## *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 : **The Impact of Physical Activity and Psychological Distress on Neurocognitive Functioning Over Time: A Report From the Childhood Cancer Survivor Study**
Planned research population (eligibility criteria) :
**The planned research population will be the original cohort of the Childhood Cancer Survivor Study. This will include survivors who were diagnosed with any cancer prior to the age of 21, treated between 1970 and 1986 at 26 institutions across the United States and Canada, and survived for at least 5 years post-diagnosis. Participants must have completed surveys at baseline, FU2, and FU5.**
Proposed specific aims :
**Aim 1: To assess the cross-sectional direct and indirect relationships between physical activity, psychological distress, and neurocognitive functioning among long-term survivors of pediatric cancer.**
**H1.1: Greater physical inactivity will be associated with greater psychological distress and worse cognitive functioning.**
**H1.2: Psychological distress will mediate the relationship between physical activity and neurocognitive functioning.**

**Aim 2: To examine the stability of and transactional processes between physical activity, psychological distress and neurocognitive functioning.**
**H2.1: Physical activity, psychological functioning, and neurocognitive functioning will all demonstrate subtle declines over time.**
**H2.2: Physical activity at baseline will predict psychological distress and neurocognitive functioning at all follow-up time points.**

**H2.3: Psychological distress at baseline and follow-up 2 will mediate the association between physical activity and neurocognitive functioning at follow-up 2 and follow-up 5.**

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 :

Psychology / Neuropsychology : **Primary**

Genetics :

Cancer Control :

Epidemiology / Biostatistics : **Secondary**

## *Section: Outcomes or Correlative Factors*

Late mortality :

Second Malignancy :

### *Group: Health Behaviors*

Tobacco :

Alcohol :

Physical activity : **Secondary**

Medical screening :

Other :

If other, please specify :

### *Group: Psychosocial*

Insurance : **Correlative Factors**

Marriage :

Education : **Correlative Factors**

Employment :

Other :

If other, please specify :

### *Group: Medical Conditions*

Hearing/Vision/Speech :

Hormonal systems :

Heart and vascular : **Correlative Factors**

Respiratory : **Correlative Factors**

Digestive :

Surgical procedures :

Brain and nervous system : **Correlative Factors**

Other :
If other, please specify :

### *Group: Medications*

Describe medications :

### *Group: Psychologic/Quality of Life*

BSI-18 : **Primary, Secondary**
SF-36 :
CCSS-NCQ : **Primary**
PTS :
PTG :
Other :
If other, please specify :

### *Group: Other*

Pregnancy and offspring :
Family history :
Chronic conditions (CTCAE v3) :
Health status : **Correlative Factors**

### *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 :
**This application of intent is associated with an application to the CCSS Career Development Trainee Award. Although a statistician has not yet been identified from my home institution, I will receive support for this project from my primary mentor, Dr. Kristina Hardy, who has previous experience with the CCSS.**
I agree to share this information with St. Jude : **Yes**