

5th ANNUAL UHD STUDENT RESEARCH CONFERENCE



Sponsored by the UHD Scholars Academy
Funded by the National Science Foundation (0336612), U.S. Army Research Office (W911NF-04-1-0024),
U.S. Department of Education (P120A050068), and UHD.

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 21, 2006

8:00 - 9:00 am	Registration and Continental Breakfast, Coffee House
9:00 am	<i>Dr. Max Castillo, President, UHD</i> Welcoming Remarks, Auditorium
9:10 - 9:45 am	<i>Mr. Paul M. Frison, President and CEO</i> <i>Houston Technology Center, Houston, TX</i> Keynote Speaker, Auditorium
9:45 - 11:00 am	Oral Presentations, Session I, Auditorium
11:10 - 12:25 am	Oral Presentations, Session II, Auditorium Introductions by <i>Dr. Vicky Estrera, Director, UHD Scholars Academy and Lecturer in Biology</i>
12:25 - 2:00 pm	Lunch break
2:00 - 4:00 pm	Open Poster Sessions, Room A300

Conference Co-Chairs:

Dr. Ermelinda DeLaVina, Associate Professor of Mathematics, UHD
Dr. Darshan Wadhwa, Professor of Finance, Accounting and CIS, UHD

Conference Planning Committee:

Dr. Richard Alo, Executive Director, UHD Center for Computational Science, Professor of Mathematics
Dr. Byron Christmas, Professor of Chemistry, UHD
Dr. Youn-Sha Chan, Assistant Professor of Mathematics, UHD
Dr. Vicky Estrera, Director, UHD Scholars Academy
Dr. Weining Feng, Associate Professor of Engineering Technology, UHD
Mr. Rene Garcia, Program Manager, UHD Scholars Academy
Dr. Aimee Kendall, Lecturer of English, UHD
Dr. Marilyn McShane, Professor of Criminal Justice and Director of the Institute for Community Justice, UHD
Dr. Lisa Morano, Assistant Professor of Biology and Microbiology, UHD
Ms. Mitsue Nakamura, Lecturer of Mathematics, UHD
Dr. George Pincus, Dean, UHD College of Sciences and Technology
Dr. Herbert Rebhun, Professor of Finance, Accounting and CIS, UHD
Ms. Anne Sherman, Director, UHD Office of Sponsored Programs
Dr. Larry Spears, Professor of Chemistry and Director of UHD Urban Center for Student Success in Science, Technology, Engineering and Mathematics
Dr. Edwin Tecarro, Assistant Professor of Mathematics, UHD
Dr. Akif Uzman, Chair of Natural Sciences Department, UHD
Ms. Celeste Zamora, Media Relations Coordinator, Communications and Marketing, UHD

Oral and Poster Presentations:

James William Alexander, "The First Lady of American Politics - Abigail Adams"
UHD Faculty Mentor: **Dr. Leta Schoen**
Project Location: University of Houston-Downtown
Clarisa Avila, Rita O'Malley, Don McConnell, David Cline, Yolanda Soriano, "Innocent Spouse Relief"
UHD Faculty Mentor: **Dr. Darshan Wadhwa**
Project Location: University of Houston-Downtown

Jerry Flores, "Change in Span of Control After 9/11: An Exploratory Study of Security Professionals"

Co-Authors: **Dr. Hsoio-Ming Wang**, Dept. of CJ, UHD; **Greg H. Walker**, Houston Airport System

UHD Faculty Mentor: **Dr. Chris Guarrero**

Project Location: University of Houston-Downtown

Mario Garza and Nydia Cordero, "High Strength Concretes with Different Proportions of Cement and Fly-Ash"

UHD Faculty Mentor: **Dr. Jorge Tito-Izquierdo**

Project Location: University of Houston-Downtown

Adnane Kidari, "Terminal Services Security"

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

Project Location: University of Houston-Downtown

Mariena Colleen Koerth, "For the Sake of Our Children - Child Support Contributions in Dollar Amounts"

UHD Faculty Mentor: **Dr. Adolfo Santos**

Project Location: University of Houston-Downtown

Bjorn Larsen, "Honda Fit Marketing Challenge"

