

Sponsored by the UHD Scholars Academy

Funded by the National Institute of General Medical Sciences (1T34GM079088-01), National Science Foundation (0336612, 0402623), U.S. Army Research Office (W911NF-04-1-0024), U.S. Department of Education (P120A050068, P120A070025), The Brown Foundation, 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, 2008

8:00 - 9:30 am	Registration and Continental Breakfast, Coffee House
9:30 am	<i>Dr. Max Castillo, President, University of Houston-Downtown</i> Welcoming Remarks, Auditorium
9:40 - 10:10 am	<i>Evan Cohen, M.D.</i> <i>Former UHD Student and Cardiothoracic Surgeon at Huntsville, Alabama Hospital</i> Keynote Speaker, Auditorium Introductions by <i>Dr. John Capeheart, Professor of Biology</i>
10:15 - 11:15 am	Oral Presentations, Session I, Auditorium
11:20 - 12:20 pm	Oral Presentations, Session II, Auditorium Introductions by <i>Dr. Vicky Estrera, Director, UHD Scholars Academy and Lecturer in Biology</i>
12:20 - 1:30 pm	Lunch break
1:30 - 3:00 pm	Open Poster Sessions, Room A300

Conference Co-Chairs:

Dr. Ermelinda DeLaVina, Associate Professor of Mathematics, UHD
Dr. Vicky Estrera, Director, UHD Scholars Academy

Conference Planning Committee:

Dr. Richard Alo, Executive Director, UHD Center for Computational Science, Professor of Mathematics
Dr. Weining Feng, Associate Professor of Engineering Technology, UHD
Mr. Rene Garcia, Program Manager, UHD Scholars Academy
Dr. Kenneth Johnson, Assistant Professor of Geology, UHD
Dr. Marilyn McShane, Professor of Criminal Justice and Director of the Institute for Community Justice, UHD
Dr. Lisa Morano, Associate Professor of Biology and Microbiology, UHD
Dr. Kenneth Oberhoff, Associate Dean, UHD College of Sciences and Technology
Dr. George Pincus, Dean, UHD College of Sciences and Technology
Dr. Gene Preuss, Assistant Professor of History, UHD
Dr. Aimee Roundtree, Assistant Professor of English, UHD
Dr. Larry Spears, Professor of Chemistry and Director of UHD Urban Center for Student Success in Science, Technology, Engineering and Mathematics
Mrs. Mary Sykes, Lecturer of Finance, Accounting and CIS, UHD
Dr. Akif Uzman, Chair of Natural Sciences Department, UHD
Dr. Jeong-Mi Yoon, Associate Professor of Mathematics, UHD
Ms. Celeste Zamora, Media Relations Manager, Communications and Marketing, UHD

Oral and Poster Presentations:

Reyna Bonilla and Uffaf Khan, "Analysis of Staphylococcus aureus Biofilms and Their Inhibition with Cephazolin and Tobramycin"
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown

Kelrick Scott Christie Drake, "I Tried Everything": Dialectical Tensions in Weight Loss Narentives"
UHD Faculty Mentor: **Dr. Thomas Workman**
Project Location: University of Houston-Downtown

Jose Jonathan Gamez, "Conjectures about the Independent-Domination Number"

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

Hooman Hemmati and Danil Safin, "Simulation of Intelligent Traffic Controllers Using a Computational Grid"

UHD Faculty Mentor: **Dr. Ongard Sirisaengtaksin**
Project Location: University of Houston-Downtown

Anselm Khoo, "Applied Field Research: Effective Performance In Sports With Nervous Symptoms Present"

UHD Faculty Mentor: **Dr. Derek de la Pena**
Project Location: University of Houston-Downtown

David Nanyes, "Improvement in Airway Hyper-Responsiveness and Inflammation in an Asthma Model via Promotion of Anti-Oxidant Responses with z-cyano-4,12-Dioxoleano-1,9,(11)-Diene-28-oic Acid (CDDO)"

Co-Authors: **Dan Hochman, Shelby Schultz**
UHD Faculty Mentor: **Dr. Edward Brooks**
Project Location: University of Texas Medical Branch (UTMB)

Nicolle Patterson, "Thermal Analysis of Potential Electrolytes for Nanocrystalline Solar Cells"

