wetland Mitigation Bank and a Natural Wetland Using Shannon's Index"
UHD Faculty Mentor: **Dr. Bradley Hoge**
Project Location: University of Houston-Downtown

63 - Miguel Tierrafría, Cassandra Flores and Winford Becton, "Impact of Torroir on Flavor and Aroma Profiles from Texas Hill Country Wines"
Co-Authors: **Jay Neal and Aaron Corsi (University of Houston)**
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown

Keynote Speaker:

William Holtkamp, Ph.D.

Software Engineer, OpenLink Financial

Biography: William is a Software Engineer from Houston, TX. He attended the University of Houston-Downtown and studied Computer Science. While at UHD, William was a member of the Scholars Academy and a computer science tutor. After graduating in 2007, he joined the PhD Program in Computer Sciences with a GAANN Fellowship at the University of Houston and graduated in 2012. William's graduate research focused on improving user experiences and human computer interactions. Currently, William is working for OpenLink Financial, an energy/commodity trading and risk management company. He works with energy companies to build unique, intuitive user experiences in their commodity trading applications.



Presentation Title: *“Research Is More Than Conclusions”*

Presentation Abstract: On the surface, research is a manifestation humans use to investigate our world in a manner others have yet to uncover. At a universal level, research solves theoretical, financial, structural, biological, mathematical, and a whole host of other problems. At a lower, personal level, research gives each of us new experiences. These experiences teach us how to learn. They force us to question our world. They also help us grow as an individual. Overall, research is much more than a means to draw conclusions.

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

1 - Ana Alvarez and Brandy Ross, “Individual Differences in Goal Orientation, Relative Autonomy and Physical Activity in a Hybrid Physical Activity Course”

UHD Faculty Mentor: **Dr. Christine Bachman**

Project Location: University of Houston-Downtown

3 - David Amos, “A Quantum Mechanical Study of Ce(IV)-tetrakis(chatecholato) as a Model for Pu(IV)-tetrakis(chatecholato)”

UHD Faculty Mentor: **Dr. Maria Benavides**

Project Location: University of Houston-Downtown

5 - Caroline Barbosa, “Analysis of Biofilm Growth Patterns of Pseudomonas stutzeri, and Mixed Species Cultures”

Co-Authors: **Kimberly Walker, Antonio Mendoza, Lea Means**

UHD Faculty Mentors: **Drs. Youn-Sha Chan 2 and Poonam Gulati 1**

Project Location: University of Houston-Downtown

7 - Aura Beltran, Danya Leone, Alexsha Plageman, “Does the Body Define the Self? The Moderating Role of Appearance Contingent Self-Worth on Media Exposure and Disordered Eating”

UHD Faculty Mentor: **Dr. Melissa Raymundo**

Project Location: University of Houston-Downtown

9 - Kelsey Bogaards, “Priming Moods and the Goal to Achieve of Goal Impediments”

UHD Faculty Mentor: **Dr. Travis Crone**

Project Location: University of Houston-Downtown

11 - Marisa Byers and Iris Escobar, “Examining the Cycle of Violence: How Childhood Exposure to Violence Relates to Perpetrator and Victim Blame”

Co-Author: **Dr. Todd Moore (University of Tennessee-Knoxville)**

UHD Faculty Mentor: **Dr. Cindy Stewart**

Project Location: University of Houston-Downtown

13 - Lorena Cariel and Brittney Brown, “Evaluation of the Own-Race Bias Across Race and Gender in the African-American Population”

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

Project Location: University of Houston-Downtown

14 - Raymond Cherian and Sarah Syed, “Could Platydesmus Millipedes Dilute Their Risk of Predation by Aggregating?”

