Welcome
Health and the Human Condition

Teik C. Lim, PhD

Provost and Vice President for Academic Affairs
HEALTH & THE HUMAN CONDITION

Completed/Underway (select cases):

- Established the College of Nursing and Health Innovation
- New SEIR building opened as signature facility for life and health science research
- Recruited established faculty in this area (Jon Weidanz, Beth Merwin, Florence Haseltine, etc.)
- Establish the North Texas Genome Center
- Launched certificate in Medical Humanities offered through COLA (current enrollment = 35)
- Awarded major grant funding from NIH, NSF, DARPA, CIPRIT, DOD, AHA, and others
- Several faculty projects underway, such as aging, health communication, DNA sequencing, surrogacy, mapping the politics of public health
- Run the Design for Health Graduate Studio in partnership with some of the leading firms in the DFW area

Planning (select items):

- Build faculty expertise in genomics and genetic informatics
- Create emphasis on brain and cognitive sciences
- Expand interdisciplinary research centers to enhance health research
- Build partnerships with health research universities and health care providers.
- Educate our University, including first responders, on how to work with individuals with autism
POSSIBLE NEW/ENHANCED ACADEMIC PROGRAMS OR UNITS

COS
Genomics & Proteomics
Bioethics

CONHI
Exercise and Population Health
Medical interpreters/ translators

COED
Disability & Special Needs

COLA
Medical Humanities

HEALTH & THE HUMAN CONDITION
Health and the Human Condition

Jon Weidanz, PhD

Associate Vice President, Office of the Vice President for Research
Health & the Human Condition

“UTA will focus on health and the human condition from distinct yet broadly encompassing vantage points. We will explore health management within physical, mental, emotional, and social contexts. Health innovations will be distinguished by diagnostic, prognostic, and technological advancements that help people live longer, healthier, and happier lives.”
Update on UT Arlington

- Carnegie Foundation Research 1 institution (initially R1 in 2015, reaffirmed in 2018)
- Research Expenditures exceeded $100M, 30% growth in three years, broad portfolio
- Restricted Research expenditures exceeded $45M (Tier 1 criteria) in 2018 for the 1st time
- Graduated > 200 PhDs each of the last 5 years
- With a newly elected National Academy of Engineering member and two new national academy hires, we met all Tier 1 criteria this year
Michael Nelson, Mark Haykowsky, and Fenghua Tian are developing new imaging technology that will study blood vessel function in patients with heart failure that could lead to quicker diagnosis and life-saving treatment.

David Keller and Paul Fadel published a study that provides potential insight into the higher prevalence of hypertension reported in young black men.

Zui Pan developed a new nanoparticle-based platform for simultaneous imaging and treatment of esophageal cancer.

Liping Tang successfully patented in Europe an implantable medical device that attracts and kills circulating cancer cells.

Marco Brotto won a series of grants totaling approximately $6.575 million over the next five years to attack a variety of debilitating musculoskeletal diseases.
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Brain health

Weidong Zhou is developing an implantable optical probe that can be inserted in the brain and used to monitor brain function after traumatic injuries or surgeries, then be absorbed by the body.

Noelle Fields and Ling Xu are researching ways to reduce the stress and increase the well-being of low-income African American dementia caregivers.

Ashfaq Adnan is researching the potential link between blast-like trauma and neurological disorders such as post-traumatic stress disorder, Alzheimer’s disease, and Chronic Traumatic Encephalopathy.

Host defenses and inflammation

Subhrangsu Mandal published a paper about a potential new pathway to regulate immune response and control inflammatory diseases of the central nervous system, such as meningitis and sepsis.

Mark Pellegrino is looking at new ways to harness the body’s own defense responses to fight pathogens like bacteria.
VPR’s Office: Strategic Focus on Health & the Human Condition

Vision: Provide UTA & north Texas with cutting edge genomics and precision health tools to drive innovation in health research

Building a Genome Center

Collaborations
Kimberly Mayer, PhD, MBA
Associate Vice President for Research

• PhD in biochemistry & genetics, research in protein engineering & directed evolution
  • One of the original senior scientists in a biotech startup, ran Caltech’s Rosen Bioengineering Center ($18M endowment) & project manager for 2 multi-PI, multi-million $ DARPA projects at Caltech
  • Focus on large, multi-PI proposals at UTA – but also other strategic targets
VPR’s Office: Strategic Focus on Health & the Human Condition

Florence P. Haseltine, PhD, MD
Executive Director for Health Research
Presidential Distinguished Professor

- Emerita Scientist National Institutes of Health
- Director Center for Population Research/NICHD
- Associate Professor of OB/GYN and Pediatrics, Yale University School of Medicine
- Founder Society for Women’s Health Research
- National Academy of Medicine
- National Academy of Inventors
- Lifetime Achievement Award for the Health and Dignity of Women and Girls from the Friends of the United Nations Population Fund.