Co-Authors: **Brendan McMullan, Eric Saville, Brittney Ballard, Stephen Browning, Sylvester Chung, Mikah Palermo, Leslie Rivas, Nicole Santos, Eric Soder, Ryan Wobbe**

UHD Faculty Mentor: **Dr. Madeline Johnson**

Project Location: University of Houston-Downtown

Christopher Negron, "Coordinators, a Key to Good Peer-Led Team Learning Management in a Large PLTL Program"

Faculty Mentor: **A.E. Drefuss**

Project Location: City College of New York

Presenter from the National PLTL Conference

Hunter Nguyen, Nguyen Lam, Vien Lam, "UV Polymerizable Systems Containing Single-Walled Carbon Nanotubes"

UHD Faculty Mentor: **Dr. Byron Christmas**

Project Location: University of Houston-Downtown Center for Applied Polymer Science Research (CAPSR)

Mesias Pedroza, "The Structure of Basidiomycete Communities on Root Rhizospheres of Native Coastal Prairie Grasses"

UHD Faculty Mentor: **Dr. Phil Lyons**

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).

Poster Presentations:

Zaher Abdo, "Thermal Properties of Organic Compounds by Simultaneous

Thermal Analysis & Mass Spectroscopy (TA/MS)"

UHD Faculty Mentor and Co-Author: **Dr. Janusz Grebowicz**

Project Location: University of Houston-Downtown

Seyed Mohammad Abedi, "Thermal Properties of Volcanic Obsidian Rocks"

UHD Faculty Mentors: **Drs. Kenneth Johnson and Janusz Grebowicz**

Project Location: University of Houston-Downtown

Noor Ahmed, Kenneth Collins, Cynthia Kay Blanks, Shatori Dionne Harrison, Cristina Barillas, Leila Mamytbekova, Matthew William Kogler, "Disaster Relief: Real Time Integrated Assistance"

UHD Faculty Mentor: **Dr. Gary Stading**

Project Location: University of Houston-Downtown

Betul Akin, Sean Hattenbach, Nadia Lera, Claudia Mendez, "Preliminary Investigation of Doxorubicin-Induced ROS Production"

UHD Faculty Mentor: **Dr. Jerry Johnson**

Project Location: University of Houston-Downtown

Mohammad Alam, Jameel Eniafe, Ying Zi Ma, Bina Pise, Sumila Rehman, Adeela Yunus, "Life Style Audit"

UHD Faculty Mentor: **Dr. Darshan Wahdwa**

Project Location: University of Houston-Downtown

Memling Altamirano, Antonio Basilio, and Emily De La Garza, "Identifying Hydrocarbon by Thermal Analysis of Limestone and Shale Rocks"

UHD Faculty Mentors and Co-Authors: **Drs. Janusz Grebowicz and Glenn Merrill**

Project Location: University of Houston-Downtown

Karla Alvarez, "Using STELLA Software to Model Blood Glucose Levels in Response to Daily Meals and Exercise"

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

Project Location: University of Houston-Downtown

Shidrok Ardestani, "Genetic Identification of the *Myxococcus xanthus* Envelope Stress Sensor"

Co-Author: **Dr. Heidi B. Kaplan, Research Mentor, Department of Microbiology and Molecular Genetics, University of Texas Medical School at Houston**

Project Location: UT Medical School

Ahlam Azam, "Games as Collaborative/Cooperative Learning"

Co-Authors: **Brittany Vasquez**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Ahlam Azam and Georgina Carballo, " $3 - 1 \Rightarrow 2 + 2 = \text{MORE}$ "

Co-Author: **Georgina Carballo**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Araly Barrera, Reyna Bonilla, Sara Jacobsen, "Identity Testing"

Co-Author: **Olga Soto**

UHD Faculty Mentors: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**

Project Location: University of Houston-Downtown

Victor Elad Barleycorn, "How Can a Student Adapt to a Learning System That He/She is Not Familiar With?"

