

# 14<sup>th</sup> ANNUAL UHD STUDENT RESEARCH CONFERENCE



# Sponsored by the UHD Scholars Academy

Funded by the
National Science Foundation (0934913),
U.S. Department of Education (P120A130040),
U.S. Nuclear Regulatory Commission (NRC-27-10-1121),
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 10, 2015

8:00 - 8:30 am	Registration and Continental Breakfast, Coffee House
8:30 am	Dr. Mary Jo Parker, Director, Scholars Academy, UHD Introduction of UHD President, Auditorium
8:30 am	Dr. William Flores, President, University of Houston-Downtown Welcoming Remarks, UHD Wilhelmina Cullen Robertson Auditorium
8:40 am	Dr. Barry Garrett Endowed Scholarship 2015 Recognition of Family and the 2015 Student Recipient, Auditorium
9:00 am	Ed Hugetz, Provost, University of Houston-Downtown Welcoming Remarks on High Impact Activities, Auditorium
9:10 am	Dr. Akif Uzman, Dean, College of Sciences and Technology, UHD Introduction of Keynote Speaker, Auditorium
9:15 am	Phillip Gallegos, M.D., 2003 UHD Alumnus Staff Anesthesiologist, USAP Pinnacle Anesthesia Consultants Keynote Speaker, Auditorium
9:45 am	Oral Presentations, Session I, Auditorium
11:00 am	Oral Presentations, Session II, Auditorium Introductions by <i>Drs. Weining Feng and Chynette Nealy, SRC Co-Chairs</i>
12:00 pm	Drs. Weining Feng and Chynette Nealy, SRC Co-Chairs Introduction of External Community Speaker, Auditorium
12:00 pm	Ms. Rachana Wood Sr. U.S. Diversity & Inclusion Consultant, Shell Oil Co. External Community Speaker, Auditorium
12:20 pm	Lunch Break
1:30 - 4:00 pm	Open Poster Sessions, Room A300

# **Conference Co-Chairs:**

Dr. Weining Feng, Associate Professor of Engineering Technology, UHD Dr. Chynette Nealy, Associate Professor of Management, Marketing & Business Administration, 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. Ruth Johnson, Associate Professor of Social Sciences, UHD

Dr. Hong Lin, Professor of Computer Science, UHD

Dr. Michelle Moosally, Chair of English Department, 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. Edwin Tecarro, Associate Professor of Mathematics, UHD

Dr. Akif Uzman, Dean, UHD College of Sciences and Technology

# **Oral and Poster Presentations:**

19 - Shebna Cheema, "Dysregulation of Dopamine Handling in Dopaminergic Neurons of Drosophila Parkinson's Disease Models"

Co-Authors: Antonio Tito1,2, Zhen Xu2, Yanning Rui1, Zhihua Chen1, Kira Wegner4, Zoe Tao4, Wen-Ting Li4, Mian Jiang3, Hugo Bellen6,7, and Sheng Zhang1,2. IInstitute of Molecular Medicine, University of Texas Health Science Center Houston, 2Graduate School of Biomedical Sciences, 3University of Houston-Downtown, 4Rice University, 5UT Houston Medical School, 6Baylor College of Medicine, 7Howard Hughes Medical Institute

Project Sponsor: Brown Foundation, Inc. UHD Faculty Mentor: **Dr. Mian Jiang** 

Project Location: University of Texas Health Science Center Houston

**34 - Jonathan Rafael Garza, Sishir Subedi, Yuntian Zhang,** "A System for Capturing and Processing EEG Data"

Co-Authors: Minghao Yang, Robert Jackson, Eloy Perez, Israel Cervantes

UHD Faculty Mentors: Drs. Yunwei Cui and Hong Lin

Project Sponsor: National Science Foundation
Project Location: University of Houston-Downtown

89 - Tuan Hoang, "Theory and Practice in Motion"

Co-Authors: Vi Hong, Aujanee Armstrong, and CJ Senior Seminar Students of Fall 2014

UHD Faculty Mentor: Dr. Judith Harris

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).

