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CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

**Oversight Committee Meeting  
November 16, 2016**

**1. Call to Order**

A quorum being present, Presiding Officer Geren called the Oversight Committee to order at 10:02 a.m.

**2. Roll Call/Excused Absences**

Committee Members Present:

Angelos Angelou  
Pete Geren  
Donald (Dee) Margo  
Amy Mitchell  
Bill Rice, M.D.  
Craig Rosenfeld, M.D.  
Ned Holmes  
Cynthia Mulrow, M.D.

Committee Members Absent:

Will Montgomery

**MOTION:**

On a motion made by Mr. Holmes and seconded by Ms. Mitchell, the Oversight Committee unanimously voted to excuse the absence of Mr. Montgomery.

**3. Adoption of Minutes from August 17, 2016 and September 14, 2016 meetings**

**MOTION:**

On a motion made by Dr. Mulrow and seconded by Mr. Margo, the Oversight Committee unanimously voted to approve the minutes of the Oversight Committee meetings held on August 17, 2016, and September 14, 2016.

**4. Public Comment**

Presiding Officer Geren noted there are no requests for public comment.

## **5. Grantee Presentation**

Presiding Officer Geren noted that grantee presentations will become a regular part of CPRIT Oversight Committee meetings. He called on Dr. James Willson, Chief Scientific Officer, to introduce Dr. Thomas Yankeelov.

Dr. Willson introduced CPRIT Grantee Dr. Thomas Yankeelov, Professor at The University of Texas at Austin, Biomedical Engineering Department. Dr. Yankeelov is a CPRIT grantee recruited to The University of Texas as an established investigator in December 2015. He is leader of the Strong Institute's Cancer Research Program and also Director of the Computational Oncology Program in the Texas Institute of Computational Engineering and Science. His research focus is on using computational biology, advanced in vivo imaging, and mathematical modeling. His clinical research has an overall goal of improving patient care by employing advanced imaging methods for the early identification, assessment, and prediction of tumor response to therapy. He develops tumor forecasting methods by integrating advanced imaging technologies with patient-specific data and builds predictive, multi-scale biophysical models of tumor growth with the purpose of optimizing therapies for the individual cancer patient.

Dr. Yankeelov summarized his research to develop tumor forecasting methods by integrating advanced imaging technologies with other patient-specific data to build predictive, multi-scale biophysical models of tumor growth to optimize therapy on a patient basis, and to provide leadership in these areas to the community.

The first clinical trial is a community partnership model and includes The University of Texas at Austin, Seton Hospital, Austin Neurological Associates, and Texas Oncology.

Dr. Yankeelov confirmed that this clinical trial includes all breast cancers. He is planning on conducting a clinical trial on metastatic brain cancer in January 2017. Other cancers will be included as his research develops.

When asked if there were plans to include more data than just that collected by an MRI, Dr. Yankeelov explained that when a MRI PET machine is available they will be able to collect more data without subjecting patients to multiple scans.

## **6. Chief Executive Officer Report**

Wayne Roberts, Chief Executive Officer, introduced Chris Cutrone, CPRIT's new Senior Communications Specialist. Mr. Cutrone's responsibilities will include press releases, editing of documents, and relationships with media. Mr. Cutrone most recently worked at the Texas Health and Human Services Commission, Office of the Inspector General.

Mr. Roberts explained that action items from the August 17 and September 14 meetings and the resulting staff responses were included in the meeting materials. There were no questions.

Mr. Roberts confirmed there will be sufficient FY 2017 funds available for all awards being presented today.

Mr. Roberts reported on bills that have been pre-filed on behalf of CPRIT. Senator Nelson pre-filed SB 81 to address operational issues. Senator Watson filed SB 224 to extend CPRIT's sunset date by two years. Representative Sarah Davis is addressing both operational and sunset issues in HB 63. In addition, she filed HB 84, a companion to sunset bill SB 224. The operational bills address:

- clarification of the requirement that Oversight Committee members file personal financial statements with the Ethics Commission;
- authorization of the Oversight Committee to meet in closed session to discuss management, acquisition or sale of equity, or other revenue sharing discussions and to allow a staff member or a contracted representative to serve on grantee boards when appropriate;
- clarification of the language in the statute requiring CPRIT to allocate 10% of funding to the Prevention Program;
- authorization of the Oversight Committee to transfer management and disposition of CPRIT's royalty obligations and equity ownership to the Texas Treasury Safekeeping Trust Company; and
- elimination of the requirement that the Oversight Committee publicly report political donations.

There were no questions for Mr. Roberts.

## **7. Chief Scientific Officer Report and Grant Award Recommendations**

Dr. James Willson, Chief Scientific Officer, reported that the Academic Research Program funded grants totaling \$206 million in FY 2016. Of the total funding, Dr. Willson stated approximately \$70 million was spent on the recruitment of outstanding cancer researchers to Texas. Of the 111 Research awards in FY 2016, 85 awards and 88% of the funds awarded addressed Oversight Committee targeted priorities.

### Academic Research - Proposed Awards

Dr. Willson reported that 170 applications were received for the most recent Academic Research grant review cycle. Of those 170 applications, the Scientific Review Council (SRC) recommended 57 projects totaling \$71,256,343. The Program Integration Committee (PIC) voted to defer 11 of the projects recommended by the SRC to a future FY 2017 meeting, pending sufficient funding. Dr. Willson presented 46 projects totaling \$61,223,240 in 8 slates corresponding to the grant mechanisms.

The recommendations presented for the Oversight Committee's consideration were:

- 4 Early Translational Research Awards totaling \$3,974,486
- 20 Individual Investigator Research Awards (IIRA) totaling \$17,892,210

- 7 IIRA Childhood and Adolescent Cancers totaling \$8,035,738
- 3 IIRA Computational Biology totaling \$2,634,668
- 5 IIRA Prevention and Early Detection totaling \$5,819,500
- 5 Research Training Awards totaling \$14,866,638
- 1 Recruitment of Established Investigators totaling \$6,000,000
- 1 Recruitment of First-Time, Tenure Track Faculty Members totaling \$2,000,000

Dr. Willson also reported on the program priorities addressed by the grant recommendations:

- 35 address a Broad Range Of Innovative, Investigator-Initiated Research Projects
- 7 address Enhance Texas' Research Capacity and Life Sciences Infrastructure
- 10 address Childhood Cancers
- 9 address Prevention and Early Detection
- 5 address Computational Biology and Analytic Methods
- 4 address Rare Or Intractable Cancers
- 8 address Cancers of Importance in Texas (Liver)
- 6 address Disparities

In response to a question about the success rate of Computational Biology applications, Dr. Willson said that applying mathematics, statistics, and computer science to the biological sciences requires interactions between different sciences that have not traditionally collaborated. However, this environment is changing with recruitment of CPRIT Scholars, like Dr. Yankeelov, whose research involves applying computational science to cancer research. CPRIT-sponsored training initiatives are also catalyzing these interactions in Dallas and the Texas Medical Center. Oversight Committee policies have been implemented that may improve success rates in the future.

#### Compliance Certification

Mr. Vince Burgess, Chief Compliance Officer, presented his certification of the review process for the proposed grant awards recommended to the Oversight Committee at this meeting. He stated he had reviewed the compliance pedigrees for the grant applications submitted to CPRIT for the following mechanisms:

- Recruitment of Established Investigators
- Recruitment of First-Time, Tenure-Track Faculty Members
- Early Translational Research Awards
- Individual Investigator Research Awards
- Individual Investigator Research Awards for Cancer in Children and Adolescents
- Individual Investigator Research Awards for Computational Biology
- Individual Investigator Research Awards for Prevention and Early Detection
- Research Training Awards
- Texas Company Product Development Awards

Mr. Burgess stated that he had conferred with staff at CPRIT and SRA, International (SRA), CPRIT’s contracted third-party grants administrator, regarding academic research and product development research awards and studied the supporting grant review documentation, including third-party observer reports for the peer review meetings.

