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 : **Examining the Associations between Frailty and Sleep in Long-Term Survivors of Childhood Cancer**
Planned research population (eligibility criteria) :
Eligibility Criteria
Aim 1: We plan to utilize existing data from the CCSS Cohort
• Survivors who completed surveys FU5 and FU6

Aim 2: We plan to collect new data from 150 survivors who meet the following criteria:
• Diagnosis group: CNS tumors (n=50), non-CNS solid tumors (n=50), or leukemia (n=50)
• Completed FU5 or FU6 long survey
• Smartphone (Android or IOS)
If feasible, we intend oversample frail/pre-frail survivors among each diagnosis group (Aim 3):
• CNS tumor survivors (n=25 frail/pre-frail; n=25 non-frail)
• Non-CNS solid tumor survivors (n=25 frail/pre-frail; n=25 non-frail)
• Leukemia survivors (n=25 frail/pre-frail; n=25 non-frail)
Proposed specific aims :
Aim 1: To examine associations between the Fried frailty phenotype (frail, pre-fail, non-frail) and dimensions of self-reported sleep (i.e. sleep quality, sleep duration, sleep timing, snoring, wake after sleep onset, sleep onset latency, and sleep efficiency).

Aim 2: In a sub-sample from the CCSS cohort (CNS tumors, non-CNS solid tumors, leukemia), to further classify sleep disturbances by obtaining additional self-reported and objective measures of sleep (i.e., sleep behaviors, insomnia, sleep-disordered breathing, daytime sleepiness).

Aim 3: In this sub-sample of survivors, to examine associations between frailty and sleep disturbances.

Will the project require non-CCSS funding to complete? : **Yes**

If yes, what would be the anticipated source(s) and timeline(s) for securing funding? :
I plan to apply for the CCSS Career Development Award for the funding needed to complete additional data collection in a sub-sample of approximately 150 survivors (Aims 2 and 3).

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

Additional self-reported information : **Yes**

Biological samples : **No**

Medical record data : **No**

If yes to any of the above, please briefly describe. :
If the proposed project receives funding support, we plan to collect additional self-reported sleep measures (ISI, ESS, SHAPs) and an objective measure of sleep-disordered breathing, which can be measured remotely via a disposal device and mobile app (WatchPat One).

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

Second Malignancy :

Chronic Disease : **Secondary**

Psychology / Neuropsychology : **Primary**

Genetics :

Cancer Control :

Epidemiology / Biostatistics : **Secondary**

Section: Outcomes or Correlative Factors

Late mortality :

Second Malignancy :

Group: Health Behaviors

Tobacco : **Correlative Factors**

Alcohol : **Correlative Factors**

Physical activity : **Correlative Factors**

Medical screening :

Other :

If other, please specify :

Group: Psychosocial

Insurance : **Correlative Factors**

Marriage : **Correlative Factors**

Education : **Correlative Factors**

Employment : **Correlative Factors**

Other :

If other, please specify :

Group: Medical Conditions

Hearing/Vision/Speech :
Hormonal systems :
Heart and vascular :
Respiratory :
Digestive :
Surgical procedures :
Brain and nervous system :
Other : **Correlative Factors**
If other, please specify : **Frailty**

Group: Medications

Describe medications :

Group: Psychologic/Quality of Life

BSI-18 :
SF-36 : **Correlative Factors**
CCSS-NCQ :
PTS :
PTG :
Other : **Primary**
If other, please specify : **Sleep Disturbances**

Group: Other

Pregnancy and offspring :
Family history :
Chronic conditions (CTCAE v3) : **Correlative Factors**
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 have identified a mentorship team with expertise in sleep and frailty to provide support for this study, Dr. Kevin Krull, Dr. Tara Brinkman, and Dr. Kiri Ness.

I plan to submit this proposal for consideration of the CCSS Career Development Award.
I agree to share this information with St. Jude : **Yes**