Received: 11.19.2010
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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

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Project Title: The effect exercise has on preventing late cardiac outcomes among childhood cancer survivors treated with anthracyclines
Planned research population (eligibility criteria): Survivors previously treated with anthracyclines; no history of radiation with potential impact to the heart; answered the 2007 follow-up survey; *note that sibling controls will also be used for this analysis
Proposed specific aims: We are interested in determining what fraction of early cardiac outcomes among childhood cancer survivors treated with anthracyclines could be prevented by improving physical fitness among this population. Using data from the CCSS, we will attempt to decompose the total, direct, and indirect cardiac effects of anthracycline use among long term childhood cancer survivors. Anthracyclines are cardiotoxic, but part of their effect may occur because a cancer diagnosis also influences exercise deconditioning, a known risk factor for many cardiac outcomes. Within this framework, the effect of anthracyclines on the outcome, excluding all effects of exercise deconditioning, is the direct effect. The indirect effect is the effect of anthracycline exposure explained by subsequent exercise deconditioning. The indirect and direct effects together form the total effect of anthracycline exposure on the outcome. The aim is to estimate how important the mechanism of exercise deconditioning is relative to the total effect of anthracycline cardiotoxicity in order to determine the relative importance exercise interventions may be in survivors previously exposed to anthracyclines.
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?:

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.:

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

Second Malignancy:
Chronic Disease: Secondary
Psychology / Neuropsychology:
Genetics:
Cancer Control:
Epidemiology / Biostatistics: Primary

To describe the anticipated scope of the study, please indicate the specific CCSS data to be included as outcome (primary or secondary) or correlative factors. (Check all that apply)

Late mortality:
Second Malignancy:

Health Behaviors

Tobacco:
Alcohol:
Physical activity: Primary
Medical screening: Correlative Factors
Other:
If other, please specify:

Psychosocial

Insurance: Correlative Factors
Marriage: Correlative Factors
Education: Correlative Factors
Employment: Correlative Factors
Other:
If other, please specify:

Medical conditions

Hearing/Vision/Speech:
Hormonal systems:

Heart and vascular: Primary
Respiratory:
Digestive:
Surgical procedures:
Brain and nervous system:
Other:
If other, please specify:

Medications

Describe medications: Heart medications will be used in defining outcome

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Pregnancy and offspring: Correlative Factors
Family History: Correlative Factors

Psychologic/Quality of Life

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

Chronic conditions (CTCAE v3): Correlative Factors
Health status: Correlative Factors

Demographic

Age: Correlative Factors
Race: Correlative Factors
Sex: Correlative Factors
Others:
If others, please specify:

Cancer treatment

Chemotherapy: Correlative Factors
Radiation therapy: Correlative Factors
Surgery: Correlative Factors

Anticipated sources of statistical support

CCSS Statistical Center:
Local institutional statistician: Yes
If local, please provide the name(s) and contact information of the statistician(s) to be involved.: Ann Mertens, PhD - Ann.Mertens@choa.org Harland Austin, DSc - haustin@emory.edu
Will this project utilize CCSS biologic samples?: No

If yes, which of the following?

Buccal cell DNA:
Peripheral blood:
Lymphoblastoid cell lines:
Second malignancy pathology samples:
Other requiring collection of samples:
If other, please explain:

Other general comments: