



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

October 2, 2014

The Honorable Angie Chen Button, Chair
Members, Select Committee on Economic Development Incentives
P.O. Box 2910
Austin, Texas 78768-2910

Dear Chair Button and Members of the Select Committee on Economic Development Incentives:

Thank you for the opportunity to discuss the Cancer Prevention and Research Institute of Texas at your hearing in Houston on September 24, 2014. During the hearing several questions were raised that required additional research to respond accurately. The questions and our responses follow.

What percent of CPRIT's awards are allocated to product development and academic research?

CPRIT's enabling legislation and the General Appropriations Act refer generally to "research" and do not make a distinction between research conducted by private sector entities (product development program) and research conducted by scientists at universities (academic research program). As of August 20, 2014, the allocation is:

<u>Research</u>	<u>Amount</u>	<u>Percent</u>
Academic	\$763,887,768	78.8%
Product Development	<u>\$205,934,123</u>	<u>21.2%</u>
Total	\$969,821,891	100.0%

Additionally, CPRIT's prevention program may award grants totaling no more than 10 percent of available funds during any year. To date, the prevention program has been fully funded to the statutory limit at \$114.4 million.

What percent of CPRIT's awards are allocated to translational research?

CPRIT has awarded grants for translational research projects totaling \$246.4 million, or 25.4% of the total amount awarded for CPRIT research grants to date. Translational research aims to make findings from basic science useful for practical applications that enhance human health.

CPRIT has funded work on translational research projects at academic institutions (\$40.5 million) and at private companies (\$205.9 million).

What is the Sunset date for CPRIT?

September 1, 2021, per V.T.C.A., Health & Safety Code Section 102.003

Who were the additional investors in Mirna Therapeutics, Inc.?

Mirna, a biopharmaceutical company focused on developing and commercializing microRNA (miRNA) therapeutics in cancer, is supported by \$34.5 million from Sofinnova Ventures, New Enterprise Associates, Pfizer Ventures, Osage University Partners, Correlation Ventures, in addition to \$10.3 million from CPRIT. The funding is used to advance Mirna's lead microRNA-based therapeutic product through human proof of concept studies.

If Mirna has now received private venture funding, then why is CPRIT providing an additional grant to the company?

The second award is for a different project than that funded by the first grant and the follow-on venture financing received.

CPRIT's first grant and the venture funding allowed Mirna to bring their drug into Phase I clinical trials for primary liver-related cancers that cannot be removed through surgery. This first study for primary liver-related cancers is ongoing. The second award is for a different project to determine whether Mirna's drug can be synergistically paired with other cancer drugs to amplify its efficacy.

Is CPRIT "smarter" than Venture Capital companies?

No, but there is evidence that Venture Capital companies (VCs) have confidence in CPRIT's rigorous peer review process, due diligence, and investment decisions. CPRIT product development grant decisions are frequently a catalyst for others, including VCs, to invest in these promising new companies. CPRIT-funded companies have raised \$429 million in follow-on funding after receiving a CPRIT award.

VCs generally have a 10 – 20 % success rate, meaning that for every ten projects with VC investment, one or two have significant financial returns. At this point, the vast majority of company research projects funded by CPRIT have made progress and moved forward in the development cycle, but it is too early to determine whether the projects will ultimately succeed.

CPRIT Doesn't Compete With or Supplant VCs: A company that receives a product development grant from CPRIT typically is working on research that is at an earlier stage of development than companies that VCs usually consider for investment. Once a promising idea emerges from a university lab, there are several development stages that a potential drug or device must successfully pass before it reaches the market. These stages include proof-of-concept, animal testing, and clinical trials in humans (Stages I – IV).

- The amount of investment necessary for each stage is typically inverse to the amount of risk that the idea may fail to perform as expected at that stage. For example, proof-of-concept testing may require a relatively small amount of funding (\$1 million), but there is a great deal of risk that the idea will fail at this early stage and the project will not progress further.
- CPRIT funds proof-of-concept research, animal research, and early stage clinical trials (Stage I – II) when successful research outcomes are very uncertain. This means that investing in these companies comes with a great deal of risk.
- Although the reward is high if the drug ultimately reaches the market, from the VCs' perspective it does not justify the investment risk that the drug or device may not move to the next phase in development. As a result, few early stage oncology programs in this state can attract the necessary capital to move beyond the concept stage.
- CPRIT's product development grants often fund the research that is crucial to proving the case for the next round of investors to finance larger sums of money.

Another reason that CPRIT is not supplanting VCs is that VCs strongly prefer to work with companies that are located close to their offices. This maximizes contact and minimizes travel time and expense. Unlike the East and West Coasts, Texas lacks a sufficient number of angel investors and life science VC firms to fund promising bioscience companies in the state. CPRIT's product development research grants enhance the development of new cancer companies in Texas, which may help attract the attention of life science VCs.

CPRIT's Rigorous Review Process and Tranched Funding Mitigates Risk: CPRIT's investments are made only after reviews and recommendations are made by outside experts, including some with VC experience. Non-conflicted, experienced advisors determine which applications are forwarded to the Oversight Committee for final approval. CPRIT's distinguished product development expert reviewers include senior investing officials with scientific and medical expertise who have years of experience with venture capital investing (see Tab 5 in the spiral bound "Legislative Briefing Materials Prepared for House Select Committee on Economic

Development Incentives, September 24, 2014,” distributed at the hearing). To minimize potential conflicts of interest, all reviewers are from out of state.

CPRIT received over 75 applications in response to its two most recent requests for company research proposals. Of these applications, four companies were approved for grant awards by the Oversight Committee, and nine more companies are moving through business and regulatory due diligence (the final stage of review). If all nine applications are ultimately approved by the Oversight Committee for grant awards, then the success rate for these two cycles is about 17%.

CPRIT grant funds are tranching to minimize the state’s exposure. This means that a designated amount of the total grant funds are released to a company to achieve specific milestones. The next amount of grant funding is released only when agreed-upon milestones are reached. Grantees also share the risk with CPRIT. They must invest their own funds in the project equal to one-half of the CPRIT grant amount.

CPRIT Revenue Sharing Terms: As required by statute, all CPRIT grant contracts require grantees to share revenues with the state in the event that the CPRIT-funded project makes money. The Oversight Committee is establishing an outside group of advisers, including some in-state and out-of-state VCs, to provide feedback regarding contract terms. This group, which will not be involved in decision-making on awards, will provide guidance to ensure that the terms appropriately reward the risk taken by the state while not being so onerous that follow-on funding is discouraged.

I hope this information is useful. Please let me know if CPRIT can assist the work of your committee in any way.

Respectfully,



Wayne R. Roberts
Chief Executive Officer

cc: CPRIT Oversight Committee