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: Sleep in Long-term Cancer Survivors Relative to Siblings: Cross-sectional Comparison and Longitudinal Follow-up.

Planned research population (eligibility criteria):

Sleep disturbances are common across the continuum of cancer treatment (Lee et al., 2004; Ancoli-Israel et al., 2001), posing a significant threat to health and quality of life for long-term survivors. Our prior work with the CCSS Cohort indicates that survivors report significantly more clinically significant symptoms of insomnia, daytime sleepiness, and sleep-related supplement than siblings (Daniel et al., 2019). Survivors who reported poor sleep were also at risk for increasing or persistent emotional distress and more likely to develop migraines over time. This cross-sectional analysis of the sleep data reported in a subset of the CCSS cohort, warrants follow-up in the full cohort as compared to siblings. Furthermore, because sleep concerns increase with age (Buysee et al., 2008), it is important to understand if survivors who identified sleep concerns in Follow-up 2 continue to have sleep concerns at Follow-up 6 at rates similar to sibling controls or whether cancer history predisposes survivors for an increased risk of sleep concerns.

The goals of the current project are two-fold: (1) Examine the rates of sleep disturbances in the full CCSS cohort compared to siblings cross-sectionally from Follow-up 6 data and (2) Evaluate the persistence of sleep disturbances longitudinally between Follow-up 2 and Follow-up 6, an approximately 17-year follow-up time frame.

Proposed specific aims:

1. Compare survivor sleep (total sleep time, sleep efficiency, sleep quality, symptoms of sleep disordered breathing, sleep medication use, daytime sleepiness) and fatigue to sibling controls. Determine demographic and disease related correlates of late onset/persistent sleep disturbances.

- 2. In subset of survivors and siblings who participated in sleep survey:
- a. Determine the trajectory of sleep problems and fatigue from the 2001 Sleep survey to follow-up 6.
- b. Test the relationship between persistence of sleep disturbances (e.g., total sleep time, sleep quality, sleepiness) and fatigue with psychosocial morbidity and relevant new onset health conditions (e.g., hypertension, migraines/headaches, second malignant neoplasms).

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 : **Yes**

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

Diagnosis, treatments received, new onset health conditions (hypertension, migraines/headaches, second malignant neoplasms)

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

Second Malignancy : **Secondary** Chronic Disease : **Secondary**

Psychology / Neuropsychology : Primary

Genetics:

Cancer Control:

Epidemiology / Biostatistics:

Section: Outcomes or Correlative Factors

Late mortality:

Second Malignancy: Secondary

Group: Health Behaviors

Tobacco: Alcohol:

Physical activity:
Medical screening:

Other:

If other, please specify:

Group: Psychosocial

Insurance :
Marriage :
Education :
Employment :
Other :

If other, please specify:

Group: Medical Conditions

Hearing/Vision/Speech:

Hormonal systems:

Heart and vascular: Secondary

Respiratory:
Digestive:

Surgical procedures:

Brain and nervous system: Secondary

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): Secondary

Health status:

Group: Demographic

Age: Correlative Factors

Race: Correlative Factors

Sex: Correlative Factors

Other:

If other, please specify:

Group: Cancer treatment

Chemotherapy : Correlative Factors
Radiation therapy : Correlative Factors

Surgery: Correlative Factors

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:

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