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 Santé 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 :