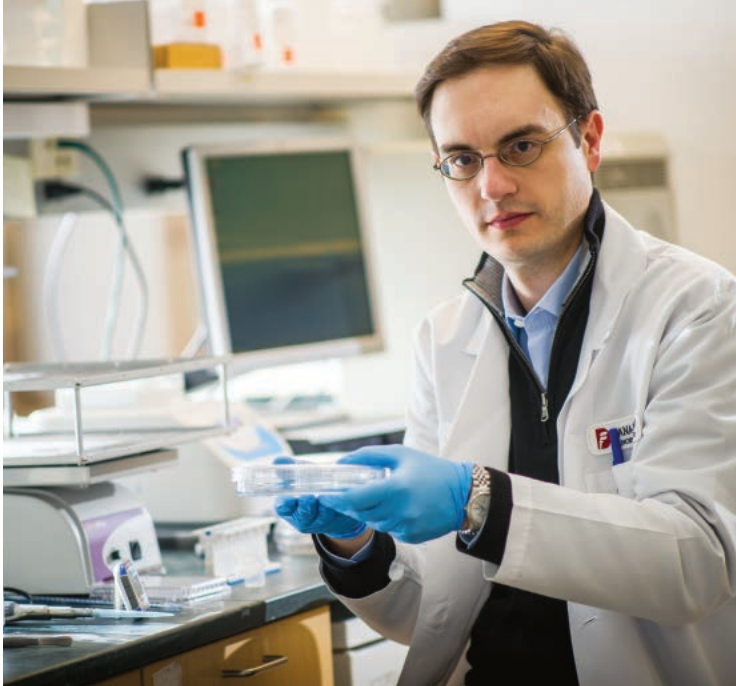




Bench and Bedside Can Be Very Close

A Conversation with
Panos Konstantinopoulos, MD, PhD

Interview by Christine Hensel Triantos

Panos Konstantinopoulos, MD, PhD, is an example of a physician-scientist who pushes the frontier of research while also offering compassionate care to his patients. He divides his time between the clinic and the laboratory, where he works to improve diagnostic and treatment options for women with epithelial ovarian cancer, the most common type of the disease. Here, he explains what we need to learn about ovarian cancer, and why research like his is so promising.

What drew you to oncology?

More than any other medical field, oncology combines laboratory and clinical efforts. From a very early point in my life, I wanted to take care of patients while at the same time trying to move the science forward.

What do we still need to learn about ovarian cancer?

We are discovering that ovarian cancer is not one disease, but several different types. While we have been able to identify specific subtypes of other cancers, such as breast and lung, we are at an earlier stage with ovarian cancer.

Right now, all patients who are diagnosed with ovarian cancer get the same type of chemotherapy. I am involved in research to try to identify molecular subtypes based on DNA repair pathways that might be altered

or defective. Using this information, we hope to target tumors accordingly and find drugs that work for that particular pathway.

What other cutting-edge research are you involved in?

I'm trying to understand how tumors become resistant to the types of chemotherapies we are using. About 50 to 70 percent of ovarian cancer patients go into remission after surgery and chemotherapy, but for 70 percent of them, the cancer comes back. When we treat these patients with the same types of chemotherapy we used initially, drugs often stop working. The question is, how? I have identified one pathway that might be causing this resistance: the Keap1 NRF2 pathway. Our goal is to find a way to target this pathway and others, so we can overcome resistance to these chemotherapies.

I'm also exploring why tumors become resistant to PARP inhibitors, which are very promising drugs, and am researching novel drug combinations in ovarian cancer.

How does your time in the lab influence your approach to treating patients?

I think I'm a better clinician because I am at the same time a researcher. In my mind, the bench and bedside are very close. And I am in great company. In a sense, all my colleagues are physician-scientists. We try to meaningfully improve lives not just for our patients, but all cancer patients.