Mr. Burgess noted that Wayne Roberts, the Chief Executive Officer, granted Mr. Michael Lang, the Chief Product Development Officer, a waiver from the general prohibition against communicating with applicants. The Oversight Committee was notified of the waiver on October 28, 2016. The waiver pertains to the two companies recommended for Product Development Research awards and allowed Mr. Lang to discuss with each applicant the possibility of reducing their budgets. Neither applicant was given unfair advantage.

Mr. Burgess reported that he was satisfied that the application review process that resulted in the above mechanisms recommended by the Program Integration Committee (PIC) followed applicable laws and agency administrative rules. He certified the academic research and product development research award recommendations for the Oversight Committee’s consideration.

Conflict of Interest Notification

Presiding Officer Geren noted for the record that Mr. Angelou reported a conflict of interest with two applications submitted by The University of Texas at Austin. The applications identified by Mr. Angelou were an Early Translation Research Award and an Individual Investigator – Prevention and Early Detection Award. The Oversight Committee agreed to take up the award recommendations together in one vote, with the exception of the award recommendations for The University of Texas at Austin, so that Mr. Angelou could vote on the recommendations without conflicts.

**Academic Research Grant Award Recommendations**

<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170067	RTA	The Future of Cancer Research: Training Program for Basic and Translational Scientists	Keyomarsi, Khandan	The University of Texas M. D. Anderson Cancer Center	\$4,000,000
RP170427	ETRA	Ambient Mass Spectrometry for Preoperative Molecular Diagnosis of Thyroid Fine Needle Aspirate Biopsies	Schiavinato Eberlin, Livia	The University of Texas at Austin	\$983,586

<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170466	IIRA	Targeting the Inflammatory Cancer Stem Cell Microenvironment of Triple Negative Breast Cancer with Leukocyte-mimetic Nanovesicles	Tasciotti, Ennio	The Methodist Hospital Research Institute	\$896,951
RP170233	IIRA	K-ras Spatiotemporal Dynamics: Novel Therapeutic Targets	Hancock, John	The University of Texas Health Science Center at Houston	\$900,000
RP170496	IIRA	Targeting a Growth and Survival Pathway in Bone Tumor Cells.	Gregory, Carl	Texas A&M University System Health Science Center	\$864,971
RP170314	IIRA	Biodegradable nanoclusters for molecular cancer imaging	Sokolov, Konstantin	The University of Texas M. D. Anderson Cancer Center	899,553
RP170593	RTA	Computational Cancer Biology Training Program	Pettitt, B. Montgomery	The University of Texas Medical Branch at Galveston	\$3,999,285
RP170074	IIRACCA	Molecular Epidemiology and Somatic Alterations Driving Acute Lymphoblastic Leukemia in Down Syndrome	Rabin, Karen	Baylor College of Medicine	\$1,200,000
RP170401	IIRA	Targeting The Glycolysis Pathway To Overcome Resistance To Cancer Immunotherapy	Hwu, Patrick	The University of Texas M. D. Anderson Cancer Center	\$900,000
RP170207	IIRACCA	BBB-penetrating redox-responsive smart drugs and exploiting the MGMT-driven S-phase checkpoint for chemotherapy of childhood brain cancers	Srivenugopal, Kalkunte	Texas Tech University Health Sciences Center	\$1,173,149
RP170231	IIRA	Identifying vulnerabilities in mutant p53 driven tumorigenesis	Lozano, Guillermina	The University of Texas M. D. Anderson Cancer Center	\$869,197

<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170399	IIRA	Elimination of hypoxia sensitizes resistant solid tumors to immunotherapy	Curran, Michael	The University of Texas M. D. Anderson Cancer Center	\$899,993
RP170040	IIRA	Exploiting DNA repair defects using intensity modulated proton therapy	Sawakuchi, Gabriel	The University of Texas M. D. Anderson Cancer Center	\$899,889
RP170295	IIRAP	Developing Effective Epigenetic Biomarkers to Identify Individuals with High Risk of Cancer	Waterland, Robert	Baylor College of Medicine	\$1,052,089
RP170095	IIRAP	Exercise as an aid to smoking cessation in anxiety vulnerable adults	Smits, Jasper	The University of Texas at Austin	\$891,623
RP170470	IIRACCA	OCT4/c-MYC axis as a mechanism of resistance to 13-cis retinoic acid in neuroblastoma	Kang, Min	Texas Tech University Health Sciences Center	\$1,125,638
RP170146	IIRA	B cell receptor signaling intersects with angiogenesis in diffuse large B cell lymphoma	Aguiar, Ricardo	The University of Texas Health Science Center at San Antonio	\$900,000
RP170493	IIRAP	For Our Children: A tailored multi-level intervention for parents and healthcare providers to increase HPV vaccination rates	Fernandez, Maria	The University of Texas Health Science Center at Houston	\$1,487,683
RP170245	ETRA	Discovery of antibody-drug conjugates targeting a receptor broadly expressed in solid tumors	Liu, Qingyun	The University of Texas Health Science Center at Houston	\$1,000,000
RP170330	IIRA	A novel GRK3-EZH2 regulatory pathway in prostate cancer progression	Li, Wenliang	The University of Texas Health Science Center at Houston	\$900,000
RP170250	IIRA	Regulation of 53BP1 by novel 53BP1-binding proteins in DNA repair	Chen, Junjie	The University of Texas M. D. Anderson Cancer Center	\$900,000

<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170126	IIRA	A Novel Pathway to Reduce BRCA1-Associated Breast Cancer Risk	Hu, Yanfen	The University of Texas Health Science Center at San Antonio	\$900,000
RP170114	IIRA	Mechanisms of melanoma metastasis	Morrison, Sean	The University of Texas Southwestern Medical Center	\$892,521
RP170537	ETRA	Identification of novel immune targets and neoantigens for development of immunotherapy for breast cancer	Wang, Rongfu	The Methodist Hospital Research Institute	\$999,995
RP170508	IIRAP	Structural modeling of peptide-HLA complexes presenting a melanoma-associated antigen for cross-reactivity assessment	Kavraki, Lydia	Rice University	\$900,000
RP170510	IIRACCA	Telomere Maintenance Mechanisms in Neuroblastoma	Reynolds, Charles	Texas Tech University Health Sciences Center	\$1,058,246
RP170336	IIRA	Preclinical Analyses of NAD Kinase as a Redox Vulnerability for the Treatment of Pancreatic Cancer.	Scott, Kenneth	Baylor College of Medicine	\$875,757
RP170066	ETRA	Oncolytic Immunotherapy for Gliomas and Cancer Metastases in the Era of Checkpoint Regulation	Fueyo, Juan	The University of Texas M. D. Anderson Cancer Center	\$990,905
RP170382	IIRA	Primary Cilia in Cell Cycle Control and Tumorigenesis	Zhong, Qing	The University of Texas Southwestern Medical Center	\$900,000
RP170259	RTA	CPRIT Cancer Prevention Research Training Program	Chang, Shine	The University of Texas M. D. Anderson Cancer Center	\$2,071,403
RP170564	IIRA	Super-resolution imaging of tumor angiogenesis in deep tissue with high specificity and sensitivity	Yuan, Baohong	The University of Texas at Arlington	\$900,000



