

Houston Philosophical Society Dinner and Lecture

Cohen House, Rice University

21 February 2019

6:00pm cocktails - 9:13pm close

At 8:00 pm President Furlow called the meeting to order and welcomed all. First-time guests were introduced.

President Furlow then introduced the speaker, Dr. Eric Boerwinkle, Dean of the UTHealth School of Public Health. Dr. Boerwinkle began his talk by saying that perhaps it would have been better to have titled it “A Journey to Precision Medicine: Landmarks and Challenges.” He explained the rapid expansion of genetic understanding since 2007 and health researchers’ growing ability to pinpoint specific medical issues through genetic testing. Please see the attached abstract for more on the speakers’ biography and program contents.

"Choose Your Parents Wisely:

Your Genes, Your Health,

But Not Your Blueprint"

by

Dean Eric Boerwinkle

Dean of UTHealth School of Public Health

February 21, 2019

Most of us don't think twice about public health when we drink clean water from the tap, latch our seatbelt, or visit the doctor for a flu shot. Public health professionals work to improve all facets of daily living that we often take for granted. Protecting communities and preventing illness are the ultimate outcomes in the world of public health. Public health combines five core areas of study: Biostatistics; Epidemiology; Environmental and Occupational Health; Management, Policy and Community Health; and Health Promotion and Behavioral Sciences.

Dr. Eric Boerwinkle, the Dean of UTHealth School of Public Health, will

discuss advances in genetics and medicine on Thursday night, February 21, 2019, when he presents “Choose Your Parents Wisely: Your Genes, Your Health, But Not Your Blueprint.” Dean Boerwinkle will discuss the way genomics and genetic research will reshape human health, the Medical Center, and the future of Houston.



Dean Boerwinkle’s background and expertise. Dean Boerwinkle received his B.S. in Biology from the University of Cincinnati in 1980, an M.A. in Statistics (1984), and M.S. and Ph.D. in Human Genetics (1985) from the University of Michigan, Ann Arbor. He served there as Senior Research Associate in the Department

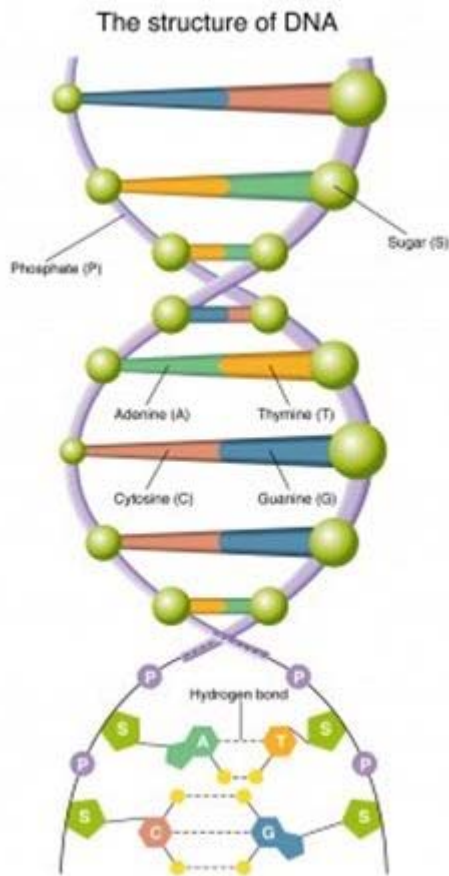
Dean Boerwinkle joined the University of Texas-Houston Center for Demographic/ Population Genetics in 1986 as a Research Assistant and became Assistant Professor in the same year. In 1991 he joined the Department of Human Genetics at the School of Public Health, University of Texas-Houston Health Science Center as Associate Professor, in 1996 was promoted to Professor, and in 1997, Director of the Human Genetics Center. He became a faculty member of the Institute of Molecular Medicine in 1996 and became Professor and Director of the Research Center for Human Genetics.



Dean Boerwinkle's research. His leadership encompasses genetic analysis of common chronic diseases in humans, including coronary artery disease, hypertension, and non-insulin dependent (type II) diabetes. Dean Boerwinkle is a leading member of the American Diabetes Association and the American Society of Human Genetics.

Dean Boerwinkle and colleagues have completed the world's first genome-wide analyses for a variety of CAD risk factors, including diabetes and hypertension. These investigations have led to the identification of novel susceptibility genes in both cases. He is particularly interested in methods for identifying potentially functional mutations within a gene region.

Finally, he is working on experimental designs for studying genotype by environment interaction in humans. In particular, we are working on the extent to which individual variation in lipid lowering and anti-hypertensive medications are influenced by genetic factors. The objective is to use genetic information to identify individuals at increased risk of disease and to design better interventions.



Dean Boerwinkle has participated in many notable discoveries since joining the Institute. First, Dr. Boerwinkle's group completed the first ever genome-wide search for genes contributing to inter-individual blood pressure levels. Second, Dr. Boerwinkle participated in similar efforts to identify genes contributing to the risk of developing non-insulin dependent (type II) diabetes. In this case, however, there were no genes in the region that were suspects for the disease.



The UTHealth School of Health. Dean Boerwinkle leads one of the most prestigious research institutions in the Medical Center. The Texas Legislature authorized the creation of the University of Texas School of Health in 1947, then appropriated funds for its operation in 1967. The first class was admitted in the Fall of 1969, occupying rented and borrowed space. Enrollment doubled in the second year and doubled again in the third year, testimony to the previously unfilled need.

The School of Public Health is one of seven component institutions of The University of Texas Health Science Center at Houston (UTHealth). The Health Science Center, created by the UT System Board of Regents in 1972, brings together the School of Public Health, the School of Dentistry, the Graduate School of Biomedical Sciences, the Medical School, the School of Nursing, the School of Biomedical Informatics and the UT Harris County Psychiatric Center.

The main campus is at 1200 Pressler Street in the Medical Center. In response to the need for graduate public health education in other geographic areas of the state, the School of Public Health established regional campuses in San Antonio (1979), El Paso (1992), Dallas (1998), Brownsville (2000), and Austin (2007). Each campus was established to meet the public health education and research needs of their community. The regional campuses have their own resident faculty and on-site course offerings. Interactive video courses connect all six of the school's campuses.



The UTHealth School of Public Health is across Main Street from Rice University.



Over 1,200 students attend the school, which has a faculty of 163 professors and staff. The school includes four academic divisions: Biostatistics; Epidemiology, Human Genetics and Environmental Sciences; Health Promotion and Behavioral Sciences; and Management, Policy and Community Health; as well as 13 research centers. The main campus in Houston offers four degree programs: MPH, DrPH, MS and PhD. Regional campuses provide masters and doctoral level education to individuals distant from Houston. This allows faculty and students to target public health issues of particular relevance to the communities

in which they are located.

By August of 2011, graduates of the School of Public Health numbered more than 6,000. More than half of the school's graduates work in Texas, with the remainder addressing public health issues in the U.S. and abroad.

After Dr. Boerwinkle took questions from the members for approximately twenty minutes, the meeting was adjourned at 9:13 p.m.