46 - Danil Karasev and Xavier Mendez, "Application of Image Processing

Analysis in Concrete Strain Measurements" UHD Faculty Mentor: Dr. Arash Rahmantian Project Sponsor: U.S. Department of Defense Project Location: University of Houston-Downtown

49 - Linus Klingler and Alexander Rush, "Isolation and Annotation of Novel Bacteriophages'

Co-Authors: Henderson Jones, Benjamin Pilgrim UHD Faculty Mentor: Dr. Rachna Sadana Project Location: University of Houston-Downtown

51 - Geraldine Lerner, "Investigation of the Mechanism of Action of Saffron

Extracts on Streptococcus mutans Biofilms" Co-Authors: Shima Taghikhani, Irin Girgis UHD Faculty Mentor: Dr. Poonam Gulati

Project Sponsor: UHD ORCA

Project Location: University of Houston-Downtown

5 - Randranic Arceneaux, Jean-Marie Schweizer, Yash Voltaire, "Workplace

Incivility: Does Ethnicity Matter?" UHD Faculty Mentor: Dr. Susan Henney

Project Location: University of Houston-Downtown

74 - Evelyn Valdez, "Comparison of hydraulic design between an evergreen and a deciduous chaparral shrub"

Co-Authors: Tien Dong1, Sergiy Koshkin1, R. Brandon Pratt2, Anna L. Jacobsen2, Evan D. MacKinnon2. (1)University of Houston-Downtown, (2)California State University Bakersfield

UHD Faculty Mentor: Dr. Michael Tobin

Project Sponsors: Brown Foundation, Inc. and National Science Foundation Project Location: University of Houston-Downtown, California State University

Bakersfield

# **Poster Presentation Session I** (1:30PM-2:45PM):

1 - Bina Ahmed and Alice Solomon, "Growth Patterns of Bacteria in Singleand Multi-species Biofilms'

UHD Faculty Mentor: Dr. Poonam Gulati Project Sponsor: UHD High Impact Practices Project Location: University of Houston-Downtown

3 - La'Chelle Andrews, Lesley Colonia, Stephanie Garcia, "Pet Closeness and

Romantic Relationships' UHD Faculty Mentor: Dr. Kristen Capuozzo

Project Location: University of Houston-Downtown

5 - Randranic Arceneaux, Jean-Marie Schweizer, Yash Voltaire, "Workplace Incivility: Does Ethnicity Matter?"

UHD Faculty Mentor: Dr. Susan Henney

Project Location: University of Houston-Downtown

7 - Asma Aziz and Ryan Horton, "Plastic Degradation by Marine Microbes"

Co-Author: Erika Flores

UHD Faculty Mentor: Dr. Poonam Gulati Project Sponsor: UHD High Impact Practices Project Location: University of Houston-Downtown

9 - Oluwatolani Balogun, "Computational Investigation of Imidazolium-based Ionic Liquid Crystals Bearing a Cholestryl Mesogenic Group"

UHD Faculty Mentor: Dr. Maria Benavides

Project Sponsors: U.S. Nuclear Regulatory Commission and Welch Foundation

Project Location: University of Houston-Downtown

11 - Mahesh Basyal, "Computational Studies of Gadolinium (III)-Based Ligands Used in Diagnostic Medical Imaging"

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

13 - Tracie Bibbs, Bryan Duplechaine, Jeanelle Gonzalez, "Who Can Correct Your Child? The Role of Ethnicity in Non-Parental Discipline"

UHD Faculty Mentor: Dr. Susan Henney

Project Location: University of Houston-Downtown

15 - Huy Bui and Quincy Henderson, "Characterization of Alcohol Sensitivity and Rapid Tolerance using a LOR Paradigm"

Co-Author: Gregg Roman, University of Houston UHD Faculty Mentor: Dr. Yuanyuan Kang Project Location: University of Houston-Downtown 17 - Billy Chanthapaseuth, Garrett Demilia, Isamar Mendoza, "The United

Kingdom: Information System and its Effect on the Economy'

