

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 : **Impact of childhood cancer and treatment on sperm quality**

Planned research population (eligibility criteria) :

Two cohorts of subjects will be recruited for this study: 1) adult survivors of childhood leukemia or lymphoma diagnosed and treated before puberty (Groups A, <14 years old, n=40) and 2) adult survivors of childhood leukemia or lymphoma diagnosed and treated after puberty (Group B, 14-19 years old, n=40). An age-matched group of adult healthy male community volunteers (Group C, n=40) will serve as the comparison group. All subjects will be recruited with strict inclusion and exclusion criteria. Inclusion criteria: all participants must be: 1) over the minimal legal age of 18 years for consenting to participate in a research; 2) below the age of 45 years; 3) have completed treatment for cancer that was diagnosed before the age of 19 years; 4) in remission with respect to their cancer; 5) able to ejaculate by masturbation to provide semen samples; 6) free of additional co-morbidities unrelated to the cancer and cancer treatment that can result in impairment of their fertility status. Exclusion criteria: 1) inability to provide informed consent to participate in a research study.

Proposed specific aims :

1- To investigate the impact of childhood cancers and their therapies on sperm quality in adult survivors.

2- Test the feasibility of enriching sperm with intact chromatin, using the Annexin-V magnetic activated-cell sorting method.

Will the project require non-CCSS funding to complete? : **Yes**

If yes, what would be the anticipated source(s) and timeline(s) for securing funding? :

Current funding: Transition Grant from the Cole foundation (2013-2015): 150,000 CAN\$

Application for funding will be sent to: Fond Recherche en Sant? du Quebec (Sept 2015), Leukemia and lymphoma society (sept 2015), Worlwide Cancer research (oct 2015), Canadian Institutes for Health Research (march 2016)

Group: Does this project require contact of CCSS study subjects for:

Additional self-reported information : **Yes**

Biological samples : **Yes**

Medical record data : **Yes**

If yes to any of the above, please briefly describe. :

This study will require that the participants come to sample collection center (TBD) in order to assess their fertility status by

1- filling up a questionnaire

2- blood sample (for hormonal measurments)

3-sperm sample

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

Second Malignancy :

Chronic Disease : **Primary,Secondary**

Psychology / Neuropsychology :

Genetics :

Cancer Control :

Epidemiology / Biostatistics :

Section: Outcomes or Correlative Factors

Late mortality :

Second Malignancy : **Correlative Factors**

Group: Health Behaviors

Tobacco : **Correlative Factors**

Alcohol : **Correlative Factors**

Physical activity : **Correlative Factors**

Medical screening : **Primary**

Other :

If other, please specify :

Group: Psychosocial

Insurance :

Marriage :

Education :

Employment :

Other :

If other, please specify :

Group: Medical Conditions

Hearing/Vision/Speech :

Hormonal systems : **Primary**

Heart and vascular :

Respiratory :

Digestive :

Surgical procedures :

Brain and nervous system :

Other :

If other, please specify :

Group: Medications

Describe medications :

none

Group: Psychologic/Quality of Life

BSI-18 :

SF-36 :

CCSS-NCQ :

PTS :

PTG :

Other :

If other, please specify :

Group: Other

Pregnancy and offspring : **Primary**

Family history : **Primary**

Chronic conditions (CTCAE v3) : **Primary**

Health status : **Primary**

Group: Demographic

Age : **Primary**

Race :

Sex : **Primary**

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 :