



PETER BAKER

 meet the
physician

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You care for women with gynecologic cancers. How have the surgical treatment options expanded and improved for women over the last several years?

The introduction of da Vinci robotic-assisted surgery for gynecological surgeries has greatly improved the care and outcomes for our patients. Women diagnosed with ovarian, cervical, or endometrial cancers who are recommended for surgery are now able to have the procedure done minimally invasively. The robotic surgeries provide the same outcomes as traditional surgery, but with minimal pain. Following surgery, our patients can usually return to the comfort of their home within 24 hours for recovery.

One area of research that you're focused on is the use of precision medicine treatment. How is precision medicine providing new treatment options to women with ovarian and uterine cancers?

As we better understood the genetic landscape of disease over the past

5-10 years, precision medicine has expanded dramatically. We are now able to provide patients with personalized therapy that specifically targets their tumor's exact mutations. I believe a major advantage for our patients at Smilow Cancer Hospital and our Care Centers is that each of them receives genetic analysis of their tumor tissue before treatment is planned; this analysis allows the care team to decide the best course of treatment, whether it be targeted therapy or immunotherapy, because we have specifically identified the tumor type and matched it to the therapy it will best respond to. This personalized path of treatment planning has considerably changed outcomes for our patients with metastatic, refractory, and aggressive disease.

In addition to new treatment options, your lab is also studying the genetic origins of these cancers. What progress has been made?

My laboratory team is studying the genetic signature of gynecologic cancers and creating models of the diseases in the lab. We're working to create signature tumor types, which will enable us to treat a tumor in the lab to validate a specific treatment type in advance of patient care. By validating treatments before we prescribe them to a patient, we will have the pre-clinical data to show the treatment's success on a particular tumor type.

Our team is also taking advantage of the genetic biology of the disease by studying the use of circulating tumor DNA - by looking for tumor DNA in patient's blood samples - to monitor a patient's response to treatment and possible relapse.