

THE UNIVERSITY OF TEXAS AT AUSTIN PUBLIC HEALTH INTERNSHIP PROGRAM

A Collaborative Program to Give Undergraduate Students the Opportunity to Explore Careers in Epidemiology and Public Health Laboratory Science



THE UNIVERSITY OF TEXAS AT AUSTIN PUBLIC HEALTH INTERNSHIP PROGRAM

A Collaborative Program to Give Undergraduate Students the Opportunity to Explore Careers in Epidemiology and Public Health Laboratory Science

Leanne H. Field, Ph.D., Senior Lecturer, Diane M. Kneeland, Ph.D., Senior Career Advisor, The University of Texas at Austin; Jeffery P. Taylor, MPH, Manager, Infectious Disease Control Unit, James L. Harris, Ph.D., Training Coordinator, Laboratory Services Section, Susan U. Neill, Ph.D., Director, Laboratory Services Section, Susan C. Penfield, M.D., Unit Manager, Infectious Disease Control Unit, Texas Department of State Health Services; David Lurie, MBA, Director, Aldolfo Valadez, M.D., MPH, Medical Director, Austin/Travis County Health and Human Services Department, Austin, TX.

Educating and training the next generation of public health professionals to meet the challenges of the 21st century is of paramount importance. University students are keenly interested in learning about current topics in public health, but they have little understanding about the educational pathways and training that lead to public health careers. Thus, the University of Texas at Austin (UT Austin), the Texas Department of State Health Services (TDSHS) and the Austin/Travis County Health and Human Services Department (ATCHHSD) are collaborating to provide students with opportunities to conduct goal-oriented, one-semester research projects in epidemiology or laboratory science under the mentorship of state and local public health scientists. This program is being offered for the first time with the generous support of the Texas Health Foundation. Each of the twenty-one junior, senior or post-baccalaureate students participating in the program this year will earn three hours credit in Biological Sciences. To apply for admission, students must have a cumulative grade point average of 3.0/4.0 and have completed pre-requisite coursework in microbiology. Interns are chosen by a competitive application process including an interview. A description of the research projects and the application can be found at the website of the Natural Sciences Career Services (<http://careers.ns.utexas.edu/phi/>). Applicants respond to questions regarding their interests and skills, rank the projects, and submit a resume and two letters of recommendation. They are then invited to a reception to meet the mentors who will supervise each project. Students chosen as interns complete 180 hours of work for the semester and are evaluated based on measurable outcomes, including attendance, on-the-job performance, the maintenance of journals, and final oral presentations and written reports summarizing their results.

We believe UT Austin students are being positively impacted to pursue careers in public health as a result of this program. Two student interns, who completed epidemiology projects during the Fall semester, were accepted into highly ranked schools of public health where they will pursue MPH degrees in epidemiology and become public health epidemiologists. They credit their success in the application process to the real-world experience they gained in this program. Two other epidemiology interns currently are applying for admission to schools of public health. Another intern has been accepted to The University of Texas College of Pharmacy, where she will pursue a doctoral degree to become a pharmacoepidemiologist. Interns completing laboratory science projects also have expressed that this experience has been life changing. One young woman wrote: "This project not only taught me valuable laboratory skills but also showed me the importance of doing research. This internship has given me skills that I will use for the rest of my life and confidence in my abilities and in myself."

Challenges encountered during the development of this program have included securing adequate funding, completing necessary educational affiliation agreements, refining the application process, and developing evaluation instruments that fairly measure each intern's progress. Interns have gained numerous benefits from this program, including 1) an in depth appreciation of the research process, 2) greatly improved oral and written communication skills, 3) an understanding of the differences between a university setting and a professional work environment, and 4) the chance to work alongside generous mentors who so willingly share their knowledge of public health and their personal experiences in the field. TDSHS and ATCHHSD are benefiting from this collaboration because student interns contribute to the development of new laboratory methodologies and to the collection and assessment of information related to the incidence and epidemiology of infectious diseases. This enhances the ability of these agencies to effectively develop and implement intervention and control measures that benefit all the citizens of Texas. Finally, through this collaborative program, the university and its public health partners are contributing to the education and development of future members of the public health workforce to help meet shortages in our city, state and nation.

INTERNSHIP PROJECTS FOR THE 2004-2005 ACADEMIC YEAR

FALL 2004

Investigation of the Laboratory Practices Used for Isolation and Identification of Enteric Pathogens by Acute Care Hospitals in Texas

Development of a DNA Test for Galactosemia

The Natural Occurrence of Bioterrorism Agents in Texas- 1980-2003

Development of A PCR Diagnostic Test for Hepatitis G Virus

Improving Food Safety in Childcare Centers

Environmental Analysis of Texas Bay Waters for *Vibrio* Species

Examination of Risk Factors Associated with Tuberculosis Among African-American and Binational Populations in Texas

SPRING 2005

Development of a PCR Diagnostic Test for Hepatitis G virus

Prevalence of Methicillin-Resistant *Staphylococcus aureus* Infections in Athletes in 4A and 5A Texas UIL Region Four High Schools

Development of a Confirmatory Test for Galactosemia

Prevalence of *Staphylococcus aureus* and Methicillin-Resistant *Staphylococcus aureus* on Surfaces in a University Setting

Environmental Analysis of Texas Bay waters for *Vibrio* species

Development of a PCR Diagnostic Test for the Pantone Valentin Leukocidin Gene in *Staphylococcus aureus* and Methicillin Resistant *Staphylococcus aureus*

SUMMER 2005

Evaluation of a Syndromic Surveillance System to Detect an Outbreak of Gastrointestinal Illness in Central Texas

Environmental Analysis of Local Recreational Waters for the Presence of *E. coli* O157:H7 and other Coliforms

An Investigation and Characterization of Skin and Soft Wound Infections at the Travis County Jail

An Investigation of the Occurrence of West Nile Virus Among Mosquito Vectors Collected in an Urban Setting



Internships In Public Health!



Information Session

ESB 115

Wednesday, March 9, 5 pm

Pizza!



**Applications for Summer and Fall Internships
Open March 3, 2005 and Close April 1, 2005.**

Junior, Senior and Postbaccalaureate students:
participate in semester long research projects at
the Texas Department of State Health Services and
earn credit in Biological Sciences.



Details and Application forms at
<http://careers.ns.utexas.edu/phi>
This program is generously sponsored
by the Texas Health Foundation



CONTACT INFORMATION:

Leanne H. Field, Ph.D.

Senior Lecturer

Program Coordinator, Public Health Internship Program

School of Biological Sciences

Section of Molecular Genetics and Microbiology

The University of Texas at Austin

1 University Station (A5000)

Austin, Texas 78712-0162

(512) 475-8897

field@mail.utexas.edu