GRANT RECIPIENT: Gregorio Gil, PhD (Profile)
VCU MASSEY CANCER CENTER

GRANT RECIPIENT: Bhaumik Patel, MD (Profile)
VCU MASSEY CANCER CENTER

PROJECT: Colorectal Cancer Research and Clinical Trials

Project Details: The awarded Swim Across America grant funding is being utilized in an ongoing project investigating the role of protein that transports cholesterol within the cell, StarD5, in the growth of colorectal cancer. Earlier studies indicated that StarD5 is expressed at very low levels in normal tissue; however, it is expressed at much higher levels in colorectal cancer. Dr. Gil’s lab discovered that the expression of StarD5 is selectively increased in cancer stem cells, which are cancer cells found within tumors and possess the ability to reproduce themselves and sustain the growth of the tumor. While the intended outcome of many anti-cancer drugs is to shrink tumors, developing drugs that can also kill the cancer stem cells would decrease the chances that the tumor will grow back. Hence, StarD5 could be a novel and selective target for anti-cancer therapy that kills colorectal cancer stem cells. Further, the data generated and the questions answered utilizing the funds provided for this pilot project will allow Dr. Gil and Dr. Patel to successfully compete for additional funding and advance this research towards the long-term goal—developing selective anti-cancer drugs against targets (ie, StarD5) that provide maximum cancer cell killing potential while also producing minimal to no toxicity, thus achieving long-term remission for patients.