Faculty Mentor: **A.E. Drefuss**

Project Location: City College of New York

Presenter from the National PLTL Conference

Julie K. Bartley, Sharmistha Basu-Dutt*, Rebecca Dodge, Victoria J. Geisler*, Javier E. Hasbun, Michele Joyner, G. Richard Larkin, Deborah Lea-Fox, , Dusty Otwell, Muhammad Rahman, Karen H. Smith, John H. Storer, S. Swamy-Mruthinti, "Generating Enthusiasm for Math and Science at University of West Georgia"

Faculty Mentor: **Dr. Victoria Geisler**

Project Location: University of West Georgia

Presenter from the National PLTL Conference

Flor Benitez, Cindy Blanks, Tiffany Carter, Myrtle Fondal, Beatriz Ortiz-Calderon, Margarita Salazar, "An Academic Strategic Alignment: The Credibility of Organizations, Leaders and Employees"

UHD Faculty Mentor: **Dr. Chynette Nealy**

Project Location: University of Houston-Downtown

Christopher Bowes, "Building a Semantic Network with a Peiori Algorithm"

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

Project Location: University of Houston-Downtown

Myrna Ivone Calderon, "Purposeful Mistakes Enhance Peer Led Learning"

Co-Authors: **Hugo Alarcón V. and Rafael Ordoñez**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Ambar Cancino, Iliana Fajardo, Carlos Lacayo, Phoebe Laurent, Antonio Tito, "The Bottleneck Effect: Who Would Survive?"

Co-Author: **Karla Alvarez**

UHD Faculty Mentors: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**

Project Location: University of Houston-Downtown

Kimberly Ann Cantrell, "Population Density and Attractant Study of *Aedes albopictus* and *Aedes aegypti*, Arthropod-borne Virus Vectors, with Baited Mosquito Oviposition Traps in Observance of their 20 years in the Houston Area"

UHD Faculty Mentor: **Dr. Jeff Flosi**

Project Location: University of Houston-Downtown

Kimberly Ann Cantrell, "Chemistry and Potential Environmental Implications of Houston-area Waterways"

Co-Authors: **Joel Henderson and Judith Vazquez**

UHD Faculty Mentors: **Drs. Ken Johnson and Lisa Morano**

Project Location: University of Houston-Downtown

Dulce Carbajal, "Variation of *Xylella fastidiosa* Colonization In Tolerant and Susceptible Grape Cultivars"

UHD Faculty Mentor: **Dr. Lisa Morano**

Project Location: University of Houston-Downtown

Georgina Carballo, "Supermarket Chemistry: Investigating Chemistry Using Household Materials"

Co-Authors: **Eunice Rascon, Dr. James Becvar**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Michael Carolan, "*Xylella fastidiosa* Detection in Potatoes Exhibiting Symptoms of Zebra Chip Disease"

UHD Faculty Mentor: **Dr. Lisa Morano**

Project Location: University of Houston-Downtown

Stephanie Chadwick, "Synthesis of Opposites in Early Works by Eugène Delacroix"

UHD Faculty Mentor: **Dr. Susan Baker**

Project Location: University of Houston-Downtown

David Cherian, "Identification of Transcription Factor Sites Essential for Proper Expression of the *Ashwin* gene in *Xenopus*"

UHD Faculty Mentor: **Dr. Akif Uzman**

Project Location: University of Houston-Downtown

Grantley Christie, "Exploring Differential Global Position Systems"

UHD Faculty Mentor: **Dr. Weining Feng**

Project Location: University of Houston-Downtown

David Code, "Nanotube/Glass Composition as New Material for Entrapping Electroactive Molecules"

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

Project Location: University of Houston-Downtown

Kenneth Collins, "America's Slippery Slope: A Systems Examination of the Economic and Political Consequences of Petroleum Dependency"

UHD Faculty Mentor: **Dr. Steven Maranville**

Project Location: University of Houston-Downtown

Fabiola Cortez, "Proton NMR, Where Are You?"