UHD Faculty Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown

Daniel Sanu Siddiqui, "Switched Capacitor Filters"

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

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

1 - Gloria Abarca, Michael Butterworth, Samanta Fuentesvilla, Tao Tang, "Analysis of the Hepatitis C Virus and Its Common Cause"

Co-Authors: **Jennifer Cancino, Nick Spampinato**
UHD Faculty Mentor: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**
Project Location: University of Houston-Downtown

3 - Seyed Alireza Abedi and Micaela Gilbert, "Computer Generated Graph Theory Conjectures"

UHD Faculty Mentor: **Dr. Ryan Pepper**
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).

- 5 - Frances Acevedo and John Adamson**, “How High Can We Go?”
Co-Authors: **Jesus Castillo, Marc Simmon, Nguyen Lam**
UHD Faculty Mentor: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**
Project Location: University of Houston-Downtown
- 7 - Kethlyn Africa and Laura Lucio**, “Re-Evaluation of the Diatom Assemblage in the Greens Bayou Wetlands Mitigation Bank”
UHD Faculty Mentor: **Dr. Bradley Hoge**
Project Location: Greens Bayou Wetlands Mitigation Bank and University of Houston-Downtown
- 9 - Kethlyn Africa, Laura Lucio, Ngum Ngwa**, “Diatom Assemblage at the Little Cypress Creek Detention Basin and White Oaks Bayou Banks 1 & 2”
UHD Faculty Mentor: **Dr. Bradley Hoge**
Project Location: Little Cypress Creek Detention Basin; White Oaks Bayou Bank 1; White Oaks Bayou Bank 2; University of Houston-Downtown
- 11 - Ibrahim Al-Khalil and Zaher Abdo**, “Preliminary Studies of Thermal Properties of Glassy and Partially Glassy Rocks”
UHD Faculty Mentor: **Drs. Ken Johnson and Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 13 - Victoria Albert**, “Effect of Book Illustrations on Children’s Literacy”
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 15 - Nikole Sophia Amaya**, “Knowing Your Issues: The Impact that Technology and Education have on Public Policy Awareness”
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 17 - Leornado Azcue**, “Parental Attitudes on the Importance of Education: The Importance of Race, Ethnicity and Gender”
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 19 - Floribel BeizaFloribel Beiza and Kulsoom Kishwar Shah**, “Coastal Prairie Soil Fungi Identification using rDNA Sequence Analysis and the BioLog MicroStation™”
UHD Faculty Mentor: **Dr. Phil Lyons**
Project Location: University of Houston-Downtown
- 21 - Reyna Bonilla and Uffaf Khan**, “Analysis of Staphylococcus aureus Biofilms and Their Inhibition with Cephalosporin and Tobramycin”
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- 23 - Richard Bryant**, “Identification and Characterization of Lignolytic Fungi”
UHD Faculty Mentor: **Dr. Phil Lyons**
Project Location: University of Houston-Downtown
- 25 - Wendy Callejas**, “Chasing Polymorphism in α -Amino Acids”
Co-Authors: **Tahisha Hilaire, Zaher Abdo, Prof. Ivan Bernal**
UHD Faculty Mentor: **Dr. Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 27 - Shiao-Ben Chang and Joseph Michael Irving**, “Searching for Diversity in a Collection of Xylella fastidiosa Isolates: Collaboration with Geneticists at UC Riverside”
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- 29 - Alicia Corazon**, “Total Domination in Connected Graphs”
UHD Faculty Mentor: **Dr. Ermelinda DeLaVina**
Project Location: University of Houston-Downtown
- 31 - Rosalinda Delgado**, “Total Domination in Connected Bipartite Graphs”
UHD Faculty Mentor: **Dr. Ermelinda DeLaVina**
Project Location: University of Houston-Downtown
- 33 - Kelrick Scott Christie Drake**, ““I Tried Everything”: Dialectical Tensions in Weight Loss Narratives”