<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170079	IIRA	Palbociclib synergizes with autophagy inhibitors to induce senescence in breast cancer	Keyomarsi, Khandan	The University of Texas M. D. Anderson Cancer Center	\$900,000
RP170301	RTA	Osteopathic Scholars in Cancer Research (OSCR)	Vishwanatha, Jamboor	University of North Texas Health Science Center at Fort Worth	\$799,055
RP170071	IIRAP	Genetic Epidemiology and Molecular Basis of Cancer Predisposition in Pediatric Rhabdomyosarcoma	Lupo, Philip	Baylor College of Medicine	\$1,488,105
RP170366	IIRA	Optimizing Chemoradiation Strategies by Tumor Metabolism Interrogation	Lai, Stephen	The University of Texas M. D. Anderson Cancer Center	\$899,996
RP170317	IIRA	Developing Effective Immunotherapeutic Strategies for Advanced Uveal Melanoma	Woodman, Scott	The University of Texas M. D. Anderson Cancer Center	\$899,507
RP170307	IIRA	Biomarker-Based Treatment Of Poor Prognostic Mesenchymal Subtype in Gastric Cancer	Lee, Ju-Seog	The University of Texas M. D. Anderson Cancer Center	\$893,875
RP170152	IIRACCA	Targeting the HNF4A and WNT/Beta-catenin pathways in childhood malignant yolk sac tumors.	Amatruda, James	The University of Texas Southwestern Medical Center	\$1,169,499
RP170144	IIRACB	Effective Exploitation Of Structural Data For Oncology	Ioerger, Thomas	Texas A&M Engineering Experiment Station	\$900,000
RP170169	IIRACCA	High throughput combinatory drug screening for pediatric medulloblastomas with a dysregulated EZH2 pathway	Li, Xiao-Nan	Baylor College of Medicine	\$1,198,726
RP170488	IIRACCA	Mechanisms of Notch Dysregulation in Pediatric Osteosarcoma	Lee, Brendan	Baylor College of Medicine	\$1,110,480

<b>App ID</b>	<b>Award Mech.</b>	<b>Application Title</b>	<b>PI</b>	<b>PI Organization</b>	<b>Budget</b>
RP170387	IIRACB	Development and Validation of a Network-guided, Multi-objective Optimization Model for Cancer Data Analysis.	Liu, Zhandong	Baylor College of Medicine	\$889,679
RP170170	IIRACB	Prediction of nuclear export signals in proteins	Grishin, Nick	The University of Texas Southwestern Medical Center	\$844,989
RP170345	RTA	UTHSCSA Cancer Research Training Program	Oyajobi, Babatunde	The University of Texas Health Science Center at San Antonio	\$3,996,895

ETRA: Early Translational Research Awards

IIRA: Individual Investigated Research Awards

IIRACCA: Individual Investigated Research Awards for Childhood and Adolescent Cancers

IIRACB: Individual Investigated Research Awards for Computational Biology

IIRAP: Individual Investigated Research Awards for Prevention and Early Detection

RTA: Research Training Awards

\*RP170259 – Research Training Award: SRC recommended the following budget reductions: Reduce number of trainees from 9 to 6 Post-Doctoral trainees per year; reduce funding for training program manager to 0.5 FTE (from proposed 1.0 FTE). The award amount in this table reflects these changes.

#### **Academic Research Recruitment Grant Award Recommendations**

<b>App ID</b>	<b>Candidate</b>	<b>Mechanism</b>	<b>Organization</b>	<b>Budget</b>
RR170005	Maura Gillison	REI	The University of Texas M.D. Anderson Cancer Center	\$6,000,000
RR170003	Srinivas, Malladi	RFTFM	The University of Texas Southwestern Medical Center	\$2,000,000

REI: Recruitment of Established Investigators

RFTFM: Recruitment of First-Time Tenure Track Faculty Members

#### **MOTION:**

On a motion made by Dr. Mulrow and seconded by Mr. Margo, the Oversight Committee unanimously voted to approve the Program Integration Committee's recommendations for an Early Translational Research Award, and an Individual Investigator – Prevention and Early Detection Award to The University of Texas at Austin (application numbers RP170427 and RP170095).

Presiding Officer Geren noted for the record that Mr. Angelou did not vote on these recommendations.

**MOTION:**

On a motion made by Mr. Holmes and seconded by Dr. Mulrow, the Oversight Committee unanimously voted to approve the Program Integration Committee's remaining 44 recommendations for the eight slates of academic research awards.

**MOTION:**

On a motion made by Dr. Rosenfeld and seconded by Dr. Mulrow, the Oversight Committee unanimously voted to approve the delegation of contract negotiation authority to the Chief Executive Officer and CPRIT staff, and authorized the Chief Executive Officer to sign the contracts on behalf of CPRIT.

**8. Chief Product Development Officer Report and Grant Award Recommendations**

Mr. Michael Lang, Chief Product Development Officer, updated the Oversight Committee on the status of Product Development Review Cycles 16.2 and 17.1. He also reported on the meeting of the Product Development Advisory Committee (PDAC). The PDAC discussed several issues, including the Product Development Research/Scientific Research funding ratio, royalty rates for therapeutic companies versus drug and device companies, maintaining the current \$20 million award cap and eligibility of previous CPRIT Product Development Research grantees for future awards.

Mr. Lang outlined a proposal for CPRIT to modify the royalty structure for devices, diagnostics, and services to 2.5% with 2.5X cap. This change should increase CPRIT attractiveness to lower margin industry sectors, such as devices, diagnostics, and services, increasing their application rate. Mr. Lang explained that the Product Development Research Subcommittee will discuss the issue and may bring a recommendation to a future meeting.

In response to a question, Mr. Lang stated that while it cannot be determined how many companies from other health sectors did not submit applications due to the royalty rate structure, 75% of CPRIT awardees are in the therapeutics sector.

In response to a question about the funding split between product development and academic research, Presiding Officer Geren explained that some members have not had an opportunity to consider the issue. He suggested deferring Oversight Committee discussion until the February meeting to allow the Research Subcommittee and Product Development Subcommittee time to consider the issue and prepare a combined recommendation. He asked that the Product Development Advisory Committee prepare a recommendation also. Mr. Geren said the subcommittees should also discuss the issue of the award caps.

An Oversight Committee member asked CPRIT's exposure to liability if someone sues a CPRIT company over its product. Ms. Kristen Doyle, Deputy Executive Officer and General Counsel, responded that CPRIT as a state entity has sovereign immunity and qualified immunity protect the state and its officers against liability. CPRIT's contract also makes it clear that CPRIT is not responsible for actions taken by grantees in any of its programs.

## Grant Award Recommendations

Mr. Lang presented the Program Integration Committee's recommendations for two Texas Company Product Development Research Awards totaling \$32,146,716 to Bellicum Pharmaceuticals (\$16,946,716), and Molecular Templates (\$15,200,000). Both companies revised their budget requests from the original applications after the Program Integration Committee had made its recommendations. Because the companies made progress on the projects since the submission of the applications, their budget requirements decreased through the budget review process. Mr. Lang noted that the CEO granted him a waiver pursuant to Texas Administrative Code § 702.19(c), allowing him to communicate with the companies after the PIC recommendations to negotiate budget reductions.

Mr. Lang explained that Bellicum Pharmaceuticals ("Bellicum") is developing a cancer treatment based on a lead compound BPX-501. This company is studying the use of the compound in combination with  $\alpha\beta$  T-cell depleted grafts for the treatment of acute myeloid leukemia. The BPX-105 therapy provides an alternative for patients when a HLA-matched donor is not available. The scientific rationale underlying the project is highly rated by the review panel, receiving an overall score of 3.1. Bellicum's headquarters are in Houston, Texas. The company previously received a CPRIT grant in 2011.

Mr. Lang reported that the scientific rationale underlying the Molecular Templates product development research project is also highly rated by the review panel, receiving an overall score of 1.7. Molecular Templates is developing a lead compound, MT-4019ND, a modified fragment of an antibody that inactivates ribosome activity. The company is developing MT-4019ND to treat multiple myeloma. Molecular Templates is located in Georgetown, Texas. The company previously received a CPRIT grant in 2012.

## Program Priorities Addressed by Grant Recommendations

Mr. Lang reported the program priorities addressed by the grant recommendations, explaining that one project may address more than one program priority. These priorities include:

- Funding projects at Texas companies and relocating companies that are most likely to bring important products to the market
- Providing funding that promotes the translation of research at Texas institutions into new companies able to compete in the marketplace
- Identifying and funding projects to develop tools and technologies of special relevance to cancer research, treatment, and prevention
- Early translational research (priority across programs)
- Enhance Texas' research capacity and life science infrastructure (priority across programs)
- Rare and intractable cancers, including childhood cancers (Academic Research priority)

There were no questions for Mr. Lang.

Presiding Officer Geren noted that Oversight Committee members did not report any conflicts of interest with these two awards. He noted that Mr. Burgess had certified previously the Product Development Research Awards along with the Academic Research Awards.

**Product Development Research  
Grant Award Recommendations**

<b>Application ID</b>	<b>Company Name</b>	<b>Project</b>	<b>Maximum Budget</b>
DP160057	Bellicum Pharmaceuticals, Inc.	Clinical Evaluation of a Novel T Cell Therapy (BPX-501) for the Treatment of Children and Adults with AML	\$16,946,716
DP16071	Molecular Templates, Inc.	A Novel Compound Targeting CD38 for Treatment of Multiple Myeloma	\$15,200,000

**MOTION:**

On a motion made by Dr. Rice and seconded by Dr. Rosenfeld, the Oversight Committee unanimously voted to approve the Program Integration Committee’s recommendations for Bellicum Pharmaceutical and Molecular Templates with revised budget amounts as recommended by the Chief Product Development Officer. The revised budget amount for Bellicum Pharmaceutical is \$16,946,716. The revised budget amount for Molecular Templates is \$15,200,000.

**MOTION:**

On a motion made by Mr. Angelou and seconded by Ms. Mitchell, the Oversight Committee unanimously voted to approve the delegation of contract negotiation authority to the Chief Executive Officer and CPRIT staff, and authorized the Chief Executive Officer to sign the contracts on behalf of CPRIT.

Presiding Officer Geren reported that Mr. Roberts notified the Oversight Committee by letter on November 9, 2016, that he would seek authority to disburse grant funds in advance to the companies approved in the Oversight Committee’s previous motion. There were no questions for Mr. Roberts.

**MOTION:**

On a motion made by Dr. Rosenfeld and seconded by Dr. Mulrow, pursuant to the General Appropriations Act, Article IX, Section 4.03(a), the Oversight Committee unanimously voted to authorize CPRIT to disburse grant funds via advance payments to Bellicum Pharmaceuticals and Molecular Templates upon execution of the award contracts and the successful completion of tranches.

## **9. Chief Prevention and Communications Officer Report**

### Prevention Report

Dr. Rebecca Garcia informed the Oversight Committee that CPRIT awarded a total of \$26,938,196 for 26 Prevention grants in FY 2016. She updated the status of FY 2017 Prevention Program review cycles 1 and 2. Dr. Garcia highlighted a new RFA that CPRIT plans to release November 17, 2016 for Tobacco Control and Lung Cancer Screening.

Presiding Officer Geren asked Dr. Garcia to comment on smokeless tobacco use, which appears to be a bigger problem in rural, underserved areas. Dr. Garcia explained that the data suggests that smokeless tobacco, primarily chewed tobacco, is used more in rural and farm settings. The new RFA, on Tobacco Control and Lung Cancer Screening, will accept applications for youth tobacco prevention and adult tobacco cessation programs as well as lung cancer screening for high risk smokers. Programs for youth can be different from adult smoking cessation programs. Another area of interest included in the RFA is the use of electronic nicotine delivery devices, or e-cigs. According to the latest survey data, there has been a significant increase in the use of e-cigs by youth who have never smoked tobacco.

### Communications Report

Dr. Garcia reported on the Communications activities, including earned media, publicizing grant awards announcements, media coverage of CPRIT, ongoing projects, and events/meetings attended.

## **10. Agenda Item 12 – Internal Auditor Report**

Ms. Alyssa Martin, Internal Auditor, presented the required FY 2016 Internal Audit Annual Report. She reported all state agencies are required to submit an Internal Audit Annual Report. CPRIT will submit the report to state oversight agencies following Oversight Committee approval.

Ms. Martin said the CPRIT Audit Subcommittee has reviewed the report and it contains all the required elements. Included in the annual report are the four internal audit reports the Oversight Committee approved in Fiscal Year 2016 and two audits that followed-up on prior findings. Also included are other audits not performed by the Internal Auditor. These audits include the grant monitoring audits performed by CohnReznick for the Compliance Program, and the independent third party observer reports performed by Grant Thornton at the peer review panels to ensure conflicts of interest and staff participation meet requirements.

Another element of the annual report is the Internal Audit Plan for 2017. The Oversight Committee reviewed and approved the plan at the September 2016 meeting. The updated risk assessment was reported for areas considered high risk, even if not on the 2017 audit plan.

Presiding Officer Geren reported that on October 7, 2016, the Audit Subcommittee met and considered these recommendations. Mr. Margo, Chair of the Audit Subcommittee, explained that the subcommittee discussed the report thoroughly and unanimously recommends Oversight Committee approval.

**MOTION:**

On a motion made by Mr. Margo and seconded by Dr. Rosenfeld, the Oversight Committee unanimously voted to approve the FY 2016 Internal Audit Annual Report.

**Presiding Officer Geren announced a brief recess for lunch.**

The Oversight Committee recessed at 12:11 p.m.

The Oversight Committee reconvened at 12:42 p.m.

**11. Agenda Item 10 – Scientific Research and Prevention Program Committee Appointments**

Mr. Roberts presented his three appointments to the Scientific Research and Prevention Programs Committee, which included three recommendations for the Prevention Program peer review panels:

- Kevin T. Brady, M.P.H.
- Gregory Connolly, D.M.D., M.P.H.
- Michael P. Eriksen, Sc.M., Sc.D.

Mr. Roberts reported that the Product Development Review Council (PDRC) added a new member, Colin Turnbull, Ph.D., to the PDRC. Mr. Roberts explained that no action is needed for this PDRC appointment because Dr. Turnbull is already an appointed member of the Scientific Research and Prevention Programs Committee.

**MOTION:**

On a motion made by Dr. Rosenfeld and seconded by Mr. Holmes, the Oversight Committee unanimously voted to approve the Scientific Research and Product Development Program Panel appointments.

**12. Agenda Item 11 – FY 2017 Program Priorities**

Presiding Officer Geren referred the Oversight Committee members to the handout, *2017 Program Priorities*, which outlines the process used to develop the priorities, the scope of the project, and CPRIT's long-term vision. He called upon the chairs for each program subcommittee to present the recommendations.

**Academic Research**

Dr. Rice, Chair of the Academic Research Subcommittee, reported that the subcommittee reviewed the Academic Research program priorities and made minor adjustments to the

current priorities. He asked Dr. Willson to discuss the subcommittee deliberations. Dr. Willson explained that in addition to current priorities, the subcommittee discussed how, within a limited budget, to communicate CPRIT's highest priorities to the research community, Oversight Committee members, and staff. In that effort, the subcommittee recommended moving the recruitment of outstanding cancer investigators to Texas into the top position on the priority list and core facilities into the second position. The changes reflect that these areas of investment will have a long-lasting legacy. The 2017 priorities are:

- Recruitment of outstanding cancer researchers to Texas
- Investment in core facilities
- A broad range of innovative, investigator-initiated research projects
- Prevention and early detection
- Computational biology and analytic methods
- Childhood cancers
- Population disparities and cancers of importance in Texas

### **Prevention**

Dr. Mulrow, Chair of the Prevention Subcommittee, explained that the subcommittee had three program priority areas that are similar to current priorities. The subcommittee noted that identifying priorities based on areas where significant cancer incidence and mortality disparities exist focuses the program further on areas of greatest need and greatest potential for impact. Data on cancer incidence, mortality and disparities (geographic, ethnic, etc.) are reviewed annually to identify priorities and identify areas of emphasis. This information informs the development of RFAs and informs programmatic decisions during the Peer Review Council level of review. The 2017 priorities are:

- 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
- Underserved populations

### **Product Development Research**

Dr. Rosenfeld, Chair of the Product Development Research Subcommittee, said the subcommittee reviewed the program priorities. The priorities are similar to previous years and the subcommittee recommended approval by the full Oversight Committee. The 2017 priorities are:

- 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 science expertise, especially experienced C-level staff to develop seed clusters of life science expertise at various Texas locations



- Providing appropriate return on Texas taxpayer investment

There were no questions for Dr. Rice, Dr. Mulrow or Dr. Rosenfeld.

