

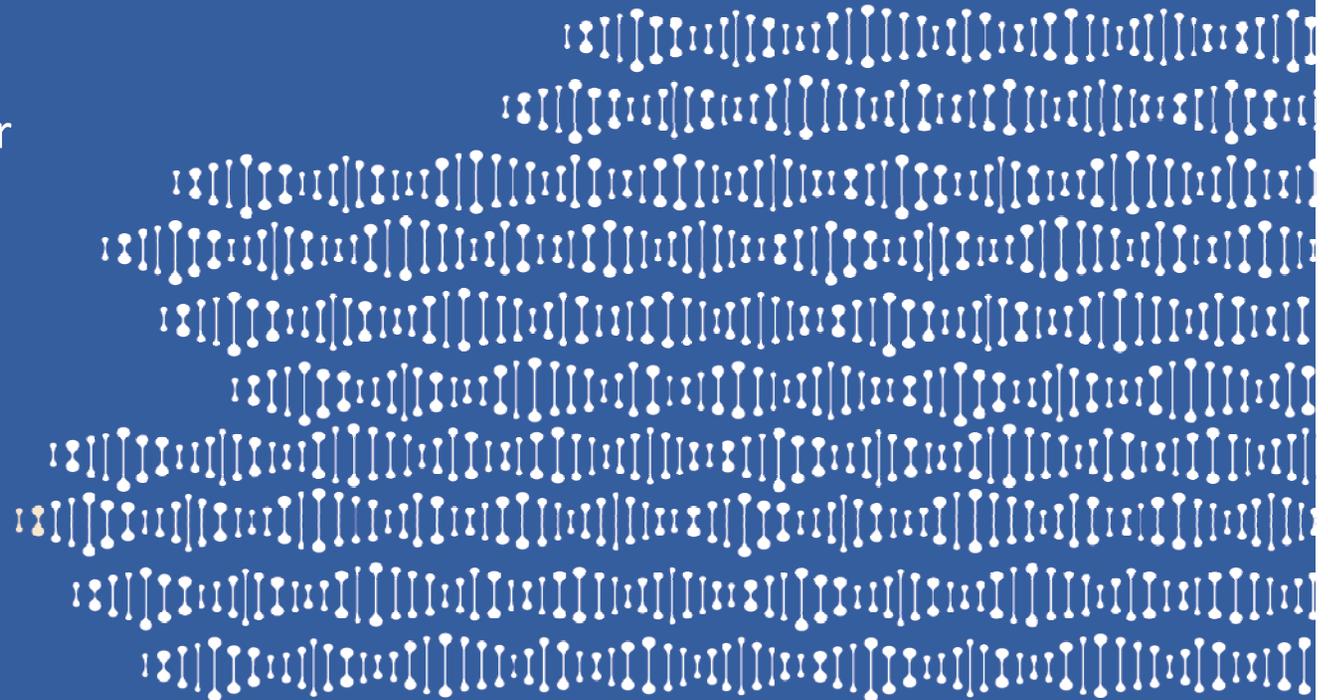


CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

# Presentation to the House Select Committee on Economic Development Incentives

September 24, 2014

Wayne Roberts  
Chief Executive Officer



# CPRIT Overview

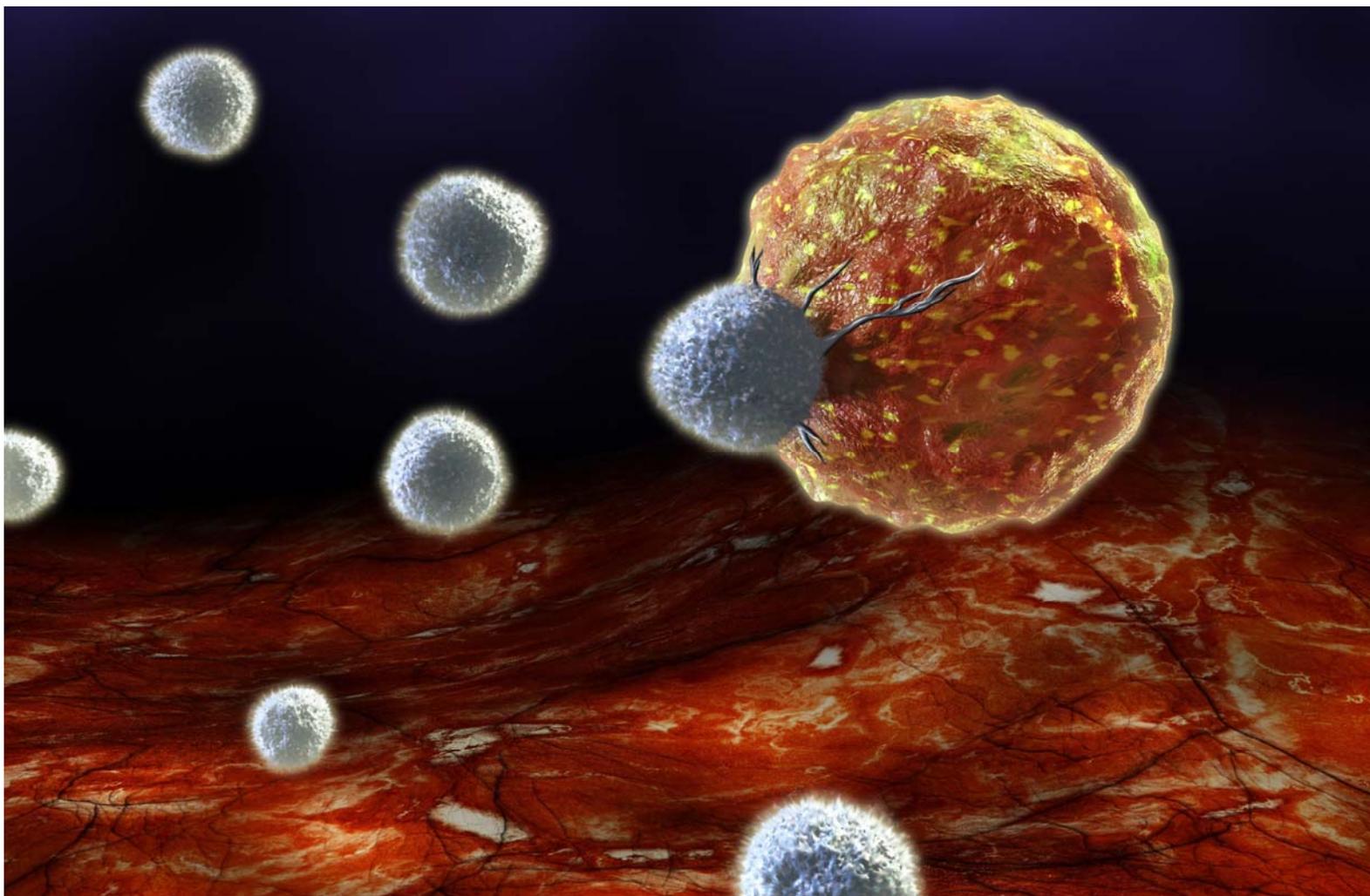
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1. Cancer's Impact in Texas
2. Mission
3. Implementation of State Auditor's Recommendations
4. Implementation of Senate Bill 149
5. Moving Forward
6. Summary of CPRIT Product Development Contracts
7. Appendix - Program Information
  - Research
  - Product Development
  - Prevention

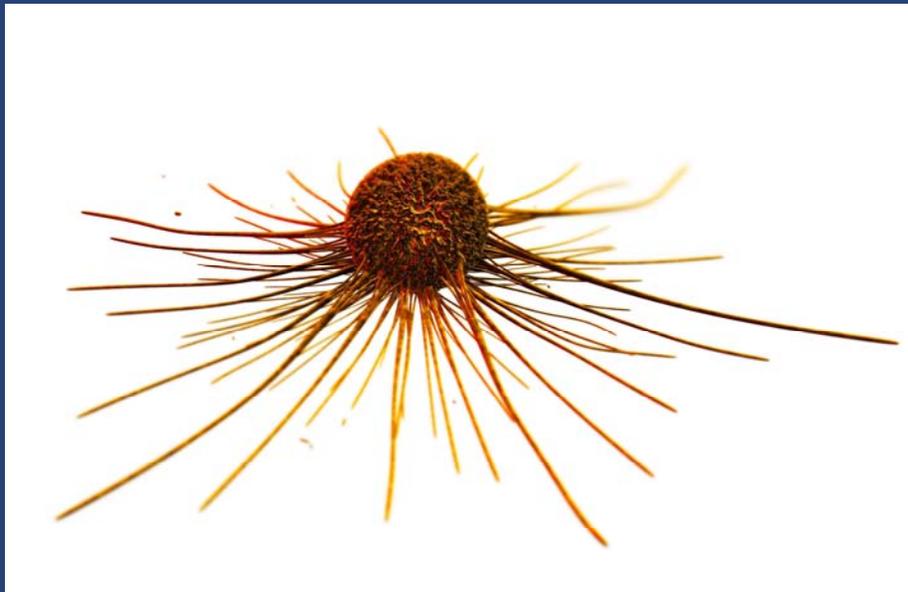


2014: Expect 119,000 Texans newly diagnosed; 44,150 die.

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# Cancer's enormous human & economic costs to Texas



- \$150.9 billion in reduced annual spending
- \$74.4 billion in output losses annually
- 747,850 lost jobs from cancer treatment, morbidity and mortality and the associated spillover effects



# CPRIT's Unique Role in the Fight Against Cancer

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**Created by the Texas Legislature and citizens in 2007**

## **Our Mission:**

- Create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer.
- Attract, create, or expand research capabilities at institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and creation of high-quality new jobs in Texas.
- Develop and implement the Texas Cancer Plan.