UHD Faculty Mentor: Dr. Ruth Robbins

Project Location: University of Houston-Downtown

19 - Shebna Cheema, "Dysregulation of Dopamine Handling in Dopaminergic Neurons of Drosophila Parkinson's Disease Models'

Co-Authors: Antonio Tito1,2, Zhen Xu2, Yanning Rui1, Zhihua Chen1, Kira Wegner4, Zoe Tao4, Wen-Ting Li4, Mian Jiang3, Hugo Bellen6,7, and **Sheng Zhang1,2.** IInstitute of Molecular Medicine, University of Texas Health Science Center Houston, 2Graduate School of Biomedical Sciences, 3University of Houston-Downtown, 4Rice University, 5UT Houston Medical School, 6Baylor College of Medicine, 7Howard Hughes Medical Institute

UHD Faculty Mentor: Dr. Mian Jiang

Project Location: University of Texas Health Science Center Houston

21 - Mariana Cortes, "Development of an Ultraviolet Polymerizable Coating Using Boron Isotopes"

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

23 - Prisilia Cruz, "Monitoring and Classifying the Diatoms in the Trinity River's Swamp"

UHD Faculty Mentor: Dr. Brad Hoge

Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

25 - Rajni Dhadral and Linus Klingler, "Fungi in the World of Cancer"

Co-Authors: Lea Means, Viktor Hanov, Reyna Valdez, Jowar Henandez, Victor Akhanov

UHD Faculty Mentors: Drs.Philip Lyons and Rachna Sadana

Project Location: University of Houston-Downtown

26 - Ngan Do and Steve Leon, "Workout Coupling: Study The Influence Of One's Workout On The Others'

UHD Faculty Mentor: Dr. Dvijesh Shastri Project Sponsor: National Science Foundation Project Location: University of Houston-Downtown

27 - LuCrezia Dorsey, Deepa Motwani, Muntaha Saleem, "Stepping Up Our

Co-Authors: Students from Business Communications 3350

UHD Faculty Mentor: Dr. Chynette Nealy

Project Location: University of Houston-Downtown

29 - Hassan El-Mehaalwi, "Visualization of the Electric Field"

UHD Faculty Mentor: Dr. Larry Sterna

Project Location: University of Houston-Downtown

31 - Anthony Galvan, Karina Torres, Leticia Villalobos, "Is It Possible To Slowing Down The Aging Process and The Diseases Associated With It?"

Co-Authors: Juangerardo Parra, Luis Gomez, Russell Williams, Crystal Lujan, Obioma McReynolds

UHD Faculty Mentor: Ms. Mitsue Nakamura

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

33 - Eduardo Garza, "Does Psychopathy Predict IQ?"

UHD Faculty Mentor: Dr. Katrina Rufino

Project Location: University of Houston-Downtown

35 - Irin Girgis and Sandy Gramajo, "Investigating the Role of Streptococcus salivarius in Oral Health"

UHD Faculty Mentor: Dr. Poonam Gulati

Project Sponsor: UHD ORCA

Project Location: University of Houston-Downtown

37 - Annabella Gutierrez, "The History of the Plain English Movement in the U.S.'

UHD Faculty Mentor: Dr. Natalia Matveeva

Project Location: University of Houston-Downtown

39 - Charles Hayes and Matthew McCann, "Statecraft: Realpolitik and the Competitive Spirit"

UHD Faculty Mentor: Dr. John Linantud

#### 41 - Amairani Hernandez Garcia, Crystal Llanas, German Villalobos,

'String Vibrations in Oil Industry' UHD Faculty Mentor: Dr. Katarina Jegdic Project Location: University of Houston-Downtown

43 - Keonna Hines Kesee, Andrea Kirkpatrick, TaShiqua Loston,

'Examining biases in facial processing: Do "they" really all look alike?"

