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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: Evaluation of the intrinsic molecular profiles of radiation-preceded breast cancer
Planned research population (eligibility criteria): Childhood survivors of malignancy treated with radiation including to the chest,who have subsequently developed breast cancer
Proposed specific aims: The objective of this study is to obtain gene expression profiles of breast cancers arising in women treated with radiotherapy as children. 1. The specific aim is to ascertain the intrinsic molecular breast cancer subtype among childhood cancer survivors treated with radiation. 2. Compare the frequency of basal-like intrinsic subtype to that observed in publically available cohorts of sporadic breast cancer. 3.An exploratory subaim will compare gene expression profiles between radiation-preceded CCSS breast cancers and breast cancers from women in databases for differences beyond intrinsic subtype, with particular reference to enrichment of mammary stem cell signatures and the metaprofiles identified from our radiation mammary chimera mouse model.
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: Yes
Medical record data: Yes
If yes to any of the above, please briefly describe.: Slides of breast tumor specimens

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

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

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: Secondary
Second Malignancy: Primary

Health Behaviors

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

Psychosocial

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

Medical conditions

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

Medications

Describe medications:

Pregnancy and offspring:
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: Yes
Local institutional statistician: Yes
If local, please provide the name(s) and contact information of the statistician(s) to be involved.:
Statistician working with Dr. Charles Perou (chuck_perou@med.unc.edu) at the University of North Carolina School of Medicine
Will this project utilize CCSS biologic samples?: Yes

If yes, which of the following?

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

Other general comments: