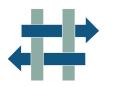


2019 HEALTH SCHOLAR SHOWCASE



SMART & CONNECTED HEALTH INNOVATION

FEBRUARY 27, 2019 • TEXAS STATE UNIVERSITY PERFORMING ARTS CENTER • 2-5 PM

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM

WELCOME

2019 HEALTH SCHOLAR SHOWCASE



It is my great pleasure to welcome you to the 2019 Health Scholar Showcase. Today's event builds on the success of Texas State's Translational Health Research Initiative by celebrating Smart and Connected Health Innovation.

The interactive poster session includes almost 70 examples of research conducted by Texas State faculty members and collaborators who are seeking to translate research into practice to improve health, prevent disease, and treat illness.

We are very fortunate to have with us today Susan Dentzer, a Visiting Fellow at the Robert J. Margolis Center at Duke University. Susan collaborated on a book entitled, Health Care Without Walls, which asks readers to imagine a health care system that anticipates patients' needs before they get sick, though health technology, patient advocacy, educational programs, and healthcare policies that provide access to health care delivery systems in the future. These ideas align directly with many of the poster presentations being presented today, and they echo the goals of the Translational Health Research Initiative.

Texas State's Translational Health Research Initiative has elevated our goal to improve the lives of those we study through applied and impactful scholarship. In the last year alone, Texas State faculty members have developed new technology, delivered new community-based health interventions, and treated patients using new models of care. Faculty members from every college at our university pursued new and cutting-edge health research, and the exemplary scholarship of several faculty members was recognized through new external funding for their work from agencies including NIH and NSF. A few of the many federally funded research programs at Texas State during the last year include research by:

- Dr. Alex Kornienko from the Department of Chemistry and Biochemistry, who received new
 research funding from NIH to develop an innovative therapy to treat brain cancer among patients
 diagnosed with some of the most lethal brain tumors.
- Dr. Xiaoyu Xue from the Department of Chemistry and Biochemistry, who received a new NIH award to study environmental toxins that can lead to diseases such as ALS and dementia.
- Dr. Jennifer Irwin and others from the Materials Science, Engineering and Commercialization (MSEC) Program and McCoy College of Business, who received new funding from the National Science Foundation to support entrepreneurial teams seeking to transition cutting-edge technology resulting from research into the marketplace.
- Dr. Ty Schepis from the Department of Psychology, who received three separate awards from NIH last year, including two prestigious R01 awards to support his research program examining prescription drug misuse among adolescents and older adults.

WELCOME

Texas State researchers also received regional and national media attention for their translational health research, including the following:

- Dr. Krista Howard from the Department of Psychology and a team of multidisciplinary Texas State faculty investigators, whose work on the impact of social media use on mental health outcomes among millennials was featured on the Today Show, and in several other regional and national media outlets.
- Dr. Maureen Keeley from the Department of Communication Studies whose research on end of life communication and final conversations with a dying loved one was recently featured in the Atlantic.

Several departments and schools contributed to the size and quality of our research mission by hiring new translational health researchers who are presenting their research here today. Examples include:

- Dr. Adam Vaughn, a health criminologist in the Department of Criminal Justice, whose work examines the impact of serious health issues including opioid addiction and severe mental illness on persons in the criminal justice system.
- Dr. Cassandra Johnson, an active nutrition researcher in the Department of Family and Consumer Science. Whose research as part of an active multi-institutional research team seeks to reduce diet-related health disparities among low-income and Latino families.

These are just a few of the many examples of Translational Health Research activities among Texas State faculty members and their collaborators during the past year. I am grateful to have such esteemed colleagues, and look forward to even more smart and connected health research innovation in the coming year!

CONGRATULATIONS



The Texas State University Translational Health Research Initiative would like to recognize Jessica Schneider as the first recipient of the Excellence In Translational Health Research Support award. This award recognizes one Research Coordinator for exceptional activities conducted in support of Texas State University's Translational Health Research Initiative. Jessica Schneider has demonstrated a commitment to translational health research activities, including support for faculty engaged in translational health research activities, collaboration on interdisciplinary health research activities, support for internal and external translational health research funding opportunities, sustained publicity of health research funding and collaboration opportunities and the pursuit of professional development opportunities related to translational health research at Texas State.