- One focus area is to develop interdisciplinary research in chronic inflammation.
National Institutes of Health (NIH) provides funding opportunities to investigate Health & the Human Condition

**Research Project Grant (PA-19-056) – June 5, 2019**
- Research Project Grant (R01) – NIH’s original and historically oldest grant mechanism

- ...to accelerate the integration and use of scalable technologies and tools to enhance brain cell census research...

**Applying a Biopsychosocial Perspective to Self-Management of Chronic Pain (R21) (PA-18-946) – June 16, 2019**
- ...applying a biopsychosocial perspective to self-management of chronic pain

**Research to Advance Vaccine Safety (R01) (PA-18-873) – June 6, 2019**
- ...contribute to the overall understanding of vaccine safety

**Basic Research in Cancer Health Disparities (PA-18-654) – June 6, 2019**
- ...basic, mechanistic research into the biological/genetic causes of cancer health disparities
Other Funding Opportunities of Interest

**NSF: Leading Engineering for America's Prosperity, Health, and Infrastructure (LEAP HI)(17-602) – Sept 2019**

- ...take a leadership role in addressing...problems that require sustained and coordinated effort from interdisciplinary research teams, with goals that are not achievable through a series of smaller, short-term projects.

**NSF: Biosensing (NSF PD 18-7909) – no due date**

- ...fundamental engineering research on devices and methods for measurement and quantification of biological analytes.


- ...good health and well-being flourish across geographic, demographic, and social sectors; public and private decision-making is guided by the goal of fostering equitable communities; and everyone has the opportunity to make choices that lead to healthy lifestyles.
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Questions?

Email: Weidanz@uta.edu
Science & Engineering Innovation & Research (SEIR) Building

Pickard Hall
Cardiovascular Research

CONHI investigators are performing human research studies focused on identifying underlying mechanisms of disease across the lifespan.

Studies include patient populations and healthy subjects to:

• Examine mechanisms in human health and disease

• Identify therapeutic targets for improved treatments

• Perform clinical trials
Cardiovascular Research (cont.)

Current funding:

National Institutes of Health (NIH): $4,460,526
American Heart Association (AHA): $308,000
Integrative Immunology Laboratory

- Seeks to determine how the aging immune system interacts with the blood vessels and adipose tissue to contribute to increased risk of cardiovascular disease and type 2 diabetes.

- Examines how lifestyle interventions like exercise might prevent or reverse age-related pathologies.

- Uses a translational approach, utilizing cell culture and animal models, as well as human tissue to approach research questions.
Bone and Muscle Research

CONHI investigators are focused on understanding molecular mechanisms underlying diseases affecting skeletal muscle and the cardiovascular system.

One recent focus is on osteoporosis and cancer.
Bone and Muscle Research (cont.)

Current funding:

National Institutes of Health (NIH): $1,766,104
American Heart Association (AHA): $162,278
National Science Foundation (NSF): $300,000
Department of Defense (DoD): $695,129
Movement and Physical Activity Epidemiology Laboratory

Seeks to improve health and well-being of children and adolescents through research, education and community engagement
Movement and Physical Activity Epidemiology Laboratory (cont.)