UHD Faculty Mentor: **Dr. Barry Sullender**

Project Location: University of Houston-Downtown

15 - Arrowdyne Chhit, Karla Clower and An-Nisa Miller, “Research Program in Atmospheric Science: Houston Ozone Studies”

Co-Author: **Ebony Johnson**

UHD Faculty Mentors: **Drs. Penny Morris-Smith and Donald Musselwhite**

Project Location: University of Houston-Downtown

19 - Tiffany English, Shaiuana Washington and Charenda Williams, “It Takes A Village To Raise A Child... Or Does It? The Relationship between Discipline Beliefs and Ethnicity”

UHD Faculty Mentor: **Dr. Susan M. Henney**

Project Location: University of Houston-Downtown

21 - Monica Flores, “Country Report: Pakistan”

UHD Faculty Mentor: **Dr. John Linantud**

Project Location: University of Houston-Downtown

23 - Martha Cecilia Guerra, “Developing an Animal Model for the Study of Port-Wine Stain Disease”

UHD Faculty Mentor: **Dr. Daniel Wagner**

Project Location: Rice University

25 - Ana Lilian Guevara, “Genetic Identification and Evolutionary History of Pocket Gophers (genus Geomys) in Texas”

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

Project Location: University of Houston-Downtown

27 - Vanessa Hernandez, “Exploring Ephemerality in Social Media with Facebook Timebomb”

Co-Authors: **Irene Kwok, Takayla Sexton**

UHD Faculty Mentor: **Dr. Heather Lipford**

Project Location: University of North Carolina - Charlotte

29 - Seth Hock, “Analyzing the Own-Race Bias Across Race and Gender in the Hispanic/Latino Population”

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

Project Location: University of Houston-Downtown

31 - Mary-Catherine Ivie, “Low Teacher Morale in Today's Classrooms”

UHD Faculty Mentor: **Dr. Claude Rubinson**

Project Location: University of Houston-Downtown

33 - Jimmy Chahine, Pedro Hernandez, Minh Ha, Michael Gibson, and Vong Hem, “Design and Automation of a Zero Energy House – Part II”

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

Project Location: University of Houston-Downtown

35 - Pallawi KC, Pablo Rivera, “A New Approach To Make Thick Nickel(II) hydroxide Film and Its Application”

UHD Faculty Mentor: **Dr. Mian Jiang**

Project Location: University of Houston-Downtown

37 - Randi Kern, Zadai Castillo, Zoya Hadi, Sa'de Harrison, and Chris Lane, “The 2012 Election Day: Political Estrangement & Perceptions of Threat”

UHD Faculty Mentor: **Dr. Justin Hackett**

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; www.uhd.edu/scholars

39 - Adolfo Lara, “Development of Novel Molecular Markers for Species-level Identification of Sea Anemones (Cnidaria, Actiniaria)”

UHD Faculty Mentors: **Drs. Mercer Brugler and Estefania Rodriguez**
Project Location: American Museum of Natural History, New York

41 - Karen Marquez, “Faith and Religion According to Emily Dickinson”

UHD Faculty Mentor: **Drs. William Gilbert and Robin Davidson**
Project Location: University of Houston-Downtown

43 - Alfonso Mondragon, Balkrishna Patel, John Morgan, “Structural Test Of A Reinforced Concrete Frame”

Co-Authors: **Nickalos Warren, Omar Abdulkareem**
UHD Faculty Mentors: **Drs. Alberto Gomez-Rivas and Jorge A Tito**
Project Location: University of Houston-Downtown

45 - Julie Nash, “Evaluation of Xylella fastidiosa Bacterial Load in a Grapevine Variety Trial”

UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown

47 - Shanelle Omar, “A New Trophobiotic System involving the Fulgoridae in Panama”

UHD Faculty Mentor: **Dr. Barry Sullender**
Project Location: Panama and University of Houston-Downtown

49 - Balkrishna Patel, Nickalos Warren, Juanita Ortega, “Comparison of a Rectangular and a T-Shaped Reinforced Concrete Beams”

UHD Faculty Mentor: **Dr. Alberto Gomez-Rivas**
Project Location: University of Houston-Downtown

51 - Ashely Poe, Cynthia Edwards, Desirae Mayo, “Good Parents Are Born Not Made: Sociodemographics' Role in Developing Parental Beliefs”

Co-Author: **Walther Heap**
UHD Faculty Mentor: **Dr. Susan M. Henney**
Project Location: University of Houston-Downtown

53 - Mariel Ritcher, “Study of *Plagiopyxis declivis*”

UHD Faculty Mentor: **Dr. Phyllis Griffard**
Project Location: University of Houston-Downtown

55 - Bryce Romero and DaNae Woodard, “ALU 350 Oligomer Replacement”

UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown and University of Houston

57 - Yesenia Salazar, “Energy of Benzenoid Graphs”

UHD Faculty Mentor: **Dr. Sergiy Koshkin**
Project Location: University of Houston-Downtown

59 - A. Meghan Santiago, Dayna Spencer, “Antimicrobial Properties of UV-Polymerized Films”

Co-Authors: **Tori Dumas, Sanam Miaji, DaNae Woodard**
UHD Faculty Mentors: **Drs. Byron Christmas and Poonam Gulati**
Project Location: University of Houston-Downtown

61 - Christian Smallwood, Manuel Guerra, Kenneth Merrill, “Age and Intergroup Perceptions During the 2012 Presidential Election”

Co-Authors: **Zadai Castillo, Zoya Hadi**
UHD Faculty Mentor: **Dr. Justin Hackett**
Project Location: University of Houston-Downtown

63 - Miguel Tierrafría, Cassandra Flores and Winford Becton, “Impact of Torroir on Flavor and Aroma Profiles from Texas Hill Country Wines”

Co-Authors: **Jay Neal and Aaron Corsi (University of Houston)**
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown

67 - Reyna Valdez and DeAnna Ayupova, “Screening Novel Synthetic Compounds for their Cytotoxicity and Mechanism of Cell Death”

Co-Author: **Kafayat Busari**
UHD Faculty Mentor: **Dr. Rachna Sadana**
Project Location: University of Houston-Downtown

69 - Edgar Vazquez, “Invariant Dominations on Cayley Graphs”

UHD Faculty Mentor: **Dr. Ermelinda Delavina**
Project Location: University of Houston-Downtown

71 - Christopher Zdenek, “Granitic Magmatism Associated With The Variscan-Age Moldanubian Batholith, Czech Republic: A Geochemical Comparison Between The Mrákovín And Klenov Plutons”

Co-Authors: **Kryštof Verner and Jiří Žák (Institute of Geology and Paleontology, Charles University, Albertov 6, Prague, Czech Republic)**
UHD Faculty Mentor: **Dr. Kenneth Johnson**
Project Location: University of Houston-Downtown

Service Learning

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

73 - Shamsa Ali and Carolina Perez Lopez, “Service Learning: Recycling to Help Our Environment”

UHD Faculty Mentor: **Dr. Mary Jo Parker**
Project Location: University of Houston-Downtown

75 - Rebecca Barbosa and Elsy Rivera, “Serving Greater Houston’s Casa Juan Diego”

UHD Faculty Mentor: **Dr. Mary Jo Parker**
Project Location: University of Houston-Downtown

77 - Christopher Carbone and Raymond Cherian, “Service Learning at The Lighthouse of Houston”

Co-Authors: **Lilian Antunes, Livina Anyiam, Marlyn Davila, David Flores, Judith Gallardo, Rosario Garcia, Chelsea Harris, Danial Khan, Nnenna Kpando, Fersen Leiva**

UHD Faculty Mentor: **Dr. Mary Jo Parker**
Project Location: University of Houston-Downtown

79 - Shebna Cheema and Eylon Lopez, “Service Learning: Science Comes Alive!”

UHD Faculty Mentors: **Drs. Maria Bhattacharjee and Poonam Gulati**
Project Location: Crockett Elementary School and University of Houston-Downtown

81 - Ryan Cherian, Henderson Jones, Josh Landecker, Kushal Patel, Candice Polk, “Service Learning: Tree Signage on UHD Campus”

UHD Faculty Mentor: **Dr. Phyllis Griffard**
Project Location: University of Houston-Downtown

83 - Ruby Cleto, “College Success Program: Learning Through Service”

Co-Author: **Linda Onyirimba**
UHD Faculty Mentor: **Dr. Mary Jo Parker**
Project Location: University of Houston-Downtown

85 - Hailey McMinn and Iris Silva-Obando, “Synthesis of Biodiesel using Cooking Oil from the Cafeteria at the University of Houston-Downtown”

UHD Faculty Mentor: **Dr. Tyra Lynne Hessel**
Project Location: University of Houston-Downtown

87 - Sara Taghakhani, “Service Learning at Project C.U.R.E.”

Co-Authors: **Iris Silva-Obando, Caroline Barbosa, Karla Castro, Christian Escobar, Sandy Gramajo, Jimmy Ngo, Linda Onyirimba, Karla Rios, Massiel Rubio, Shima Taghikhani, and Briana Villarreal**

UHD Faculty Mentor: **Dr. Mary Jo Parker**
Project Location: University of Houston-Downtown

89 - Simran Singh, Ahmed Shaban and Rafael de la Flor, “The Effect of Hand Sanitizer and Soap in Reducing Bacterial Growth”

UHD Faculty Mentor: **Dr. Phyllis Griffard**
Project Location: University of Houston-Downtown and University of Houston

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

2 - David Amos, “On the K-residue of Disjoint Unions of Graphs with Applications to K-Independence”

Co-Author: **Randy Davila**
UHD Faculty Mentor: **Dr. Ryan Pepper**
Project Location: University of Houston-Downtown

4 - Kiara Arroyo Andrade, Luis Lopez, Evelyn Valdez, “The Feasibility of the Super Soldier Serum in Reality from the Movie Captain America”

Co-Authors: **Persis Montes, Francisco Rivera, Logan Scott**
UHD Faculty Mentor: **Mitsue Nakamura**
Project Location: University of Houston-Downtown

6 - Aubry Barone, Chris Carbone, Jenny George, “Technology Exceeding Human Capabilities”

Co-Authors: **Ryan Cherian, David Flores, Timothy McGinty, Michell Mora, Rheiha Abdelmaksoud**
UHD Faculty Mentor: **Mitsue Nakamura**
Project Location: University of Houston-Downtown

8 - Tammy Betancourt, “Truth in Journalism? A Study on the Impact of Media Coverage on the 2012 Presidential Election”

UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown

- 10 - Christopher Bonilla and Alyssa Enriquez**, "Dynamic System Control with Siemens Programmable Logic Controller (PLC)"
UHD Faculty Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown
- 12 - Rogelio Camacho, Jim Chisholm**, "Big Bend National Park: Examination of Geological Possibilities for Nuclear Waste Storage"
Co-Authors: **Ashley Cunningham, Allie Feiwell, Julio Mercado, Mariel Richter, Monica Rodriguez**
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: Big Bend National Park
- 16 - James Chisholm**, "Thermal Properties of Oil Shales: Anisotropy of Thermal Expansion"
Co-Authors: **Zachariah Jaco and Joseph Downing**
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 17 - Orrin Collins, Anita Singh and Nickalos Warren**, "Effects of Different Proportions of Portland Cement and Fly Ash on the Normal Weight and Light Weight Strength"
UHD Faculty Mentor: **Dr. Jorge A Tито**
Project Location: University of Houston-Downtown
- 18 - Truong Doan, Sanjo Peter and Matthew Stevenson**, "Temperature and Level Control of a Multivariable Tank"
UHD Faculty Mentor: **Dr. Vassilios Tzouanas**
Project Location: University of Houston-Downtown
- 20 - Brienna Fisher**, "Columbia - A Country at War with Itself"
UHD Faculty Mentor: **Dr. John Linantud**
Project Location: University of Houston-Downtown
- 22 - Duber Gomez-Fonseca**, "Graduating from College and Applying for Grad School is a "Piece of Cake" using CPM and PERT"
UHD Faculty Mentor: **Dr. Timothy Redl**
Project Location: University of Houston-Downtown
- 24 - Wesley Gonzales, Minh Le, Andrew Yen**, "AM and FM Radio Transmissions"
UHD Faculty Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown
- 26 - Dawn Harrison and Sanjo Peter**, "Simulation and Analysis of the Styrene Production Process"
UHD Faculty Mentor: **Dr. Vassilios Tzouanas**
Project Location: University of Houston-Downtown
- 28 - Karina Henriquez**, "New Assay for Se (IV) in the presence of Se(VI) and Humic Acid"
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of North Carolina - Charlotte
- 30 - Brian Holtkamp, Deary Hudson, Joseph Johnson, Jr.**, "Social Crime Mapping, Geo Visual Sense Making of Social Data Sets"
UHD Faculty Mentor: **Dr. Ongard Sirisaengtaksin**
Project Location: University of Houston-Downtown
- 32 - Zachariah Jaco**, "Determining Thermal Properties of Oil Shales"
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 34 - Escat Jimenez Leon**, "Voltammetric Determination of Melatonin, Quinic Acid, and their Interaction"
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown
- 36 - Srijan KC, Anthony Moore and Allan Soto**, "Gene Expression of the bacterium Xylella fastidiosa when Exposed to Sap of Susceptible and Tolerant Grape Varieties"
UHD Faculty Mentors: **Drs. Lisa Morano and Akif Uzman**
Project Location: University of Houston-Downtown
- 38 - Danial Khan, Eloy Perez, Alice Turchaninova and Westley Wrightson**, "The Iron Man Suit: A Possibility?"
Co-Authors: **Miguel Lopez, Felix Martinez, Angela Rosales**
UHD Faculty Mentor: **Mitsue Nakamura**
Project Location: University of Houston-Downtown
- 40 - Flor Lopez**, "Patterns in Language Mixing Among First and Second Generation Hispanic Bilinguals in Houston"
UHD Faculty Mentor: **Dr. Rey Romero**
Project Location: University of Houston-Downtown
- 42 - Lea Means and Antonio Mendoza**, "Mathematical Modeling of Staphylococcus epidermidis Biofilm Growth"
Co-Author: **Caroline Barbosa**
UHD Faculty Mentors: **Drs. Youn-Sha Chan and Poonam Gulati**
Project Location: University of Houston-Downtown
- 44 - Tony Moreno, Massiel Rubio, Sujan Devkota**, "Interaction of Soil Characteristics, Vine Vigor and Wine Production in the Texas Hill Country"
UHD Faculty Mentors: **Drs. Ken Johnson and Lisa Morano**
Project Location: University of Houston-Downtown
- 46 - Vy Nguyen, Latoyya Smith and Dat Ho**, "Brain State Analysis Web Access"
Co-Author: **Khoa Nguyen**
UHD Faculty Mentor: **Dr. Hong Lin**
Project Location: University of Houston-Downtown
- 48 - Jacob Outlaw**, "Identity Theft: Can You Recover?"
UHD Faculty Mentor: **Dr. Linda Bressler**
Project Location: University of Houston-Downtown
- 50 - Tilesh Patel**, "Room Temperature Thermotropic Liquid Crystalline Phases of Catanionic Surfactants Derived from Quaternary Ammonium Surfactants and Bis(2-ethylhexyl)sulfosuccinate"
Co-Authors: **Troy Cather, Janusz Grebowicz, Drs. Pradip Bhowmik and Heasook Han (University of Nevada, Las Vegas)**
UHD Faculty Mentor: **Dr. Robin Jose**
Project Location: University of Houston-Downtown
- 52 - Stephen Reagin**, "Quantum Algorithm for Square Root of a Matrix"
UHD Faculty Mentor: **Dr. Sergiy Koshkin**
Project Location: University of Houston-Downtown
- 54 - Mariel Ritcher**, "Tonalitic-Trondhjemitic Magmatism From Garnet-Bearing And Garnet-Free Migmatized Amphibolites On Pollock Mountain, Western Idaho: Estimating Melt Compositions From Hornblende Trace Element Data"
Co-Authors: **Joshua J. Schwartz (Department of Geological Sciences, California State University Northridge) and Melanie A. Barnes (Department of Geosciences, Texas Tech University)**
UHD Faculty Mentor: **Dr. Kenneth Johnson**
Project Location: University of Houston-Downtown
- 56 - Angela Rosales**, "A Comparison Between a Wetland Mitigation Bank and a Natural Wetland Using Shannon's Index"
UHD Faculty Mentor: **Dr. Bradley Hoge**
Project Location: University of Houston-Downtown
- 58 - Yesenia Salazar**, "Thermal Properties of Salt"
Co-Author: **Joseph Downing**
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 60 - Timothy Singleton**, "Multifactorial Origins of Complex Inherited Disorders"
UHD Faculty Mentors: **Drs. David Herman and Phyllis Griffard**
Project Location: University of Houston-Downtown
- 62 - Sara Taghikhani and Kamar Shaikh**, "Inhibition of Streptococcus mutans in Oral Biofilms Using Natural Inhibitors"
Co-Authors: **Jimmy Ngo, Shima Taghikhani**
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- 64 - Christina Tran**, "Phylogeography of Lasiurus cinereus: Molecular Evidence for Multiple Invasions of the Hawaiian Islands"
Co-Author: **John Bickham (Batelle Memorial Institute)**
UHD Faculty Mentor: **Dr. Amy Baird**
Project Location: University of Houston-Downtown
- 65 - Dat Truong**, "Novel Voltammetric Assay for H₂O₂ and Other Small Organic Molecules Based on Carbon-Nickel Composites"
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown
- 66 - Mau Truong and John Geza**, "Formulational Properties of a Newly Developed Low Viscosity Diacrylate-Functional Epoxy-Based Oligomer"
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown

68 - Reyna Valdez, Bhumi Patel and DeAnna Ayupova, "Screening Synthetic Analogues of Marine Natural Products for their Cytotoxicity and Mechanism of Cell Death"

UHD Faculty Mentor: **Dr. Rachna Sadana**

Project Location: University of Houston-Downtown

70 - Christina Zahratka, "The Effects of a Graduation Prime on Perceptions of Goal Impediments"

UHD Faculty Mentor: **Dr. Travis Crone**

Project Location: University of Houston-Downtown

88 - Kendall Wilkerson, "High Temperature Phase Transitions in Naturally Occurring Zeolites"

Co-Author: **Zachariah Jaco**

UHD Faculty Mentor: **Drs. Janusz Grebowicz and Ken Johnson**

Project Location: University of Houston-Downtown

Service Learning

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

72 - Melis Alan, "Green Chemistry"

UHD Faculty Mentor: **Dr. Tyra Lynne Hessel**

Project Location: University of Houston-Downtown

74 - Livina Anyiam, Ryan Cherian and Jessica Hernando, "STEM of Hope"

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

Project Location: University of Houston-Downtown

76 - Aubry Barone, Danial Khan and Vincent Pham, "Service Learning at The Beacon"

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

Project Location: University of Houston-Downtown

78 - Joanna Castaneda and DaNae Woodard, "Service Learning at Friends of Woodland Park"

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

Project Location: University of Houston-Downtown

80 - Jaisley Cherian, Shanna Daniel and Anna Goedjen, "Service Learning at The Katy Prairie Conservancy"

Co-Author: **Hakeem Ogunkoya**

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

Project Location: University of Houston-Downtown

82 - Hwan-Ghee Choi and Jimmy Ngo, "Service Learning Project: From Garbage to Garden"

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

Project Locations: Crockett Elementary School and University of Houston-Downtown

84 - Judith Gallardo, Geraldine Lerner and Shima Taghakhani, "Service Learning with Citizens Schools at Patrick Henry Middle School"

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

Project Location: University of Houston-Downtown

86 - Elsy Rivera and Henderson Jones, "Community Rabbit Project: Introducing Rabbits to Last Organic Outpost Playground"

UHD Faculty Mentor: **Dr. Phyllis Griffard**

Project Location: University of Houston-Downtown and University of Houston

Acknowledgements

It is a great pleasure to recognize the many individuals, organizations, and institutions supporting our UHD students in their research endeavors. These include significant funding of research over the past year from the National Science Foundation UBM Program (0734294), National Science Foundation Noyce Program (0934913), Nuclear Regulatory Commission (SDB-27-10-1121), Texas Workforce Commission (2813WPB000), The Brown Foundation, Inc., Welch Foundation (BJ-0027), Shell Oil Co. and University of Houston-Downtown.

Many students conducted their research during summer research programs on and off-campus. Faculty and staff members of these and other academic institutions, as well as personnel at industrial facilities, have generously supported/mentored our UHD students.

In addition, we would like to thank the UHD faculty and staff who have worked tirelessly to support undergraduate research experiences as well as the UHD staff, faculty and administrators who have helped make this conference a success.

Thank you for participating in the 12th Annual UHD Student Research Conference!

Please share your impressions of the event by completing a conference evaluation.

Thanks to the generous supporters of this student conference:

The Brown Foundation, Inc.

National Science Foundation (Award Nos. 0728408, 0934913)

Nuclear Regulatory Commission (Award No. SDB-27-10-1211)

Texas Workforce Commission (Award No. 281WPB000)

UHD College of Business

UHD College of Humanities and Social Sciences

UHD College of Public Service

UHD College of Sciences & Technology

UHD President's Office

UHD Scholars Academy

