



HARALD H. GÖRING, PHD

Bennett Dyke and Jean MacCluer Endowed Professor

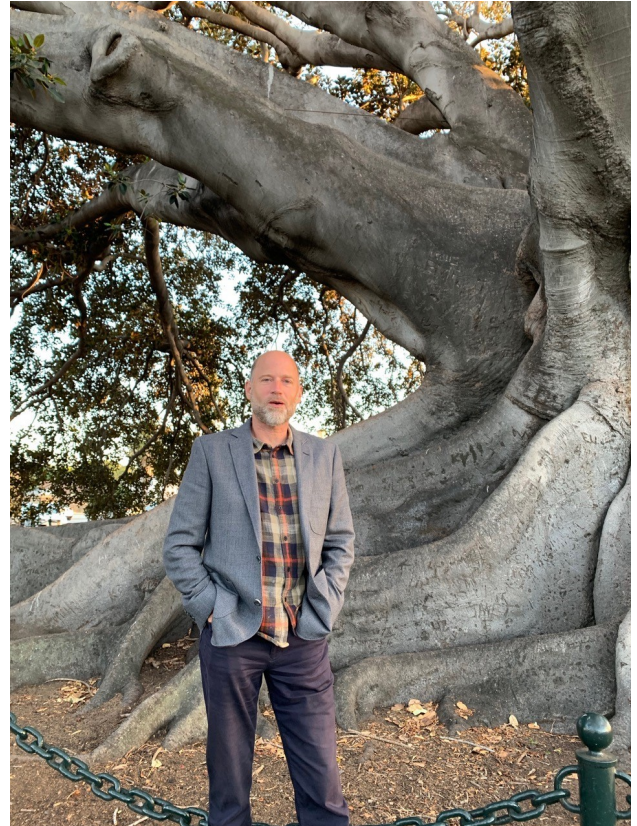
Professor, Department of Human Genetics | Professor, South Texas Diabetes and Obesity Institute

“Ultimately, the hope is that this knowledge will provide the impetus for improved prevention or treatment strategies, such as new drugs. This is exciting and important, despite the fact that it is difficult to translate genetic findings into clinically useful therapies.”

DR. HARALD GÖRING

Exuding an Ingenuity and Passion for Uncovering Answers

Dr. Harald Göring knew he wanted to be a biologist early on in life. As a young boy raised in Northern Germany, he spent time in the countryside taking photographs of dragonflies and social wasps. At that time, he envisioned himself conducting research on animal behavior and ecology; most importantly, he knew he wanted to spend his career doing something outside. It was during his undergraduate studies at the University of Göttingen, a famous research university in the city of Göttingen, Germany, and while as an exchange student at the University of California San Diego, that Dr. Göring became interested in molecular biology. He decided to continue his graduate studies in the United States, and was accepted into the Department of Genetics and Development at Columbia University.



While pursuing a doctoral degree at Columbia University, Dr. Göring began a project working on gene encoding a transcription factor that is crucial to the development of the nervous system in fruit flies. He unexplainedly hit a roadblock when he developed bad allergies, which caused him to reevaluate the trajectory of his studies. Dr. Göring decided to forgo a life in the laboratory and turned his focus to statistical genetic research. He studied under Dr. Jürg Ott, a pioneer in the field of genetic analysis who was an important early contributor to the analytical and computational methods for gene mapping as well as to teaching the discipline via an early textbook and courses. Under the tutelage of Dr. Ott and his former trainee Dr. Terwilliger, Dr. Göring utilized statistical methods and applied studies to identify the genetic underpinnings of human traits. Dr. Göring graduated from Columbia University and moved to the Texas Biomedical Research Institute (formerly Southwest Foundation for Biomedical Research) to conduct postdoctoral research on quantitative genetics. Most recently, he was appointed to the faculty at the University of Texas Rio Grande Valley (UTRGV) as a professor in the Department of Human Genetics and at the South Texas Diabetes and Obesity Institute, a biomedical research program at the UTRGV School of Medicine.



Dr. Jean MacCluer and Dr. Harald Göring

Dr. Göring worked with Drs. Bennett Dyke and Jean MacCluer while at the Texas Biomedical Research Institute in San Antonio, TX. The powerhouse genetic research team eventually established an endowed professorship at UTRGV, which Dr. Göring currently holds, as well as an endowed lectureship series at the University. About the endowed professorship, Dr. Göring said, "I am especially grateful for this endowment since I have known Drs. Dyke and MacCluer for nearly two decades. I have benefitted from them in numerous ways, not least of which by being funded in part by several grants awarded to them." Dr. Göring speaks fondly of Drs. Dyke and MacCluer, of dinners at his house prior to Dr. Dyke passing away in 2017, and continued time spent with Dr. MacCluer. "It is especially nice to receive this endowment from former mentors and friends."

Drs. Jean MacCluer and Bennett Dyke broke ground in the field of genetic research as they were among the first to apply computational approaches to assessing the genetic determinants of risk for complex disease. They were among the first faculty members hired at the Texas Biomedical Research Institute, where Dr. MacCluer served as the head of Population Genetics from 1981 until her retirement in 2008. Dr. Dyke's work in computer infrastructure, specifically pioneering the use of parallel computing in genetic analysis, led to the development of the South Texas Diabetes and Obesity Institute's 11,000 processor cluster MEDUSA. Both Dr. MacCluer and Dr. Dyke are recognized for having an unequivocal influence on the development of analytical approaches to genetic research. Moreover, they are revered for the profound impact they've had on the career development of many scientists, several who now call UTRGV home.

THE IMPETUS FOR IMPROVED HEALTH PREVENTION AND TREATMENT

The research that Dr. Göring conducts aims to identify underlying biological processes that lead to a condition or disease by studying the genes that influence certain traits of interest. "Ultimately, the hope is that this knowledge will provide the impetus for improved prevention or treatment strategies, such as new drugs," said Dr. Göring. "This is exciting and important, despite the fact that it is difficult to translate genetic findings into clinically useful therapies."

Securing funding for genetic research in the United States has become increasingly difficult. So, Dr. Göring is extremely grateful for the funds provided through this endowed professorship. He anticipates that the endowment will help his research team generate pilot data for projects they aim to submit for large, competitive grants from the National Institutes of Health and other funding sources. He is planning a pilot project to determine if cancer is detectable through the breath by specific metabolomic signatures. And he hopes to study of the microbiome of the gut using metagenomic sequencing to examine how the microbiome may affect the risk of developing obesity, diabetes, and cardiovascular disease. Both studies are cutting-edge and are aided through the Bennett Dyke and Jean MacCluer Endowment.





Dr. Mark Kos, Dr. Harald Göring, and Dr. Peter Stevens, members of the robust genetic research team at the South Texas Diabetes and Obesity Institute and the UTRGV School of Medicine.



San Antonio Technology Center houses Dr. Harald Göring and members of the genetic research team at the South Texas Diabetes and Obesity Institute.

When speaking about the impact of these pilot studies, Dr. Göring noted that if the breath detection test was successful in detecting cancer, then it could provide information on the early processes of cancer formation and growth. The microbiome study is especially relevant to the Rio Grande Valley, given the high prevalence of obesity, diabetes, and cardiovascular diseases within in the local population. If the study were able to identify specific microbial signatures that indicate risk of these conditions, then it could lead to different prevention and treatment strategies.

Another, more readily apparent effect of these projects is the potential to create employment opportunities in the region. If the projects were to secure research funding, it would provide the impetus to attract undergraduate and graduate students, faculty and staff, for employment at UTRGV.

UTRGV looks forward to the continued research conducted by Dr. Harald Göring. His ingenuity and passion for uncovering answers that will benefit our community and society as a whole are commendable. His ability, too, to instill that passion for discovery in UTRGV students provides a positive outlook for the future of research at our university.