# Oversight Committee Members

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**William Rice, M.D.**  
**Chair**  
Austin  
Appointed by Governor Perry  
Term: 9/26/13 - 1/31/17

**Pete Geren**  
**Vice-Chair**  
Fort Worth  
Appointed by Speaker Straus  
Term: 10/22/13 - 1/31/19

**Amy Mitchell**  
**Secretary**  
Austin  
Appointed by Lt. Gov. Dewhurst  
Term: 9/26/13 - 1/31/15

**Gerald Geistweidt**  
Mason  
Appointed by Governor Perry  
Term: 9/26/13 - 1/31/15

**Cynthia D. Mulrow, M.D., MSc., MACP**  
San Antonio  
Appointed by Speaker Straus  
Term: 10/22/13 - 1/31/15

**Craig Rosenfeld, M.D.**  
Dallas  
Appointed by Lt. Gov. Dewhurst  
Term: 9/26/13 - 1/31/17

**Angelos Angelou**  
Austin  
Appointed by Governor Perry  
Term: 9/26/13 - 1/31/19

**Will Montgomery**  
Dallas  
Appointed by Speaker Straus  
Term: 11/20/13 - 1/31/17

**Ned Holmes**  
Houston  
Appointed by Lt. Gov. Dewhurst  
Term: 9/26/13 - 1/31/19



# CPRIT's Unique Role in the Fight Against Cancer

## Mission

- Create and expedite innovation in cancer research into prevention and cures
- Attract, create, or expand research capabilities
- Create high-quality new jobs in Texas
- Develop and implement the Texas Cancer Plan



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## Action

**Award merit-based, peer reviewed grants to Texas-based entities and institutions for cancer-related research, product development and the delivery of cancer prevention programs and services.**





SUMMARY OF CPRIT'S IMPLEMENTATION OF THE

51

JANUARY 2013 STATE AUDITOR'S GRANT MANAGEMENT RECOMMENDATIONS

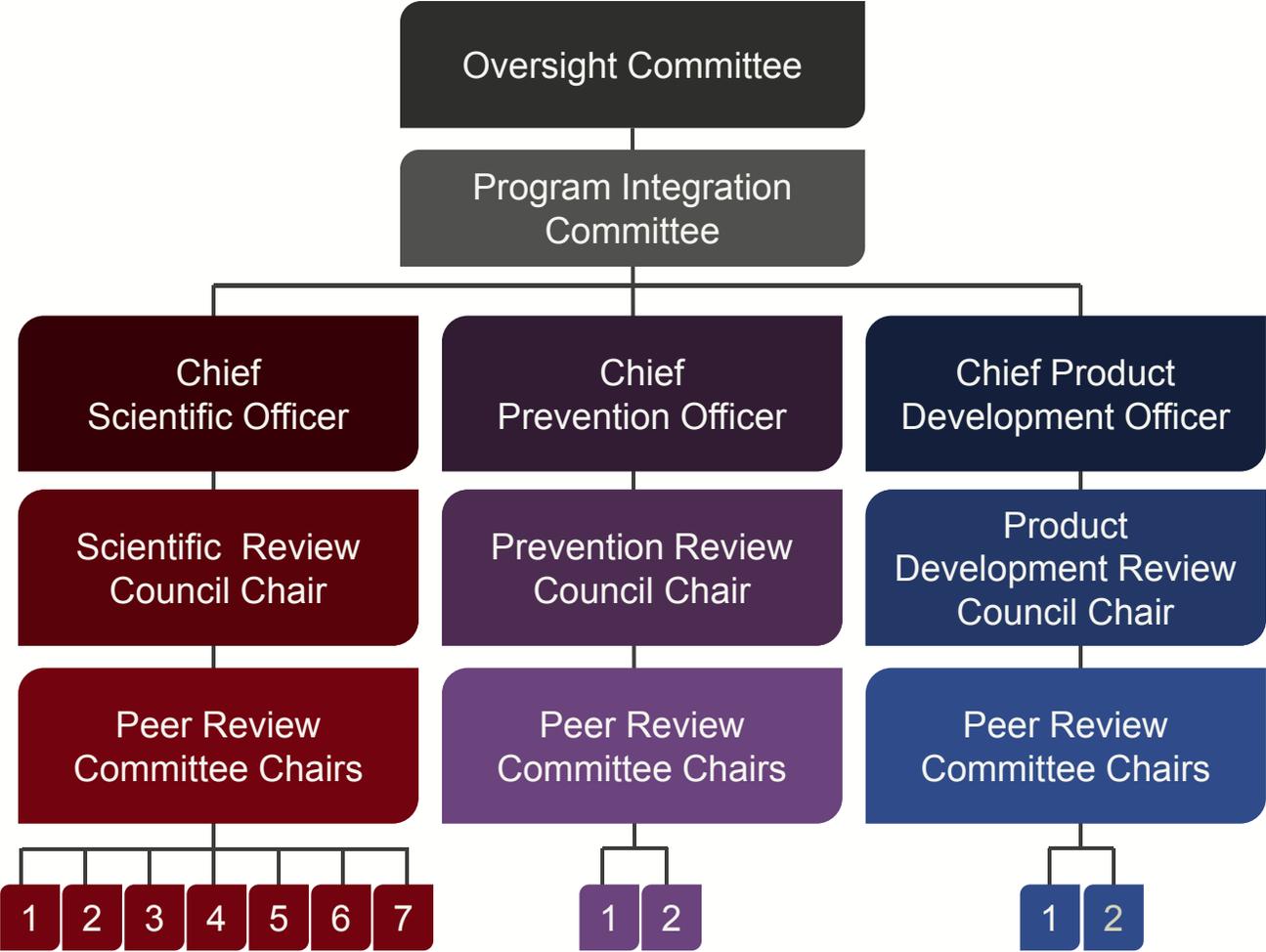
	Recommendations in Chapter		Recommendations Completed
Chapter 1-A	8	CPRIT should ensure that all grant decisions are free from real or apparent conflicts of interest	8
Chapter 1-B	7	CPRIT should ensure the transparency and accountability of its peer review process	7
Chapter 1-C	2	CPRIT should verify the accuracy and availability of grantees' matching funds	2
Chapter 2-A	2	CPRIT should establish requirements for advance payments and reimbursements it makes to grantees	2
Chapter 2-B	5	CPRIT should improve processes for monitoring grantee expenditures and research progress	5
Chapter 2-C	2	CPRIT should strengthen certain contract management processes	2
Chapter 3	6	CPRIT should improve its management of the CTNeT research grant and other administrative practices	6
Chapter 4-A	4	CPRIT should ensure that contracted services and related costs are reasonable and necessary	4
Chapter 4-B	3	CPRIT should ensure that its honorarium payments are appropriate	3
Chapter 5	2	CPRIT should ensure that its outsourced information systems maintain valid and reliable grant management data	2
	10	The Legislature should consider clarifying certain statutory requirements to increase transparency and accountability at CPRIT	10
<b>TOTAL COMPLETED</b>			<b>51</b>