SCHEDULE OF EVENTS

2:00 - 2:15 PM WELCOME

Welcome Remarks by President Trauth

2:15 - 3:45 PM **KEYNOTE AND PANEL PRESENTATION**

Susan Dentzer, Keynote Speaker Thomas R. Kowalski, Panelist Senem Guney, Panelist Nora Belcher, Panelist Heather Paffe, Panelist Provost Gene Bourgeois, Moderator

INTERACTIVE POSTER SESSION 3:45 - 5:00 PM AND RECEPTION

2019 FEATURED SPEAKER BIOS



SUSAN DENTZER, KEYNOTE SPEAKER

Visiting Fellow Duke-Margolis Center for Health Policy. The Duke-Margolis Center for Health Policy catalyzes Duke University's leading capabilities including interdisciplinary academic research and capacity for education and engagement, to inform policy making and implementation for better health and health care. The Center's Mission is to improve health and the value of health care through practical, innovative, and evidence-based policy solutions. One of the nation's most respected health and health policy thought leaders and journalists, Dentzer previously served as President and Chief Executive Officer of the Network for Excellence in Health Innovation, senior policy adviser to the Robert Wood Johnson Foundation, editor-in-chief of the journal Health Affairs, and as an on-air Health Correspondent for the PBS News Hour. Dentzer is an elected member of the National Academy of Medicine, the Council on Foreign Relations, and Research!America. A graduate of Dartmouth, Dentzer formerly chaired the Dartmouth Board of Trustees, and is a member of the Board of Advisors of Dartmouth Medical School. She and her husband, Charles Alston, have three grown children.

THOMAS R. KOWALSKI, PANELIST



President and CEO of the Texas Healthcare and Bioscience Institute. Thomas R. Kowalski is President and CEO of the Texas Healthcare and Bioscience Institute (THBI) in Austin, Texas. The Institute is a statewide, public policy research organization whose purpose is to promote medical research, development, and manufacturing in Texas. THBI consists of leading biotechnology, medical device, and pharmaceutical companies, universities, private research institutions, chambers of commerce, and economic development corporations. Prior to his appointment as President and CEO of THBI, Mr. Kowalski served as the Executive Director for the Washington, DC-based National Association for the Support of Long Term Care. He also previously served as a senior staff member to Governor Bill Clements of Texas, U.S. Senator John Tower of Texas, and Congressman Jim Collins of Dallas, Texas. With over 33 years of political and policy experience, Mr. Kowalski was appointed in 1989 by Governor Bill Clements to the Board of Regents of the Texas State University System. He served as Chairman of the Board of Regents in 1995. Mr. Kowalski was selected as Texas State University Distinguished Alumni in 2011. A lifelong Texan, Mr. Kowalski resides in Austin, Texas with his wife, Susie.

SENEM GUNEY, PH.D., PANELIST



Founder of NarrativeDx. Senem Guney, Ph.D., is founder of NarrativeDx, a successful Health IT startup firm in Austin, Texas. NarrativeDx's innovative technology uses natural language processing (NLP) and machine learning (ML) to help hospital leaders and care providers identify actionable insights from patient comments to improve their institution's patient experience, drive patient referrals, increase hospital revenue, and boost hospital reputations. Narrative DX holds a patent from the U.S. Patent Office for automated analysis of patient feedback, a cornerstone of consumerism strategies for many health systems. Dr. Guney earned her Ph.D. in Organizational Communication and Technology from the University of Texas at Austin. She was formerly on the faculty at the State University of New York in Albany, where she taught in the College of Computing and Information, and was affiliated with the Center for Technology in Government – a SUNY, Albany think tank. Dr. Guney is a Fellow of the Alliance for Women Entrepreneurs, an organization focused on advancing high growth companies founded by women.

