From Bench to Breakthrough: Advancing the Next Generation of Cancer Scientist

Join the University of Kentucky's Prestigious T32: Interdisciplinary Research Training Program in Cancer Biology

Are you ready to push the boundaries of cancer science and make a lasting impact on human health? The University of Kentucky's **Cancer Biology T32 Program (T32 CA165990)**—funded by the National Cancer Institute—is a premier interdisciplinary training initiative designed to empower the next generation of cancer researchers.

Led by **Drs. Kathleen O'Connor, B. Mark Evers, and Christine Brainson**, at the University of Kentucky Markey Cancer Center, this program offers a transformative experience for post-doctoral fellows who are passionate about advancing cancer prevention, diagnosis, and treatment.
This multi-disciplinary program focuses on training post-doctoral fellows in cancer biology so that they can effectively decipher important research questions associated with human cancer. The program integrates the already established and successful programs in Signal Transduction and Mechanisms of Cancer Cell Survival, Cancer Progression and Metastasis, Tumor Microenvironment, and Oxidative Stress and DNA Damage into one cohesive program. Trainees will receive both didactic and non-didactic instruction, including laboratory-based basic science research, exposure to cutting edge clinical applications, and career development opportunities.

A unique feature of this program is the interdisciplinary training opportunity that will emphasize bench to bedside research topics to provide a bridge between the fundamental biology of cancer and clinical cancer. Our goal is to develop a cadre of future scientists who can become leaders in integrative team approaches to better understand the complex issue of cancer as it relates to prevention and treatment strategies.

Why Choose This Program?

This is not just training—It is a launchpad for your career in cancer biology. You will gain:

- **Comprehensive, hands-on training:** in cutting-edge cancer research techniques
- **Access to world-class mentors:** across diverse disciplines in cancer research
- **Exposure to clinical environments:** through shadowing and physician-scientist mentorship
- **Career development support**: including seminars, symposia, and networking opportunities
- **Funding:** for travel, health insurance, and tuition support

Research Focus Areas

Trainees dive deep into high-impact topics, including:

- Signal Transduction & Cancer Cell Survival
- Tumor Microenvironment & Metastasis
- Cancer Epigenetics & Stem Cells
- DNA Damage & Repair
- Immunotherapy & Cancer Metabolomics
- Oxidative Stress & Cancer Progression

This program bridges **bench-to-bedside research**, giving you the tools to translate discoveries into clinical breakthroughs.

Mentorship That Matters

Work alongside leading experts from departments such as Biochemistry, Toxicology and Cancer Biology, Surgery, Pharmacology and Nutritional Sciences, and Microbiology, Immunology and Molecular Genetics. Additionally, mentees may choose mentors who are not included on the T32 but work on cancer-related topics at the University of Kentucky.

Eligibility & Requirements

All Applicants:

- Must be U.S. citizens or permanent residents
- Must have interest in pursuing a career in cancer-related field
- Must have completed the foundation courses in graduate level: Genetics, Biochemistry, Immunology, Pharmacology, Physiology, Cell Biology, Molecular Biology, and Biostatistics

Number of Positions Currently Available:

- 2- Post-Doctoral Fellows

Program requirements:

- Trainees are expected to complete an ethics course as well as a Cancer Biology and Therapy course, which emphasizes cancer in the context of human disease.
- Trainees will participate in the Markey Cancer Center weekly seminar series as well as participate in a variety of seminars, workshops and symposia at UK over the course of their training.
- Each trainee is required to shadow a clinician and include one physician-scientist on their mentoring committee.

Stipend & Support

Stipends are based on NIH guidelines and include:

- Health insurance
- Tuition coverage
- Travel funding for conferences and training supplies

Ready to Apply?

Submit your application materials to **Dr. Katelyn Jones (katelyn.jones13@uky.edu)**. The position(s) will remain open until the best candidate is recruited; applications will be reviewed according to the order in which they are received. Top candidates may be asked to participate in an interview with the Executive Steering Committee before final decisions are made.

1) **Applications should include the following components:** A 1–2-page letter detailing your research experience, commitment to cancer research or cancer biology, and a brief proposal. The applicant should indicate how their thesis research and/or career will benefit from cross-disciplinary training in oncologic research.
2) Curriculum Vitae and academic transcripts
3) Mentor's letter of support outlining your research plan
4) Contact info for two additional references

The Executive Steering Committee will select the top candidates and interview them before making a final decision.

Questions?

Reach out to **Dr. Katelyn Jones** for more information.