## SUMMARY OF CPRIT'S IMPLEMENTATION OF SENATE BILL 149

		Implemented by CPRIT
§102.106- §102.1064 §102.109	Strengthen conflicts of interest policies and code of conduct; ensure that all grant decisions are free from real or apparent conflicts of interest	✓
§102.251	Increase the transparency and accountability of CPRIT's peer review process	✓
§102.107	Enhance policy role of Oversight Committee	✓
§102.252 §102.264	Create the Program Integration Committee and require affirmative approval of grant awards by the Oversight Committee	✓
§102.255	Clarify matching fund requirements and verify the accuracy and availability of grantee matching funds	✓
§102.255	Establish requirements for advance payments and reimbursements it makes to grantees	✓
§102.260	Improve monitoring of grantee expenditures and research progress	✓
§102.263	Employ a Chief Compliance Officer and implement a compliance program	✓
§102.262	Require transparency in gifts made to CPRIT, its employees, its Oversight Committee members, and any foundation created to support CPRIT	✓
§102.251	Prohibit awarding a grant to an applicant who has made a gift to CPRIT or related foundation	✓

# CPRIT's Peer Review



# CPRIT is Moving Forward...

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## Scientific Research

- Increased emphasis on
  - Prevention and early detection research
  - Rare cancers and cancers with poor prognosis
- Recruit the best cancer research talent to Texas

## Product Development

- Emphasis on Texas talent and opportunities
- Importance on the early stages – where there is a funding “gap”
- A new RFP for company assistance

## Prevention

- Facilitate dissemination across state
  - Networks or model programs
- Collective impact
  - Partnerships with other funding agencies



# Moving Forward – Establishing Program Priorities

## Mandate

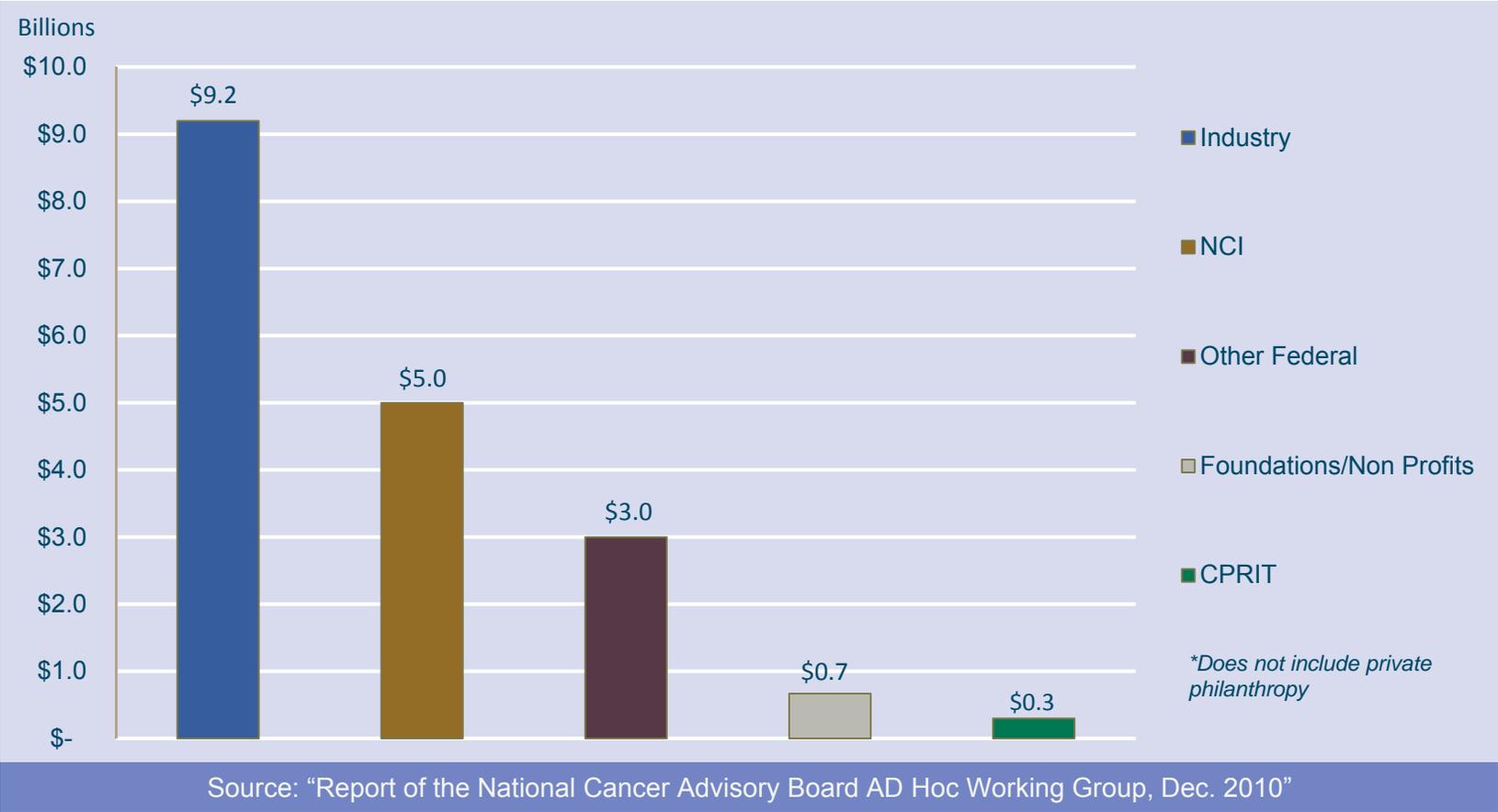
- The Oversight Committee must set priorities for each grant program annually
- The priorities set by the Oversight Committee should be considered when making grant awards