UHD Faculty Mentor: Dr. Ruth Johnson

Project Location: University of Houston-Downtown

45 - Sheetara Johnson and Itam Otu, "Is Correcting a Child the Community's

Business? The Concept of Non-Parental Discipline"

UHD Faculty Mentor: Dr. Susan Henney

Project Location: University of Houston-Downtown

47 - Namrata Kayastha, "Understanding Role of Meditation in Human

Performance'

Co-Authors: Israel Cervantes, Raul Rios, Edgar Ramirez

UHD Faculty Mentor: Dr. Dvijesh Shastri

Project Location: University of Houston-Downtown

49 - Linus Klingler and Alexander Rush, "Isolation and Annotation of Novel

Bacteriophages'

Co-Authors: Henderson Jones, Benjamin Pilgrim

UHD Faculty Mentor: Dr. Rachna Sadana

Project Location: University of Houston-Downtown

51 - Geraldine Lerner, "Investigation of the Mechanism of Action of Saffron

Extracts on Streptococcus mutans Biofilms" Co-Authors: Shima Taghikhani, Irin Girgis UHD Faculty Mentor: Dr. Poonam Gulati

Project Sponsor: UHD ORCA

Project Location: University of Houston-Downtown

53 - Glenda Mateos, Garrett Arnold, Daniel Robledo, "Diversity and

Geographic Distribution of Truffles in Texas"

Co-Author: Juan Olivares

UHD Faculty Mentor: Dr. Phil Lyons

Project Location: University of Houston-Downtown

55 - Carlos Montes, "Distance Measurement with Ultrasonic Technology"

UHD Faculty Mentor: Dr. Weining Feng

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

57 - Niikky Nguyen, Joesheena Rempis, Lamar Woods, "Enter the Jaeger:

Mind-Control of Technology'

Co-Authors: David Alquicira, Gabriella Hines, Henry Zhang

UHD Faculty Mentor: Ms. Mitsue Nakamura

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

59 - Zachary Olson, Bina Ahmed, Daniel Robledo, Chelsi Kaspereit, Merlin Herrera, Jeniece Julius, Jessie Smith, Vivita Sedai, Sean Contreras, Ashley Batiste, Tyrone Minor, Melvin Onyia, Csilla Buday, Ximena

Romero, "Screening Thirty Synthetic Compounds Identified Four as Potential Anti-cancer Agents'

UHD Faculty Mentor: Dr. Rachna Sadana

Project Location: University of Houston-Downtown

61 - Sarah Patterson, "Country Report: Mexico"

UHD Faculty Mentor: Dr. John Linantud

Project Location: University of Houston-Downtown

63 - Lucero Priego-Pineda, Patrick Taveechai, Bria Wooten, "Is a Robocop

Suit Possible?

Co-Authors: Momena Shah, Crystal Torres, Parsa Ebrahimzadeh, Taylor Locklear, Dougles Syzdek

UHD Faculty Mentor: Ms. Mitsue Nakamura

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

65 - Travis Riley and Caroline Smith, "Investigating Death Penalty Juror

UHD Faculty Mentor: Dr. Kristen Capuozzo

Project Location: University of Houston-Downtown

67 - Vivita Sedai, "Diatoms Comparison at the Trinity River Reservoir and Fort

Anahuac Marsh"

UHD Faculty Mentor: Dr. Brad Hoge

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

69 - Ahmed Shaban, "Quantum Mechanical Studies of New Ferrocene

Containing Ionic Liquids"

UHD Faculty Mentor: Dr. Maria Benavides

Project Location: University of Houston-Downtown

71 - Jessie Smith and Irma Zia, "Comparative Minimum Leaf Conductance in

Ancestral and Modern Wheat Varieties" UHD Faculty Mentor: Dr. Michael Tobin

Project Sponsor: U.S. Department of Agriculture Project Location: University of Houston-Downtown

73 - Alisa Turchaninova, "Analyzing Human Activity Patterns via a Mobile

App"

Co-Authors: Ashik Khatri, Ilyas Vyanik, Ioannis Pavlidis, Computer

Sciences, University of Houston Project Location: University of Houston

75 - Reyna Valdez, "Analysis of Grape Cultivars for Pierce's Disease Resistance

with a Xylella-specific QRT PCR Probe'

Co-Authors: Csilla Buday, Amanda Markham

UHD Faculty Mentor: Dr. Lisa Morano

Project Location: University of Houston-Downtown

77 - Saima Valliani and Sara Valliani, "Using SSR Fingerprinting to Evaluate

Genetic Diversity of Xylella fastidiosa in Texas"

UHD Faculty Mentor: Dr. Lisa Morano

Project Location: University of Houston-Downtown

79 - Sheeda Han Ngoc Vo, "The Application of Nickel Hexacyanoferration Film

in Amino Acids Detection"

UHD Faculty Mentor: Dr. Mian Jiang

Project Sponsors: Brown Foundation, Inc., NASA, Welch Foundation and U.S.

