

**Embargoed Until
October 21, 2018 at 1:55PM CT****NRG Oncology Contact:**Angela LaPenta • Office: 215.574.3194 • Email: lapentaa@nrgoncology.org**The Medical College of Wisconsin Contact:**

Holly Botsford, External Relations and Engagement Manager

O: 414-955-8761, C: 414-688-7960

hbotsford@mcw.edu**Data Supports Interaction of Pretreatment Immune Inflammatory State of Patient
Outcomes following Radiotherapy in High Risk Prostate Cancer Trial**

SAN ANTONIO, TX – Data from a validation study of NRG-RTOG 0521 suggests that, while there is no association between an elevated level of C-reactive protein (CRP) and disease-free survival (DFS); higher levels of pretreatment interleukin 10 (IL-10) were linked to lower rates of DFS. These results were recently presented at the 60th Annual Meeting of the American Society for Radiation Oncology (ASTRO).

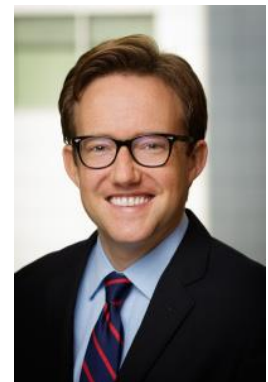
The initial study, NRG-RTOG 0521 (Hall 2013), indicated that elevated CRP levels, a marker of inflammation, were directly associated with shorter biochemical failure-free survival after radiotherapy for patients with high risk prostate cancer. During this study, serum samples were collected from 202 participants and banked for future biomarker validation. Researchers measured multiple serum immuno-inflammatory cytokines in addition to CRP levels. The primary objective for the validation study was to determine the association between CRP levels and DFS from time of patient randomization and additional objectives included the correlation of cytokine levels with DFS and toxicity events due to radiotherapy.

“Although CRP levels did not correlate with DFS, the association of higher baseline levels of IL-10 with poorer outcome supports the claim that there may be an interaction between host pretreatment immune inflammatory state and the outcomes for the patient following radiotherapy treatment. I believe that future investigation into anti-inflammatory medical intervention for patients with prostate cancer in association to radiotherapy would be worthwhile,” stated William A. Hall, MD, an Assistant Professor of Radiation Oncology at the Medical College of Wisconsin and lead author of this abstract.

Serum immune-inflammatory cytokines that were studied included: monocyte chemotactic protein-1 (MCP-1), granulocyte-macrophage colony-stimulating factor (GM-CSF), interferon gamma (IFN- γ), IL-1b, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12, IL-13, IL-17A, IL-23, and tumor necrosis factor (TNF α). In addition to the association between IL-10 and DFS, IL-12 and IL-13 were also associated with grade 2 or higher cystitis, or inflammation of the bladder.

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William A. Hall, MD
NRG-RTOG 0521
Lead Author

About NRG Oncology

NRG Oncology conducts practice-changing, multi-institutional clinical and translational research to improve the lives of patients with cancer. Founded in 2012, NRG Oncology is a Pennsylvania-based nonprofit corporation that integrates the research of the National Surgical Adjuvant Breast and Bowel Project (NSABP), the Radiation Therapy Oncology Group (RTOG), and the Gynecologic Oncology Group (GOG). The research network seeks to carry out clinical trials with emphases on gender-specific malignancies, including gynecologic, breast, and prostate cancers, and on localized or locally advanced cancers of all types. NRG Oncology's extensive research organization comprises multidisciplinary investigators, including medical oncologists, radiation oncologists, surgeons, physicists, pathologists, and statisticians, and encompasses more than 1,300 research sites located world-wide with predominance in the United States and Canada. NRG Oncology is supported primarily through grants from the National Cancer Institute (NCI) and is one of five research groups in the NCI's National Clinical Trials Network.

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About the Medical College of Wisconsin

With a history dating back to 1893, The Medical College of Wisconsin is dedicated to leadership and excellence in education, patient care, research and community engagement. More than 1,200 students are enrolled in MCW's medical school and graduate school programs in Milwaukee, Green Bay, and Central Wisconsin. MCW's School of Pharmacy opened in 2017. A major national research center, MCW is the largest research institution in the Milwaukee metro area and second largest in Wisconsin. In FY2016, faculty received more than \$184 million in external support for research, teaching, training and related purposes. This total includes highly competitive research and training awards from the National Institutes of Health (NIH). Annually, MCW faculty direct or collaborate on more than 3,100 research studies, including clinical trials. Additionally, more than 1,500 physicians provide care in virtually every specialty of medicine for more than 525,000 patients annually.