

Graduate Cancer Community @ Illinois Presents: Dr. John Katzenellenbogen

## Thursday February 12 12:00 - 1:00 p.m.

Medical Sciences Building Auditorium 506 South Mathews Avenue Urbana, IL 61801

## Breast Cancer: Probing a Hormone-Regulated Cancer to Understand and Predict Why Targeted Therapies Often Fail

It was recognized by Sir George Beatson more than a century ago that some hormonal substance from the ovary was driving many breast cancers. This led to the use of ovariectomy as the first "targeted therapy" for any cancer, which proved remarkably successful but only in about one-third of the cases. Despite many advances over the past 100 years in our understanding the nature of cancer and the means by which some cancers are hormone regulated, however, we are still trying to find better ways to identify that third of breast cancer patients who are most likely to respond to the many types of endocrine therapy now available for breast cancer. From this historical perspective, I will describe the discovery of steroid hormone receptors, including the estrogen receptor, the development of anti-estrogens and aromatase inhibitors, the methods for assessing the potential responsiveness of breast cancers to endocrine therapies, and the modes of resistance to these therapies. I will present my own work on developing ways to image receptors and receptor function in breast tumors by positron emission tomography.

Lunch will be provided for seminar attendees. If you would like to know more about our program or future events, feel free to contact us at <u>cancer-community@illinois.edu</u> or visit <u>http://publish.illinois.edu/cancercommunity/</u>.

This seminar is part of the Graduate Cancer Community @ Illinois program. Seminars are supported through funding provided by the Graduate College Focal Point initiative. For more information about cancer initiatives on the Illinois campus, please visit http://cancer.illinois.edu.