



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO: OVERSIGHT COMMITTEE MEMBERS
FROM: WAYNE R. ROBERTS, CHIEF EXECUTIVE OFFICER
SUBJECT: FY 2019 REPORT ON PROGRAM MERIT AND PROGRESS PURSUANT TO TEXAS HEALTH & SAFETY CODE § 102.260(C)
DATE: FEBRUARY 19, 2020

Summary

Texas Health and Safety Code § 102.260(c) requires the Chief Executive Officer to report at least annually to the Oversight Committee on the progress and continued merit of each research program. I am pleased to report that fiscal year 2019 (FY 2019) was another year of progress for CPRIT and its Academic Research, Prevention, and Product Development Research programs. Key metrics indicate that CPRIT is affecting Texas' national standing in both cancer research and the biomedical industry. CPRIT's investment in intellectual and research support infrastructure in Texas is attracting, creating, and expanding the research capabilities of our institutions of higher education and the state's life science industry, expediting innovation, and increasing the likelihood of breakthroughs in cancer prevention and cures.

This report provides an overview illustrating the progress made in advancing CPRIT's mission to create and expedite innovation in cancer research and cancer prevention. Aligning program activities with the program priorities adopted by the Oversight Committee is a good gauge of progress and merit. This report highlights each program's implementation of the FY 2019 program priorities. CPRIT's 2019 *Annual Report* provides more information on CPRIT program priorities and awards, including a summary of research findings reported by grantees in 2019 and notable grantee highlights.

CPRIT awarded 139 grants in FY 2019 totaling \$278.8 million to 33 academic institutions, community organizations, and companies throughout the state. Regarding progress made by individual grant projects within each of CPRIT's three programs, Texas Administrative Code § 703.21 requires all CPRIT grantees to submit progress reports at least annually. Outside experts evaluate these progress reports to ensure that the grantee has made appropriate progress and should continue work under the grant. To the extent that an expert reviewer determines that a grant project is not making progress towards the project goals and objectives, CPRIT has several options, including contract termination.

Academic Research Program

CPRIT's Academic Research Program supports innovative and meritorious projects that are discovering new information about cancer that can lead to prevention, early detection, and cures; translating new and existing discoveries into practical advances in cancer diagnosis and treatment; and increasing the prominence and stature of Texas in the fight against cancer.

In FY 2019, CPRIT's Academic Research Program awarded 108 grants totaling \$163.8 million. The Oversight Committee approved awards across Academic Research to the following mechanisms: Recruitment of Established Investigators; Recruitment of First-Time, Tenure Track Faculty Members; Recruitment of Rising Stars; Individual Investigator Research Awards; Individual Investigator Research Awards for Childhood and Adolescent Cancers; Individual Investigator Research Awards for Computational Biology; Individual Investigator Research Awards for Clinical Translation; Individual Investigator Research Awards for Prevention and Early Detection; CAP: Collaborative Action Center; CAP: Investigator-Initiated Research Awards; Early Translational Research Awards; and High-Impact/High-Risk Research Awards.

Twenty-four recruits accepted positions at Texas institutions in FY 2019, for a total of 181 cancer researchers recruited to Texas through August 31, 2019. CPRIT continues to build a critical mass of cancer researchers in Texas by supporting recruitment of cancer scientists and clinicians to academic institutions in Texas. This program has been extraordinarily successful in enhancing Texas' cancer research efforts and increasing the external visibility of the state in this field, which benefits the life sciences infrastructure in Texas.

Academic Research Program Priorities

The Oversight Committee adopted the following FY 2019 program priorities for the Academic Research Program:

- Recruitment of outstanding cancer researchers to Texas;
- Investment in core facilities;
- A broad range of innovative, investigator-initiated research projects;
- Implementation research to accelerate adoption and deployment of evidence-based prevention and screening interventions;
- Computational biology and analytic methods;
- Childhood cancers; and
- Hepatocellular cancer.

The following table illustrates how many Academic Research grants awarded in FY 2019 address the program priorities.

FY 2019 DATA BY ACADEMIC RESEARCH PROGRAM PRIORITIES		
Priorities Addressed	Number of	Award Amount
Recruitment of outstanding cancer researchers to Texas	29	\$77.0
Investment in core facilities	8	\$35.5
A broad range of innovative, investigator-initiated academic research projects	70	\$61.6
Implementation research to accelerate adoption and deployment of evidence-based prevention and screening interventions	2	\$5.0
Computational biology and analytic methods	13	\$31.2
Childhood cancers	14	\$15.6
Hepatocellular cancer	16	\$34.2

**Some grants address more than one priority*

Prevention Program

CPRIT’s Prevention Program continues to support effective, evidence-based prevention programs to underserved populations in the state. The Prevention Program grants help Texans reduce the risk of cancer, identify cancers earlier, and assist people in finding cancer treatment. These efforts ease the burden of cancer in Texas. Texas has seen a decrease in death rates from cancer by 8% between 2011 and 2017, which translates to nearly 10,540 averted deaths.

The Oversight Committee approved 17 grants during FY 2019 totaling \$26.8 million. Seventy-six Prevention Program projects were active during the fiscal year; of those active projects, 37% focused on primary prevention, 54% on secondary prevention, and 9% on tertiary prevention. Cumulatively, prevention grantees have delivered 5.7 million services to Texans through August 31, 2019, including 2.9 million education and training services, and 2.8 million clinical services.

In addition to the impact on the health of Texans, Prevention Program grants improve the healthcare system and foster collaborations. Health system improvements include reducing wait times for diagnostic testing and the number of people lost to follow-up, implementing patient reminder systems, enhancing electronic medical records, and training community health care workers to educate and navigate people through the system. These grants stimulate greater collaboration among academic institutions, community organizations, and clinics.

Prevention Program Priorities

The Oversight Committee adopted the following FY 2019 Prevention Program priorities:

- Populations disproportionately affected by cancer incidence, mortality, or cancer risk prevalence;
- Geographic areas of the state disproportionately affected by cancer incidence, mortality, or cancer risk prevalence; and
- Underserved populations.

CPRIT released the following RFAs for the prevention program: Tobacco Control and Lung Cancer Screening, Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations, Evidence-Based Cancer Prevention Services, and Dissemination of CPRIT-Funded Cancer Control Interventions. The table below reflects how active projects in FY 2019 address Prevention Program priorities.

FY 2019 FUNDING BY PREVENTION PROGRAM PRIORITIES		
Priorities Addressed	Number of Grants*	Award Amount (millions)
Populations disproportionately affected by cancer incidence, mortality, or cancer risk prevalence	13	\$23.3
Geographic areas of the state disproportionately affected by cancer incidence, mortality, or cancer risk prevalence	13	\$22.5
Underserved populations	17	\$26.8

* Some grants address more than one priority.

Product Development Research Program

CPRIT's Product Development Research Program funds innovative and scientifically meritorious product development projects with the potential of translating research discoveries into commercial products that can benefit cancer patients. During FY 2019, the Oversight Committee approved eight Product Development Research awards totaling \$56.6 million.

CPRIT has made 36 Product Development Research awards totaling \$437 since 2010. Seventeen CPRIT-funded company projects conducted clinical trials in FY 2019, with 675 enrolled patients. The Product Development Research program benefits not only cancer patients, but like CPRIT's recruitment grants, the Product Development Research awards are a vital component in building the life sciences infrastructure and community in Texas. Twenty-five companies with CPRIT-funded projects have connections with Texas institutions.

Additionally, through August 31, 2019, CPRIT companies raised \$3.2 billion in additional investments after their CPRIT awards, indicating private sector confidence in the high quality, merit-based peer review and due diligence review process. These additional investments and activities testify to the quality of the CPRIT-funded projects and CPRIT's review process.

Product Development Research Program Priorities

The Oversight Committee adopted the following FY 2019 Product Development Research Program Priorities:

- Funding novel projects that offer therapeutic or diagnostic benefits not currently available, i.e., disruptive technologies;
- Funding projects addressing large or challenging unmet medical needs;
- Investing in early stage projects when private capital is least available;
- Stimulating commercialization of technologies developed at Texas institutions;
- Supporting new company formation in Texas or attracting promising companies to Texas that will recruit staff with life sciences expertise, especially experienced C-level staff to lead to seed clusters of life science expertise at various Texas locations; and
- Providing appropriate return on Texas taxpayer investment.

The following below depicts the program priorities fulfilled by the three Product Development Research grants awarded in FY 2019.

FY 2019 FUNDING BY CPRIT PRODUCT DEVELOPMENT RESEARCH PROGRAM PRIORITIES*		
Priorities Addressed	# Grants	Award Amount
Funding novel projects that offer therapeutic or diagnostics not currently available, i.e., disruptive technologies	8	\$56.6
Funding projects addressing large or challenging unmet medical needs	8	\$56.6
Investing in early stage projects when private capital is least available	8	\$56.6
Stimulating commercialization of technologies developed at Texas institutions	4	\$30.2
Supporting new company formation in Texas or attracting promising companies to Texas that will recruit staff with life sciences expertise, especially experienced C-level staff to new life science companies in Texas	7	\$47.9
Providing appropriate return on Texas taxpayer investment	8	\$56.6

* Some grants address more than one priority.

Conclusion

CPRIT's three programs show merit and progress and should continue operations. The work conducted under the purview of CPRIT's programs is part of an iterative cycle with observations emerging from the laboratory making their way to the public and back again to the laboratory. Essential players in this cycle are basic scientists, physician scientists, clinical researchers, product development entrepreneurs, public health professionals, health care providers, patients, community organizations, early stage companies, and research institutions across Texas. Through CPRIT's programs the state is investing in intellectual and research support infrastructure that is attracting, creating and expanding research capabilities of Texas institutions of higher education and the Texas life science industry, expediting innovation, and increasing the likelihood of breakthroughs in cancer prevention and cures.