Department of Education

Project Location: University of Houston-Downtown

81 - DaNae Woodard, "Evolution of Enzyme Functions in Amycolatopsis

NSAR/OSBS'

Co-Authors: Andy McMillan, Denis Odokonyero, Mahana Lopez

UHD Faculty Mentor: Dr. Margaret Glasner Project Location: Texas A&M Univesity

83 - Richard Wrangpetch, "UHD Watershed Wonders: Summer Environmental

Research Camp 2014-2015"

Co-Authors: Francisco Colon, Katherine Freeman, Leah Mulkey UHD Faculty Mentor: Dr. Brad Hoge

Project Sponsors: National Oceanic and Atmospheric Administration and

National Science Foundation Project Location: University of Houston-Downtown

# **Service Learning Projects Poster Presentation Session** (1:30PM-2:45PM):

85 - Asma Aziz and Evelyn Valdez, "Service Learning Project - Creating Childhood Vaccines Brochures'

Co-Authors: Monique Fountain, Mecian Nelom, David Flores, Arturo Totomoch

UHD Faculty Mentor: Dr. Poonam Gulati

Project Sponsor: Texas State Representative Sylvester Turner

Project Location: University of Houston-Downtown

87 - Ryan Cherian, Michelle Graczyk, Jeniece Julius, "Service Learning

Project - Science Corner'

Co-Authors: Raven Houston, Semira Teheri, Mary Truong, Ted Uotani, Danial Khan, Christa Landowski, Andrew Phan

UHD Faculty Mentor: Dr. Poonam Gulati

Project Sponsor: Texas State Representative Sylvester Turner

Project Location: University of Houston-Downtown

89 - Tuan Hoang, "Theory and Practice in Motion"

Co-Authors: Vi Hong, Aujanee Armstrong, and CJ Senior Seminar Students

of Fall 2014

UHD Faculty Mentor: **Dr. Judith Harris** 

91 - Robert Jackson, "Service Learning Project – Boys and Girls Club"

UHD Faculty Mentor: Dr. Mary Jo Parker Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

93 - Haneen Mohammed, Vicente Rodriguez, Saima Valliani, "Developing STEM at Hartman and Clifton Middle Schools"

Co-Authors: LiFan Chen, Lisa Martinez, Ana Zertuche

UHD Faculty Mentor: Dr. Mary Jo Parker Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

95 - Yarmilla Reyes, Rudy Santos, Juangerardo Parra, "KIPP Connect

Middle School Service Learning Project"

Co-Authors: Irvin Romero, Elizabeth Salas, Obioma McReynolds, Leticia Villalobos, Melissa Cedillos

UHD Faculty Mentor: Ms. Mitsue Nakamura Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

97 - Henry Zhang, "Service Learning Project - Klein Intermediate School"

UHD Faculty Mentor: Dr. Mary Jo Parker Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

# Poster Presentation Session II (2:45PM - 4:00PM):

2 - Doris Amaro and Benjamin Pilgrim, "The Efficacy of Black Seed and Saffron on Inhibiting Breast Cancer Cell Growth'

UHD Faculty Mentor: Drs. Tyra Hessel and Hamida Qavi

Project Sponsor: Texas State Legislature - JAMP Project Location: University of Houston-Downtown

4 - Praise Anene, "Phylogeographic Analysis of Geomys personatus Subspecies

in Texas"

UHD Faculty Mentor: Dr. Amy Baird Project Sponsor: Brown Foundation, Inc.

