

First Name: Philip
Last Name: Lupo
Institution: Baylor College of Medicine
Address 1: One Baylor Plaza
Address 2: MS: BCM305
City: Houston
State/Province: TX
Country: USA
Zip: 77030
Phone: 713-798-2960
Alternate Phone:
Email: Philip.Lupo@bcm.edu

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: Epigenomic Profiling of Metabolic Outcomes in Childhood Leukemia Survivors
Planned research population (eligibility criteria): Acute lymphoblastic leukemia (ALL) survivors with DNA and genome-wide SNP array data (aim 2).

Proposed specific aims: 1. Determine if gene-specific DNA methylation status is associated with metabolic outcomes in ALL survivors by conducting genome-wide DNA methylation profiling
2. Identify genomic loci that play a direct role in metabolic outcomes by conducting an integrative network-based association study (INAS), which involves the joint analysis of the epigenetic and genetic data

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?:

Institutional funds. CCSS Career Development Award (11/2012). R01 (2013-2014).

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? (Check all that apply)

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

Health Behaviors

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

Psychosocial

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

Medical conditions

Hearing/Vision/Speech:
Hormonal systems:
Heart and vascular: Secondary
Respiratory:
Digestive:
Surgical procedures:
Brain and nervous system:
Other:
If other, please specify: Primary outcomes: obesity (body mass index), diabetes (medication), hypertension (medication), dyslipidemia (medication)

Medications

Describe medications: Medications for diabetes/insulin resistance, hypertension, and dyslipidemia

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):
Health status:

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:
Local institutional statistician: Yes
If local, please provide the name(s) and contact information of the statistician(s) to be involved.:
Having been trained in biostatistics and epidemiology and having experience with the analyses to be conducted, I will take the lead on all statistical analyses.
Will this project utilize CCSS biologic samples?: Yes

If yes, which of the following?

Buccal cell DNA: Yes

Peripheral blood: Yes

Lymphoblastoid cell lines:

Second malignancy pathology samples:

Other requiring collection of samples:

If other, please explain:

Other general comments: For aim 2 of the proposed project, we will leverage the genome-wide SNP array data as part of Dr. Kala Kamdar's CCSS project entitled "Genetic Polymorphisms and Metabolic Outcomes in Childhood Leukemia Survivors" to conduct an integrative network-based association study (INAS), which involves the joint analysis of the epigenetic and genetic data to identify loci that play a direct causal role in metabolic outcomes. This project will not compete or conflict with Dr. Kamdar's project. Further, Dr. Kamdar is a collaborator on this project, and I will work closely with her in the interpretation of the results.