2019 FEATURED SPEAKER BIOS



NORA BELCHER, PANELIST

Texas e-Health Alliance Executive Director. Nora Belcher is the Executive Director of the Texas e-Health Alliance (TeHA), a non-profit group that she started in 2009 to give health information technology stakeholders a voice in public policy. The Texas e-Health Alliance serves as the state's leading advocate, from local communities to the national level, for the use of information technology to improve the health care system for patients. Prior to starting the Alliance, Ms. Belcher worked in the private sector as a consultant advising health information technology companies on how to do business with government. She also served in Governor Perry's office for five years as deputy director in the Governor's Office of Budget, Planning and Policy, where she was responsible for managing the policy and budget issues for the Texas health and human services system. Ms. Belcher holds a bachelor's degree in government from the University of Texas at Austin.

HEATHER PAFFE, PANELIST

Director, External Affairs - Global Digital Health Technology Hub, Merck.

Heather oversees all external affairs for Merck & Co.'s Austin-based global digital health technology office, launched in 2017. She serves as Merck's lead representative before local government entities and the broader Austin community, engages in public issues, and recruits partners and manages collaborations with other companies and stakeholders in the health and IT fields. Immediately prior to Merck, Heather led legislative, regulatory and community engagement campaigns for clean energy pioneer and automaker Tesla. She spent seven years at international non-profit Environmental Defense Fund. Heather spent six years as the director of the Texas Association of Planned Parenthood Affiliates, where she led award winning legislative efforts and established their first-ever 504c(4) and Political Action Committee. Heather served as a political, policy and communications consultant for a variety of organizations, including the Union of Concerned Scientists, Texas Health and Human Services Commission, and United Ways of Texas. She led the Texas Office of the Children's Defense Fund, managed political campaigns and worked for two of Texas' Lieutenant Governors.

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EUGENE BOURGEOIS, PH.D., MODERATOR

Provost and Vice President, Academic Affairs, Texas State University.

Dr. Gene Bourgeois has served as Provost and Vice President for Academic Affairs at Texas State University since 2011. As the university's chief academic officer, he is responsible for the administration and oversight of the quality of the university's academic instructional and research programs, and for the coordination of the university's administrative and support functions central to its academic mission. Integral to his role as Provost, he actively supports economic development and quality of life efforts for San Marcos and the central Texas region, including civic work with the Greater San Marcos Partnership, San Marcos Economic Development Board, and E3 Alliance, in addition to initiatives associated with the university's academic units and its Science, Technology and Advanced Research Park and business incubator. Dr. Bourgeois earned B.A. and M.A. degrees from Louisiana State University, and the degree of Ph.D. in History from the University of Cambridge. He joined Texas State University as an assistant professor of history in 1990 and was promoted to professor in 2004. His publications include books and articles on sixteenth-century English history.



POSTER PRESENTATIONS



Health research posters are displayed on the 1st, 2nd, and 3rd floors of the Performing Arts Center.

FIRST & SECOND FLOOR POSTERS

All posters selected for presentation at the 2019 Health Scholar Showcase are listed by floor location and sorted alphabetically by first author.

FIRST FLOOR POSTERS

THE SEMPULSE SYSTEM

Sean Bauld, Kurt Stump, Dustin Crawford

THE FCS VIVARIUM

Michelle Lane

FACILITES AND RESOURCES

Casey Smith

MATERIALS APPLICATIONS RESEARCH CENTER (MARC): NEW VENTURES

Jeff Zhao, Tom Myers, Steve Frayser

SECOND FLOOR POSTERS

VISUAL ANALYTICS: USING BUSINESS Intelligence tools to discover health Care insights

Sidney Anderson, Steven Rayburn

A UNIQUE WAY OF DELIVERING AEROSOLIZED MEDICATIONS TO ADULTS: A TRANSLATIONAL RESEARCH WITH HIGH FLOW CANNULA

Arzu Ari, Luciana Alcoforado, Armele Dornelas

USER-CENTERED DESIGN OF A TEXAS WIC Chatbot: Formative investigation

Lesli Biediger-Friedman, Sylvia Crixell

IMPACT OF TEXAS STATE DHSI INITIATIVES on lifetime health outcomes

Daniel A. Brown, Nicholas Weimer, Sylvia T. Gonzales, Michael E. Nava, Kambra K. Bolch, Victoria G. Black, Nina Wright, Catarina Dominguez