UHD Faculty Mentor and Co-Author: **Dr. Tyra Montgomery**

Project Location: University of Houston-Downtown

Ebrahim Dadabhoy, Daphne Green, Derek Harmon, Glen Kwan, Samir Muhammad, Caroline Mwanzia, Jiao Phan, "Civil Fraud Penalties"

UHD Faculty Mentor: **Dr. Darshan Wahdwa**

Project Location: University of Houston-Downtown

Emily De La Garza, “Testing the Use of Adaptive Optics to Reveal the Age of Distant Galaxies”

Co-Authors: **Dr. David Koo and Jason Melbourne**
Faculty Mentor: **Dr. David Koo**

Project Location: University of California, Santa Cruz

Maria Elena Delavega and Bertha Martinez, “Coding Public Comments to the Proposed Rules on Inter-country Adoption”

UHD Faculty Mentor: **Dr. Jo Bailey**

Project Location: University of Houston-Downtown

Mohamed Diarra, “Open Momo - An Open Source Project”

UHD Faculty Mentor: **Dr. Ali Berrached**

Project Location: University of Houston-Downtown

Walter Dickson, “Motivation by Nerds® and Airheads®”

Co-Author: **Jeffrey Hernandez**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Jannie Marie Dilber, “Investigation of the Thermal Properties of Bacterially-Produced Biopolymers”

Co-Author: **Martina Maier**

UHD Faculty Mentors: **Drs. Poonam Gulati, Byron Christmas, Janusz Grebowicz**

Project Location: University of Houston-Downtown Center for Applied Polymer Science Research (CAPSR)

Josephine Dilber, Clarissa Fletcher, Amber Martinez, Shajeer Noorudeen, Reuben Rodriguez, “How Will Intelligent Machines Affect Our Future?”

Co-Author: **Jonathon Keele**

UHD Faculty Mentors: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**

Project Location: University of Houston-Downtown

Daniel Dominquez, “No Intelligence Left Behind: Stimulating Multiple Intelligences via Active Learning Techniques”

Faculty Mentor and Co-Author: **Drs. Juan Noveron**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Adam Drake, “On the Enumeration of a Class of Non-Graceful Graphs”

UHD Faculty Mentor: **Dr. Timothy Redl**

Project Location: University of Houston-Downtown

Adam Drake, “Galactic Rotation Without Dark Matter Halos”

UHD Faculty Mentor: **Dr. Youn-Sha Chan**

Project Location: University of Houston-Downtown

Carol Duncan, Patricia Jefferson, John Sanchez, “Are Feminists Manhaters? Students’ Attitudes Toward Feminists and Feminists’ Attitudes Toward Men”

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

Project Location: University of Houston-Downtown

Nicolas Esteban Endre, “An Econometrical Analysis of the Socioeconomic and Demographic Factors Affecting Obesity Among Americans”

UHD Faculty Mentor: **Dr. Justo Manrique**

Project Location: University of Houston-Downtown

David Espino, Nguyen Lam, Binh Nguyen, Courtney Watts, “Rubella Disease and the Human Immune Responses”

Co-Authors: **Justin Dudney, Moses Osoro**

UHD Faculty Mentors: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**

Project Location: University of Houston-Downtown

HyeJin Eum, “Throwing Stones Into Water to Make Waves: The Benefits of PLTL Workshop”

Faculty Mentor: **A.E. Drefuss**

Project Location: City College of New York

Presenter from the National PLTL Conference

Thomas Craig Foster, “On Leafy Spanning Trees of Graph”

UHD Faculty Mentor: **Dr. Ermelinda DeLaVina**

Project Location: University of Houston-Downtown

Kyle Garmany, “A Study of Diatom and Arcellacean Primary Communities for Measuring Succession in Mitigated Wetlands”

Co-Author: **Tek Williams**

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

Project Location: Green’s Bayou Wetland Mitigation Bank, Anahuac National Wildlife Refuge, University of Houston-Downtown

Adewale Giwa and Juan Leon, “Behavior of Cancer Cells in a Mathematical Model”

UHD Faculty Mentor: **Dr. Edwin Tecarro**

Project Location: University of Houston-Downtown

Neri Gomez, Liem Luong, Arnulfo Maldonado, Robin May, “How Accurate is the Portrayal of the Ebola Virus in the movie *Outbreak?*”

Co-Author: **Vien Lam**

UHD Faculty Mentors: **V. Estrera, R. Garcia, M. Nakamura, L. Spears**

Project Location: University of Houston-Downtown

Kathryn Gutierrez, Michael Taylor, Rebecca Chitwood, Tony Jackson, Tammi Lott, Bob Fryer, Grace Anderson, Amy Vargas, “The Statute of Limitations in Individual Federal Tax Matters”

UHD Faculty Mentor: **Dr. Darshan Wahdwa**

Project Location: University of Houston-Downtown

Muhammad Hassan, “VoIP and Emerging PBX Technologies”

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

Project Location: University of Houston-Downtown

Jeffrey Hernandez, “Explorations: Teaching Students to Develop the Important Questions: “By Jove, the Whys (wise) have it!!!””

