MOLECULAR AND GENETIC EPIDEMIOLOGY OF CANCER

The MAGEC postdoctoral fellowship program, located at Vanderbilt University in the beautiful and culturally vibrant city of Nashville, Tennessee, is supported by a T32 training grant from the NIH National Cancer Institute.

**Mission:** The goal of the MAGEC program is to assist fellows in obtaining the expertise and practical experience needed to launch an independent research career in the epidemiology of cancer.

**Experienced Mentors:** A multi-disciplinary mentoring team is assembled for each fellow, drawn from over 30 NIH-funded faculty experts representing an array of topics in cancer epidemiology, including genetics, lifestyle and environmental factors, nutrition, health disparities, and biostatistics. Cross-disciplinary research is the centerpiece of training.

**Hands-on Training Methods:** An individualized didactic training program, tailored to augment each fellow’s educational and research background, is developed by the mentoring team. It includes core and elective coursework in study design and methodology, advanced statistical techniques, and manuscript writing, as well as rotations in the Vanderbilt Molecular Epidemiology Lab and Survey Research Shared Resource.

**Rich Training Resources:** MAGEC fellows have the opportunity to work on a wide range of on-going cancer epidemiology research projects and will also design one of their own, using resources available from the Vanderbilt Epidemiology Center (VEC) and Vanderbilt University School of Medicine. The VEC is home to three large prospective cohort studies that include over 225,000 participants from diverse ethnic and socioeconomic backgrounds. Biological samples are available from over 90% of study participants.

**Grant Proposal Techniques:** Successful grant application techniques are taught in workshops and through mentoring. The fellowship culminates in the submission of a grant proposal to the National Institutes of Health.

**Results:** Over the past four years, three MAGEC fellows have obtained tenure track faculty positions at major universities and three have obtained K99R00 career development grants.

**Program Eligibility**

The MAGEC program is specifically designed for:

- PhDs in epidemiology or genetics who have an interest in cancer research
- MDs who have an MPH degree or working experience in epidemiology

**Program Directories:**

- Xiao Ou Shu, MD, PhD
  - Professor of Medicine
- Douglas Heimburger, MD, MS
  - Professor of Medicine

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