• Assessment of skills and movement behaviors (physical activity, sedentary behavior, and sleep) in the laboratory and field settings

• Studying behavioral and psychosocial mechanisms underlying mental health and quality of life

• Examining the effects of different doses of physical activity on children’s cognition and health

• Examining the relationships between children’s motor competence, physical activity, health-related physical fitness, and obesity disparities among minority population
Maverick Public Health

Bachelor’s degree offers two tracks:
- Traditional, on-campus
- Accelerated online

Graduate Certificate in Public Health Practice

Master’s in Public Health
(pending UT System/THECB approval)

Enrollment:
- 326 total (including 85 Accelerated Online majors)
- 31 graduates expected this semester
Health and Human Condition: Caring for Older Adults

• Application for Membership in the National Hartford Center for Gerontological Nursing

• Pending foundation award
  • Scholarships
  • Continuing education webinars
  • Post graduate certificate
  • Annual workshop
  • Endowed chair
Adult Gerontology Nurse Practitioner Program

New scholarships will be available for incoming full time on campus students next fall in the following programs:

Adult-Gero Acute or Primary Care Nurse Practitioner:
10 scholarships in the first year, then 20 for next 3 years

DNP students whose projects are focused on older adult population:
2 scholarships for traditional and online students

PhD students whose research is focused on older adult population:
2 scholarships

Enrollment:
AGAC = 664  AGPC = 195
DNP = 179    PhD = 22
Recent initiatives include:

The Poverty Simulation
Interdisciplinary simulation involving the College of Nursing (Graduate and Undergraduate), School of Social Work, and the Department of Kinesiology (Athletic Training and Public Health).

Telehealth initiative
Integration of Telehealth instruction into the curriculum

Use of Microsoft Teams for virtual simulation
Psychiatric Nursing courses
Smart Hospital / Smart Lab (cont.)

Recent initiatives also include:

Virtual Reality Simulation
Creation as a collaboration with the UTA Library and the College of Engineering-Department of Computer Science

Collaboration with the Department of Bioengineering to develop functional simulation equipment

Data driven simulation program revision: Capstone and Foundations courses
Freshman Nurse Scholars Pilot Program

- Initiated last fall
- Students must maintain a 3.0 GPA over three semesters
- Several intentional activities are focused on creating a sense of community for these students
- Average GPA was 3.440 at the end of the fall
- Retention rate is 89.53% from fall to spring
- Only 9 students have a GPA below 3.0
THE UNIVERSITY OF TEXAS AT ARLINGTON
HEALTH AND THE HUMAN CONDITION SYMPOSIUM
Health and the Human Condition

Scott D. Ryan, MSW, MBA, PhD
Dean, School of Social Work
Social Work Connection

The Grand Challenges for Social Work represent a dynamic social agenda, focused on improving individual and family well-being, strengthening the social fabric, and helping create a more just society.

- Ensure Healthy Development for All Youth
- Stop Family Violence
- Eradicate Social Isolation
- Close the Health Gap
- End Homelessness

Improving Health & the Human Condition

Key Initiative: Enhance the reach and impact of programs involving the School of Social Work
Academic Efforts

MSW Specialty Areas

- Direct Practice with Aging
- Direct Practice with Children and Families
- Direct Practice with Health
- Direct Practice with Mental Health and Substance Abuse
- Community and Administrative Practice

Field Experiences

- Affiliations with over 600 human service agencies
- Field students contributed approximately 925,000 hours to the community through their field placements in 2018

All share the singular focus of preparing students to improve the human condition by fulfilling the SSW’s mission to create a just society.
Research Efforts

Social Work Grand Challenge: Ensure Healthy Development for All Youth

Center for Child Welfare
• Center Director: Maria Scannapieco
• Title IV-E Child Welfare Stipend Program
• Training program for BSW and MSW students who plan to work in public child welfare
• Current Award Amount: $1,972,262 from Texas Department of Family & Protective Services

Center for Addiction & Recovery Studies
• Center Director: Debra Woody
• Multiple Awards
  – Youth Prevention Program ($189,043 from Texas Health & Human Services)
  – Pregnancy and Postpartum Intervention Services ($1,283,035 from HHS)
  – Eating Disorders: Discovering the Prevalence ($15,000 from Elisa Project)
  – Multiple Projects ($41,945 from the National Network of Libraries of Medicine through UNT Health Science Center)
Research Efforts

Social Work Grand Challenge: Stop Family Violence

• PI: Rachel Voth Schrag and Co-Investigator: Diana Padilla
  • Title: Services access for survivors of intimate partner violence in Texas: A proposal for the Texas Council on Family Violence
  • $32,775 from Texas Council on Family Violence
  • Expansion Project to start this summer

