Isabel L. Jackson, PhD
Named Director of the Division of Translational Radiation Sciences (DTRS)

William F. Regine, MD, FACR, FACRO,
Professor and Isadore & Fannie Schneider Foxman Chair of UMSOM’s Department of Radiation Oncology, has announced the promotion of Isabel Lauren Jackson, PhD, to the position of Director of the department’s Division of Translational Radiation Sciences (DTRS). Dr. Jackson, the Marlene & Stewart Greenebaum Professor in Radiation Oncology, previously served as that division’s Deputy Director and Director of the Medical Countermeasure Program (MCP).

“Given Dr. Jackson’s formidable ability to advocate for DTRS and its ultimate vision of benefiting cancer patients worldwide, she is the perfect choice to oversee and guide this division’s growth and success,” said Dr. Regine. “I am confident that she will bring continued vigor and unprecedented academic and scientific success to our department’s radiation research activities.”

Dr. Jackson, who joined the Department of Radiation Oncology in 2012, is a dynamic researcher and educator who has brought international attention and significant funding to the USMOM in advancing radiation countermeasures. As a leader in laboratory development and management, she has worked with Zeljko Vujaskovic, MD, PhD, Professor of Radiation Oncology and the department’s Vice Chair of Research, to create new models for extramural support. As MCP Director, Dr. Jackson strategically developed the organizational structure, recruited talent, and secured funding to build the scope and reputation of the program into the premier site for medical countermeasure research, managing all aspects of study execution while overseeing a faculty and staff of 70 individuals. The division currently has a funding portfolio of more than $50 million, including significant funding from the federal government’s Biomedical Advanced Research and Development Authority (BARDA) and the National Institute of Allergy and Infectious Diseases (NIAID), among others. Most recently, she wrote and coordinated submission of the proposal that led to MCP’s designation as a NIAID/NIH Center for Medical Countermeasures against Radiation (an award of more than $12 million plus options), along with a sustaining award from BARDA (more than $7 million) to ensure continuation of essential translational research activities during the pandemic.

In her new role, Dr. Jackson will direct a division dedicated to tackling the most important challenges in clinical radiotherapy and life-threatening radiation exposures. DTRS was established by Drs. Vujaskovic and Jackson to accelerate the discovery and clinical implementation of new therapeutic strategies to improve tumor response in clinical radiotherapy, minimize post-radiation therapy complications, and treat the life-threatening health effects of a radioactive or nuclear agent. To accomplish its mission, research within the Division is focused on bridging the gap between novel hypothesis-driven science and contract research services to advance new drugs, medical devices, and therapeutic techniques from preclinical efficacy studies toward clinical trial for radiation oncology and biodefense applications. In doing so, the Division provides a comprehensive set of services to the U.S. government and to pharmaceutical, biotechnology, and medical device companies in the areas of medical and radiation oncology, radiation biology/physics, and biodefense.

“My goal over the past nine years has been to focus on developing an agile and sustainable animal model framework and talent infrastructure for development of Medical Countermeasures from discovery to approval under the U.S. Food and Drug Administration Animal Rule regulatory pathway. We’ve built productive partnerships with both government and drug companies that are working in this area to improve the medical management of individuals acutely exposed to radiation in a nuclear incident,” said Dr. Jackson.

Looking ahead, Dr. Jackson sees an expanded potential for DTRS. “My goal over the upcoming years is to leverage the infrastructure we’ve established to expand our programs in tumor radiobiology and clinically relevant normal tissue injury to improve the therapeutic ratio in cancer treatment,” she noted. “As the number of cancer survivors grows, long-term quality of life has become a primary outcome measure secondary only to survival. The added value of the government and industry investment in medical countermeasures is to translate these new therapeutics to reduce side effects in cancer patients undergoing radiation therapy.”

“In collaboration with our Cancer Center colleagues, the Division is identifying new therapeutic targets in cancer biology and investigating new multimodality therapies to improve cancer cure rates. I am excited about what the future holds and our faculty contributions to advancing radiation therapy in the 21st century,” she said.