UHD Faculty Mentor: **Dr. Thomas Workman**
Project Location: University of Houston-Downtown
- 35 - Bartlomiej Fryszczyn and Brendon Bingwa**, “Annotation and Investigation of Cyanobacterium Fremyella disposiphon’s Genome for Insights into Complementary Chromatic Adaptation”
Co-Authors: **Shailaja Yerrapragada, Xiang Qin, Huaiyang Jiang, Yamei Liu, Madhan Tirumalai, Haleh Ashki, Sriram Raghuraman, David Kehoe, George Fox, George Weinstock**
UHD Faculty Mentor: **Drs. Akif Uzman and Catherine Horton**
- Project Location: University of Houston-Downtown, Baylor College of Medicine (BCM)
- 37 - Dennis Garcia, Rolando Lew, Irena Sigel**, “Confirmation of the Presence of Xylella fastidiosa Oleander Strains OLS ANNI Located in Oleander Plants in the State of Texas”
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- 39 - Audrey Gonzalez, Lauren Gracia, Jose Trinidad**, “Evaluation of Brettanomyces bruxellensis in Texas Wines and Statistical Analysis of the Critical Risk Factors”
UHD Faculty Mentor: **Drs. Lisa Morano and Jeong-Mi Yoon**
Project Location: University of Houston-Downtown
- 41 - Ginger Haug, Wilmer Naranjo, Lisa Weigle**, “The Impact of Channelization on the Population Biology of the Common Snapping Turtle (Chelydra serpentina) and the Red-Eared Slider (Trachemys scripta) in the White Oak Bayou Water”
UHD Faculty Mentor: **Dr. Aaron Krochmal**
Project Location: University of Houston-Downtown
- 43 - Maria Hill, Christy Thomas, Cara Trent**, “Academic Achievement Among Traditional versus Non-Traditional Students”
UHD Faculty Mentor: **Dr. Anne Rinn**
Project Location: University of Houston-Downtown
- 45 - Claudia Jimenez-Lopez and Natalie Sirisaengtaksin**, “Molecular Components of Biofilms”
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- 47 - Nirmal John and Jenzy Varghese**, “Sensors for Alcoholic Compounds”
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown
- 49 - Anselm Khoo**, “Applied Field Research: Effective Performance In Sports With Nervous Symptoms Present”
UHD Faculty Mentor: **Dr. Derek de la Pena**
Project Location: University of Houston-Downtown
- 51 - Benedict Khoo and Jenny Martinez**, “A Forensic Study of Necrophagous Insects Associated with Vertebrate Carrion along White Oak Bayou, Houston, TX”
UHD Faculty Mentor: **Dr. Jeffrey Flosi**
Project Location: University of Houston-Downtown/ Glenwood Cemetery
- 53 - Daniel Kurukji, Shawn Luce, Amita Tailor**, “Acrylate-Functional Polyester and Urethane-Based Formulations Containing Multi-Walled Carbon Nanotubes”
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown
- 55 - Connie Larsson**, “Resource Partitioning Between the Nerodia and Agkistrodon spp. in a Riparian Environment”
Co-Authors: **Jeffrey Azkley**
UHD Faculty Mentor: **Dr. William Lutterschmidt**
Project Location: Sam Houston State University
- 57 - Ellie Loveman**, “Visual Rhetoric of Food Packaging and Advertisements and the Affect on Childhood Obesity”
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 59 - Wilson Mainye and Timothy Morales**, “Characterization of Telechelic Polyacrylate Using Thermal and Thermomechanical Analysis”
Co-Authors:
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown
- 61 - Carol Martinez**, “R for Statistical and Parallel Computing”
UHD Faculty Mentor: **Dr. Erin Hodgess**
Project Location: University of Houston-Downtown
- 63 - Matthew Wesley Monroe**, “Molecular Models of Asymmetric Tetraalkylphosphonium Iodide Salts”
UHD Faculty Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown
- 65 - Claudia Moreno**, “Dopamine Sensing by Sol-gel Carbon Nanotubes”
Co-Authors: **Juan Tito, An Vo, Rosa Villagomez**
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown

- 67 - Josie Marie Nava and Marium Waqar**, "Identification of Microorganisms in JSC Mars-1 and Lunar Simulant Soils"
UHD Faculty Mentor: **Drs. Poonam Gulati and Penny Morris-Smith**
Project Location: University of Houston-Downtown
- 69 - Shajeer Noorudeen and Nicolas Spampinato**, "Metabolic Analysis of Bacteria Expressing Yeast Genes Grown on Different Sugar Sources"
UHD Faculty Mentor: **Dr. Catherine Horton**
Project Location: University of Houston-Downtown
- 71 - Chukwuma Okeke**, "Microbial Populations from DNA Samples in Potatoes Infected with Zebra Chip Disease"
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- 73 - Kristopher Overholt**, "Validation of Fire Models: A Model of Themally-Induced Electrical Cable Failure"
UHD Faculty Mentor: **Dr. Kevin McGrattan**
Project Location: National Institute of Standards and Technology, Gaithersburg, MD
- 75 - Nicolle Patterson**, "Thermal Analysis of Potential Electrolytes for Nanocrystalline Solar Cells"
UHD Faculty Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown
- 77 - Le Phan**, "Energy Efficiency of Target Tracking In Wireless Sensor Networks"
Co-Authors: **Viet Ho**
UHD Faculty Mentor: **Dr. Ali Berrached**
Project Location: University of Houston-Downtown
- 79 - Lisa Michelle Resendez**, "Ethnicity, Race, Gender and Parental Value of Education in America"
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 81 - Dagmara Sabara**, "The Study of the Interactions Between Flavin Adenine Dinucleotide (FAD) and Histidine"
UHD Faculty Mentor: **Dr. Stanislaw Wysocki**
Project Location: Technical University of Lodz
- 83 - Melissa Saucedo**, "Involuntary Volunteerism: The Effects of Requiring People to "Do Good""
UHD Faculty Mentor: **Dr. Susan Henney**
Project Location: University of Houston-Downtown
- 85 - Daniel Sanu Siddiqui**, "Switched Capacitor Filters"
UHD Faculty Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown
- 87 - Mark Anthony Smithers**, "Data Mining Using C#"
UHD Faculty Mentor: **Dr. Ping Chen**
Project Location: University of Houston-Downtown
- 89 - Rea M. Talbott**, "Visual Rhetoric in Training Manuals: Design Principles and Ethical Considerations"
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 91 - Antonio Tito**, "Literature Review and Implementation of the Studier-Protocol for the Inoculation and Growth of Ashwin gene in Recombinant Escherichia coli Bacteria"
UHD Faculty Mentor: **Dr. Akif Uzman**
Project Location: University of Houston-Downtown
- 93 - Nghia Dai Tran**, "MINIPAR Parse Visualization Tool Program"
UHD Faculty Mentor: **Dr. Ping Chen**
Project Location: University of Houston-Downtown
- 95 - Rosa Villagomez**, "Electrochemical DNA Assay by using Nickel-Based Electrode"
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown
- 97 - Devril Watson**, "Student Perception of Hybrid Learning Environment"
UHD Faculty Mentor: **Drs. Christine Bachman and Derek de la Pena**
Project Location: University of Houston-Downtown
- 99 - Desiree Wilson**, "Radiocarbon Chronology for Deposition of Alluvial Fans in the Uinta Basin, Northeastern Utah"
Co-Authors: **Brittany R. Hanly**
UHD Faculty Mentor: **Dr. Eric Carson**
Project Location: Uinta Basin in Northeastern Utah

