



CALIFORNIA

Breast
Cancer

Research

PROGRAM

Compendium of Awards

**Cycle 23
2017**

Introduction

The mission of the CBCRP is to prevent and eliminate breast cancer by leading innovation in research, communication, and collaboration in the California scientific and lay communities.

The California Breast Cancer Research Program (CBCRP) is pleased to announce the **funding of 19 new research projects** that will advance our knowledge about the community impact, prevention, etiology, detection, and treatment of breast cancer. With these new awards we are **investing \$7,517,286 for research projects being performed at 16 institutions and community organizations across the state.**

CBCRP supports breast cancer research in California from funds obtained through:

- A portion of a **2¢ per pack State cigarette tax**
- Contributions from individuals using the **State's income tax check-off** option
- **Donations** from concerned community members dedicated to defeating breast cancer

CBCRP is administered by the University of California, Office of the President, in Oakland. Our overall objectives, strategies, and priorities are developed with the assistance of a volunteer California Breast Cancer Research Council (BCRC), which sets program priorities and recommends the grants to be funded. The BCRC consists of 16 members: five are representatives of breast cancer survivor/advocacy groups; five are scientists/clinicians; two are members from nonprofit health organizations, one is a practicing breast cancer medical specialist, two are members from private industry, and one is an *ex officio* member from the California Department of Health Services breast cancer early detection program, "Every Woman Counts."

CBCRP research funding is organized through several sub-program units including:

- **Community initiatives** supports research grants that incorporate both academic researchers and community group investigators to study a problem specific to a community, but with wider dissemination potential.
- **Core funding** focuses on investigator-initiated traditional grants to support smaller, innovative projects, larger translational grants, and conferences.
- **Program Directed Initiatives** support California Breast Cancer Prevention Initiative projects to identify and eliminate environmental causes of breast cancer; identify and eliminate disparities/inequities in the burden of breast cancer in California; develop population-level interventions (including policy research) on known or suspected breast cancer risk factors and protective measures; and develop target interventions for high-risk individuals, including new methods for identifying or assessing risk. In 2017, CBCRP funded projects in response to the following Initiatives:
 - Science Convener for Program Initiatives (Convener)
 - Impact of Proposition 65 to Reduce or Eliminate Exposures Linked to Breast Cancer
 - Animal Studies to Investigate Concurrent Effects of Environmental Chemicals and Stress Factors on Mammary Cancer
 - Adverse Childhood Experiences and Breast Cancer Risk
- **Policy Initiative** used an open, competitive peer-reviewed process to establish a pool of pre-qualified policy research investigators/teams who are poised to quickly fill knowledge gaps to inform breast cancer relevant policy. The pre-qualified policy investigators/teams contract with CBCRP to generate answers to CBCRP-selected research questions and then effectively deliver those answers to policymakers.

The full abstracts of these newly funded grants, as well as those from previous CBCRP funding cycles, can be found on our website: www.CABreastCancer.org.

Overview of CBCRP Award Types

CBCRP funded new research projects using a variety of award types in 2016:

- **Community Research Collaboration (CRC)** awards bring community organizations—such as breast cancer advocates, community clinics, or organizations serving under-represented women—together with experienced academic scientists to investigate breast cancer problems that are important to that community, using culturally-appropriate research methods. CRC Pilot (18-month) and CRC Full Research awards (three years) are available.
- **Innovative Developmental and Exploratory Awards (IDEAs)** are 12- to 18-month grants for targeted high-risk/high-reward projects. CBCRP incorporates the “critical path” concept, which requires applicants to place their project on a research continuum leading to practical applications. IDEAs are offered to both new and established investigators.
- **Translational Research** awards support projects that overcome barriers and put prior research knowledge to practical use in the patient or community setting.
- **Conference Awards** support a conference, symposium, retreat, or other meeting to link breast cancer researchers, non-breast cancer investigators, and community members for the purpose of stimulating new ideas and collaborations.
- **Program Directed Initiatives** support **Requests for Proposals (RFPs)** that competitively fund investigator-initiated research responding to the California Breast Cancer Prevention initiative topic, **Request for Qualifications (RFQs)** that fund grants based on the qualifications of the investigator to undertake CBCRP-defined research projects in close collaboration with CBCRP and **Program Directed Awards (PDAs)** to fund crucial projects identified during the strategy development proposed by the Steering Committee and approved by the CBCRP Council.
- **Policy Awards** support teams of on-call investigators that have been pre-screened through an RFQ to conduct rapid response research to policy questions identified by CBCRP with the assistance of the Policy Research Advisory Group. \$150,000 is allocated annually and may be dedicated to one team or spread out over multiple teams, depending on the complexity of the topics and the potential for impact of the projects.