Project Location: University of Houston-Downtown

6 - Teresita Avila and Lauren Gordon, "How Perceived Self-Efficacy Relates

to Goal Perceptions and Affect"

UHD Faculty Mentor: Dr. Melissa Raymundo Project Location: University of Houston-Downtown

8 - Ashley Babers and Tiffany Pham, "Investigating the Effectiveness of Voir

Dire as a Remedy to Pre-trial Publicity" UHD Faculty Mentor: Dr. Kristen Capuozzo Project Location: University of Houston-Downtown

10 - Vanessa Barrientos, Sarah Tahmourpour, Kenny Perez, "Does

Personality Predict Offense Type?" UHD Faculty Mentor: Dr. Katrina Rufino

Project Location: University of Houston-Downtown

12 - Alexis Bates, "Country Report: Republic of Guatemala"

UHD Faculty Mentor: Dr. John Linantud

Project Location: University of Houston-Downtown

14 - HuyBui, "2D-(q,h)-Bernstein Polynomials and 2D-(q,h)-Bèzier Surfaces"

UHD Faculty Mentor: Dr. Plamen Simeonov Project Sponsor: U.S. Nuclear Regulatory Commission Project Location: University of Houston-Downtown

16 - Miguel Carrillo and Ashley Harris, "Academic Success in Nontraditional

Students"

UHD Faculty Mentor: Dr. Stephanie Babb

Project Location: University of Houston-Downtown

18 - Erick Chavez, Chelsea Conaway, Nelson Garza, "I think I am Special, Therefore I am Special: Ethnic and Gender Patterns of Entitlement"

UHD Faculty Mentor: Dr. Kristin Anderson Project Location: University of Houston-Downtown

20 - Ryan Cherian, "Construction of a Small External Sensor to Measure Water

Flow in Plant Stems"

UHD Faculty Mentor: Dr. Michael Tobin

Project Location: University of Houston-Downtown

22 - Charles Crouch and Rafo Linan, "Ozone Trends in the Houston Metropolitan Area"

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

Project Location: University of Houston-Downtown

24 - Darnell Dalton, Angie Hidalgo, Christian McCary, "Childhood mental health matters: Implementing successful mental health practices in schools"

UHD Faculty Mentor: Dr. Stephanie Coleman Project Location: University of Houston-Downtown

28 - Talia Dutra, Rashod Moten, Olufunmilola Subulade, "Why Aren't we all Feminists? Women's and Men's Reasons for Identifying as Feminists or

Non-Feminists"

UHD Faculty Mentor: Dr. Kristin Anderson

Project Location: University of Houston-Downtown

30 - Maria Frausto, "Generation Of Hybrids Between Two Drosophila Species

To Study Exploration Behavior"

Co-Author: Gregg Roman, University of Houston

UHD Faculty Mentor: Dr. Yuanyuan Kang

Project Location: University of Houston-Downtown

32 - Kenah Shayne Garcia, "The Efficacy Of Anticancer Components From Turmeric On Breast Cancer Cell Growth In Vitro"

UHD Faculty Mentors: Drs. Tyra Hessel and Hamida Qavi

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

34 - Jonathan Rafael Garza, Sishir Subedi, Yuntian Zhang, "A System for Capturing and Processing EEG Data"

Co-Authors: Minghao Yang, Robert Jackson, Eloy Perez, Israel Cervantes

UHD Faculty Mentors: Drs. Yunwei Cui and Hong Lin

Project Sponsor: National Science Foundation Project Location: University of Houston-Downtown

36 - Jose M. Gonzalez, Fernando Rodarte, Valerie Figueroa, "Is the Creation

of an Avatar Possible?"

