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: Cognitive and Behavioral Outcomes in Adolescent Survivors of Neuroblastoma

Planned research population (eligibility criteria):

CCSS neuroblastoma survivors diagnosed from 1970 to 1999 who participated in the Baseline < 18 survey, along with sibling controls who participated in the Baseline < 18 survey.

Proposed specific aims:

Advances in treatment for pediatric neuroblastoma has resulted in the increase of 5-year overall survival from 46% to 71% from 1975 to 2005. During this time, standard of care for high-risk patients has intensified including increased doses of multiagent chemotherapy for induction, myeloablative dosing with autologous stem cell transplantation for consolidation, and introduction of retinoid compounds. This population may be susceptible to cognitive/behavioral late effects because of increasing treatment intensity at a particularly young age. Large cohort studies examining the long-term cognitive/behavioral effects of treatment are unavailable as the increase in neuroblastoma survivors is a more recent development secondary to these changes in treatment. The CCSS is an optimal and informative sample because there is uniform ascertainment of these measures with standardized instruments in patients who were diagnosed during two different eras of treatment. Our aims are to:

- (1) Characterize overall patterns and severity of cognitive and behavioral difficulties in long-term survivors of neuroblastoma, as measured by standardized instruments and use of special education services
- (2) Examine change in cognitive and behavioral problems across decades of diagnoses (1970-79 vs. 1980-89 vs. 1990-99) in long-term survivors of neuroblastoma.
- (3) Identify demographic and treatment related predictors of cognitive and behavioral problems in long-term survivors of neuroblastoma.

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:

Section: Outcomes or Correlative Factors

Late mortality:

Second Malignancy:

Group: Health Behaviors

Tobacco:

Alcohol:

Physical activity:

Medical screening:

Other:

If other, please specify:

Group: Psychosocial

Insurance:
Marriage:

Education : Secondary
Employment : Secondary

Other:

If other, please specify:

Group: Medical Conditions

Hearing/Vision/Speech : Correlative Factors

Hormonal systems: Heart and vascular:

Respiratory:
Digestive:

Surgical procedures:

Brain and nervous system:

Other: Secondary

If other, please specify: Neuropathy

Group: MedicationsDescribe medications:

Group: Psychologic/Quality of Life

BSI-18 : SF-36 :

CCSS-NCQ:

PTS:

Other: Primary

If other, please specify: **Behavior Problem Index (BPI)**

Group: Other

Pregnancy and offspring:

Family history:

Chronic conditions (CTCAE v3):

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 am currently a 4th year Yale medical student, and have identified Dr. Nina Kadan-Lottick and Dr. Kevin Krull as my mentors and senior co-investigators. We have had preliminary discussions about this project, and they are both committed and supportive.