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#### **Contact Information**

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Project Title Frailty and Risk of Subsequent Neoplasms in Survivors

of Childhood Cancer

#### Planned research population (eligibility criteria)

Survivors enrolled in the CCSS cohort (1970-1999) will be included. Survivors with unknown treatment exposures will be excluded from this analysis.

#### Proposed specific aims

Aim 1. Evaluate the associations of frailty and comorbidity burden with risk of SMNs and SNs in adult survivors of childhood cancer.

- Evaluate the association of frailty (using modified Fried frailty criteria) with risk of SNs (overall, by malignancy status, and by specific SN type).
- Evaluate the association of accumulation of chronic disease (using the Cumulative Illness Rating Scale for Geriatrics, CIRS-G) with risk of SNs (overall, by malignancy status, and by specific SN type).
- Evaluate the association of phenotypic deficit accumulation (using the Deficit Accumulation Index) with risk of SNs (overall, by malignancy status, and by specific SN type).

Aim 2. Evaluate the mediating effects of frailty and chronic disease burden on associations between treatment exposures and SNs in adult survivors of childhood cancer

- Frailty (using modified Fried frailty criteria) and chest radiation and risk of subsequent breast cancer
- Frailty (using modified Fried frailty criteria) and chest radiation and risk of subsequent lung cancer.
- Frailty (using modified Fried frailty criteria) and head/neck/cranial radiation and risk of subsequent malignant thyroid cancer and thyroid adenomas
- Frailty (using modified Fried frailty criteria) and anthracycline treatment and risk of subsequent breast cancer
- Frailty (using modified Fried frailty criteria) and high cumulative alkylating agent exposure (CED > 10,000 mg/m2) and risk of any subsequent malignancy
- Frailty (using modified Fried criteria) and cranial radiation and risk of subsequent glioma and meningioma
- Frailty (using modified Fried criteria) and radiation and risk of subsequent non-melanoma skin cancer
- Frailty (using modified Fried criteria) and radiation and risk of subsequent malignant and benign soft tissue and bone tumors (rhabdomyosarcoma, non-rhabdomyosarcoma soft tissue sarcoma, Ewing/primitive neuroectodermal tumor, osteosarcoma, and malignant peripheral nerve sheath; chondroblastoma, lipoma, enchondroma, non-ossifying fibroma, osteoid osteoma)
- Frailty (using modified Fried criteria) and abdominal radiation and risk of subsequent malignant and benign gastrointestinal tumors

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Will the	proje	ct requi	re non	-CCSS
funding	to co	mplete?	•	

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? (Select all that apply)

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

# **Outcomes or Correlative Factors**

	Primary	Secondary	Correlative Factors
Late Mortality			
Second Malignancy	✓		

#### **Health Behaviors**

	Primary	Secondary	Correlative Factors
Tobacco			✓
Alcohol			
Physical Activity			✓
Medical Screening			
Other			

# If other, please specify

## **Psychosocial**

	Primary	Secondary	Correlative Factors
Insurance			✓
Marriage			
Education			
Employment			
Other			

If other, please specify

#### **Medical Conditions**

	Primary	Secondary	Correlative Factors
Hearing/Vision/Speech			✓
Hormonal Systems			✓
Heart and Vascular			✓
Respiratory			✓
Digestive			✓
Surgical Procedures			
Brain and Nervous System			✓
Other			

If other, please specify

# **Medications**

**Describe medications** 

# Psychologic/Quality of Life

	Primary	Secondary	Correlative Factors
BSI-18			
SF-36			
CCSS-NCQ			
PTS			
PTG			
Other			

If other, please specify

#### Other

	Primary	Secondary	Correlative Factors
Pregnancy and Offspring			
Family History			
Chronic Conditions (CTCAE v3)			<b>√</b>
Health Status			<b>~</b>

#### **Demographic**

	Primary	Secondary	Correlative Factors
Age			✓
Race			✓
Sex			✓
Other			

#### **Cancer Treatment**

	Correlative Factors
Chemotherapy	✓
Radiation Therapy	✓
Surgery	

## **Anticipated Sources of Statistical Support**

CCSS Statistical Center	Yes
Local Institutional Statistician	No

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

#### **Other General Comments**

#### **Agree**

I agree to share this information with St. Jude

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