



Team Progress Updates

SU2C Multiple Myeloma Dream Team:

“Screening and Interception of Precursor Myeloma”



This project involves what is believed to be the first large-scale population survey in the United States for precursor conditions of multiple myeloma—specifically, conditions called monoclonal gammopathy of undetermined significance (MGUS) and smoldering multiple myeloma (SMM).

Blood samples from approximately 50,000 people, recruited largely through social media, are being analyzed to identify those who have the precursor conditions, which cause no symptoms and are usually detected only when a physician orders a blood test for another reason.

Because it is unclear how to tell whether someone with MGUS or SMM will progress to full-blown multiple myeloma, the Dream Team is following those with the precursor conditions and using the samples to discover biomarkers that will help predict those with a high risk of progressing. The team is also working to develop treatments for high-risk SMM and multiple myeloma.

The team has reported the following progress:

January 2019

- The team is building a screen-detected cohort of subjects with MGUS/SM at risk for progression to MM called Predicting Progression of Developing Myeloma in a High-Screened Population (PROMISE). With anticipated rates of progression of MGUS to MM of 1%/year and SM to MM of 10%/year, some 50,000 screened subjects will be needed to secure 3000 participants.
- As the risk for MM is substantially greater among African-Americans in the United States, the PROMISE study will prioritize recruitment of African-Americans over 45 years of age, as well as people with a first degree relative with MM. To accrue the PROMISE cohort, website/social media platforms have been created.
 - To date, 903 eligible candidates have registered on the website, with kits being sent out now.
- The team developed new a new delivery technology for drugs that are currently being used to treat myeloma, including bortezomib, dexamethasone, and pomalidomide. Their laboratory studies indicate that these new forms are effective in killing the cancer cells.

