New York State Department of Health
Prostate and Testicular Cancer Research and Education Fund

2022 Report

Background

The New York State Prostate and Testicular Cancer Research and Education Fund (the Fund) was created as a result of an amendment to State Finance Law (SFL) §95-e, enacted as part of the 2014-15 State budget. The law authorized the Commissioner of Health to provide grants for the purpose of advancing and financing prostate and testicular cancer research, support programs and education projects, using the revenues received as part of the Fund. Available funding to support this initiative is limited to the amount(s) appropriated in the enacted State Fiscal Year budgets and as set by the New York State Division of Budget.

State Finance Law requires the Commissioner of Health to provide an annual report describing how monies from the fund were used in the prior calendar year. The following is a description of activities conducted in 2022 by grantees awarded grants supported by the Fund.

Solicitation of Interest (SOI) and Awards for Prostate Cancer Research Grants for National Cancer Institute (NCI)-Designated Cancer Centers Located in New York State (NYS)

The Department of Health awarded grants via a Solicitation of Interest to six NCI-designated Cancer Centers (listed below) for a two-year contract period, beginning June 1, 2021, and ending May 31, 2023; these six had responded to a Solicitation of Interested (SOI) released in 2019. The intent of the SOI was to maximize the potential impact and reach of the funding to advance research into prostate cancer to address its heavy burden on New Yorkers, and in particular those New Yorkers disproportionately impacted by this disease. The noncompetitive procurement sought to make awards in sufficient values to support hypothesis-generating research to NYS institutions with experienced principal investigators and the infrastructure to meet the intent of the grant funding. Hypothesis development is an important phase of the research process in which evidence is gathered to develop new research questions that inform future studies and establish the basis for pursuing additional funding opportunities through entities such as the National Institutes of Health, National Cancer Institute, or the Department of Defense. Awardees use the grant funding to make research awards via their internal peer review processes to investigators at or above the level of postdoctoral fellow (or equivalent) to conduct innovative, hypothesis-developing research that is either determined to be no greater than minimal risk, exempt under 32 CFR 219.101(b) or eligible for expedited review under 32 CFR 219.110 or 21 CFR 56.110 by the local Institutional Review Board (IRB) of record.

Grantees

1. Cold Spring Harbor Laboratory Cancer Center, Cold Spring Harbor, NY
2. Herbert Irving Comprehensive Cancer Center, Trustees of Columbia University in the City of New York, Manhattan, NY

3. Laura and Isaac Perlmutter Cancer Center at NYU Langone Health, Manhattan, NY
4. Roswell Park Comprehensive Cancer Center, Buffalo, NY
5. The Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, Manhattan, NY
6. Memorial Sloan-Kettering Cancer Center, Manhattan, NY

Work Plans

Contract work plans require that grantees:

1. Solicit research proposals that meet the SOI criteria,
2. Acquire peer review and select research project/s and investigators that meet the funding criteria,
3. Engage investigators and initiate and monitor progress on selected research projects, and
4. Conduct administrative and fiscal oversight to ensure completion of all required contract activities.

Contract Period and Contract Values:

All grantees were awarded contracts for the two-year period beginning June 1, 2021 and ending May 31, 2023. All grantees were awarded $173,334 for the full, two-year contract period.

2022 Grantee Activities

Cold Spring Harbor Laboratory Cancer Center – The grantee implemented a research project in 2022 based on peer review of applications submitted in 2021. The project is titled, "*New Tumor Suppressor Genes on Chromosome 10*" and the principal investigator (PI) is Lloyd C Trotman, PhD. The innovative hypotheses being tested are, 1) there is a yet undiscovered tumor suppressor on chromosome 10 that intersects with the PTEN gene to increase the likelihood of prostate cancer recurrence, and 2) endocytosis plays a role in prostate cancer biology.

Herbert Irving Comprehensive Cancer Center, Trustees of Columbia University in the City of New York – The grantee continued to oversee the research project awarded in 2021 based on a competitive request for research applications they issued that year. That research project is titled, "*The influence of radiotherapy on the regenerative balance of T-cells to overcome therapy resistance and improve outcomes for patient's prostate cancer*"; Catherine Spina, MD, PhD, is the PI. The innovative hypothesis is to study the influence of radiotherapy on the regenerative balance of T-cells. They successfully met research Aims 1 and 2 and are working on Aim 3. Depending on the research results, the grantee intends to submit a Department of Defense or Prostate Cancer Foundation grant application in 2023, consistent with the intent of this State grant program. The grantee released a second competitive request for research applications in 2022 which resulted in implementation of a second research project titled, "*Analysis of DNA damage response in prostate cancer*"; Corinne Abate-Shen, MD, is the PI. The innovative hypothesis is to investigate the functions of BRCA1 and BRCA2 in prostate cancer, guided by the hypothesis that defective DNA repair plays an important role in prostate cancer progression and treatment, particularly in the context of androgen deprivation. Depending on the results of this research, the grantee intends to submit a NIH grant application in 2023.