## Action

- Feb – June, 2014 - Information gathering
- July 2014 - Scientific Research, Product Development, and Prevention subcommittees work individually with a facilitator to develop preliminary priorities for each program
- August 20, 2014 –Update at Oversight Committee meeting regarding subcommittee work on preliminary program priorities
- September 3, 2014 – Oversight Committee Work Session to finalize program priorities
- Sept – Oct, 2014 – Public input regarding program priorities
- November 19, 2014 – Final Approval



# CPRIT Funding in Perspective



# Summary of CPRIT Product Development Contracts

	Grantee Organization (City)	Technology and Significance	Total Contract Obligation (MM)	Amount Spent to date (MM)	Follow-on Capital (MM Post Award)	Maximum Potential Return to CPRIT (MM)	Estimated Jobs at Company Build out
A C T I V E  A W A R D S	Mirna Therapeutics, Inc. (Austin)	<u>Therapeutic</u> : Clinical development of this mimic of the micro RNA tumor suppressor, miR-34, may enable the treatment of liver, colon, breast, prostate, and lung cancer.	\$10.30	\$10.30	\$36.90	\$20.59	20
	Rules-Based Medicine (Austin)	<u>Diagnostic</u> : Discovery and use of biomarkers in cancer to assist research and improve early detection.	\$3.02	\$2.45	\$81.00	no limit	10
	Bellicum Pharmaceuticals, Inc. (Houston)	<u>Therapeutic</u> : Cancer fighting T-cells are engineered with a "turn off" gene that can be activated in the case of Graft vs. Host Disease. Bellicum recently closed C-round financing for \$55 MM.	\$5.68	\$4.64	\$89.00	\$11.36	30
	Molecular Templates, Inc. (Georgetown)	<u>Therapeutic</u> : A highly toxic protein is joined to a CD20 targeting molecule to create a new and more effective leukemia and lymphoma treatment. Company received an IND to begin Phase I trials on 9-10-14.	\$10.60	\$3.85	\$10.00	\$21.20	12
	Pulmotect, Inc. (Houston)	<u>Therapeutic</u> : A combination of two TLR agonists stimulate the lung's innate immune system to prevent pneumonia in immunocompromised cancer patients.	\$7.13	\$2.49	\$3.56	no limit	15



# Summary of CPRIT Product Development Contracts

	Grantee Organization (City)	Technology and Significance	Total Contract Obligation (MM)	Amount Spent to date (MM)	Follow-on Capital (MM Post Award)	Maximum Potential Return to CPRIT (MM)	Estimated Jobs at Company Build out
A C T I V E  A W A R D S	Asuragen, Inc. (Austin)	<u>Diagnostic</u> : Next generation sequencing to provide mutation profiling to discover cancer-linked genomic variants for clinical research, drug development and improved care for cancer patients.	\$6.84	\$3.28	\$15.00	\$13.67	10
	Cell Medica (Houston)	<u>Therapeutic</u> : Patient T-cells are removed from the body, activated and expanded in number, and then reintroduced to attack lymphomas associated with Epstein Barr virus.	\$15.57	\$4.67	\$11.00	no limit	20
	DNAtrix, Inc. (Houston)	<u>Therapeutic</u> : Development of an oncolytic adenovirus for the treatment of glioblastoma	\$10.81	\$1.01	\$0.00	Capped at 5.4X of award = \$64.8 MM	10
	ESSA Pharma, Inc. (Houston)	<u>Therapeutic</u> : Blocking the androgen receptor overcomes hormone-therapy resistance in prostate cancer	\$12.00	\$0.28	\$0.00	Capped at 5.4X of award = \$58.4 MM	15
	CerRx, Inc. (Lubbock)	<u>Therapeutic</u> : Compounds to cause overproduction of toxic ceramides in cancer cells	\$6.00	\$0.17	\$0.00	Capped at 4.2X of award = \$25.2 MM	10