LOI and Application Submissions and Review

IDEA and Translational Research Awards applications must pass through a letter of intent (LOI) screening process conducted by our Council to select projects that best meet our award type and programmatic criteria. We view this as a benefit to both the applicants and Program in terms of reducing the effort to prepare full applications and CBCRP's corresponding peer review costs.

Table 1. LOI submission and approval results

Award Type	LOIs submitted	LOIs approved	Percent approved
IDEA	44	21	48%
Translational Research Award	7	5	71%

After the LOI process, the full application data is shown in the table below.

Table 2. 2017 full application submissions by award type and priority issue

Award Type ↓	CBCRP Priority Issue				Award Type Totals
	Etiology & Prevention	Community Impact	Detection, Prognosis & Treatment	Biology of the Breast Cell	
Innovative, Developmental & Exploratory (IDEA)	3	0	10	5	18
Translational Research Award	2	0	3	0	5
Community Research Collaboration (CRC) Pilot	4	2	0	0	6
Community Research Collaboration Full	2	0	0	0	2
CBCRP Conference	0	1	2	0	3
Program-Directed Initiatives	5	2	0	0	7
Policy Awards	0	1	0	0	1
Priority Totals	16	6	15	5	42

Funding Highlights

Table 3. 2017 grant distribution by award type

Award Type	Number of Applications	Grants Funded (Success Rate)	Amount Awarded	Percentage of Total Funding
IDEA	18	6 (33%)	\$1,483,155	19.7%
Translational	5	1 (20%)	\$510,057	6.8%
Community Research Collaboration (CRC) – Pilot	6	4 (67%)	\$737,394	9.8%
Community Research Collaboration (CRC) - Full	2	1 (50%)	\$790,314	10.5%
CBCRP Conference	3	2 (67%)	\$46,021	0.6%
Program-Directed Initiatives	7	4 (57%)	\$3,850,345*	51.2%
Policy Awards	1	1 (100%)	\$100,000	1.3%
Total	42	19 (45%)	\$7,517,286	100%

* Includes partial funding of a project submitted as a translational research award

Table 4. 2017 grant distribution by priority issue

Award Type	Number of Applications	Grants Funded (Success Rate)	Amount Awarded	Percentage of Total Funding
Etiology & Prevention	15	6 (40%)	\$3,578,376	47.6%
Community Impact	7	6 (100%)	\$2,434,734	32.4%
Detection, Prognosis & Treatment	15	4 (27%)	\$792,451	10.5%
Biology of the Breast Cell	5	3 (60%)	\$711,725	9.5%
Total	42	19 (45%)	\$7,517,286	100%

Grants Funded in Cycle 23 2016-2017

Community Initiatives Grants



Dirt Alert: Legacy Mining Contaminant Exposure in Preschool

Award type: Community Research Collaboration Award - Pilot

Priority Issue: Etiology and Prevention

Joanne Hild
Sierra Streams Institute
\$125,738

Peggy Reynolds
Cancer Prevention Institute of California
\$60,384

Total Award: \$186,122

Impact of Neighborhoods and Navigation on Survivorship

Award type: Community Research Collaboration Award - Pilot

Priority Area: Community Impact

Alyssa Nickell
Shanti Project, Inc.
\$86,250

Salma Shariff-Marco
Cancer Prevention Institute of California
\$114,000

Total Award: \$200,250



Latino Community Education Tool on Hereditary Breast Cancer

Award type: Community Research Collaboration Award - Pilot

Priority Issue: Community Impact of Breast Cancer

Ysabel Duron
Latinas Contra Cancer
\$84,700

Laura Fejerman
UCSF
\$90,233

Total Award: \$174,933

Reducing Breast Cancer Risk in Korean American Women

Award type: Community Research Collaboration Award - Pilot

Priority Issue: Etiology and Prevention

June Lee
Korean Community Center of the East Bay
\$82,735

Janice Tsoh
UCSF
\$93,354

Total Award: \$176,089



Women Worker Biomonitoring Collaborative (WWBC)

