Section: Contact Information

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Section: Project Requirements and Description

Group: Requirements to submit AOI

A comprehensive review of previously published data has been completed. : **Yes** The specific aims are clear and focused. : **Yes**

The investigator has appropriate experience and expertise to develop the concept proposal; if not, has identified a mentor or senior co-investigator. : **Yes**

The investigator agrees to develop an initial draft of the concept proposal within 6 weeks of approval of the AOI and to finalize the concept proposal within 6 months. : **Yes**

Project Title: Overall and Cardiac-Specific Survival Following Serious Cardiovascular Events in Childhood Cancer Survivors

Planned research population (eligibility criteria):

CCSS baseline & expanded cohorts, and siblings. Data through FU5.

Proposed specific aims:

AIM 1: Among childhood cancer survivors (CCS) who self-report cardiomyopathy/heart failure (CHF), coronary artery disease (CAD), and stroke, assess the long-term survival following the respective diagnosis of these cardiovascular conditions compared with siblings with similar conditions.

Hypothesis: Overall survival in CCS following the development of one of these serious cardiovascular (CV) conditions will be lower compared with siblings affected by the same condition.

Hypothesis: Even after accounting for competing causes of death, cardiacspecific survival in CCS following the development of one of these serious CV conditions will remain lower in CCS vs. siblings affected by the same condition.

AIM 2: Among CCS affected by one of the serious CV conditions, overall survival and cardiac-specific survival will be differentially influenced by prior cancer

treatment exposures.

Hypothesis: Compared with CCS without a history of radiation (to head, neck, or chest) or anthracycline chemotherapy, those exposed will have lower overall survival and cardiac-specific survival.

Hypothesis: Compared with siblings, CSS without a history of radiation (to head, neck, or chest) or anthracycline chemotherapy will have similar cardiac-specific survival.

Exploratory: Based on the chronic condition CTCAE grading system, describe and compare the latency and timing of CHF (grades 2->5), CAD (grades 3->5), and stroke (grades 4->5) progression from lower to higher grades among CCS and siblings.

Will the project require non-CCSS funding to complete? : No

If yes, what would be the anticipated source(s) and timeline(s) for securing funding? :

Group: Does this project require contact of CCSS study subjects for:

Additional self-reported information : No

Biological samples : **No** Medical record data : **No**

If yes to any of the above, please briefly describe. :

Group: What CCSS Working Group(s) would likely be involved? (Check all that apply)

Second Malignancy:

Chronic Disease: **Secondary**Psychology / Neuropsychology:

Genetics:

Cancer Control:

Epidemiology / Biostatistics : Primary

Section: Outcomes or Correlative Factors

Late mortality : **Primary** Second Malignancy :

Group: Health Behaviors
Tobacco: Correlative Factors

Alcohol : Correlative Factors

Physical activity: Correlative Factors
Medical screening: Correlative Factors

Other:

If other, please specify: **Group: Psychosocial**

Insurance: Correlative Factors Marriage: Education: **Employment:** Other: If other, please specify: **Group: Medical Conditions** Hearing/Vision/Speech: Hormonal systems: Heart and vascular: Primary Respiratory: Digestive: Surgical procedures: Brain and nervous system: Other: If other, please specify: **Group: Medications** Describe medications: Group: Psychologic/Quality of Life BSI-18: SF-36: CCSS-NCQ: PTS: PTG: Other: If other, please specify: Group: Other Pregnancy and offspring: Family history: Chronic conditions (CTCAE v3): Primary Health status: Group: Demographic Age: Correlative Factors Race: Correlative Factors Sex: Correlative Factors Other:

Group: Cancer treatment

If other, please specify:

Chemotherapy: Correlative Factors
Radiation therapy: Correlative Factors

Surgery:

Section: Anticipated Sources of Statistical Support

CCSS Statistical Center: Yes Local institutional statistician:

If local, please provide the name(s) and contact information of the statistician(s) to be involved. :

Will this project utilize CCSS biologic samples? : No

If yes, which of the following?:

If other, please explain:

Section: Other General Comments

Other General Comments:

It is possible that the number of siblings affected by the target CV conditions will be too few to allow for stable estimates / comparisons. If that is the case, then we can discuss whether the AOI should be withdrawn or wait until FU7 data become available. It is possible that a survivor-only analysis could still be done, but lack of a non-cancer comparison group may dilute its impact.

I agree to share this information with St. Jude: Yes