

Health Institutes and Centers

UNTHSC

Health Institutes and Centers

Inaugural Year in Review

And a Look to the Future

Annual Report

*UNT Health Science Center
Health Institutes and Centers
2015/2016 Annual Report*

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Preparing for the Future by Working Together to Innovate A Year in Review and a Look to the Future

2015/2016 UNT Health Science Center Health Institutes and Centers

Typically annual reports review what has been accomplished in the past year. With 2015 / 2016 being the inaugural academic year for the UNTHSC Health Institutes we have chosen to not only look at the accomplishment of our past inaugural year but look to how the UNTHSC Health Institutes will help move the Health Science Center into the future.

The environment in academic health centers - funding competitiveness, efficiency and accountability is rapidly changing. Amid this shifting academic landscape, UNT Health Science Center took the first steps to transition from a traditional department-based structure to an institute-based structure that will more effectively align our research and educational endeavors.



This new and innovative Health Institute model meets the university's mission of being the team of choice for education, discovery and health care by supporting multidisciplinary teams of UNTHSC researchers and educators focused on solving the biggest health problems facing Texas.

Thanks to our faculty and administration this past year has been one of many successes in the face of great change and reorganization. We look forward to continued success and growth with the planned expansion of the Health Institute model at UNTHSC.

BY THE NUMBERS

Over 100 UNTHSC Faculty

Members' primary appointments were changed from a department to a health institute



\$116M Grants Applied For

At the federal, state, and local level



Over 175 Publications

Published in peer review journals and books

Awarded Over \$330K in Seed Grants

Five Patents Issued

- Six provisional patents were filed
- Two full patents were filed
- One Patient Cooperation Treaty was issued
- Two patents were filed in four countries

\$19.6 M in funding

- \$13.9 M in federal, state and local funding (not including 1115 Waiver DSRIP)
- \$5.7M in 1115 Waiver DSRIP
- \$30 K clinical trials

Strong Community Outreach

Innovative community programs were held with primary and secondary school children as well as a number of community groups and organizations

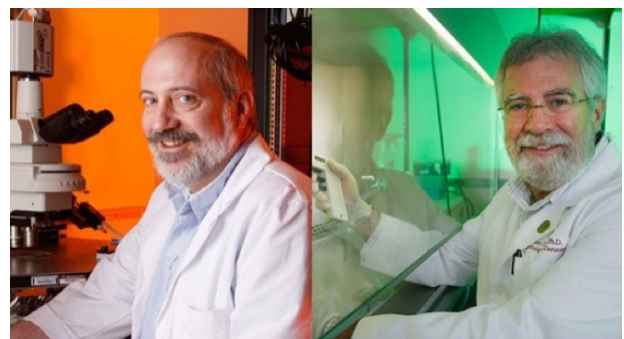


Nationally Recognized Faculty

- Two regents' professors named
- One national lifetime achievement awarded
- One Emeritus professor appointed

Strong Research Mentoring for Students

Faculty research mentors in all Health Institutes worked with medical and graduate students on hypothesis-driven research projects resulting in numerous external support grants and outstanding research awards at the local, state and federal level.



Our Health Institutes and Centers



The Institute for Cardiovascular and Metabolic Diseases is dedicated to improving prevention, detection, diagnosis, and treatment of some of the biggest health problems in Texas such as hypertension, stroke, diabetes and obesity. Its eighteen faculty members are nationally recognized and engaged in interdisciplinary studies that span molecular, cellular, and behavioral sciences.

The Institute for Healthy Aging integrates state-of-the-art clinical care, cutting edge research, education, training and community engagement to examine how age influences the progression of health-related issues. There are over fifty faculty members within this institute's three centers; the Center for Geriatrics, the Center for Alzheimer's and Neurodegenerative Disease Research and the Center for Neuroscience Discovery.

The North Texas Eye Research Institute is dedicated to increase awareness about disease development and novel therapies, especially among ethnic and minority populations with debilitating vision disorders. Its seventeen member faculty work in a collaborative multidisciplinary environment to examine the development of new and effective treatments for eye diseases such as glaucoma, macular degeneration, diabetic retinopathy, optic neuritis and dry eye.

The Institute for Molecular Medicine, launched in September of 2016, houses researchers involved in multidisciplinary and translational research within the relatively new field of individualized or personalized medicine. Their goal is to determine how molecular interventions can be used to correct these specific health-related genetic and molecular errors in individuals. Fields of expertise include infectious disease, medical genetics, cancer biology, nanotechnology and fluorescent imaging.

The Center for Human Identification consists of the Laboratory for Molecular Identification, the Laboratory of Forensic Anthropology and the Forensic Services Unit. Combined these units use cutting-edge DNA analysis techniques to help identify found human remains, solve missing person's cases in conjunction with CODIS, follow human trafficking and provide paternity testing.

Special Achievements

Impact of Research

- **NIH Awards Included:**

- Eight R01 NIH Research Project Grants
- Three R21 NIH Exploratory Developmental Research Grant Awards
- One R15 NIH Academic Research Enhancement Award
- One R56 NIH Exploratory Developmental Research Grant Award
- One R25 NIH Education Project
- Nine NIH subcontract awards
- Two U01 NIH Research Project Cooperative Agreements
- One T32 Ruth L. Kirschstein Institutional National Research Service Award

- **Dr. Cynthia Claassen** was invited to the White House to attend a continuation event on the Making Health Care Better Series on Suicide Prevention highlighting advancements in research, prevention, and access to care as it relates to suicide prevention efforts

- Professor **Sid O'Bryant's** technology to develop a blood assay for detection of Alzheimer's, and the potential to predict impactful therapeutic strategies is the basis for formation of the company CX Precision Medicine

