

Breast Cancer and Stem Cells



Sue McCollum with Dr. Scheeren

Ferenc Scheeren, PhD, is a postdoctoral fellow in the laboratory of Michael F. Clark, MD. Seed funding through **My Blue Dots** is supporting his research on breast stem cells as a molecular and genetic level. Dr. Scheeren is investigating whether breast tumors develop in a process that mirrors the development of normal breast tissue. Knowing more about the molecular processes would offer opportunities to look for therapeutic interventions.

Dr. Scheeren is also researching proteins expressed on the surface of breast cells. His focus on specific surface proteins allows him to be able to isolate and purify subsets of breast cells, such as breast stem cells and more differentiated breast cells. Substances that can either activate or block the surface protein aid the study of these surface proteins. Currently, he is determining the effects of a blocking antibody that is part of the body's immune response and that induces cell death. His next step will be to test this for breast cancer in a mouse model. If Dr. Scheeren were successful in demonstrating in animal models that this antibody is a potential new therapy for breast cancer, he would then be able to test it with patients in clinical trials.