Award type: Community Research Collaboration Award - Full
Priority Issue: Etiology and Prevention

Heather Buren
Breast Cancer Prevention Partners
\$24,263

Erin Carrera
Breast Cancer Prevention Partners
\$28,273

Rachel Morello-Frosch
UC Berkeley
\$737,778

Total Award: \$790,314

Core Funding Grants

Ambient Air Toxics and Breast Cancer Risk, Phase 2

Award type: Translational Research Award
Priority Issue: Etiology and Prevention

Julia Heck
UCLA
\$510,057

Targeting Metastatic TNBC by scavenging Blood Glutamate

Award type: IDEA Award
Priority Issue: Detection, Prognosis and Treatment

Zena Werb
UCSF
\$188,680

Novel Compound to Target Breast Cancer Stem Cells

Award type: IDEA Award
Priority Issue: Detection, Prognosis and Treatment

Dieter Wolf
Sanford Burnham Prebys Medical Discovery Institute
\$292,500

Targeting Internal Ribosome Entry Site Transacting Factors

Award type: IDEA Award
Priority Issue: Biology of the Breast

Mark Pegram
Stanford University
\$233,225



A New Targeted Therapy for Breast Cancer

Award type: IDEA Award
Priority Issue: Detection, Prognosis and Treatment

Xiaohua Wu
The Scripps Research Institute
\$290,250

Cancer Stem Cell-Mediated Immune Escape

Award type: IDEA Award

Priority Issue: Biology of the Breast

Kuan-Hui Chen
UC Riverside
\$187,500**Targeting Heterochromatic RNAs in High Risk Breast Cancer**

Award type: IDEA Award

Priority Issue: Biology of the Breast

Inder Verma
The Salk Institute for Biological Studies
\$291,000**Annual Breast Cancer Conference**

Award type: Conference Award

Priority Issue: Community Impact

Donna Randall
Cancer Prevention Institute of California
\$25,000**UCSF Breast Oncology Program Scientific Retreat 2017**

Award type: Conference Award

Priority Issue: Detection, Prognosis and Treatment

Lamorna Brown-Swigart
UCSF
\$21,021

Denotes awards that have been supported in part through voluntary contributions from California taxpayers



Denotes Faith Fancher Research Award recipient. [Faith Fancher](#) was a long-time television news anchor and personality with KTVU (Oakland) who waged a very public battle against breast cancer. She also was the founding member of the CBCRP Executive Team, which formed in 2001 to help raise the visibility and fundraising profile of our program. Faith passed away in October 2003 after a six-year struggle with breast cancer. In Faith's honor, and to commemorate all that she did for breast cancer education and research, we have created this annual award. The selected grant reflects the values that Faith held most closely and extends the work that Faith did for all women facing breast cancer.

Program-Directed Research

Ambient Air Toxics and Breast Cancer Risk

Award type: Translational Research

Priority Issue: Etiology and Prevention

Julia Heck
UCLA
\$310,906**Environmental Effects on Inflammation and Cancer Development**

Award type: CBCPI Request for Proposals

Priority Issue: Etiology and Prevention

Donald Lamkin
UCLA
\$639,983

The Impact of Proposition 65 on Chemical Exposures Relevant

Award type: CBCPI Request for Qualifications

Priority Issue: Etiology and Prevention

Megan Schwarzman
UC Berkeley
\$808,284

Linking Neighborhood and Individual ACEs to Breast Cancer

Award type: CBCPI Request for Proposals

Priority Issue: Community Impact of Breast Cancer

Barbara Cohn
Public Health Institute
\$754,299

Science Convener for Program Initiatives - Full

Award type: CBCPI Program Directed Award

Priority Issue: Community Impact of Breast Cancer

Gina Bartlett
Consensus Building Institute, Inc.
\$1,180,252

2017 CBCRP Funding by Institution

The following **16 California research institutions and community organizations were awarded new CBCRP funding in the 2016-2017 grant cycle.** Community Research Collaboration (CRC) grants may be split between institutions.