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

- 2 - Seyed Alireza Abedi, Brandy Bell, Michelle Chatman**, "Thermal Properties of Oil-Bearing Shales"
Co-Authors: **Zaher Abdo**
UHD Faculty Mentor: **Drs. Janusz Grebowicz and Kenneth Johnson**
Project Location: University of Houston-Downtown
- 4 - Shareefa Abram**, "The Design Elements of Training Manuals"
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 6 - Jaime Acosta**, "Heinz Heger's The Men with the Pink Triangle: Graduated Power and Homosexual Survival in the Nazi Death Camps."
UHD Faculty Mentor: **Dr. Tammis Thomas**
Project Location: University of Houston-Downtown
- 8 - Kethlyn Africa, Laura Lucio, Ngum Ngwa**, "Death Assemblage in the Greens Bayou Wetlands Mitigation Bank"
UHD Faculty Mentor: **Dr. Bradley Hoge**
Project Location: Greens Bayou Wetlands Mitigation Bank and University of Houston-Downtown
- 10 - Nicole Ahlers, Arturo Garza Jr., Martin Gutierrez, Ivan De Jesus Mosqueda, Peter Obi**, "Artificial Intelligence and Actual Intelligence"
Co-Authors: **Liem Luog**
UHD Faculty Mentor: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**
Project Location: University of Houston-Downtown
- 12 - Javier Alamirra, Carlos Chavez, Matthew Ojeda, Nhung Pham, Mayra Sanchez**, "A Comparison of Mortalities Due to Septicemia in Women in Different Ethnicities"
Co-Authors: **Robin May**
UHD Faculty Mentor: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**
Project Location: University of Houston-Downtown
- 14 - Melissa Alvidrez**, "Knowing Your Issues: The Importance of Technology and Education on Policy Awareness"
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 16 - Jose Arias and Annie Man**, "Diversity of Ascomycete found in Coastal Prairie Grasslands by use of Molecular Techniques"
Co-Authors: **Michael Salazar**
UHD Faculty Mentor: **Dr. Phil Lyons**
Project Location: University of Houston-Downtown
- 18 - Araly Barrera**, "2-D Lexical Semantic Space Building"
UHD Faculty Mentor: **Dr. Ping Chen**
Project Location: University of Houston-Downtown
- 20 - Carmelita Blanco, Sunu Mathew, Krystin Ramos, Luis Valdez**, "DNA Sequencing"
Co-Authors: **Frankie Pablo and Shajeer Noorudeen**
UHD Faculty Mentor: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**
Project Location: University of Houston-Downtown
- 22 - William Brown**, "The Deception of Perception: Visual Design Elements in Corporate Logotypes"
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 24 - Jacques Burhama, Alvin Elizabeth Sosa, Rachel Richison**, "Relationship Between Concrete Temperature Increase during Hydration and Compressive Strength"
UHD Faculty Mentor: **Dr. Jorge Tito**
Project Location: University of Houston-Downtown
- 26 - Wendy Callejas, Juana Maria Olvera, Timothy Morales, Elda Rueda**, "Thermal Properties and Decomposition of Di-Nuclear Cu(ii) Compounds"
Co-Authors: **Prof. Ivan Bernal**
UHD Faculty Mentor: **Drs. Byron Christmas and Janusz Grebowicz**
Project Location: University of Houston-Downtown
- 28 - Michelle Cohen and Daryan Wilkerson**, "The Perception of Government Discrimination following Hurricane Katrina: A Longitudinal Approach"
UHD Faculty Mentor: **Drs. Derek de la Pena and David Bachman**
Project Location: University of Houston-Downtown
- 30 - W. Pearl Davis**, "Legislated University Admissions for Minorities - Right or Wrong, Who Decides"
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown

- 32 - Rosalinda Delgado, Anthony Johnson, Van Nguyen**, "Conversation Laws - Gas Dynamics and Oil Recovery"
UHD Faculty Mentor: **Dr. Katarina Jegdic**
Project Location: University of Houston-Downtown
- 34 - Betsy Escobar and Edgar Gatica**, "New Transfer Platform Based on Sol-Gel Material: Application in Sensor and Battery Fabrication"
UHD Faculty Mentor: **Drs. Mian Jiang and Larry Spears**
Project Location: University of Houston-Downtown
- 36 - Jose Jonathan Gamez**, "Conjectures about the Independent-Domination Number"
UHD Faculty Mentor: **Dr. Ryan Pepper**
Project Location: University of Houston-Downtown
- 38 - Ismael Garza**, "An Ethical Approach to Designing Illustrations of Hazardous Work Environments"
UHD Faculty Mentor: **Dr. Ann Jennings**
Project Location: University of Houston-Downtown
- 40 - Lindsay Jeanette Harrigal and London Bliss Flores**, "Insertion of ATF1 into Shuttle Vector pPTB for Ester Production"
Co-Authors: **Hong Ho and Lauren Gilbert**
UHD Faculty Mentor: **Dr. Catherine Horton**
Project Location: University of Houston-Downtown
- 42 - Hooman Hemmati and Danil Safin**, "Simulation of Intelligent Traffic Controllers Using a Computational Grid"
UHD Faculty Mentor: **Dr. Ongard Sirisaengtaksin**
Project Location: University of Houston-Downtown
- 44 - Alicja Janik and Agnieszka Frankowska**, "The Study of the Interactions between Ibuprofen and N-Acetyl-L-Tyrosine Ethyl Ester"
UHD Faculty Mentor: **Dr. Stanislaw Wysocki**
Project Location: Technical University of Lodz
- 46 - Autumn Marie Jodzio**, "Standardized Testing - Lowering the Standards?"
Co-Authors:
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 48 - Uffaf Khan**, "Inhibition of Dental Biofilms with Different Commercial Mouthwashes"
Co-Authors: **Neeraj Salhotra, Claudia Jimenez-Lopez, and Natalia Sirisaengtaksin**
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- 50 - Benedict Khoo**, "Physical and Chemical Investigation of Bacterially-Produced Extracellular Polymeric Substances by Mycobacterium smegmatis"
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- 52 - Benedict Khoo and Jenny Martinez**, "Chasing Arboviruses in Vector Mosquitoes"
UHD Faculty Mentor: **Dr. Jeffrey Flosi**
Project Location: University of Houston-Downtown/ Glenwood Cemetery
- 54 - Nguyen Lam and Wesam Mohamed**, "Xylella fastidiosa Microarrays: Comparing Genomes and Evaluating Gene Expression Differences in Strains of a Plant Pathogen"
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- 56 - Julio LaTorre and Wilfred Lau**, "Synthesis and Analysis of Alkyl-Phosphonium Salts"
UHD Faculty Mentor: **Dr. Tyra Montgomery**
Project Location: University of Houston-Downtown
- 58 - Liem Luong**, "Evaluation of Word Sense Disambiguation"
UHD Faculty Mentor: **Dr. Ping Chen**
Project Location: University of Houston-Downtown
- 60 - Jerry Maliti**, "Positivity of the Coefficients in the Power Series Expansion of Rational Function"
UHD Faculty Mentor: **Dr. Plamen Simeonov**
Project Location: University of Houston-Downtown
- 62 - Jennifer Lee McDonell and Jesse Peyton**, "Race, Self-Concept, and Academic Achievement: An Examination of College Students"
UHD Faculty Mentor: **Dr. Anne Rinn**
Project Location: University of Houston-Downtown
- 64 - Timothy Morales and Elda Rueda**, "Heterogeneity of (meth)Acrylate-Based UV-Polymerized Materials: A DMA Study"
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown
- 66 - David Nanyes**, "Improvement in Airway Hyper-Responsiveness and Inflammation in an Asthma Model via Promotion of Anti-Oxidant Responses with z-cyano-4,12-Dioxoleana-1,9,(11)-Diene-28-oic Acid (CDDO)"
Co-Authors: **Dan Hochman, Shelby Schultz**
UHD Faculty Mentor: **Dr. Edward Brooks**
Project Location: University of Texas Medical Branch (UTMB)
- 68 - Binh Nguyen 2**, "Mathematical Modeling of the BMP4 and FGF Signaling Pathways during Neural and Epidermal Development in Xenopus"
Co-Authors: **Tung Bui 2, Marsida Lisi 1, and Rashmi SubbaRao 1**
UHD Faculty Mentor: **Drs. Edwin Tecarro 1 and Akif Uzman 2**
Project Location: University of Houston-Downtown
- 70 - Shamsideen Ojelade**, ""
UHD Faculty Mentor: **Dr. Nachum Dafry**
Project Location: University of Texas - Houston Medical School
- 72 - Daniel Osakue**, "Active Damping Control System with Fuzzy Logic"
Co-Authors: **Grantley Christie and Zahid Hossain**
UHD Faculty Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown
- 74 - Saile Palacios**, "Large Scale Knowledge Acquisition"
UHD Faculty Mentor: **Dr. Ping Chen**
Project Location: University of Houston-Downtown
- 76 - Kristi Pennington**, "An Investigation into the Factors that Influence the Weight Status of College Students"
UHD Faculty Mentor: **Drs. Jon Aoki and Vicky Estrera**
Project Location: University of Houston-Downtown
- 78 - Juan Razo and Shafeeq Noorudeen**, "Interaction Between Doxorubicin and Complex I in Doxorubicin-Induced Cardiomyopathy"
UHD Faculty Mentor: **Dr. Jerry Johnson**
Project Location: University of Houston-Downtown
- 80 - Criselda Romero**, "Ethnicity, Partisanship and Attitudes in School Integration"
UHD Faculty Mentor: **Dr. David Branham**
Project Location: University of Houston-Downtown
- 82 - Anisa Saleh**, "Accumulation of Ascomycete Communities on Roots and Rhizospheres of Coastal Prairie Grasses"
UHD Faculty Mentor: **Dr. Phil Lyons**
Project Location: University of Houston-Downtown
- 84 - Damilola Seriki**, "A Study of the Genetic Variability Within and Between Populations of Hymenoxys texana"
Co-Authors: **Jonathan Howard and An Nguyen**
UHD Faculty Mentor: **Dr. Deanna McCullough**
Project Location: University of Houston-Downtown
- 86 - Elva Sierra and Antoine Ferguson**, "Beyond the Writing Capacity: New Discoveries of Pencil in the Study of Biosensing and New Energy Alternative"
UHD Faculty Mentor: **Dr. Mian Jiang**
Project Location: University of Houston-Downtown
- 88 - Amita Tailor, Nicole Patterson, Matthew Monroe**, "Infrared Spectra of Phosphonium-Based Ionic Liquids"
UHD Faculty Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown
- 90 - Leena Thompson**, "Serpentinite Dehydration as a Potential Source of Fluid and Iron (and Gold) in the Fe-oxide Cu-Au Deposit at the Record Mine, Eastern Oregon"
UHD Faculty Mentor: **Dr. Kenneth Johnson**
Project Location: University of Houston-Downtown
- 92 - Antonio Tito and Claudia Jimenez-Lopez**, "A Study of the Intermolecular Interactions of Tolmetin and N-Acetyl-L-Tyrosine Ethyl Ester Complex"
Co-Authors: **Agnieszka Kowalska**
UHD Faculty Mentor: **Drs. Stanislaw Wysocki and Larry Spears**
Project Location: Technical University of Lodz