Co-Authors: **Marisa Galan, Myrna Calderon, Walter Dickson, Hugo Alarcon, Daniel Dominquez, Yoon Kim, Rafael Ordonez, Omar Khateeb, Albert Padilla, Lance Williams, Gina Carballo, Ahlam Azam, and Arturo Montes**

Faculty Mentor: **Dr. James Becvar**
Project Location: University of Texas at El Paso
Presenter from the National PLTL Conference

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Okezie Igboeli, “Genome Annotation and Analysis of a Dominant Community Acquired Methicillin Resistant *Staphylococcus aureus*, USA300”

UHD Faculty Mentor: **Dr. Akif Uzman**

Project Location: University of Houston-Downtown

Brian Neal Iken, “Bald Cypress of the Texas Hill Country: Taxonomically Unique?”

Co-Author: **Yessenia Patino**

UHD Faculty Mentor: **Dr. Deanna McCullough**

Project Location: University of Houston-Downtown

Adam Jordan, “Landmark-driven, Atlas-based Segmentation of Mouse Brain Tissue Images with Gene Expression Data”

UHD Faculty Mentor: **Dr. Vasilis Zafiris**

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

Usman Khan, “Deploying Multi-Agents in Grid”

UHD Faculty Mentor: **Dr. Hong Lin**

Project Location: University of Houston-Downtown

Yoon Ju Kim, “Countering the Know-It-All Disruptor”

Co-Author: **Dr. James Becvar**

Faculty Mentor: **Dr. James Becvar**

Project Location: University of Texas at El Paso

Presenter from the National PLTL Conference

Chad Kocurek and Raymond Mouton, “Calculating the Power and Efficiency of Computation Clusters”

UHD Faculty Mentors: **Drs. Ongard Sirisaengtaksin and Hong Lin**

Project Location: University of Houston-Downtown

Connie Larsson and Lisa Weigle, “A PCR Strategy to Analyze *Ashwin* Gene Structure”

UHD Faculty Mentor: **Dr. Akif Uzman**

Project Location: University of Houston-Downtown

Carlton Lewis, Melissa Navarro, Alberto Calvillo, Effream Pittman, Schrhonda Compton, Pearl Jacobs, Laura Webb, “Criminal Tax Fraud Penalties”

