

# Surgical Urology Cancer Group

## Clinical Research



### Treating Kidney and Prostate Cancers

**Jonathan Silberstein** heads the Surgical Urology Cancer Group at Tulane. This group employs a patient-centric model in both treatment and research practices. Focusing on Prostate, Kidney, and Bladder Cancer, the group is engaged in a variety of clinical research activities and trials. Their primary focuses are the development of new surgical options for kidney cancer and biomarker discovery

### Modeling Kidney Cancer: 3D Imaging & Printing

Unlike breast cancer, kidney cancer is non-tactile, meaning the patient cannot physically feel the tumor. Consequently, kidney cancer is most often diagnosed during imaging studies for unrelated conditions. This means that this cancer is abstract for many patients and hard to conceptualize. To get around this, Dr. Silberstein generates 3D-printed models of individual patient's kidneys with the cancer. This facilitates a valuable patient education experience that may lead to improved patient decision making.

Additionally, since the models are unique to each patient, they allow the surgeon to "practice" the robotic surgery necessary to remove the tumor beforehand. One of the ultimate goals of this research is to shift the field away from whole kidney removal and toward partial resection, which would enable patients to retain better kidney function later in life. This is especially important in African American kidney cancer patients, who have a genetically worse baseline kidney function than other groups.

---

## Biomarkers in Prostate Cancer

Prostate-Specific Antigen, perhaps the most well-known cancer biomarker, is also one of the most problematic. At Tulane, we are actively searching for novel prostate cancer biomarkers. These biomarkers could be for the disease in general, but also to differentiate between the more indolent vs. potentially aggressive and malignant forms of the disease.

Successful identification of such markers could cut down on the number of unnecessary prostate removal surgeries in patients, leading to an improved quality of life. This is also especially important in the African American community, as they tend to develop more aggressive forms of prostate cancer at a much younger age.

Currently, Tulane has the largest cohort of African American prostate cancer patients under surveillance in the country, representing a powerful asset for use in drug trials and biomarker discovery. This has already attracted the attention of a number of industry partners, and is reflective of the generally high volume of prostate cancer clinical trials in Urology at Tulane, with an accumulating number of kidney cancer trials.

---

## Contact & Further Info:



James R Zanewicz, RTTP  
Chief Business Officer  
[zanewicz@tulane.edu](mailto:zanewicz@tulane.edu)  
504.919.3800 (m)



Claiborne M Christian, PhD  
Business Development Assoc.  
[christian@tulane.edu](mailto:christian@tulane.edu)  
504.909.3905 (m)

[engage.tulane.edu](http://engage.tulane.edu)  
t: [engagetulane](https://www.tulane.edu/engage)