**MOTION:**

On a motion made by Dr. Rice and seconded by Ms. Mitchell, the Oversight Committee unanimously voted to approve the FY 2017 Program Priorities.

**13. Amendments to 25 T.A.C. Chapters 701-703**

Kristen Doyle, Deputy Executive Officer and General Counsel, presented the proposed rule changes for final approval, followed by new proposed rule changes for publication in the *Texas Register*.

Ms. Doyle explained that at its August meeting the Oversight Committee preliminarily approved the rule changes proposed for final adoption today. She reported that Texas Tech University System submitted a comment regarding a reference to a type of audit that has been superseded. Ms. Doyle recommended against making a change to the final rule at this time. She explained that CPRIT will address Texas Tech's proposed change as a new proposed amendment.

**MOTION:**

On a motion made by Dr. Rice and seconded by Mr. Margo, the Oversight Committee unanimously voted to approve the final orders adopting rule changes to Texas Administrative Code Chapters 701-703.

Ms. Doyle presented two new proposed amendments to Texas Administrative Code Chapter 703 for the Oversight Committee's preliminary approval. She explained that the proposed rules will be published in the *Texas Register* and on the CPRIT website for public comments. She will present any comments received at the February 2017 Oversight Committee meeting.

**MOTION:**

On a motion made by Dr. Rosenfeld and seconded by Mr. Holmes, the Oversight Committee unanimously voted to approve the proposed changes to Texas Administrative Code Chapters 701-703 for publication in the *Texas Register*.

**14. Plan for Management of Royalty/Equity Portfolio**

Ms. Doyle reported that much of what CPRIT now funds will not be commercialized and sold on the market for many years. CPRIT's statute requires CPRIT to include revenue sharing terms in every grant contract. When CPRIT funds early translational research or basic science projects, the universities or companies may not receive any revenue from the project for 10-15 years. CPRIT needs a system to track all grants and data regarding new products being commercialized, patent applications filed, etc., with a goal of knowing when the grantees will owe revenue sharing payments to CPRIT. Ms. Doyle explained that CPRIT currently relies on self-reporting by the academic institutions and companies.

Ms. Doyle reported that CPRIT and the Texas Treasury Safekeeping Company (the Trust Company), a part of the Comptroller's Office, have met and discussed management of assets. The Trust Company has relevant expertise. When the Emerging Technology Fund (ETF) program ended, the ETF funded companies and their ongoing obligations transferred to the Trust Company. The Trust Company increased staff to manage those assets.

The legislative change proposed in SB 81 and HB 63 transfers the final disposition of equity generated by CPRIT grants and royalty streams to the Trust Company. If approved, final decision-making authority regarding disposition of assets resulting from CPRIT grants would transfer to the Trust Company.

In the event that legislation does not pass, CPRIT will contract with a third party to provide that expertise and final decisions would remain with the Oversight Committee. CPRIT is also seeking legislation to allow the Oversight Committee to go into closed session to consider and discuss equity disposition.

In response to a question about whether the researcher or the institution self-reports revenue, Ms. Doyle explained that the institution as the grantee contacts CPRIT when payments are due. To date, CPRIT has collected approximately \$3.1 million from 8-10 grantees.

There were no further questions for Ms. Doyle.

## **15. Contract Approvals**

Ms. Heidi McConnell, Chief Operations Officer, presented the CPRIT staff recommendation to approve an amendment to the contract with SRA International, Inc., a CSRA Company (CSRA), in the amount of \$1,226,787. The FY 2017 CSRA contract is currently \$7,038,659. This amendment would increase the contract by 18% and allow the agency to increase the contract up to 25% if necessary. This contract amendment would require approval by the LBB.

The amendment is for modified services including:

- 1) A Service Organization Control (SOC) 2, type 2 report on the grants management platform to assess the system and the suitability of the design of controls;
- 2) Enhancements to the grants management platform to address functionality such as updating reporting capabilities, adding a workflow reset, adding grantee out of office delegation assignment, and status changes for grants that decline an award or are terminated early;
- 3) The addition of consensus paragraphs to peer review summary statements for academic and product development research applications;
- 4) Review and objective assessment of patient advocate peer reviewer applications submitted to CPRIT; and
- 5) The additional administration of grant application supporting documentation in the grants management system, currently maintained outside the system, in order to produce an automated grant pedigree.

These additional services are necessary to improve efficiency and effectiveness of the grant management processes and address an internal audit finding.

In response to a question, Ms. McConnell reported that CPRIT does not own the software, but does own the data. CPRIT receives a nightly download of all from the software applications so, should it be necessary to change vendors, CPRIT could move the data into a new system.

Ms. Doyle presented the CPRIT recommendation that the Oversight Committee approve outside counsel contracts for FY 2017 for Vinson & Elkins, LLP (\$125,000) and Baker Botts, LLP (\$125,000). These firms will join Yudell Isidore, PLLC, in providing legal advice and evaluation services regarding intellectual property and revenue sharing agreements associated with CPRIT grants during FY 2017. The Office of the Attorney General must approve all outside counsel agreements prior to contract execution.

Although CPRIT seeks contract approval for FY 2017, the request for proposals includes an option to renew the three outside counsel contracts for up to four additional one-year periods. The renewal periods, if exercised, will extend the outside counsel contract through August 31, 2020. If CPRIT decides to exercise its option to extend one or more of the contracts, CPRIT staff will seek approval from the Oversight Committee and the Office of the Attorney General at the appropriate time.

Having multiple outside counsel contracts is necessary to ensure CPRIT has counsel available in the event of conflicts of interest.

There were no questions for Ms. McConnell or Ms. Doyle.

**MOTION:**

On a motion made by Mr. Angelou and seconded by Mr. Holmes, the Oversight Committee unanimously voted to approve the contract amendment to the FY 2017 grants management contract with SRA International, Inc.

**MOTION:**

On a motion made by Mr. Angelou and seconded by Ms. Mitchell, the Oversight Committee unanimously voted to approve outside counsel contracts with Vinson & Elkins and Baker Botts.

## **16. Chief Operating Officer Report**

Ms. McConnell presented the Chief Operating Office Report on CPRIT's Financial Overview for FY 2016, Quarter 4, including:

## CPRIT Financial Overview for FY 2016, Quarter 4

### FY 2016, Quarter 4 Operating Budget

For the fourth quarter of FY 2016, CPRIT expended or encumbered approximately \$16.3 million, or 93%, of the agency's \$17.7 million administrative budget between the Indirect Administration and Grant Review and Award Operations strategies. During the quarter, CPRIT received \$870,368 in revenue sharing payments which were deposited into the General Revenue Fund (0001), bringing the total revenue sharing collected for FY 2016 to \$921,686. Total revenue sharing payments received since CPRIT's inception through the end of August 2016 is approximately \$3.1 million.

### FY 2016, Quarter 4 Performance Measures

In October 2016, CPRIT reported performance to the LBB on all five required measures. CPRIT met or exceeded the targeted performance in four of the five performance measures. CPRIT did not achieve the target for the Number of People Served by Institute Funded Prevention and Control Activities because the grant activities have not changed from year to year and the agency did not expect to meet the targeted number that had been doubled from the prior year.

### Debt Issuance History

The Texas Public Finance Authority (TPFA) issued \$60 million in commercial paper notes on CPRIT's behalf in August 2016 bringing the total commercial paper notes issued for FY 2016 to \$147.5 million. In FY 2017, TPFA also issued \$58 million in commercial paper notes in October on CPRIT's behalf.

### FY 2016 Annual Financial Report

CPRIT completed the FY 2016 Annual Financial Report (AFR) on November 4, 2016, well ahead of the November 20<sup>th</sup> deadline and submitted the report to the Office of the Comptroller of Public Accounts, Governor's Office, Legislative Budget Board, and State Auditor's Office. The McConnell & Jones LLP audit team, the independent audit firm engaged to perform CPRIT's annual financial audit, reviewed the documentation related to the FY 2016 AFR. The results of that audit were expected in early December to be reported to the Audit Subcommittee at a special meeting on December 13.