UHD Faculty Mentor: **Dr. Darshan Wahdwa**

Project Location: University of Houston-Downtown

- Martina Maier, Moriam Ojelade, Jannie Dilber**, "Biofilm Formation, Extraction and Analysis of Exopolymeric Substances of Several Bacteria"
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- Karim Masri**, "Growth, Isolation and Identification of Antibiotic Agents of *Trichoderma*"
UHD Faculty Mentors: **Drs. Tyra Montgomery and Phil Lyons**
Project Location: University of Houston-Downtown
- Jordan McClinton, Nick Singh, Anh-Dung Nguyen, Nicolas Vega, Guilivaldo Villanueva, Carlos Gaitan-Cerda, Andy Davis, Josh Mason**, "Implementation of Real-Time Logistics Systems"
UHD Faculty Mentor: **Dr. Gary Stading**
Project Location: University of Houston-Downtown
- Lee Anne McGaha**, "Potential Plant Reservoirs for *Xylella Fastidiosa* in a Pierce's Disease Hot Zone"
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- Paula Medrano**, "An Inventory of the Herpeiofavn of Little Turkey Gulley, Harris County, TX"
Co-Authors: **Susanna Hooper and Karen Purpera**
UHD Faculty Mentor: **Dr. Aaron Krochmal**
Project Location: University of Houston-Downtown
- Ruby Mendez**, "Percutaneous Lumbar Discectomy Using the Dekompressor™ Device in Virtual Reality Environment with Haptic Device"
UHD Faculty Mentor: **Dr. Ongard Sirisaengtaksin**
Project Location: University of Houston-Downtown
- Rim Mohamed**, "Data for Inequalities and Asymptotics for a Terminating 4F3 Series"
UHD Faculty Mentor: **Dr. Plamen Simeonov**
Project Location: University of Houston-Downtown
- Arturo Montes**, "You Can't Do It for Them: Learning Takes Time"
Faculty Mentor and Co-Author: **Dr. James Becvar**
Project Location: University of Texas at El Paso
Presenter from the National PLTL Conference
- Carol L. Morris**, "Characterization of the Physical Properties of Coastal Prairie Mima Mound Soils, Sheldon Lake State Park, Southeast Texas"
Faculty Mentor: **Dr. Eric Carson, San Jacinto College North**
Project Location: San Jacinto College North and University of Houston-Downtown
- Shajeer Noorudeen**, "Nanotube / Plastic Composite as New Material for Environmental Remedy"
UHD Faculty Mentors: **Drs. Mian Jiang and Larry Spears**
Project Location: University of Houston-Downtown
- Shamsideen Ojelade**, "Toxicology Screening of National Waters Using the Allecum Cepa Test & Mitatic Inhibiting Test"
UHD Faculty Mentor: **Dr. Jon Aoki**
Project Location: University of Houston-Downtown
- Kristi Pennington**, "Testing for Soil Variances in Texas Hill Country to Determine Cause of Altered Appearance of *Taxodium distichum* (Bald Cypress Trees)"
UHD Faculty Mentors: **Drs. Jon Aoki and Deanna McCullough**
Project Location: University of Houston-Downtown
- Erum Raja**, "Design and Investigation of Ru(II) N-Heterocyclic Complexes that Exhibit Proton Coupled Electron Transfer"
Co-Authors: **Michelle Logue and Dr. Spencer Slattery**
Faculty Mentors: **Drs. Spencer Slattery and Lucile Garmon**
Project Location: University of West Georgia
Presenter from the National PLTL Conference
- Fabian Ramirez, Marvin Stephen, Gloria Matta-Aldana**, "Analysis and Design of Multiple Post Tensioned Cable Concrete Beam"
UHD Faculty Mentor: **Dr. Jorge Tito-Izquierdo**
Project Location: University of Houston-Downtown
- Patricia Azucena Ramon**, "The Use of Houston's Bayous as "Green Corridors" by ari Pavna"
UHD Faculty Mentor: **Dr. Aaron Krochmal**
- Project Location: Little Turkey Gulley and White Oak Bayou, Harris County, TX and University of Houston-Downtown
- Juan Carlos Razo**, "Reevaluation of the Mimosa Species Previously Classified as *Schrankia* Based on the Internal Transcribed Spacers (ITS-1, ITS-2) of the nrRNA Gene"
UHD Faculty Mentor and Co-Author: **Dr. Deanna McCullough**
Project Location: University of Houston-Downtown
- Brian Rodriguez**, "Stabilization of Thiol/Acrylate Systems Using N-PAL"
Co-Authors: **Hilda Hinojosa, Christopher Lopez, Colin Carandang, Lucio Patino, Dr. Byron Christmas**
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown Center for Applied Polymer Science Research (CAPSR)
- Brian Rodriguez**, "Stabilization of Thiol/Acrylate Systems Using N-PAL Part B: Systems Containing an Acrylated Urethane System"
Co-Authors: **Hilda Hinojosa, Dr. Byron Christmas**
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown Center for Applied Polymer Science Research (CAPSR)
- Arbelia Roman and Shafeeq Noorudeen**, "Biofilm Formation of *Staphylococcus aureus* in vitro and Inhibition with Antibiotics"
UHD Faculty Mentor: **Dr. Poonam Gulati**
Project Location: University of Houston-Downtown
- Janeth Sanchez**, "The Effects of UV Energy Density on the Thermomechanical Properties of UV-Polymerizable, Thiol/Acrylate-Functional Systems Stabilized with NPAL"
Co-Author: **Brian Rodriguez**
UHD Faculty Mentor: **Dr. Byron Christmas**
Project Location: University of Houston-Downtown Center for Applied Polymer Science Research (CAPSR)
- Kevin Joseph Spring**, "Mosquito Species Composition and Infection Rate of West Nile and St. Louisencephalitis Virus in Two Above Ground and Two Storm Sewer Habitats"
UHD Faculty Mentor: **Dr. Jeff Flosi**
Project Location: University of Houston-Downtown
- Kevin Spring, William Watson, Hiba Zwiya**, "Electrochemical Detection Assay for Quantification of *Xylella fastidiosa* DNA after Polymerase Chain Reaction"
UHD Faculty Mentor: **Dr. Lisa Morano**
Project Location: University of Houston-Downtown
- Fatima Sultana**, "A Study of the Validity of the Taxonomic Varieties of *C. Lavaegata*"
UHD Faculty Mentor: **Dr. Deanna McCullough**
Project Location: University of Houston-Downtown
- Brian Terry**, "Scientific Foundations of Fire Dynamics"
UHD Faculty Mentor: **Dr. Alberto Gomez-Rivas**
Project Location: University of Houston-Downtown
- Tatyana Teslova**, "The Answer Key: Promoting Students' Failure - An Application of William Perry's Scheme for Successful Learning"
Faculty Mentor: **A.E. Drefuss**
Project Location: City College of New York
Presenter from the National PLTL Conference
- Antonio Tito**, "Signaling Protein Interactions"
UHD Faculty Mentor: **Dr. Maria Benavides**
Project Location: University of Houston-Downtown
- Juan Pablo Tito**, "Fungal Diversity in Rhizospheres and Washed Roots of Coastal Tall Grass Prairie Grasses"
UHD Faculty Mentor: **Dr. Phil Lyons**
Project Location: University of Houston-Downtown
- Hung Q. Tran**, "Infrared Sensing and Serial Communication"
UHD Faculty Mentor: **Dr. Weining Feng**
Project Location: University of Houston-Downtown
- Jennifer Trejo**, "Mathematical Models for Projecting Growth"
UHD Faculty Mentor: **Dr. Youn-Sha Chan**
Project Location: University of Houston-Downtown