# Summary of CPRIT Product Development Contracts

	Grantee Organization (City)	Technology and Significance	Total Contract Obligation (MM)	Amount Spent to date (MM)	Follow-on Capital (MM Post Award)	Maximum Potential Return to CPRIT (MM)	Estimated Jobs at Company Build out
I N N E G O T I A T I O N	Kalon Biotherapeutics (College Station)	<u>Therapeutic</u> : Formation of The Texas Cancer Therapeutics Process Development Lab	\$7.90	\$0.00	\$3.95	\$8.14	25
	ProPep Surgical (Austin)	<u>Device</u> : System and device to identify nerves during cancer surgery to prevent their damage	\$4.44	\$0.00	\$0.00	\$22.18	5
	Beta Cat Pharmaceuticals (Dallas)	<u>Therapeutic</u> : Development of an inhibitor of the beta catenin pathway in colorectal cancer	\$15.91	\$0.00	\$0.00	\$79.54	15
	AERase, Inc. (Austin)	<u>Therapeutic</u> : Depletion of an amino acid necessary for cancer cells causes cancer cell starvation and death	\$19.81	\$0.00	\$0.00	\$99.03	15
	Mirna Therapeutics, Inc. (Austin)	<u>Therapeutic</u> : Testing and developing previously developed lead compound in combination with other therapeutics	\$25.15	\$0.00	\$0.00	\$125.74	5
	Curtana Pharmaceuticals (Austin)	Therapeutic: Development of targeted small molecules for the treatment of brain cancers	\$7.58	\$0.00	\$0.00	\$37.90	15
	OncoNano Medicine (Dallas)	Device: Method for visualizing tumor cells during surgical resection	\$6.00	\$0.00	\$0.00	\$30.00	15



# Summary of CPRIT Product Development Contracts

	Grantee Organization (City)	Technology and Significance	Total Contract Obligation (MM)	Amount Spent to date (MM)	Follow-on Capital (MM Post Award)	Maximum Potential Return to CPRIT (MM)	Estimated Jobs at Company Build out
<b>On Hold</b>	Caliber Biotherapeutics (College Station)	<u>Therapeutic</u> : Development of a plant made, "biobetter" Rituxan® (anti-CD20) for treatment of leukemia and lymphoma.	\$12.81	\$1.26	\$10.40	\$0.00	7
	InGeneron, Inc. (Houston)	<u>Diagnostic</u> : Enrichment Filter and Point-of-use Assay Platform for Detection of Circulating Tumor Cells	\$0.20	\$0.08	\$2.40	\$0.22	3
<b>Closed</b>	Visualase, Inc. (Houston)	<u>Device</u> : A laser system for precision guided destruction of localized prostate cancer reduces side effects of incontinence and sexual dysfunction.	\$2.15	\$1.44	\$5.20	\$2.05 (paid 8/14)	5
	Apollo Endosurgery (Austin)	<u>Device</u> : Novel flexible surgical devices enable removal of early-stage lesions from the colon, esophagus, and stomach	\$5.00	\$5.00	\$130.00	\$10.00	12
<b>Suspended</b>	Peloton Therapeutics, Inc. (Dallas)	<u>Therapeutic</u> : Research and development of small molecule inhibitors of hypoxic signaling; selective antagonists of Wnt signaling; and a platform for whole genome siRNA profiling	\$11.04	\$3.20	\$30.60	\$0.00	NA



# Location of CPRIT-Supported Companies

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<b>Austin area</b>	<b>8</b>
<b>College Station</b>	<b>2</b>
<b>Dallas</b>	<b>2</b>
<b>Houston</b>	<b>7</b>
<b>Lubbock</b>	<b>1</b>



# Questions?

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[www.cprit.state.tx.us](http://www.cprit.state.tx.us)