• PI: Rachel Voth Schrag (Social Work)
  • Title: Evaluation of Campus-based Advocacy Services
  • $85,702 from Criminal Justice Division (CJD)
  • Phase Two proposal submitted ($107,639) proposes to scale up the campus based evaluation initiative, expanding the use of our campus based advocacy evaluation tool kit and approach to institutions of higher education state wide.
Research Efforts

Social Work Grand Challenge: Eradicate Social Isolation

- PI: Jandel Crutchfield (Social Work), Co-Investigators Courtney Cronley (Social Work) and Kate Hyun (Civil Engineering) were awarded $20,000 from Portland State (Department of Transportation) for their project *Helping Environmental Justice Populations Maintain Access to Opportunities in a Boomtown: An Interdisciplinary, Mixed-Methods Approach to Addressing Infrastructure Needs*.

- PI: Noelle Fields (Social Work) is collaborating with faculty at Ohio State and has been awarded $44,405 from the Ohio Department of Transportation for the project *Safe Routes to Age in Place*.

- Investigators: Kate Hyun (Civil Engineering), Courtney Cronley and Noelle Fields (SW) were awarded $20,000 from the City of Arlington for their project *Characterizing Handitran and Via Users: A Comparative Analysis of the Riders and their Travel Patterns*. 
Research Efforts

Social Work Grand Challenge: Close the Health Gap

Co-PIs: Noelle Fields and Ling Xu (Social Work) were awarded $459,991 from the National Institutes of Health – National Institute on Aging titled Senior Companion Program Plus, which focuses on developing an in-home psychoeducational intervention that is culturally tailored, accessible, and affordable for low-income African American dementia caregivers.

PI: Noelle Fields (Social Work) has been awarded a sub-award of $96,074 to support an R61-R33 project awarded to Joseph Gaugler with the University of Minnesota to evaluate a novel adaptation of the Senior Companion Program titled Utilizing Senior Companions to Enhance Dementia Care Services and Supports.
Future Directions

Stop Family Violence

• Using Information Communication Technology to Support Domestic & Sexual Violence Victims and Victim Advocates: Understanding the Criminal Justice and Social Service Implications (Submitted)

• IPV Victims Engagement with Systems-based Agencies and Resources: Understanding Facilitators and Barriers to Effective Service Use (Submitted)

• Supporting victim centered engagement with the criminal justice system: A formative and evaluability assessment (Submitted)

Close the Health Gap

• Acculturation, Caregiving Solidarity and Caregiving Behavior of Adult Children Caring for Aging Parents with Cognitive Decline in Chinese Immigrant Families (NIH – Xu & Fields)

End Homelessness

• Family Navigation to Increase Earlier Access to Mental Health Care for Children in Situations of Family Violence and Disrupted Housing: A Pilot Test of the Feasibility and Utility of CARE (NIH – Cronley & Voth Schrag)
Future Directions

Diversify Funding

Foster New Interdisciplinary Collaborations

Current/Past Collaborators

- CAPPA
- Kinesiology
- Education
- Theatre Arts
- CONHI

- Psychology
- Civil Engineering
- Industrial, Manufacturing, and Systems Engineering
- UTARI
Future Directions

• Expand Research Portfolio of Current Research Centers
  – Center for Addiction & Recovery Studies
  – Center for Child Welfare

• Develop New Research Center
  – Center on Social Connectedness

Key Initiative: Enhance research, teaching, and outreach in the area of urban communities through integration of efforts of existing centers and through key hires.
Registrant Speakers

- Ashfaq Adnan
- Morgan Chivers
- Zhen Cong
- Kathryn Daniel
- Maxine Davis
- Shima Hamidi
- Manfred Huber
- Leslie Jennings
- Christopher Kribs
- Hanli Liu
- Radha Mahapatra
- Michelle Reed
- Leili Shahriyari
- Mahyar Sharif Vaghefi
- Margarita Trevino
- Weidong Zhou
- Jingsong Zhou
- Rebekah Chojnacki
Upcoming Strategic Plan Events

Forum on Faculty and Staff Excellence
*Wednesday, April 24, 1:00-3:00 p.m.*
Register Today!

Forum on Corporate Partnerships
*Friday, May 3, 8:30-10:30 a.m.*
Register Today!

Symposium on Data-Driven Discovery
*Wednesday, May 8, 9:00-11:00 a.m.*
Register Today!