

Research News

Oncologist publishes research on ovarian cancer survival rates



PROVIDENCE – **RICHARD G. MOORE, MD**, director of the Center for Biomarkers and Emerging Technologies and a gynecologic oncologist with the Program in Women's Oncology at Women & Infants Hospital, is part of a team of researchers who published an article on the use of a chemoresponse assay to guide the treatment of women with persistent or recurrent ovarian cancer.

The article was published in the November issue of *Gynecologic Oncology* and illustrates how the

team's use of a chemoresponse assay on tissue samples from ovarian tumors can help tailor the most effective treatment for them.

Dr. Moore, who is also a professor of obstetrics and gynecology at The Warren Alpert Medical School, and the team spent eight years studying the assay's effectiveness in choosing course of treatment in women with platinum-sensitive and platinum-resistant tumors. Such tumors do not respond to many types of treatment and are labeled "persistent," or they return after treatment, making them "recurrent."

The publication capped the release of the results of the eight-year study, which showed that women diagnosed with ovarian cancer who undergo cancer tumor testing to determine the best treatment have better survival rates than women who do not.

"We demonstrated that using a tissue sample from the woman's tumor and a chemoresponse assay can help us determine the best treatment for her," Dr. Moore said. "Such testing allows us to identify the chemotherapeutics that are active against the individual patient's disease and those that are not, which would result in decreased toxicity from ineffective treatments."

The use of such personal-directed therapies increases overall survival, making the results of this work by Dr. Moore and his team the first in two decades to show a significant impact on ovarian cancer survival. The work was key in light of the fact that epithelial ovarian cancer is the leading cause of gynecologic cancer deaths in the United States.

"Despite the achievement of high response rates, improvements in survival with aggressive surgical debulking and the use of platinum/taxane combination



BROWN

Richard M. Terek, MD

Dr. Terek gets \$1.4M NIH grant to study bone cancer

PROVIDENCE – **RICHARD M. TEREK, MD, FACS** has been awarded a \$1.4 million research grant from the National Cancer Institute of the National Institutes of Health to study bone cancer.

The research will be focused on mechanisms to develop new therapies and strategies to prevent metastasis of chondrosarcoma based on microRNA and

nanotechnology. The grant is an R01 grant, the original and oldest grant mechanism used by the National Institutes of Health. "R01 grants from the National Institutes of Health are highly competitive, and there are very few orthopaedic surgeon – scientists who are successful at competing for these grants," says Dr. Terek.

"The research environment and collaborators in the Orthopaedic Research Laboratories, built and expanded over the years by philanthropy, prior grants, and the department, all contribute to the success of our research program," said Dr. Michael Ehrlich, Chairman of the Department of Orthopaedic Surgery at the Alpert Medical School and CEO of University Orthopedics, Inc. ❖

chemotherapy, the disease recurs in the majority of the patients," Dr. Moore explained.

The study was launched in 2004 and included 262 evaluable women. Their biopsies were successfully treated in vitro, or in a test tube. The assay ChemoFx® by Precision Therapeutics tested up to 15 approved treatment regimens on the samples, identifying chemotherapy drugs and regimens to which each tumor might be sensitive. The study was non-interventional, meaning that physicians chose the treatment regimens without knowing the assay results.

"The assay identified at least one treatment to which the tumor would be sensitive in 52% of patients in the study," Dr. Moore said. "At the same time, it is interesting to note that no single treatment accounted for more than 30% of the treatments assessed in this study, demonstrating the lack of a standard care in this patient population."

Median survival for the women in the study was 37.5 months for patients with treatment-sensitive tumors, compared to 23.0 months for intermediate and resistant tumors.