Borislava Tsanova, Marlin Mathews, Prince Buzombo, William Watson,
“Genetic Diversity of *Xylella fastidiosa* Strains in Texas”

UHD Faculty Mentor: **Dr. Lisa Morano**

Project Location: University of Houston-Downtown

Marco Tzorin, “Thermal Transitions and Thermal Stability of L-Histidine”

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

Project Location: University of Houston-Downtown

Marcia Vanhorn, Michael Yost, Dianne Wells, Wayne Wauters, Paige Gorman, “Ethnic Differences in Gender Role Orientation, Norms and Stress”

UHD Faculty Mentors: **Drs. Todd Moore, Deborah Rhatigan and Kristin Anderson**

Project Location: University of Houston-Downtown

Dianne Wells, Wayne Wauters, Paige Gorman, Marcia Vanhorn, Michael Yost, “Substance Use and Intimate Partner Violence Among College Students”

UHD Faculty Mentors: **Drs. Todd Moore and Deborah Rhatigan**

Project Location: University of Houston-Downtown

Tek Williams, “A Composite Study of Arcellean Levels in Measuring Wetland Succession at GBMB”

Co-Author: **Kyle Garmany**

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

Project Location: Green's Bayou Wetland Mitigation Bank, Anahuac National Wildlife Refuge, University of Houston-Downtown

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 Science Foundation's STEP Program (DUE 0336612), U.S. Army Research Office HBCU/MI Infrastructure Support Program (W911NF-04-1-0024), U.S. Department of Education MSEIP Program (P120A050068), Welch Foundation, NASA and UHD. 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've worked tirelessly to support undergraduate research experiences as well as the administrators who've helped make this event a reality. We especially thank Drs. Richard Alo, Alberto Gomez-Rivas, 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.

Finally, we would like to thank the organizers, attendees and presenters of the National PLTL Conference on Leader Training and Peer Leader Learning on April 20-23, 2006 at UHD, in particularly those who are also participating within the UHD Student Research Conference this year.