94 - Victor Vasquez and Dianne Wells, “Double Standards in Students' Expectations of Lesbians and Gay Professors”

UHD Faculty Mentor: **Dr. Kristin Anderson**

Project Location: University of Houston-Downtown

96 - An Q. Vo, “Study of Transitional Metal-Based Detector for Carbohydrates”

UHD Faculty Mentor: **Drs. Mian Jiang and Larry Spears**

Project Location: University of Houston-Downtown

98 - Gabriel Williams, “Analysis of Natural Language Processing Systems”

UHD Faculty Mentor: **Dr. Ping Chen**

Project Location: University of Houston-Downtown

100 - Andrzej Wojcik, “A Marketing/Corporate Culture Study of Two Local Grocery Stores (aka Kroger Eats Randalls' Lunch)”

UHD Faculty Mentor: **Dr. Pamela Auburn**

Project Location: University of Houston-Downtown; S. Post Oak Kroger / W. Bellfort Randalls

Acknowledgements

It is a pleasure to recognize the many individuals, organizations, and institutions supporting UHD students in their research endeavors. These include significant funding of on-campus research over the past year from the National Institute of General Medical Sciences (1T34GM079088-01), National Science Foundation STEP Program (DUE 0336612), National Science Foundation UBM Program (0734294), U.S. Army Research Office HBCU/MI Infrastructure Support Program (W911NF-04-1-0024), U.S. Department of Education MSEIP Program (P120A050068, P120A070025), The Brown Foundation, Welch Foundation (BJ-0027), NASA, Shell Oil Co. and the University of Houston-Downtown. Many students conducted their research during summer research programs on and off-campus. Faculty and staff members of these and many other academic institutions, as well as personnel at industrial facilities, have done much to support and mentor our students.

In addition, we thank the UHD faculty and staff who have worked tirelessly to support undergraduate research experiences as well as the administrators who have helped make this event a reality. We especially thank Drs. Richard Alo, Weining Feng, Kenneth Oberhoff, Dennis Rodriguez, Larry Spears, Akif Uzman, Dean Susan Ahern, Dean Donald Bates, Dean Elizabeth Pelz, Dean George Pincus, and UHD President Max Castillo.