USING UNSUPERVISED MACHINE LEARNING TO ADDRESS THE OPIOID CRISIS

Alessandro De Nadai, Tara B. Little, Sean E. McCabe, Ty S. Schepis

SECOND FLOOR POSTERS

THE FELT EXPERIENCES OF ADULTS WITH BRAIN Injuries in movement group

Illysa Foster, Belinda Aguilar, Sandra Kamenski, Rachel Wilkes, Vanessa Degollado

EYE TRACKING FOR CLINICAL ASSESSMENT of multiple sclerosis

Elliot M. Frohman, Oleg Komogortsev

DOES BRAIN FOG RELATE TO POOR MEDICATION Adherence for individuals with Hypothyroidism?

Krista Howard, Kelly Haskard-Zolnierek, Rebecca Deason, Courtney Wilson

A DIGITAL TWIN SIMULATION FRAMEWORK OF A HUMAN MANUFACTURING OPERATOR TO Reduce Repetitive motion and increase Workforce Health

Jesus Jimenez, Francis Mendez, David Wierschem

DEFINING THE BARRIERS TO THE USE OF MHEALTH IN IMPROVING THE HEALTH OUTCOMES IN DEVELOPING COUNTRIES: A SYSTEMATIC REVIEW

Clemens Scott Kruse, Jose Betancourt, Stephanie Ortiz, Susana Melissa Valdes Luna, Inderdeep Kaur Bamrah, Narce Segovia

LEVERAGING TELEMEDICINE FOR THE Management of Alcohol Abuse, addiction And Rehabilitation

Clemens Scott Kruse, Kimberly Lee, Jeress Watson, Lorraine Lobo, Aston Stopplemoor, Sabrina Oyibo

BIG DATA IMPLICATIONS TO HEALTH OUTCOMES

Clemens Scott Kruse, Thomas Brown, Kiante Blakely, Srivani Soma

OMEGA-3 FATTY ACID ETHYL ESTERS DECREASE Colorectal cancer cell invasion via Inhibition of phosphatidylinositol 3-Kinase signaling

Michelle Lane, Eric Pfister

DIET AND BPA EXPOSURE AS PREDICTORS OF ANTE- AND POST-PARTUM EMOTIONAL, Attachment, and cognitive impairment: The Food, feelings, and family study (in Progress)

Michelle Lane, Sylvia Crixell, Crystal Alvarez, Regina Gillman, and Rebecca Smith

IDENTIFICATION OF POSTURAL CONTROL FOR Children with Autism Using A Machine Learning Approach

Yumeng Li, Melissa Mache, Teri Todd

SECOND FLOOR POSTERS

EXECUTIVE FUNCTION AND MOTOR COMPETENCE In Children with Autism Spectrum Disorder

Ting Liu, Morgan Tongish

EXPLORING THE POTENTIAL OF VIRTUAL REALITY In radiation therapy education

Ronnie Lozano, Trina Dillard, Megan Trad

CYBER-ANALYTICS: MODELING FACTORS Associated with healthcare data Breaches

Alexander McLeod, Diane Dolezel

HIGH-FREQUENCY NEUROMUSCULAR ELECTRICAL Stimulation upregulates markers of Skeletal muscle growth in humans

Joni Mettler, Dillon Magee, Barbara Doucet

SALIENCE NETWORK STRUCTURES OF THE BRAIN AS A MEDIATOR OF PHYSICAL Aggression and perceptions of Hostility

Rick Morley, Paul Jantz, Reiko Graham

THE VALUE OF SYSTEM SIMULATION IN HEALTHCARE OPERATIONS

Eduardo Perez

ENABLING TECHNOLOGIES AND PROCESSES FOR Patients in need of Augmentative and Alternative communication