Co-Authors: Melissa Cedillos, Alex Coleman, Julio Enriquez, Elizabeth Salas, Rafael Trevino

UHD Faculty Mentor: Ms. Mitsue Nakamura

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

38 - Lynette Guzman, "Country Report: Mongolia, A Sandwiched Democracy"

UHD Faculty Mentor: Dr. John Linantud Project Location: University of Houston-Downtown

40 - Yvette Hayes, "Quarterly Blood Donatoin: Helping Blood Banks Meet

Demand Year Round"

UHD Faculty Mentor: Dr. Elizabeth Hatfield

Project Location: University of Houston-Downtown

42 - Gabriella Hines, "Molecular phylogenetics of Rhinoclemmys: A

reassessment of taxonomic status and relationships"

UHD Faculty Mentor: Dr. Amy Baird

Project Sponsor: U.S. Department of Education Project Location: University of Houston-Downtown

44 - Anthony Hurtado, "State Craft: Paths of Glory"

UHD Faculty Mentor: Dr. John Linantud

Project Location: University of Houston-Downtown

46 - Danil Karasev and Xavier Mendez, "Application of Image Processing

Analysis in Concrete Strain Measurements" UHD Faculty Mentor: Dr. Arash Rahmantian

Project Sponsor: U.S. Department of Defense

Project Location: University of Houston-Downtown

48 - Angelle Kelley and Victor Rios, "The Relations Among Dating Violence and Attributions of Blame for Intimate Partner Violence'

UHD Faculty Mentor: Dr. Cindy Stewart

Project Location: University of Houston-Downtown

50 - Guadalupe Lee, "Efficacy Determination of Components from Neem Leaves on Breast Cancer Cell Proliferation in Vitro"

UHD Faculty Mentors: Drs. Tyra Hessel and Hamida Qavi

Project Sponsors: Brown Foundation, Inc., JAMP, Welch Foundation and U.S.

Department of Education

52 - Kimberly Louden and Jasmin Murillo, "Victims who Engage in Victim

Blame: The Relations among Previous Victimization and Blame

Attributions for Intimate Partner Violence" UHD Faculty Mentor: **Dr. Cindy Stewart** 

Project Location: University of Houston-Downtown

54 - Ayman Mohamed, Juan Salazar, Harry Craig, "Durability and

Sustainability of Concrete"

UHD Faculty Mentor: **Dr. Arash Rahmantian**Project Location: University of Houston-Downtown

56 - Devalina Nag, "Introverts in Group Discussions: Supported or Squelched?"

UHD Faculty Mentor: **Dr. Whitney Morgan**Project Location: University of Houston-Downtown

**58 - Jenebu Okwori**, "Comparison of Anticancer Efficacy of Components from

Saffron Sticks"

UHD Faculty Mentors: Drs. Tyra Hessel and Hamida Qavi

Project Sponsors: Brown Foundation, Inc., JAMP, Welch Foundation and U.S.

Department of Education

Project Location: University of Houston-Downtown

60 - Valentina Oside, "Efficacy of Black Onion Seeds On Breast Cancer Cells In

Vitro'

UHD Faculty Mentor: Drs. Tyra Hessel and Hamida Qavi

Project Location: University of Houston-Downtown

62 - Ivan Perez, "The Disconnection Between Cash and Earnings"

UHD Faculty Mentor: **Drs. Prakash Deo and Cathy Liu** Project Location: University of Houston-Downtown

64 - Charles Punnathara, "Electrochemical Study of Prussian Blue in Sensory

Chemistry"

UHD Faculty Mentor: Dr. Mian Jiang

Project Location: University of Houston-Downtown

66 - Alesha Rimmelin, "Genetic Diversity of Bowhead Whales (Balaena Mysticetus) Based on the Sequences of Three Mitochondrial Genes"

Co-Authors: Christina Q. Tran1, John W. Bickham2, J. Craig George3, Robert Suydam3. 1University of Houston-Downtown, 2Battelle Memorial

Institute, 3North Slope Borough UHD Faculty Mentor: **Dr. Amy Baird** 

Project Location: University of Houston-Downtown

68 - Sandra Serrano, "Country Report: South Africa"

UHD Faculty Mentor: Dr. John Linantud

Project Location: University of Houston-Downtown

70 - Harit Shah and Kishan Patel, "A Physiology-based Monotonous Driving

Detection'

Co-Authors: Austin Phuoc Nguyen

UHD Faculty Mentor: **Dr. Dvijesh Shastri**Project Sponsor: National Science Foundation
Project Location: University of Houston-Downtown