- **Dr. Keisa Mathis** was the 2016 recipient of the **Dale J. Benos Early Career Professional Service Award** and was invited to participate in the American Heart Association / American Stroke Association Leaders Academy

- **Dr. Stella Goulopoulou** was invited to join the Editorial Board of the American Journal of Hypertension and has been selected to serve on the American Physiological Society Science Policy Committee

- **Dr. Caroline Rickards** was elected Chair of the American Physiological Society Women in Physiology Committee

- **Dr. Peter Raven** was the recipient of the American College of Sports Medicine Honor Award the ACSM's highest honor presented to one person annually in recognition of a lifetime of outstanding scientific contributions

- **Dr. Tom Cunningham** and **Dr. Abe Clarke** were recognized as Regents' Professors

- **Dr. Bruce Budowle** was the recipient of a \$4.5 million National Missing and Unidentified Persons System (NamUs) grant awarded by the National Institute of Justice

- **ENTERI faculty gave over 60 presentations** at local, state, national and international conferences with 37 of those being at international meetings

Development of Infrastructure Programs to Support Research

- **ICMD, IHA** and **ENTERI** awarded thirteen interdisciplinary seed grants, totaling over \$300,000 to UNTHSC faculty in four UNTHSC schools

- A Junior Faculty Research Mentoring work group was formed and a strategy to develop and implement a faculty mentoring program for researchers was completed

- Partnered with the Office of Research and Innovation on an instrumentation seed grant

- Plans were completed to launch a new Health Institute, the Institute for Molecular Medicine

Special Achievements

Impact on Education

- No fewer than twelve ICMD graduate students received external support for research, including an American Heart Association pre-doctoral fellowship
- No fewer than ten medical students conducting research projects under the direction of faculty research mentors received outstanding research awards at local, state and national conferences including travel awards from the NIH
- New/Expanded Initiatives:
 - MSTAR: IHA and the Center for Geriatrics collaborated to expand the Medical Student Training in Aging Research program
 - IHA's Center for Geriatric is transforming geriatric care in North Texas through WE HAIL (Workforce Enhancement in Healthy Aging and Independent Living), a \$2.55M HRSA-funded program, the only one of its type in Texas
 - ICMD started a new summer program with TCOM to provide cardiovascular and metabolic disease research opportunities for seven TCOM students. Plans to expand this program to include all health institutes and students from the School of Health Professions and the UNT System College of Pharmacy are underway
 - The Center for Geriatrics hosted 227 TCOM 4th year medical students during their core rotation in Geriatrics at 49 rotation sites including two international sites
 - ICMD initiated a collaboration with Plaza Medical Center to host fellows for research rotations

Impact on our Community

- **Multiple vision screening events were held by NTERI** at elementary schools with over 1000 children receiving vision screenings – free exams and glasses for students with 25% requiring referrals; the African American Health Expo and the north Texas elderly Hispanic population
- **Events for Physiology PhUn Week** included tours and lab demonstrations for 8th graders at William James Middle School FWISD (~95 students) and kindergarteners at Dallas Park elementary (Crowley ~40 students)
- The IHA co-sponsored the inaugural **Healthy Lives Matter Alzheimer's Education Seminar**, organized by the office of Tarrant County Commissioner (Precinct 1) Roy Charles Brooks.

What the Future Holds

The 2016 / 2017 academic year promises to be a year filled with forward motion

Impact on Research

- **Analysis of data from the Baseline Health Institute Annual Report** - All Health Institutes have completed a Baseline Annual Report against which future progress can be measured. Data include faculty / staff demographics, allocation of effort, scholarly activity, grant / contract submission / award data and financial / budget information.
- **A Health Institute formative survey aimed at evaluating strengths, weaknesses and recommendations** has been completed by Health Institute members and will be evaluated and summarized by January 2017.

Impact on Education

- **Student Publications: On the Way to Discovery:** The wall outside of the Health Institute Offices and next to the Discovery room on the third floor of the library will be dedicated to highlighting peer review publications by UNTHSC student researchers.
- **Health Institute Summer Elective Research Rotation for HSC students:** A one month research rotation including research didactics, a hypothesis-driven research project under the direction of a research mentor and a scholarly activity was beta tested last year with TCOM students and research faculty mentors within the Institute of Cardiovascular and Metabolic Diseases. This year the program will be expanded to include students from the UNT System College of Pharmacy and the School of Health Professions with research mentors from all the Health Institutes participating.

Development of Infrastructure Programs to Support Research

- **Junior Faculty Research Mentoring Program** will be launched in January of 2017. Key parts of the program include a research mentoring tool box, guidelines for research mentors, guidelines for research mentees, establishment of a junior faculty research club and innovative tools to link potential research mentors with junior faculty mentees.
- **Web site update and launch-** The Health Institute website is being updated to better reflect Health Institute programs and faculty with the new website aligned with institutional navigation adjustments.
- **Quarterly Health Institute Newsletter-** This newsletter will highlight Health Institute successes and accomplishments and has a target launch date of mid-January 2017.
- **Health Institute Lecture Series** will be presented quarterly in the Chalk and Talk style.

Impact on our Community

- **Science Café** - Initial discussions have taken place with the Fort Worth Museum of Science and History to partner on their Science Café.
- **ENTERI** has received \$75K donation to continue the community based vision screening program.

Health Institutes and Centers
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The logo for the University of North Texas Health Science Center. It features a dark green background with a pattern of overlapping, semi-transparent green triangles of various shades. On the right side, the text "UNT | HEALTH" is written in a large, white, sans-serif font, with "SCIENCE CENTER" in a smaller, white, sans-serif font directly below it.

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