Eduardo Perez, Amy Louise Schwarz

A FACIAL EXPRESSION RECOGNITION APPLICATION USING MACHINE LEARNING FOR CHILDREN WITH ASD TO HELP IDENTIFY EMOTIONS

Damian Valles, Maria Resendiz, Md Inzamam UI Haque

HEALTH INFORMATION TECHNOLOGY, PATIENT Experience, and bad debt

Tiankai Wang

SAMPLE-TO-ANSWER DIAGNOSTIC SOLUTIONS USING AN INTEGRATED MICROFLUIDIC CARTRIDGE AND SMARTPHONE SPECTROPHOTOMETER

Shannon Weigum, John Carrano

THIRD FLOOR POSTERS

THIRD FLOOR POSTERS

RISK FACTOR REDUCTION: PARTICIPANT OUTCOMES IN AN EMPLOYEE WELLNESS PROGRAM

Janet Bezner, Yueqin Hu, Carolyn Swearingen, Tricia Burke, Sylvia Crixell, Lisa Lloyd

CALORIC INTAKE AND DIETARY FACTORS ARE Associated with onset of physical disability and mortality in a representative sample of older adults

Nicholas Bishop, Krystle Zuniga, Bailey Noon

COMMUNITY VALUES REGARDING THE ALLOCATION OF SCARCE MEDICAL RESOURCES

Emily Brunson, Alejandro Allen, Jordan Baker, Regan Box, Kyleigh Hoelscher, Jessie Kutschke, Megan McSwain, Haley Norriss, Elvira Rastoder, Rene Resendiz, Taylor Roberts, Antrelle Rollins, Sheynna Weber

MAGAZINE ADVERTISEMENTS AND HEALTH: Persuasive messaging or progress

Clay Craig, Andrea Bergstrom, Mark Flynn, Tristyn Surprenant

CATERED FOODS AT THE WORKPLACE: BARRIERS To providing healthful foods

Sylvia Crixell, Janet Bezner, Tricia Burke, Lisa Lloyd, Yueqin Hu

INTRODUCING THE HAPPY+HEALTHY TOOLKIT

Rebecca Davio, Andrea Dennison, Savannah Guillot, Yasiry Lerma, Sarah MacNeil, Kelsey Smith

EXAMINING UNIVERSITY HEALTH Communication outreach by LGBTQIAP+ Student Peer Advocates

Elizabeth Eger

COMMUNITY HEALTH SCREENING AND EDUCATION Through Laboratory science workshop: Participant evaluation of the 2018 pilot Program in Aco, Peru

Joanna R. Ellis, Jamie Vreeland, Francisco Jaimes

PREVENTION & INTERVENTION FOR CAMPUS Dating Violence, Sexual Assault, & Harassment

Paulina Flasch, Maria Haiyasoso, Kelsey Banton, Kaylyn Evans, Bonnie Stice

AIDSME: COMMUNICATION SKILLS FOR EFFECTIVE DISCHARGE INTERACTIONS

De De Gardner, Viola Benavente, Eun Hae Kim, Jessica Raley, Kara Myers, Leah Charles

THIRD FLOOR POSTERS

SCHOOL ABSENCE AND STUDENT ASTHMA STATUS

De De Gardner, Rosemarie Ramos, Jose A Betancourt, George L. Delclos, David Gimeno Ruiz De Porras

STANDARDIZATION OF MECHANICAL HIPPOTHERAPY RIDING ACTIVITY FOR REHABILITATION SETTINGS

Denise Gobert, Rikki Patrick, Jocelyn Smith, Torey Lasater, Justin Villarojo

CHAGAS DISEASE IN TEXAS: USING GIS TO Identify possible missed cases of a fatal Illness

Paulina Stigler Granados, Gerardo J. Pacheco Jose Betancourt, Rodney Rohde

TRACKING CHAGAS DISEASE IN THE SOUTHERN UNITED STATES USING HEALTH INFORMATION TECHNOLOGY: A SYSTEMATIC REVIEW

Paulina Stigler Granados, Laavanya Krishnan, Amber Vargas, Raena L. Gelillo-Smith, David A. Guerra

FINAL CONVERSATIONS (FCS) PHASE IV: Examining associations between FCS, coping, and post-traumatic growth

Maureen P. Keeley, Mark A. Generous

EXPLORING THE RELATIONSHIPS AMONG TYPES OF LEISURE ACTIVITIES, COPING STRATEGIES, AND SOCIAL SUPPORT AMONG INDIVIDUALS WITH PHYSICAL DISABILITIES

