In addition to their role in hemostasis, platelets serve as a circulating reservoir of over 30 key angiogenic and metastatic proteins. The platelet protein storage pool represents the largest available reservoir of proteins that can stimulate or inhibit tumor growth. These proteins are released during the process of platelet activation and platelet activation and deposition is seen in the tumor microenvironment. Studies conducted in Dr. Holmes' laboratory as well as others suggest pro-angiogenic and anti-angiogenic protein release from platelets can be selectively regulated. Dr. Holmes will discuss the influence of key platelet activation pathways on platelet protein release and the processes of angiogenesis and metastasis using cellular models. In addition, she will present data from her recent clinical studies in patients with breast cancer that suggest anti-platelet therapy may play a pivotal role in both the cancer prevention and treatment setting.