

## **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 : **Statistical Methods for GWAS Analysis of Recurrent-event Data in Cancer Study**

Planned research population (eligibility criteria) :

**CCSS participants with genetic data**

Proposed specific aims :

**Aim 1: Develop a semiparametric method with proportional mean model for GWAS analysis of recurrent-event data on each SNP, test it by simulation studies and apply it to the CCSS data.**

**Aim 2: Develop a pathway analyses method for recurrent event phenotype/outcome and applied to CCSS data, and validate the results in SJLIFE data.**

**Aim 3: Develop implementation procedures and an R package for the statistical techniques developed in objectives 1 - 2 for the wide application of the research results.**

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? :

**Group: 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. :

**It is a secondary data analysis. Only existing data is needed.**

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

Second Malignancy :

Chronic Disease :

Psychology / Neuropsychology :

Genetics : **Secondary**

Cancer Control :

Epidemiology / Biostatistics : **Primary**

**Section: Outcomes or Correlative Factors**

Late mortality :

Second Malignancy : **Primary**

***Group: Health Behaviors***

Tobacco :

Alcohol :

Physical activity :

Medical screening :

Other :

If other, please specify :

***Group: Psychosocial***

Insurance :

Marriage :

Education :

Employment :

Other :

If other, please specify :

***Group: Medical Conditions***

Hearing/Vision/Speech :

Hormonal systems :

Heart and vascular :

Respiratory :

Digestive :

Surgical procedures :

Brain and nervous system :

Other :

If other, please specify :

**Group: Medications**

Describe medications :

**Group: Psychologic/Quality of Life**

BSI-18 :

SF-36 :

CCSS-NCQ :

PTS :

PTG :

Other :

If other, please specify :

**Group: Other**

Pregnancy and offspring :

Family history :

Chronic conditions (CTCAE v3) :

Health status :

**Group: Demographic**

Age :

Race :

Sex :

Other :

If other, please specify :

**Group: Cancer treatment**

Chemotherapy :

Radiation therapy :

Surgery :

**Section: 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. :

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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 :