

UNIQUE INTERDISCIPLINARY POST-DOC IN STUDY OF THE MICROBIOME IN CANCER Emory University, Atlanta GA



Deborah Watkins Bruner, RN, PhD, FAAN, is Senior Vice President for Research, Emory University, Atlanta, GA. Dr. Bruner is also Professor and Robert W. Woodruff Chair in Nursing, Professor of Radiation Oncology, and a member of the Winship Cancer Institute. She received her PhD from the Univ. of Pennsylvania and is an internationally renowned researcher and clinical trialist with a focus on patient reported outcomes (PROs), symptom management, and comparative effectiveness of radiotherapy modalities. **Her most current research is focused on the role of the human microbiome in carcinogenesis and cancer treatment outcomes.**

Dr. Bruner's leadership, especially in the National Cancer Institute (NCI) sponsored National Clinical Trials Network (NCTN) transcends disciplines and has led to improved health and quality of life and decreased cost outcomes for those treated for cancer.

This unique interdisciplinary postdoctoral fellowship will provide training and mentorship in the study the human microbiome and cancer and associations among the microbiome and clinical outcomes. This opportunity focuses on the role of the microbiome in cancer symptom and adverse event promotion as well as the microbiomes' association with cancer incidence, recurrence and or treatment outcomes. Additional areas of mentored research include interaction among the microbiome and patient reported outcomes (PROs) measurement; quality of life; symptom management across cancer sites; study of molecular markers and the microbiome as predictors of treatment-related toxicities; microbiome and metabolomics, and health disparities. The postdoc will join the interdisciplinary research team of Dr. Deborah Watkins Bruner, Senior Vice President of Research (Emory University; <http://www.nursing.emory.edu/faculty-and-research/directory/profile.html?id=1840> and <http://president.emory.edu/leadership.html#leadership>), which includes nurses, physicians, epidemiologists, statisticians and microbiologists.

This position will be co-mentored by microbiologist, Dr. Kostas Konstantinidis (Georgia Tech; www.enve-omics.gatech.edu). The work will involve wet-lab, molecular work with healthy and tumor samples as well as bioinformatics analysis of resulting sequence and metabolomics data. Research tasks will involve both culture-dependent and independent methods, with the latter focused on comparative analysis of single-cell genomic, metagenomic, and metatranscriptomic datasets.



Dr. Kostas Konstantinidis received his PhD at Michigan State and did a postdoc at MIT. His research interests are at the interface of genomics and computational biology in the context of microbial ecology with the overarching goal to broaden understanding of the genetic and metabolic potential of the microbial world.

Emory University and Georgia Tech are dynamic research environments, with a strong core of researchers interested in human health, cancer, microbiology, genomics, and bioengineering, and strong collaborative projects across the two campuses. The Institutes collectively offer exceptional resources for cancer research, bioinformatics and high-performance computing, and exciting opportunities for cross-departmental collaboration with computational scientists and human health researchers. Georgia Tech and Emory University were both recently voted among the best places to work, and Atlanta is consistently ranked among the top ten places to live for young professionals.

The postdoc will be encouraged to develop independent lines of research within the broader goals of the projects, and will work collaboratively with Drs. Bruner and Konstantinidis, their research teams as well as graduate students to perform research and synthesize results for publication. Submission of a career development award to the NIH, NCI or ACS by the end of year 2 is an expectation of the position.

The ideal candidate will be enthusiastic, motivated by experimental and analytical challenges, and have strong skills and will seek, as needed, additional training in statistical analysis or bioinformatics techniques or the microbiome or cancer. Candidates should have a Ph.D. in nursing, medicine, epidemiology or related to the microbiome.

This position can begin as early as May 2021, although there is flexibility in the start date. Funding is available for at least five years contingent upon annual satisfactory progress; applicants should express their ability to commit to the project for the initial two years.

Application materials should be emailed to Rebecca Meador, Manager of Research Projects, rebecca.j.meador@emory.edu, and should include a cover letter (describing your interest in the position, work experience, and availability), CV, and contact information (name, email, phone number) for at least three references. **Please include the word “Postdoc” in the subject line.** Salary will be competitive and commensurate with experience and will include fringe benefits.