Laura and Isaac Perlmutter Cancer Center at New York University Langone Health – The grantee continued to conduct the two research projects selected and begun in 2021. The first is "*Lifestyle Modification in Patients with Prostate Cancer*"; Stacy Loeb, MD, is the PI. This innovative hypothesis examines an intervention to improve sleep health for patients with prostate cancer and their caregivers. The second is "*Activation of anti-tumor immunity in prostate cancer by an AR-targeting peptoid conjugate*"; Michael Garabedian, PhD, is the PI. The innovative hypothesis is that treating CRPC tumors with MPC309 gives the ability to evoke innate immune cell infiltration into the tumor, and therefore could potentiate a cytotoxic T-cell response and bolster the therapeutic efficacy of immune checkpoint blockade (ICB) antibodies. Given the higher incidence of CRPC in Black men, successful fulfillment of the study aims could have a greater impact on prostate cancer treatment among Black men. Dr. Garabedian presented his research as part of the Center of Excellence for Prostate Cancer Seminar Series at Mt. Sinai School of Medicine this year. The grantee submitted two applications for future funding to the National Institutes of Health, one to the Department of Defense, and one to the Prostate Cancer Foundation, true to the intent of this funding.

Roswell Park Comprehensive Cancer Center – In 2022, the grantee implemented three research projects that were solicited and received approval the prior year. The first is "*Tumor Suppressive Functions of SIRT3 in Prostate Cancer Progression*"; Subhamay Dasgupta, PhD, is the PI. The innovative hypothesis seeks to define the tumor suppressive functions of SIRT3 in lethal prostate cancer progression. The second research project is "*Development of Prostate Specific NCOR2 Knockout Mouse*"; Dominic Smiraglia, PhD, is the PI. This innovative hypothesis seeks to develop a new mouse model with targeted knockout of NCOR2 in the context of PTEN loss. The third is titled "*Advanced Prostate Cancer Database: single-cell analysis/digital spatial profiling*"; Gurkamal Chatta, MD, is the PI. The research goal is to annotate clinical specimens and integrate two databases to better understand mechanisms of response/resistance in advanced prostate cancer at a clinical and molecular level.

The Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai – In 2022, the grantee implemented two research projects solicited via competitive requests for research proposals. The first research project, begun in February 2022, is titled, "*Targeting AngptL2 to sensitize the CRPC response to the immune checkpoint inhibitors*"; Qin Yu, PhD, is the PI. The innovative hypothesis focuses on the lack of success with immune checkpoint blockade in prostate cancer and data from the investigator demonstrating AngptL2 protein is up-regulated in castration-resistant prostate cancer and negatively regulated the anti-tumor immune response. The second research project began in July 22 and is titled, "*A Study on the Impact of PIK3R1 Mutation and Insulin-Glucose Metabolism in Prostate Cancer*"; Goutam Chakraborty, PhD is the PI. The research hypothesizes that mutation/alterations in the PIK3R1-insulin-glucose metabolism pathway contributes to metastatic castration-resistant prostate cancer which has not previously been reported. This can have translational significance for PI3K/Akt inhibitors for the treatment of PI3K-dependent tumors.

Memorial Sloan-Kettering Cancer Center – The grantee selected and began two research projects. The first is "*Prostate cancer genomes by self-reported race: Contributions of genetic ancestry, modifiable cancer risk factors, and clinical factors*"; Wassim Abida is the PI. The research compares self-reported and genetic race in prostate cancer risk, noting that there are significant disparities in prostate cancer outcomes between men of different races and ancestries. The second project is titled "*Targeted Ablation of Prostate Cancer with Cytotoxic Auger-Emitting Androgen Receptor Agonists*"; Darren Veach is the PI. The research seeks to determine if targeting the androgen receptor with more potent therapies still leads to resistance and progression to castrate-resistant prostate cancer. The grantee was terminated for convenience in December 2022 after repeated outreach and communications from the Department.

Summary Financial Plan

Cash Disbursement Summary

Cash Revenue in Account Start of SFY 21-22	$3,154,851
Disbursements SFY 21-22	$57,854
Cash Revenue in Account Start of SFY 22-23	$3,288,851
Actual Disbursements SFY 22-23	$372,223
Cash Revenue in Account as of 4/1/23	$3,177,849

Projections SFY 20- 23	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Beginning Balance	$2,585,246	$2,919,145	$3,154,137	$3,288,851	$3,177,849	TBD
Receipts*	$333,899	$234,992	$192,568	$261,221	$250,000	$250,000
Disbursements	$0	$0	($57,854)	($372,223)	TBD	TBD
Ending Balance	**$2,919,145**	**$3,154,137**	**$3,288,851**	**$3,177,849**	**TBD**	**TBD**

*SFYs 23 - 25: the estimated revenues are based on prior years.

Expenditure Notes:
While there is $3,177,849 in the Fund balance, the Fund received an appropriation of $840,000 in the 2022-2023 State Fiscal Year. Budgeted expenditures for the grantees are based on a cash ceiling set by the Division of Budget at $520,000 for SFY 2022-2023.

Research projects primarily began in January 2022 and the end of the contract period is May 31, 2023. Termination of one grantee in December 2022 due to unresponsiveness to contract requirements resulted in a reduction of planned expenditures.

A new Request for Applications (RFA) to award grant contracts was submitted into Department clearance and received approval in December 2022. The RFA is titled "Peer Education, Outreach, and Shared Decision Making for Persons at High Risk of Prostate Cancer" and will support funding to four organizations to offer peer education and outreach, personalized coaching, linkage to community services to address barriers to health care, and referrals to health care providers for prostate cancer screening. Activities will be directed to Black men, ages 45 to 69 years old who bear a disproportionately high burden of prostate cancer. The RFA was released in January 2023 with anticipated awards to be announced Fall 2023 and new five-year grant contracts to begin January 1, 2024, ending December 31, 2028. Contracts may begin sooner than January 1, 2024, however, pending the outcome of the RFA process and approvals from authorizing agencies.