There were no questions for Ms. McConnell.

## **17. Chief Compliance Officer Report**

Mr. Burgess presented the Chief Compliance Officer report that provides an overview of compliance activities over the last quarter as well as some highlights from FY 2016.

Implementation of the FY 2017 Grantee Risk Assessment has begun. The Grantee Risk Assessment, which assesses financial exposure, entity maturity and prior experience, is used to determine whether a grantee will receive a desk review, on-site review, or other type of compliance monitoring.

Mr. Burgess highlighted the following activities:

#### Training & Support

CPRIT staff conducted a new grantee training for Texas State University in San Marcos on October 6, 2016. Additionally, CPRIT staff conducted a grantee training webinar on October 12, 2016, with approximately 130 grantee staff in attendance. This webinar was the third conducted for grantees this calendar year to meet new annual compliance training requirements. As of this most recent training webinar, all active grantees had met the training requirement for this year.

#### FY16 Compliance Program Activities

Mr. Burgess reported that during FY2016, the Compliance Program strengthened existing compliance functions and identified additional compliance activities to support the integrity and transparency of CPRIT's agency processes.

- Grant Recipient Report Monitoring – The number of delinquent reports decreased from 52 in September 2015 to 7 in August 2016, an 85% decline.
- Compliance Monitoring Reviews (Desk and On-site) – The Compliance team performed over 330 compliance reviews during FY 2016, which is an increase of over 500% from the 63 reviews completed in FY 2015.
- Training and Education – CPRIT staff conducted two training webinars, three new grantee trainings, participated in UT Southwestern Medical Center's Research Demonstration Training Series, and the National Council of University Research Administrator's (NCURA) Region V Meeting. These efforts led to over 500 grantee staff being trained.

There were no questions for Mr. Burgess.

#### **18. Subcommittee Business**

#### **19. Compliance Investigation Pursuant to Health & Safety Code § 102.2631**

#### **20. Consultation with General Counsel**

Presiding Officer Geren stated there was no business to discuss for standing items 17, 18, and 19.

#### **21. Future Meeting Dates and Agenda Items**

Presiding Officer Geren announced the next regular Oversight Committee meeting is scheduled for February 15, 2017, at 10:00 a.m.

Presiding Officer Geren announced that this was Dr. Mulrow's last meeting with the CPRIT Oversight Committee. Mr. Geren read a resolution on her behalf. Mr. Roberts presented her with a Silver Star with the Texas Seal inscribed with her service years.

**MOTION:**

On a motion made by Dr. Rice and seconded by Mr. Margo, the Oversight Committee unanimously voted to approve the resolution for Dr. Mulrow.

**22. Adjourn**

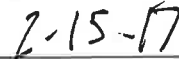
**MOTION:**

There being no further business, the Oversight Committee unanimously approved a motion to adjourn made by Presiding Officer Geren and seconded by Dr. Rosenfeld.

Meeting adjourned at 1:30 p.m.



Signature



Date



Pat Seaman 11/16/16

CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

November 2, 2016

AMM 11/16/16

Dear Oversight Committee Members:

I am pleased to present the Program Integration Committee's (PIC) unanimous recommendations for funding 48 grant applications totaling \$96,312,655. The PIC recommendations for 46 academic research grant awards and 2 product development research awards are attached.

Dr. Jim Willson, CPRIT's Chief Scientific Officer, and Mr. Michael Lang, CPRIT's Chief Product Development Officer, have prepared overviews of the academic research and product development research slates to assist your evaluation of the recommended awards. The overviews are intended to provide a comprehensive summary with enough detail to understand the substance of the proposal and the reasons endorsing grant funding. In addition to the full overviews, all of the information considered by the Review Councils is available by clicking on the appropriate link in the portal. This information includes the application, peer reviewer critiques, and the CEO affidavit for each proposal.

*The PIC used the award deferral process set by CPRIT administrative rule § 703.7(d) to defer the decision to recommend awards for 11 academic research applications until a future FY 2017 meeting. All 11 of the deferred applications were recommended by the Scientific Review Council. Eight of the deferred applications are Individual Investigator Research Awards and three are Early Translational Research Awards. The 11 deferred applications are ranked the lowest in their respective mechanisms. No Oversight Committee action is necessary at this time.*

The approval of these grant recommendations is governed by a statutory process that requires two-thirds of the members present and voting to approve each recommendation. Vince Burgess, CPRIT's Chief Compliance Officer, will certify that the review process for the recommended grants followed CPRIT's award process prior to any Oversight Committee action.

The award recommendations will not be considered final until the Oversight Committee meeting on November 16, 2016. Consistent with the non-disclosure agreement that all Oversight Committee members have signed, the recommendations should be kept confidential and not be disclosed to anyone until the award list is publicly announced at the Oversight Committee meeting. I request that Oversight Committee members not print, email or save to your computer's hard drive any material on the portal. I appreciate your assistance in taking all necessary precautions to protect this information. This is particularly important because one recommendation affects a publicly traded company, which implicates state and federal securities law as described by the memo prepared by Ms. Doyle that is on the portal.

If you have any questions or would like more information on the review process or any of the projects recommended for an award, CPRIT's staff, including myself, Dr. Willson, and Mr. Lang are always available. Please feel free to contact us directly should you have any questions. The programs that will be supported by the CPRIT awards are an important step in our efforts to mitigate the effects of cancer in Texas. Thank you for being part of this endeavor.

Sincerely,  
Wayne R. Roberts  
Chief Executive Officer

## Academic Research Award Recommendations –

The PIC unanimously recommends approval of 46 academic research grant proposals totaling \$61,223,240. The recommended grant proposals were submitted in response to eight grant mechanisms: Early Translational Research Awards; Individual Investigator Research Awards; Individual Investigator Research Awards for Cancer in Children and Adolescents; Individual Investigator Research Awards for Computational Biology; Individual Investigator Research Awards for Prevention and Early Detection; Research Training Awards; Recruitment of First-Time, Tenure-Track Faculty Members; and Recruitment of Established Investigators. After deferring 11 applications, the PIC followed the recommendations made by the Scientific Review Council (SRC). The SRC provided the prioritized list of recommendations for the Recruitment awards to the presiding officers on October 24, 2016.

The PIC is required to give funding priority, to the extent possible, to applications that meet one or more criteria set forth in V.T.C.A., TEX. HEALTH & SAFETY CODE § 102.251(a)(2)(C). The PIC determined that these academic research proposals met the following CPRIT funding priorities:

- could lead to immediate or long-term medical and scientific breakthroughs in the area of cancer prevention or cures for cancer;
- strengthen and enhance fundamental science in cancer research;
- ensure a comprehensive coordinated approach to cancer research and cancer prevention;
  - This priority is met by the following mechanisms: Early Translational Research Awards; Individual Investigator Research Awards; Individual Investigator Research Awards for Cancer in Children and Adolescents; Individual Investigator Research Awards for Computational Biology; Individual Investigator Research Awards for Prevention and Early Detection; Research Training Awards; and Recruitment of Established Investigators.
- are interdisciplinary or interinstitutional;
- address federal or other major research sponsors' priorities in emerging scientific or technology fields in the area of cancer prevention or cures for cancer;
- are matched with funds available by a private or nonprofit entity and institution or institutions of higher education;
- are collaborative between any combination of private and nonprofit entities, public or private agencies or institutions in this state, and public or private institutions outside this state;
  - This is met by the following mechanisms: Early Translational Research Awards; Individual Investigator Research Awards; Individual Investigator Research Awards for Cancer in Children and Adolescents; Individual Investigator Research Awards for Computational Biology; and Individual Investigator Research Awards for Prevention and Early Detection.
- have a demonstrable economic development benefit to this state;
  - This priority is met by the following mechanisms: Early Translational Research Awards; Individual Investigator Research Awards; Individual Investigator Research Awards for Cancer in Children and Adolescents; Individual Investigator Research Awards for Computational Biology; Individual Investigator Research Awards for Prevention and Early Detection; Recruitment of First-Time, Tenure-Track Faculty; and Recruitment of Established Investigators.



