



# Collaborative Clinical Study Aims to Advance Treatment of Kidney and Prostate Cancer with 3D Printing

*Patient-specific and highly personalized 3D models being studied for their ability to enable surgeons to more effectively conduct pre-surgical planning and intra-operative collaboration*

*Stratasys J750 3D Printer empowers researchers to accurately replicate complex organs and pathologies in highly accurate, full-color 3D printed physical models*

MINNEAPOLIS & REHOVOT, Israel--(BUSINESS WIRE)-- [Stratasys](#) (NASDAQ: SSYS), a global leader in applied additive technology solutions, today announced a new clinical study is being conducted with the New York University (NYU) School of Medicine – aimed at advancing diagnosis and treatment of complex kidney and prostate tumors through imaging and 3D printing. These patient-specific 3D models of organs and their associated pathologies may empower surgeons and researchers to conduct more accurate pre-operative assessment and inter-operative guidance, potentially improving surgical outcomes.

This press release features multimedia. View the full release here:  
<http://www.businesswire.com/news/home/20171023006120/en/>

The two-year clinical trial is being led by Nicole Wake - a pre-doctoral researcher at the Sackler Institute of Graduate Biomedical Sciences at NYU School of Medicine. The study is specifically targeted at analyzing how patient-specific multi-colored physical tumor models, printed on the Stratasys J750 3D Printer, can potentially change and improve the quality of patient care.

Under the randomized, controlled study, Wake and her research team are 3D printing kidney and prostate cancer models for a sample of the participating 300 patients – measuring the specific impact each has on pre-surgical planning versus traditional 2D visualization approaches. Subjects are separated into three treatment categories to analyze and compare conventional pre-operative 2D imaging, augmented reality models, and next-generation 3D printed models.

“3D printing holds a lot of potential in assisting with surgical planning, and as surgeons, we are always looking at ways to improve outcomes for our patients,” says study co-author William C. Huang, MD, associate professor of urology at NYU School of Medicine. “We are pleased to be leading a study examining how 3D-printed models may improve the surgical planning process and ultimately impact patient care.”

“Surgeons and hospitals continuously search for ways to improve the quality of patient care while also reining in procedural costs. In case studies and small trials, 3D printed patient-specific models have shown tremendous potential to improve clinical outcomes and cost



NYU School of Medicine leverages the Stratasys J750 to build multi-colored, 3D printed kidney cancer models (Photo: Business Wire)

savings,” said Scott Rader, GM of Healthcare Solutions at Stratasys. “This clinical study will be one of the first large-scale studies that can finally quantify the impact of 3D printing.”

With its unique ability to produce parts in over 360,000 colors, textures, gradients, and transparencies – the Stratasys J750 3D Printer delivers medical models with a broad array of characteristics that replicate the look, feel and function of organic structures. Built directly from patient scans, these models match the widest array of medical properties – from soft tissue to hard bone. Advanced modeling not only guides surgeons in the operating room, but enables patients to better visualize proposed treatments and course of care.

Moving forward, the clinical study is expected to continue into 2018. During the next phase of the project, researchers will begin to explore quantitative patient outcomes.

Stratasys (NASDAQ: SSYS) is a global leader in applied additive technology solutions for industries including Aerospace, Automotive, Healthcare, Consumer Products

and Education. For nearly 30 years, a deep and ongoing focus on customers’ business requirements has fueled purposeful innovations—1,200 granted and pending additive technology patents to date—that create new value across product lifecycle processes, from design prototypes to manufacturing tools and final production parts. The Stratasys 3D printing ecosystem of solutions and expertise—advanced materials; software with voxel level control; precise, repeatable and reliable FDM and PolyJet 3D printers; application-based expert services; on-demand parts and industry-defining partnerships—works to ensure seamless integration into each customer’s evolving workflow. Fulfilling the real-world potential of additive, Stratasys delivers breakthrough industry-specific applications that accelerate business processes, optimize value chains and drive business performance improvements for thousands of future-ready leaders around the world. Corporate Headquarters: Minneapolis, Minnesota and Rehovot, Israel. Online at: [www.stratasys.com](http://www.stratasys.com), <http://blog.stratasys.com> and [LinkedIn](https://www.linkedin.com/company/stratasys).

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