<u>Institution</u>	<u># of Grants</u>	<u>Amount</u>
Cancer Prevention Institute of California	3	\$199,384
Breast Cancer Prevention Partners	2	\$52,536
Consensus Building Institute, Inc.	1	\$1,180,252
Korean Community Center of the East Bay	1	\$82,735
Latinas Contra Cancer	1	\$84,700
Public Health Institute	2	\$854,299
Sanford Burnham Prebys Medical Discovery Institute	1	\$292,500
Shanti Project, Inc.	1	\$86,250
Sierra Streams Institute	1	\$125,738
Stanford University	2	\$233,225
The Salk Institute for Biological Studies	1	\$291,000
The Scripps Research Institute	1	\$290,250
UC Berkeley	2	\$1,546,062
UC Riverside	1	\$187,500
UCLA	3	\$1,617,567
UCSF	4	\$393,288

2017 CBCRP application evaluation process & review committee rosters

CBCRP thanks the participants in our 2017 review committees for their service and dedication to our Program!

In the first phase of the funding process, grant applications were peer reviewed and scored for scientific merit by review committees using a model that follows established practice at the National Institutes of Health (NIH). Each committee is composed of scientists and advocates from outside California. The Committee Chair leads the review process and is a senior researcher. Scientific Reviewers have broad expertise in topics associated with individual applications. Breast cancer Advocate Reviewers are women active in breast cancer advocacy organizations, and many of them are also living with the disease. Advocates bring their personal knowledge and commitment to the review process. Each committee also includes a California Advocate Observer, who does not review or vote, but represents California's advocacy community. The observer gains insight into our process and provides feedback to the Program. When additional expertise is needed, an Ad Hoc Member is brought in to the review a particular application not covered by the other committee scientist reviewers.

CBCRP uses a scientific **merit scoring system** that rates individual components (e.g., approach, innovativeness, impact). This allows our expert reviewers and Council to better differentiate applications that might otherwise appear identical. Depending on the award type, we use four or five scientific merit components in the peer review process.

We **triage** some applications that score in the lower range of a committee's portfolio using the preliminary scores of the assigned reviewers. Applications in the upper range of a committee's portfolio all receive full committee discussion, as do any of the lower scoring applications nominated to full review by one reviewer.

Applications that were not triaged were rated by CBCRP's Council for **programmatic responsiveness**. Combinations of the following criteria were used:

- Responsiveness to CBCRP's priority issues and award type (or initiative)
- Strength of individual scientific merit component scores (e.g., innovation for IDEA applications)
- Underfunded topic
- Quality of the lay abstract
- Inclusion of advocates in the funded research
- Addressing the needs of the underserved
- Critical path/translation (IDEA and Translational Research Award), or dissemination and translational potential (CRC)

This two-tiered evaluation and funding process ensures both scientific excellence and relevance of the research to CBCRP's mission and goals.

Community Impact Review Committee

Chair:

Beti Thompson, Ph.D.

Professor
Cancer Prevention Program
Fred Hutchinson Cancer Research Center
Seattle, WA

Scientific Reviewers:

Farah Jaquez, PhD

Associate Professor
Department of Psychology
University of Cincinnati
Cincinnati, OH

Laundette Jones, Ph.D.

Assistant Professor
Department of Epidemiology and Public Health
University of Maryland School of Medicine
Department of Epidemiology and Public Health
Baltimore, MD

Usha Menon, PhD, RN, FAAN

Associate Dean of Research & Global Advances
University of Arizona
College of Nursing
Tucson, AZ

Sacoby Wilson, PhD, MS

Assistant Professor
Epidemiology and Biostatistics
Director, Community Engagement, Environmental
Justice, and Health (CEEJH)
Maryland Institute for Applied Environmental
Health
School of Public Health
University of Maryland-College Park

Advocate Reviewer:

Patricia O'Brien, PhD

Vermont Cancer Network
University of Vermont
Burlington, VT

California Advocate Observer:

Patricia Wu

Dr. Susan Love Research Foundation

Clinical, Prevention & Biological Sciences Review Committee

Chair:

Douglas Yee, M.D.

Professor of Medicine and Pharmacology
Masonic Cancer Center
University of Minnesota
Minneapolis, MN

Scientific Reviewers:

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The University of Texas MD Anderson Cancer
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Houston, TX

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Cleveland, OH

Rita Nanda, M.D.

Assistant Professor Medicine
Associate Director, Breast Medical Oncology
University of Chicago Medicine
Chicago, IL

Amos Sakwe, Ph.D.

Assistant Professor
Department of Biochemistry and Cancer Biology
Meharry Medical College
Nashville, TN

Patricia A. Thompson Carino, Ph.D.