PO Box 12097 ■ Austin Texas 78711 ■ (512) 463-3190

Wayne R. Roberts  
Chief Executive Officer

## Research Program

Margaret L. Kripke, PhD  
Chief Scientific Officer

## Product Development Program

Thomas C. Goodman, PhD  
Chief Product Development Officer

## Prevention Program

Rebecca Garcia, PhD  
Chief Prevention and Communications Officer

## Legal

Kristen Doyle  
Chief Advisor and General Counsel

## Operations

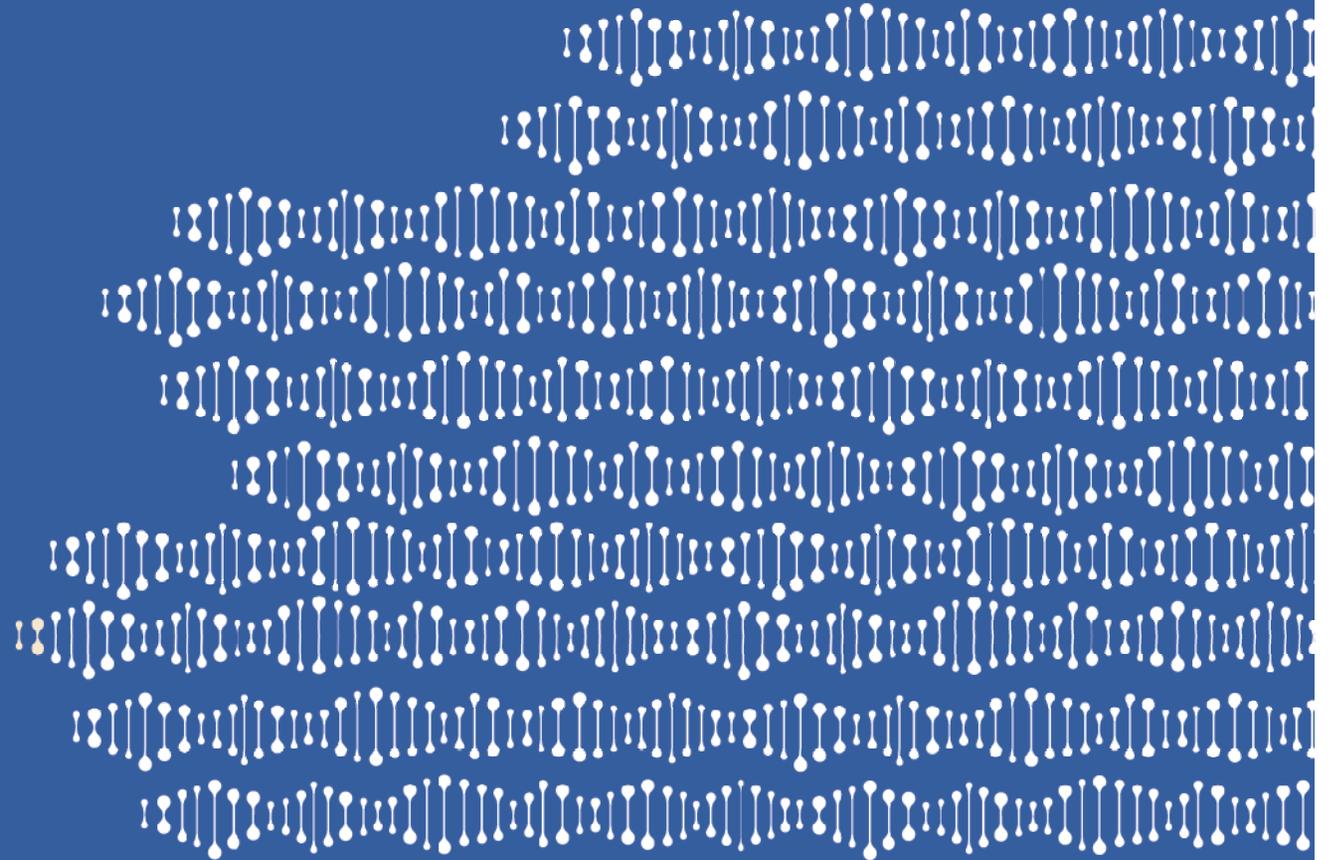
Heidi McConnell  
Chief Operating Officer

## Compliance

David Reisman  
Chief Compliance Officer



# Appendix – Program Information



# Scientific Research Program

## Goals

- Discover new information about cancer that can lead to prevention, early detection and cures
- Translate new and existing discoveries into practical advances in cancer diagnosis and treatment
- Increase the prominence and stature of Texas in the fight against cancer



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## Grants

### Research Portfolio

- **Research Grants**
  - **379 awarded**
  - **\$506,844,272 granted**
- **Researcher Recruitment**
  - **71 recruited\***
  - **\$209,459,216 granted**

\*7 Pending scholar decision

# Scientific Research Program

## Goals

- Discover new information about cancer that can lead to prevention, early detection and cures
- Translate new and existing discoveries into practical advances in cancer diagnosis and treatment
- Increase the prominence and stature of Texas in the fight against cancer



