



## 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.

#### January 2021

- 3,024 individuals have enrolled in the PROMISE Study. Of these, 1,840 screening kits have been returned.
- The Team initiated the 50/500 championship program (50 states with 500 participants per state) with the goal of opening PROMISE as a multi-site study in at least one academic research center or medical center in each state, enrolling at least 500 participants per site.
- The Team has developed “Myeloma Care,” a positive cohort follow-up program

#### June 2020

- The Team has made progress in turning the PROMISE trial into a multi-site study.
- The Team launched our PROMISE Study Ambassador (PSA) program in January 2020 which is a way for those in the community to become involved with the study.
- They have expanded their team to facilitate recruitment efforts, including adding a recruitment specialist.

#### January 2020

- The Team has recruited 2,584 individuals, 10.5% of which identify as being of African descent.
- The Team has developed a task force to work on our recruitment efforts for African Americans.





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- The Team is developing novel nanoparticles for imaging and therapy and a vaccine clinical trial for smoldering myeloma.

### June 2019

- The Team initiated the PROMISE study and has recruited over 1,500 individuals.
- The Team developed material for publication, social media events, and created advertisement and methods of recruitment including working closely with SU2C.
- The genomic risk factors in smoldering myeloma that will be applied to the PROMISE cohort were defined.
- The methods for single cell RNA sequencing of bone marrow niche cells that will be applied to the PROMISE cohort were developed.

### 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.