Professor, Department of Pathology
Associate Director for Basic Research Cancer
Center
Stony Brook School of Medicine

Advocate Reviewers:

Valerie Fraser

Inflammatory Breast Cancer International
Consortium
Huntington Woods, MI

Eunice Hostetter

Susan G. Komen Foundation
Kirkland, WA
Beverly Parker
Living Beyond Breast Cancer
Naperville, IL

Carrie Wells

Survivors' Retreat
Baltimore, MD

Ad-Hoc Reviewer:

Lina Mu, M.D., Ph.D.

Associate Professor
Department of Epidemiology and Environmental
Health
University at Buffalo, The State University of New
York
Buffalo, NY

Abram Recht, M.D.

Professor, Radiation Oncology, Harvard Medical
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Deputy Chief and Senior Radiation Oncologist,
Radiation Therapy
Beth Israel Deaconess Medical Center
Boston, MA

California Advocate Observer:

Amy Delson, AIA

Bay Area Cancer Connections
Atherton, CA

The Impact of Proposition 65 to Reduce or Eliminate Exposures Linked to Breast Cancer

Chair:

Joel Tickner, Sc.D.

Associate Professor
Department of Community Health and Sustainability
University of Massachusetts, Lowell

Scientific Reviewers:

Cary Coglianese, J.D., Ph.D.

Edward B. Shills Professor of Law and Professor of Political Science
University of Pennsylvania Law School

Jessica Schifano, JD MPH

Health Scientist
U.S. Department of Labor
Occupational Safety & Health Administration

Advocate Reviewer:

Anna Cluxton

Young Survival Coalition

Animal Studies to Investigate Concurrent Effects of Environmental Chemicals and Stress Factors on Mammary Cancer

Chair:

Leena Hilakivi-Clarke, PhD

Professor of Oncology
Georgetown University

Scientific Reviewers:

Deborah A. Cory-Slechta, Ph.D.

Professor of Environmental Medicine, Pediatrics and Public Health Sciences
Acting Chair, Department of Environmental Medicine
University of Rochester School of Medicine

Gretchen Hermes, MD, Ph.D.

Instructor in Psychiatry
Yale University
Brady Memorial Laboratory

Advocate Reviewer:

Carrie Wells

Survivors' Retreat
Baltimore, Maryland

Adverse Childhood Experiences and Breast Cancer Risk

Chair:

Sarah Gehlert, Ph.D.

Dean

College of Social Work

University of South Carolina

Scientific Reviewers:

Christopher P. Fagundes, Ph.D.

Director, BMED Lab

Assistant Professor, Department of Psychology, Rice University

Visiting Assistant Professor, MD Anderson Cancer Center

Adjunct Assistant Professor, Baylor College of Medicine

Natalie Bea Slopen, ScD

Assistant Professor, Epidemiology and Biostatistics

University of Maryland School of Public Health

Advocate Reviewer:

Eunice Hostetter

Advocate in Science

Susan G. Komen for the Cure

Science Convener for Program Initiatives Full Program-Directed Solicitation

Chair:

Eileen Hanlon, MHS, MSW

Associate Director

Social Marketing and Communication

FHI 360

Scientific Reviewers:

Marj Plumb, DrPH MNA

Director

Coalition For A Strong Nebraska

Lisa Stevens, Ph.D.

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Vernal Branch

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Karren Ganstwig

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Toluca Lake, CA

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Branch
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California Breast Cancer Research Council Programmatic Review Committee

Advocates

Rose Marie Colbert

ABC/African American Community Group of the
Central Coast

Ghecemy Lopez

Celebrate Life Cancer Ministry

JoAnn Loulan

Breast Cancer Action

Lori Marx-Rubiner

Breast Cancer Social Media

Joan Venticinque

Cancer Patient Advocacy Alliance

Nonprofit Health Organization Representatives

Dave Hoon, Ph.D.

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John Wayne Cancer Institute at Providence Saint
John's Health Center

Sarah Hutchinson

ACT for Women and Girls

Medical Specialist

Francine Halberg M.D.

Marin General Hospital

Industry Representatives

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Puma Biotechnology, Inc.

Stina Singel M.D. Ph.D.

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Scientist/Clinicians

Marjorie Kagawa-Singer, Ph.D.

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Ana Navarro, Ph.D.

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Robert Oshima, Ph.D.

Sanford Burnham Prebys Medical Discovery

Jeffrey Wasserman, Ph.D.

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Director

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Program Specialist

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COMMUNITY INITIATIVES

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