- enhance research superiority at institutions of higher education in this state by creating new research superiority, attracting existing research superiority from institutions not located in this state and other research entities, or enhancing existing research superiority by attracting from outside this state additional researchers and resources;
- Expedite innovation and commercialization, attract, create, or expand private sector entities that will drive a substantial increase in high-quality jobs, and increase higher education applied science or Technology research capabilities; and
  - This priority is met by the following mechanisms: Early Translational Research Awards; Recruitment of First-Time, Tenure-Track Faculty; and Recruitment of Established Investigators.
- address the goals of the Texas Cancer Plan.

### Academic Research Grant Award Recommendations

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
RP170067	RTA	1.2	The Future of Cancer Research: Training Program for Basic and Translational Scientists	Keyomarsi, Khandan	The University of Texas M. D. Anderson Cancer Center	\$ 4,000,000
RP170427	ETRA	1.5	Ambient Mass Spectrometry for Preoperative Molecular Diagnosis of Thyroid Fine Needle Aspirate Biopsies	Schiavinato Eberlin, Livia	The University of Texas at Austin	\$ 983,586
RP170466	IIRA	1.7	Targeting the Inflammatory Cancer Stem Cell Microenvironment of Triple Negative Breast Cancer with Leukocyte-mimetic Nanovesicles	Tasciotti, Ennio	The Methodist Hospital Research Institute	\$ 896,951
RP170233	IIRA	1.8	K-ras Spatiotemporal Dynamics: Novel Therapeutic Targets	Hancock, John	The University of Texas Health Science Center at Houston	\$ 900,000
RP170496	IIRA	1.8	Targeting a Growth and Survival Pathway in Bone Tumor Cells.	Gregory, Carl	Texas A&M University System Health Science Center	\$ 864,971
RP170314	IIRA	1.8	Biodegradable nanoclusters for molecular cancer imaging	Sokolov, Konstantin	The University of	\$ 899,553

PIC Recommendations  
FY2017 (November)

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
					Texas M. D. Anderson Cancer Center	
RP170593	RTA	2.0	Computational Cancer Biology Training Program	Pettitt, B. Montgomery	The University of Texas Medical Branch at Galveston	\$ 3,999,285
RP170074	IIRACCA	2.0	Molecular Epidemiology And Somatic Alterations Driving Acute Lymphoblastic Leukemia In Down Syndrome	Rabin, Karen	Baylor College of Medicine	\$ 1,200,000
RP170401	IIRA	2.0	Targeting The Glycolysis Pathway To Overcome Resistance To Cancer Immunotherapy	Hwu, Patrick	The University of Texas M. D. Anderson Cancer Center	\$ 900,000
RP170207	IIRACCA	2.0	BBB-penetrating redox-responsive smart drugs and exploiting the MGMT-driven S-phase checkpoint for chemotherapy of childhood brain cancers	Srivenugopal , Kalkunte	Texas Tech University Health Sciences Center	\$ 1,173,149
RP170231	IIRA	2.1	Identifying vulnerabilities in mutant p53 driven tumorigenesis	Lozano, Guillermina	The University of Texas M. D. Anderson Cancer Center	\$ 869,197
RP170399	IIRA	2.1	Elimination of hypoxia sensitizes resistant solid tumors to immunotherapy	Curran, Michael	The University of Texas M. D. Anderson Cancer Center	\$ 899,993
RP170040	IIRA	2.1	Exploiting DNA repair defects using intensity modulated proton therapy	Sawakuchi, Gabriel	The University of Texas M. D. Anderson Cancer Center	\$ 899,889

PIC Recommendations  
FY2017 (November)

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
RP170295	IIRAP	2.1	Developing Effective Epigenetic Biomarkers to Identify Individuals with High Risk of Cancer	Waterland, Robert	Baylor College of Medicine	\$ 1,052,089
RP170095	IIRAP	2.1	Exercise as an aid to smoking cessation in anxiety vulnerable adults	Smits, Jasper	The University of Texas at Austin	\$ 891,623
RP170470	IIRACCA	2.1	OCT4/c-MYC axis as a mechanism of resistance to 13-cis retinoic acid in neuroblastoma	Kang, Min	Texas Tech University Health Sciences Center	\$ 1,125,638
RP170146	IIRA	2.2	B cell receptor signaling intersects with angiogenesis in diffuse large B cell lymphoma	Aguiar, Ricardo	The University of Texas Health Science Center at San Antonio	\$ 900,000
RP170493	IIRAP	2.2	For Our Children: A tailored multi-level intervention for parents and healthcare providers to increase HPV vaccination rates	Fernandez, Maria	The University of Texas Health Science Center at Houston	\$ 1,487,683
RP170245	ETRA	2.2	Discovery of antibody-drug conjugates targeting a receptor broadly expressed in solid tumors	Liu, Qingyun	The University of Texas Health Science Center at Houston	\$ 1,000,000
RP170330	IIRA	2.3	A novel GRK3-EZH2 regulatory pathway in prostate cancer progression	Li, Wenliang	The University of Texas Health Science Center at Houston	\$ 900,000
RP170250	IIRA	2.3	Regulation of 53BP1 by novel 53BP1-binding proteins in DNA repair	Chen, Junjie	The University of Texas M. D. Anderson Cancer Center	\$ 900,000
RP170126	IIRA	2.3	A Novel Pathway to Reduce BRCA1-Associated Breast Cancer Risk	Hu, Yanfen	The University of Texas Health	\$ 900,000

PIC Recommendations  
FY2017 (November)

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
					Science Center at San Antonio	
RP170114	IIRA	2.3	Mechanisms of melanoma metastasis	Morrison, Sean	The University of Texas Southwestern Medical Center	\$ 892,521
RP170537	ETRA	2.4	Identification of novel immune targets and neoantigens for development of immunotherapy for breast cancer	Wang, Rongfu	The Methodist Hospital Research Institute	\$ 999,995
RP170508	IIRAP	2.4	Structural modeling of peptide-HLA complexes presenting a melanoma-associated antigen for cross-reactivity assessment	Kavraki, Lydia	Rice University	\$ 900,000
RP170510	IIRACCA	2.4	Telomere Maintenance Mechanisms in Neuroblastoma	Reynolds, Charles	Texas Tech University Health Sciences Center	\$ 1,058,246
RP170336	IIRA	2.5	Preclinical Analyses of NAD Kinase as a Redox Vulnerability for the Treatment of Pancreatic Cancer.	Scott, Kenneth	Baylor College of Medicine	\$ 875,757
RP170066	ETRA	2.5	Oncolytic Immunotherapy for Gliomas and Cancer Metastases in the Era of Checkpoint Regulation	Fueyo, Juan	The University of Texas M. D. Anderson Cancer Center	\$ 990,905
RP170382	IIRA	2.6	Primary Cilia in Cell Cycle Control and Tumorigenesis	Zhong, Qing	The University of Texas Southwestern Medical Center	\$ 900,000
RP170259	RTA	2.6	CPRIT Cancer Prevention Research Training Program	Chang, Shine	The University of Texas M. D. Anderson	\$ 2,071,403

PIC Recommendations  
FY2017 (November)

