

Stereotactic radiation highly effective for kidney cancer

DALLAS – May 1, 2017 – Kidney cancer patients may soon have an alternative to traditional treatments, new research at UT Southwestern Medical Center’s [Kidney Cancer Program](#) of the [Harold C. Simmons Comprehensive Cancer Center](#) shows.



Their recent study showed that treating metastatic kidney cancer with an advanced, focused form of radiation called stereotactic ablative radiation therapy achieves more than 90 percent control of metastases.

“This study shows that stereotactic radiation provides a good noninvasive alternative to conventional treatment, and that it effectively controls the disease,” said [Dr. Raquibul Hannan](#) (pictured left), Assistant Professor of [Radiation Oncology](#), co-leader of the Kidney Cancer Program and senior author of the study. “It may also offer an alternative to patients who are not candidates for surgery due to the number and location of the metastases.” [See video](#).

The standard of care for metastatic renal cell carcinoma is systemic therapy, such as targeted drugs or immunotherapy, which often has significant side effects like fatigue, high blood pressure, and rash. According to Dr. Hannan, the new study shows that some of these patients can be treated with stereotactic radiation therapy with the goal of being cured, or to delay systemic therapy, allowing patients to enjoy a better quality of life without the side effects of the drugs.

“This study, which represents, possibly, the largest experience reported in the medical literature, may also help medical oncologists, since stereotactic radiation could be used for patients who have limited sites of progression while receiving systemic therapy,” said [Dr. James Brugarolas](#) (pictured right), Associate Professor of [Internal Medicine](#) and leader of the Kidney Cancer Program.

The study is published in the *International Journal of Radiation Oncology, Biology, and Physics*.

The research was conducted in the [Kidney Cancer Program](#), one of two programs in the country to be recognized with an \$11 million [SPORE \(Specialized Program of Research Excellence\)](#) from the National Cancer Institute. As part of the SPORE, researchers are improving the ways in which radiation is given by evaluating combinations with drugs and



identifying those tumors that are most likely to respond. In particular, investigators are evaluating combinations with immunotherapy, iSABR – immunotherapy and Stereotactic Ablative Radiation Therapy. [See video.](#)

Nearly 400,000 Americans are now living with a diagnosis of kidney cancer and more than 60,000 people are expected to be diagnosed with kidney cancer this year, according to the National Cancer Institute.

Five-year survival rate averages run from 81 percent for stage 1, when cancer is contained in the kidney, to about 53 percent for stage 3, when it has spread beyond the kidney, and just 8 percent for stage 4, when the cancer spreads to more distant parts of the body or other organs. However, for stage four patients, 5-year [survival rates](#) at the UT Southwestern's Kidney Cancer Program are double national benchmarks.

Additional UT Southwestern researchers involved in the study include [Dr. Mu-Han Lin](#), Assistant Professor of Radiation Oncology; Dr. Jeffrey Meyer, Associate Professor of Radiation Oncology; [Dr. Neil Desai](#), Assistant Professor of Radiation Oncology; [Dr. Ivan Pedrosa](#), Associate Professor of [Radiology](#) in the [Advanced Imaging Research Center](#); [Dr. Vitaly Margulis](#), Associate Professor of [Urology](#); [Dr. Jeffrey Cadeddu](#), Professor of Urology and of Radiology; [Dr. Arthur Sagalowsky](#), Professor of Urology; [Dr. Jeffrey Gahan](#), Assistant Professor of Urology; Dr. Aaron Laine, Assistant Professor of Radiation Oncology; Dr. Xian-Jin Xie, Professor of [Clinical Science](#); [Dr. Hak Choy](#), Chair of Radiation Oncology; [Dr. James Brugarolas](#), Associate Professor of [Internal Medicine](#); and [Dr. Robert Timmerman](#), Professor of Radiation Oncology and of [Neurological Surgery](#).

Dr. Timmerman holds the Effie Marie Cain Distinguished Chair in Cancer Therapy Research. Dr. Brugarolas is a Virginia Murchison Linthicum Endowed Scholar in Medical Research. Dr. Pedrosa holds the Jack Reynolds, M.D., Chair in Radiology. Dr. Choy holds The Nancy B. and Jake L. Hamon Distinguished Chair in Therapeutic Oncology Research. Dr. Cadeddu holds the Ralph C. Smith, M.D. Distinguished Chair in Minimally Invasive Urologic Surgery. Dr. Sagalowsky holds the Cissy and W. Plack Carr, Jr. Professorship in Medical Education. Dr. Desai is a Dedman Family Scholar in Clinical Care.

The [Harold C. Simmons Comprehensive Cancer Center](#) is the only NCI-designated Comprehensive Cancer Center in North Texas and one of just 47 NCI-designated Comprehensive Cancer Centers in the nation. Simmons Comprehensive Cancer Center includes 13 major cancer care programs. In addition, the Center's education and training programs support and develop the next generation of cancer researchers and clinicians. Simmons Comprehensive Cancer Center is among only 30 U.S. cancer research centers to be designated by the NCI as a National Clinical Trials Network Lead Academic Participating Site.

About UT Southwestern Medical Center

UT Southwestern, one of the premier academic medical centers in the nation, integrates pioneering biomedical research with exceptional clinical care and education. The institution's faculty has received six Nobel Prizes, and includes 22 members of the National Academy of Sciences, 18 members of the National Academy of Medicine, and 14 Howard Hughes Medical Institute Investigators. The faculty of more than 2,700 is responsible for groundbreaking medical advances and is committed to translating science-driven research quickly to new clinical treatments. UT Southwestern physicians provide care in

about 80 specialties to more than 100,000 hospitalized patients, 600,000 emergency room cases, and oversee approximately 2.2 million outpatient visits a year.

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