72 - Dominique Torres, "Computational Studies of Transition Metal Complexes

of Tetradentate Schiff Base Ligands"
UHD Faculty Mentor: **Dr. Maria Benavides** 

Project Sponsors: U.S. Nuclear Regulatory Commission and Welch Foundation

Project Location: University of Houston-Downtown

74 - Evelyn Valdez, "Comparison of hydraulic design between an evergreen and

a deciduous chaparral shrub"

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(2) California State University Bakersfield

UHD Faculty Mentor: Dr. Michael Tobin

Project Sponsors: Brown Foundation, Inc. and National Science Foundation

Project Location: University of Houston-Downtown

76 - Reyna Valdez, "Bis(indolyl) ketohydrazide-hydrazones: Identification of

Potent and Selective Novel Tubulin Inhibitors'

Co-Authors: Mukund Tantak and Dalip Kumar, Department of Chemistry, Birla Institute of Technology and Science, India

UHD Faculty Mentor: Dr. Rachna Sadana

Project Sponsors: UHD ORCA

Project Location: University of Houston-Downtown

78 - Holly Vernon, "Pauses in Fluent and Semispeakers as a Strategy for

Resolving Lexical Gaps"

UHD Faculty Mentor: **Dr. Reynaldo Romero**Project Location: University of Houston-Downtown

 $\bf 80$  -  $\bf Daniel\ Willhem,$  "Synthesis of liquid crystal compounds with hierarchical

architecture"

Co-Authors: Hania Makowska, Iza Krygier, Wydzial Chemiczny

Politechnika Lodzka, Lodz, Poland UHD Faculty Mentor: Dr. Robin Jose

Project Location: University of Houston-Downtown

82 - Richard Wrangpetch, "Comparison if Diatom Diversity in San Jacinto

River and Trinity River"

UHD Faculty Mentor: Dr. Brad Hoge

Project Sponsors: National Oceanic and Atmospheric Administration and

National Science Foundation

Project Location: University of Houston-Downtown

**84 - Ana Zertuche**, "An Analysis of the Role and Impact of the Supplemental Instruction Program in Mathematics at the University of Houston-

Downtown"

UHD Faculty Mentor: Dr. Timothy Redl

Project Location: University of Houston

86 - Carlos Montes, Rudy Santos, Denisse Velazquez, "Is the Star Trek U.S.S.

Enterprise Ship Possible?"

Co-Authors: Yarmilla Reyes, Rosemary John, Jonathan Martin, Irvin

Romero

UHD Faculty Mentor: Ms. Mitsue Nakamura

Project Sponsors: Brown Foundation, Inc. and U.S. Department of Education

Project Location: University of Houston-Downtown

# Graduate Level Projects Poster Presentation Session (2:45PM - 4:00PM):

88 - Ibtesama Baig, "Perspectives from the Immigrant Population towards U.S. Financial Institutions"

UHD Faculty Mentors: Drs. Whitney Morgan and Sarah Walker

Project Sponsor: Minorities and Retirement Security Program

Project Location: University of Houston-Downtown

90 - Danielle LaChapelle, "Relation Between Financial Events and Workplace

Productivity: An Experienced Sampling Method"

UHD Faculty Mentors: Drs. Whitney Morgan and Sarah Walker

Project Sponsor: Minorities and Retirement Security Program Project Location: University of Houston-Downtown

92 - Lucha Morales, "Plain Language in Government Communications:

Misconceptions, Proven Benefits, and Oversight"

UHD Faculty Mentor: **Dr. Natalia Matveeva** 

Project Location: University of Houston-Downtown

94 - Catherine Sampson, "The use of plain language in the government and

businesses: Why is plain language beneficial?"

UHD Faculty Mentor: Dr. Natalia Matveeva

Project Location: University of Houston-Downtown

96 - Sonia Sanchez, "Improving Health Literacy in the U.S.: Writing and Design

Strategies for PR Specialists"

UHD Faculty Mentor: Dr. Natalia Matveeva

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Thank you for participating in the 14<sup>th</sup> Annual UHD Student Research Conference! Please share your impressions of the event by completing a conference evaluation.

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