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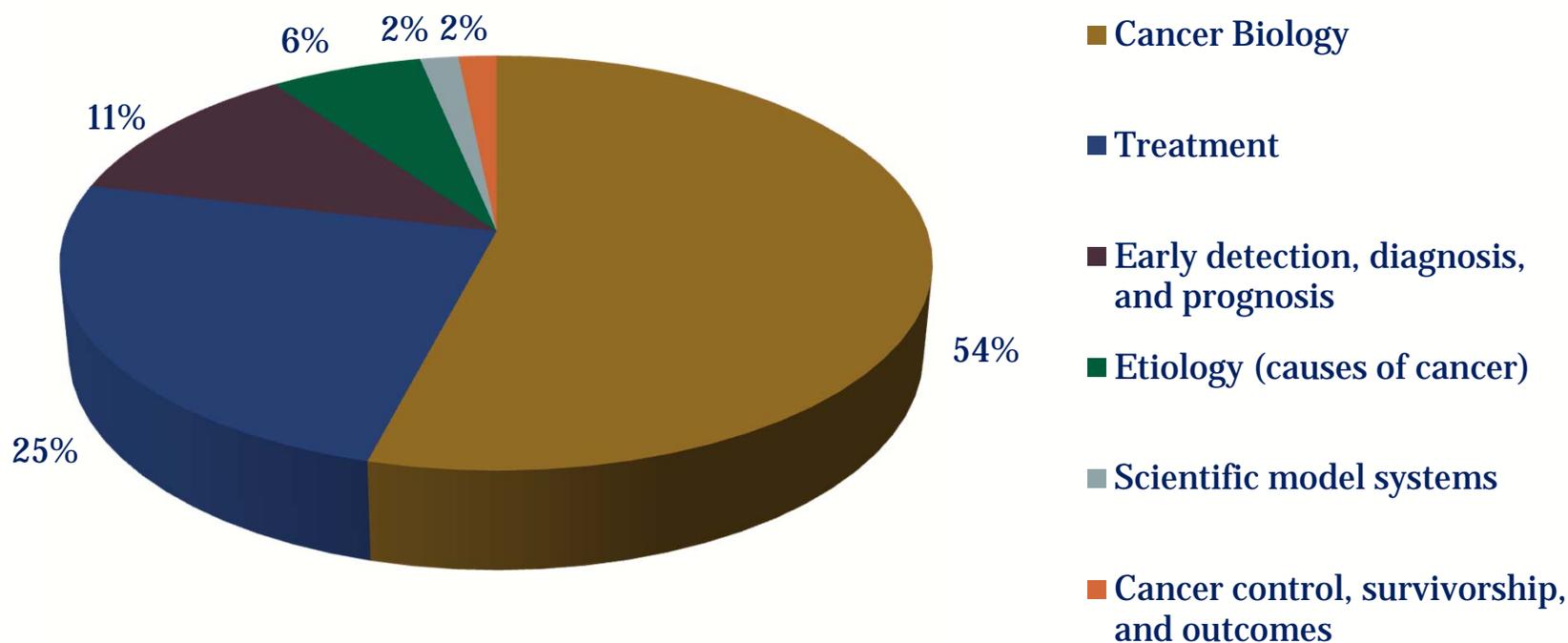
## Grants

### Research Mechanisms

- Individual Investigator Research Awards (IIRA)
- High Impact-High Risk Research Awards (HIHR)
- Multi-Investigator Research Awards (MIRA)
- Core Facilities Support Awards (CFSA)
- Shared Instrumentation Awards (SIA)
- Research Training Awards (RTA)
  
- Recruitment of Established Investigators
- Recruitment of Missing Links
- Recruitment of Rising Stars
- Recruitment of First-Time, Tenure-Track Faculty

# Scientific Research Program

## Distribution of Funded Grants by Research Area\*



\*2014 Individual Investigator Research Awards



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# Scientific Research Program

## CPRIT Scholar Recruitment Awards

Award Mechanism	# of Recruits*	Total Award Amounts
Recruitment of Established Investigators	16	\$90,715,750
Recruitment of Missing Links	3	\$5,881,402
Recruitment of Rising Stars	8	\$26,270,259
Recruitment of First-Time, Tenure-Track Faculty	44	\$86,592,505
<b>*7 pending scholar decisions</b>	<b>71</b>	<b>\$209,459,916</b>



# Product Development Program

## Goals

- To improve patient care through expedited innovation and product development
- To foster economic development in Texas' emerging life sciences industry and the creation of high-quality new jobs in this state
- To provide a direct return, through intellectual property and revenue sharing, on the investments made by Texans



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## Grants

### Product Development Grants to date

- 22 grants announced totaling \$206 million
- \$44 million total grant amount expended to date
- Over \$350 million invested in R&D with matching funds
- \$429 million follow-on capital raised
- 274 expected number of jobs
- \$759 million maximum return

Product Development Portfolio

# Prevention Program

## Goals

- Prevent or reduce the risk of cancer, detect it early, mitigate cancer effects thru delivery of evidence-based interventions
- Fund programs and services aimed to help those in most need
- Build capacity to deliver programs by promoting innovations and best practices across Texas



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## Focus

### **Deliver a program or service to Texans**

- Reach underserved populations
- Reach as many people as possible in every region of the state

### **Evidence-Based**

- Primary, secondary, tertiary prevention
- Not prevention research

### **Results oriented**

- Measurable public health impact in ways that exceed current performance in a given service area

Prevention Portfolio

# Prevention Program

## Goals

- Prevent and reduce cancer risk, mitigate effects
- Serve populations in greatest need
- Build capacity by promoting innovations and best practices across Texas



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## Grants

Prevention Portfolio

### Prevention Grants \*

- **130 awarded**
- **\$114,000,000 granted**
- **1,600,000 Texans served**

\* as of Aug. 20, 2014

# Prevention Program

COUNTIES SERVED BY CPRIT PREVENTION PROJECTS  
54 ACTIVE PROJECTS - AUGUST 2014

