

Project Summary

Heidi D. Klepin, MD, MS will utilize this Beeson K23 award to expand her clinical research skills in measurement of physical function and design of successful physical activity interventions to maximize functional independence in high-risk elderly populations with cancer. She currently leads an observational study investigating geriatric assessment in older adults with acute myelogenous leukemia (AML) funded by a T Franklin Williams award through the American Society of Hematology. Preliminary results suggest that a high proportion of patients demonstrate objective physical impairment before treatment and exhibit significant declines in function post-chemotherapy. WFU School of Medicine is an outstanding environment in which to pursue this research and career development award. The Career Development Plan (CDP) features a strong, established interdisciplinary mentoring team with expertise in measurement of physical function, design and execution of physical activity trials in special populations (including older adults and cancer patients), and experience in multi-site clinical trials in both geriatrics and oncology. Additional key resources available include the WFU Claude D. Pepper Older Americans Independence Center and the Comprehensive Cancer Center of WFU. The CDP features ongoing structured mentoring, key formal education programs, and experiential learning through the completion of the Research Plan (RP).

Most newly diagnosed cancers are in older adults, who are increasingly offered chemotherapy treatments. Cancer clinical trials, however, have largely ignored the potential consequences of chemotherapy and its side effects on short- and long-term physical function in these patients. This is a topic of high importance in geriatric oncology since functional limitations compromise quality of life, limit therapeutic options, and contribute greatly to the social and economic burden of managing chronic disease. The RP builds on prior work and focuses on the execution of a randomized symptom-adapted physical activity intervention among hospitalized older adults receiving AML chemotherapy. Information on recruitment, retention, adherence, and effect size for primary and secondary outcomes gathered during this pilot study will inform the design of a definitive R01-funded trial. In addition, execution of the RP will give Dr. Klepin key experience to fulfill the objectives of her CDP, which include a) developing expertise in measurement of physical function and in design of randomized behavioral interventions in older cancer patients receiving chemotherapy and b) developing independence as a clinician researcher in geriatric oncology.

In summary, the training afforded by this proposal and executed through the RP will build upon previous work and launch Dr. Klepin's career as an independent R01-funded researcher and leader in geriatric oncology.