

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 Role of Developmental Status in the Dose-Response Relationship of Cardiac Radiation and Late Cardiac Toxicities in Long-Term Survivors of Childhood Cancer**

Planned research population (eligibility criteria) :

All patients from the original cohort and their siblings, with a focus on those who have received radiotherapeutic treatment for a primary childhood malignancy of any type, who subsequently developed a documented cardiovascular condition as defined by the CTCAE criteria. The population will be broken into two subgroups; a group with mild (grade 1) or moderate (grade 2) cardiac disease and a group with severe (grade 3), life-threatening (grade 4), or fatal (grade 5) disease.

Proposed specific aims :

1) Compare the dose-response relationship between cardiac radiation and the development of grade 1-2 and grade 3-5 late cardiac toxicities among groups of children at varying ages of initial diagnosis to identify ages of highest risk for late cardiac toxicity development.

2) Describe the dose-response relationship between cardiac radiation and the development of specific common cardiac conditions of adulthood (congestive

heart failure, myocardial infarction, valvular disease, etc) among the cohort at large and among specific age groups using similar methods as described in Specific Aims 1 and 2.

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 : **Primary**

Psychology / Neuropsychology :

Genetics :

Cancer Control :

Epidemiology / Biostatistics : **Secondary**

Section: Outcomes or Correlative Factors

Late mortality : **Secondary**

Second Malignancy :

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 :

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 :

Sex :

Other :

If other, please specify :

Group: Cancer treatment

Chemotherapy :

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 :

My senior mentor for this project will be Dr. Louis S. Constine with additional support from Dr. Sughosh Dhakal, both of the Department of Radiation Oncology at the University of Rochester Medical Center.