Junhyoung (Paul) Kim

INTERPROFESSIONAL EDUCATION: A MINI Course case study for radiation therapy And health information management Majors

Ronnie Lozano, Trina Dillard, David Gibbs

TIME RESTRICTED FEEDING: MANIPULATING The Metabolic Clock to Improve Cardiometabolic Health in Firefighters

Matt McAllister, Lillie Renteria, Hunter Waldman

POSITIVE PHYSICAL AND MENTAL OUTCOMES For residents in nursing facilities using Music- a systematic review

Michael Mileski, Alison Kirsch, Fengmei Lee, Amanda LeVieux, Alexandra Ruiz

BARRIERS AND SUCCESSES RELATED TO TYPE 2 Diabetic screening referrals in texas school children

Star A. Mitchell, Melinda G. Hester

THIRD FLOOR POSTERS

THE ACUTE: CHRONIC WORKLOAD RATIO IS Associated with injury in adolescent tennis players

Natalie Myers, Kristin Aguilar, Guadalupe Mexicano, Michael Donaldson, Miguel Aranda, Jim L. Farnsworth, Duane Knudson

ASSESSING HEALTH SERVICES UTILIZATIONS For individuals diagnosed with diabetes And coronary heart disease

Zo Ramamonjiarivelo, Shamly Austin, DeLawnia Comer-HaGans

IDENTIFYING SLEEP AS A HEALTH NEED IN STUDENT VETERANS

Nathan Rodrigues, Christopher Russian, Katherine Selber, Scott Smith

IMPORTUNITY OF MEDICAL TOURISM

Ram Shanmugam

HAZ ESPACIO PARA PAPI!: DEVELOPMENT OF A Father-focused, family-centered Program to prevent obesity and Strengthen families

Joseph Sharkey, M. Renee Umstattd-Meyer, Cassandra Johnson, Luis Gomez, Luz Martinez, Elva Betran

INNOVATIVE PEDAGOGICAL STRATEGIES FOR The radiation therapy classroom

MeganTrad, Clarena Larrotta

THE INTERCONNECTEDNESS BETWEEN SUBSTANCE USE AND MENTAL HEALTH: THE NEED FOR A COMPREHENSIVE HEALTH POLICY FRAMEWORK

Adam Vaughan, Johann Brink, Jane Buxton, Denise Zabkiewicz

FLASHE STUDY: ANALYSIS OF PARENT-CHILD Dyads to explore food-related cancer RISK and protective factors

Ron Williams, Mary Odom, Jeff Housman, Phillip Vaughan

PREVENTIVE DENTAL CARE UTILIZATION IN ASIAN AMERICANS: DOES NEIGHBORHOOD MATTER?

Hyunwoo Yoon, Yuir Jang, Kwangyul Choi, Alycia Speasmaker

ACKNOWLEDGEMENTS

Thank you for participating in the Health Scholar Showcase, and for being a member of a growing health research community at Texas State. We hope you learned a few new ideas, met a few new colleagues, and made a few new connections that will lead to smart and connected innovation through translational health research in the coming year. Special thanks to the following for their valuable contributions to the Health Scholar Showcase:

Speakers and Special Guests:	Susan Dentzer, Nora Belcher, Senem Guney, Tom Kowalski, Heather Paffe, President Denise Trauth, and Provost Eugene Bourgeois
Office of Research and Sponsored Programs:	Dr. Walt Horton, Ms. Evy Gonzales, and Ms. Kay Hetherly
Office of University Advancement:	Dr. Barbara Breier, Ms. Sandy Pantlik, and Ms. Yvonne Rhodes
College of Fine Arts and Communication:	Dean John Fleming, Mr. Kevin Gilley, and Performing Arts Center staff
Department of Communication Studies:	Dr. Eric Timmerman, Ms. Regina Albere, and our health communication graduate student volunteers
School of Journalism and Mass Communication:	Mr. Paul Villagran and Public Relations Society of America student volunteers
Health Scholar Showcase Event Team:	Ms. Abbi Mott, Ms. Lauren Lee, and Ms. Marsha Burney

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The rising STAR of Texas