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
					Cancer Center	
RP170564	IIRA	2.6	Super-resolution imaging of tumor angiogenesis in deep tissue with high specificity and sensitivity	Yuan, Baohong	The University of Texas at Arlington	\$ 900,000
RP170079	IIRA	2.6	Palbociclib synergizes with autophagy inhibitors to induce senescence in breast cancer	Keyomarsi, Khandan	The University of Texas M. D. Anderson Cancer Center	\$ 900,000
RP170301	RTA	2.7	Osteopathic Scholars in Cancer Research (OSCR)	Vishwanatha, Jamboor	University of North Texas Health Science Center at Fort Worth	\$ 799,055
RP170071	IIRAP	2.7	Genetic Epidemiology and Molecular Basis of Cancer Predisposition in Pediatric Rhabdomyosarcoma	Lupo, Philip	Baylor College of Medicine	\$ 1,488,105
RP170366	IIRA	2.7	Optimizing Chemoradiation Strategies by Tumor Metabolism Interrogation	Lai, Stephen	The University of Texas M. D. Anderson Cancer Center	\$ 899,996
RP170317	IIRA	2.7	Developing Effective Immunotherapeutic Strategies for Advanced Uveal Melanoma	Woodman, Scott	The University of Texas M. D. Anderson Cancer Center	\$ 899,507
RP170307	IIRA	2.7	BIOMARKER-BASED TREATMENT OF POOR PROGNOSTIC MESENCHYMAL SUBTYPE IN GASTRIC CANCER	Lee, Ju-Seog	The University of Texas M. D. Anderson Cancer Center	\$ 893,875
RP170152	IIRACCA	2.8	Targeting the HNF4A and WNT/Beta-catenin pathways in childhood malignant yolk sac tumors.	Amatruda, James	The University of Texas Southwestern Medical Center	\$ 1,169,499

PIC Recommendations  
FY2017 (November)

Application ID	Award Mechanism	Meeting Overall Score	Application Title	PI	PI Organization	Budget
RP170144	IIRACB	2.8	Effective Exploitation Of Structural Data For Oncology	Ioerger, Thomas	Texas A&M Engineering Experiment Station	\$ 900,000
RP170169	IIRACCA	2.8	High throughput combinatory drug screening for pediatric medulloblastomas with a dysregulated EZH2 pathway	Li, Xiao-Nan	Baylor College of Medicine	\$ 1,198,726
RP170488	IIRACCA	2.9	Mechanisms of Notch Dysregulation in Pediatric Osteosarcoma	Lee, Brendan	Baylor College of Medicine	\$ 1,110,480
RP170387	IIRACB	3.0	Development and Validation of a Network-guided, Multi-objective Optimization Model for Cancer Data Analysis.	Liu, Zhandong	Baylor College of Medicine	\$ 889,679
RP170170	IIRACB	3.1	Prediction of nuclear export signals in proteins	Grishin, Nick	The University of Texas Southwestern Medical Center	\$ 844,989
RP170345	RTA	3.2	UTHSCSA Cancer Research Training Program	Oyajobi, Babatunde	The University of Texas Health Science Center at San Antonio	\$ 3,996,895

\*RP170259 – Research Training Award: SRC recommended the following budget reductions: Reduce number of trainees from 9 to 6 Post-Doctoral trainees per year; reduce funding for training program manager to 50% FTE (from proposed 100% FTE), and reduce budget to reflect reduction of 3 trainees/year (cost per trainee \*3). The award amount in this table reflects these changes.

**Academic Research Recruitment Grant Award Recommendations**

Rank	App ID	Candidate	Mechanism	Organization	Budget	Overall Score
1	RR170005	Maura Gillison	REI	The University of Texas M.D. Anderson Cancer Center	\$6,000,000	1.0
2	RR170003	Srinivas, Malladi	RFTFM	The University of Texas Southwestern Medical Center	\$2,000,000	2.0

\*REI: Recruitment of Established Investigators

RRS: Recruitment of Rising Stars

RFTFM: Recruitment of First-Time Tenure Track Faculty Members

**Product Development Research Award Recommendations –**

The PIC unanimously recommends approval of two product development research grant proposals totaling \$35,089,415. The recommended grant proposal was submitted in response to the Texas Company Product Development Research Awards Request for Applications. The Product Development Council (PDRC) recommended one application to the PIC. The PDRC provided its recommendation to the presiding officers on October 20, 2016.

The PIC is required to give funding priority, to the extent possible, to applications that meet one or more criteria set forth in V.T.C.A., TEX. HEALTH & SAFETY CODE § 102.251(a)(2)(C). The PIC determined that these product development proposals met the following CPRIT funding priorities:

- could lead to immediate or long-term medical and scientific breakthroughs in the area of cancer prevention or cures for cancer;
- strengthen and enhance fundamental science in cancer research;
- ensure a comprehensive coordinated approach to cancer research and cancer prevention;
- are interdisciplinary or interinstitutional (the PIC chose this factor for Established Company Awards);
- address federal or other major research sponsors’ priorities in emerging scientific or technology fields in the area of cancer prevention, or cures for cancer;
- are matched with funds available by a private or nonprofit entity and institution or institutions of higher education;
- are collaborative between any combination of private and nonprofit entities, public or private agencies or institutions in this state, and public or private institutions outside this state;
- have a demonstrable economic development benefit to this state;
- expedite innovation and product development, attract, create, or expand private sector entities that will drive a substantial increase in high-quality jobs, and increase higher education applied science or technology research capabilities; and
- address the goals of the Texas Cancer Plan.

**Product Development Research  
 Grant Award Recommendations**

<b>Rank</b>	<b>Application ID</b>	<b>Company Name</b>	<b>Project</b>	<b>Maximum Recommended Budget</b>	<b>Overall Score</b>
1	DP160057	Bellicum Pharmaceuticals, Inc.	Clinical Evaluation of a Novel T Cell Therapy (BPX-501) for the Treatment of Children and Adults with AML	\$19,789,415	3.1



PIC Recommendations  
FY2017 (November)

<b>Rank</b>	<b>Application ID</b>	<b>Company Name</b>	<b>Project</b>	<b>Maximum Recommended Budget</b>	<b>Overall Score</b>
2	DP16071	Molecular Templates, Inc.	A Novel Compound Targeting CD38 for Treatment of Multiple Myeloma	\$15,300,000	1.7

\*These recommendations are subject to the company's acceptance of certain contract contingencies and/or additional goals and objectives.



CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

The Oversight Committee of the Cancer Prevention and Research Institute of Texas, also known as CPRIT, by unanimous vote of its members, adopts the following resolution.

RESOLUTION

WHEREAS, Cynthia Mulrow, M.D., MSc., MACP, has served as an Oversight Committee member of the Cancer Prevention and Research Institute of Texas since October 22, 2013; and

WHEREAS, Dr. Mulrow assumed the position during a critical period of regaining the confidence of the Texas Legislature and the citizens of Texas in order for CPRIT to resume its role in the fight against cancer; and

WHEREAS, Dr. Mulrow was pivotal in restoring that confidence; and

WHEREAS, Dr. Mulrow worked selflessly for and on behalf of CPRIT, giving her time, prestige, and energy without remuneration; and

WHEREAS, Dr. Mulrow steadfastly performed the duties of her position with equanimity, determination, and poise; and

WHEREAS, Dr. Mulrow earned the respect and admiration of CPRIT staff through her dedication in furthering the mission of CPRIT; and

WHEREAS, Dr. Mulrow likewise earned the respect of her fellow Oversight Committee members through her wise counsel and able leadership of the Diversity and Prevention Program subcommittees; and

WHEREAS, CPRIT's mission of promoting prevention, academic research, and product development research advanced under Dr. Mulrow's guidance to the benefit of all Texans; now, therefore, be it

RESOLVED, That the Oversight Committee of the Cancer Prevention and Research Institute of Texas hereby recognizes Cynthia D. Mulrow, M.D., MSc., MACP, for her distinguished service to the citizens of the State of Texas, and expresses its gratitude for her many and lasting contributions to the Cancer Prevention and Research Institute of Texas; and, be it further

RESOLVED, That an official copy of this resolution be prepared for Dr. Mulrow as an expression of high regard by Oversight Committee members and CPRIT staff.

Signed this 16<sup>th</sup> day of November, 2016

Preston "Pete" Geren

Will Montgomery

Amy Mitchell

Angelos G. Angelou

Ned Holmes

Donald "Dee" Margo

William Rice, M.D.

Craig S. Rosenfeld, M.D.

Wayne R. Roberts  
Chief Executive Officer

