Intergenerational Transmission of Breast Cancer Health Inequities

Informational Webinar for Prospective Applicants



Agenda

- > The California Breast Cancer Research Program (CBCRP)
 - CBCRP Program-Directed Initiatives
 - Preventing Breast Cancer Initiatives (PBC)
- > Intergenerational Transmission of Breast Cancer Health Inequities
 - Overview
 - Research Questions and Suggested Approaches
 - How Grants are Evaluated
 - > Important Dates
- Resources for Submitting an Application in SmartSimple



California Breast Cancer Research Program (CBCRP)

- Founded in 1993
 - breast cancer activists, scientists, clinicians, state legislators, and
 University of California officials collaborated to win passage in the state
 legislature of the California Breast Cancer Act.
 - funded by a tax on tobacco products, voluntary state personal income tax form check-off, and individual contributions.
 - tax check-off has drawn over \$13 million for breast cancer research.
- Grown to become one of nation's largest state-funded breast cancer research effort
- Among the largest breast cancer research funders in the world
- Ninety-five percent of our revenue goes directly to funding research and education efforts

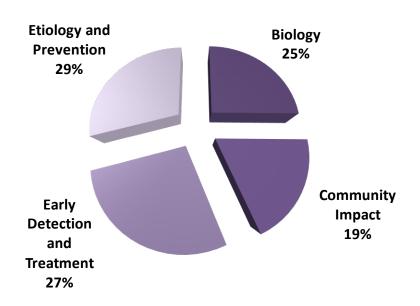
Mission: to prevent and eliminate breast cancer by leading innovation in research, communication, and collaboration in the California scientific and lay communities



Since 1994, CBCRP has funded



- > Over 1,200 grants
- ➤ Totaling over \$290 million
- ➤ To over 840 academic & community researchers
- > At over 140 institutions across the state





Program-Directed Initiatives

Vision

To identify and support research strategies that increase understanding of, and **create solutions to**, environmental links to breast cancer and fundamental causes of health disparities in breast cancer.

Goals

- Support a coordinated statewide effort to explore innovative ideas and new theories
- Leverage California's unique and diverse geographic and population resources
- Undertake critical studies that significantly move these fields forward

First round launched in 2004; second round in 2010



Preventing Breast Cancer (PBC):

Community, Population, and Environmental Approaches

In 2015

CBCRP's Council approved a third round of Program Initiatives, devoting 50% of funds (~\$20 million) to:

- Identify and eliminate environmental contributors to breast cancer
- Identify and eliminate fundamental causes of health disparities with a focus on breast cancer in California
- Develop and test population-level prevention interventions that incorporate approaches to address the needs of the underserved and/or populations experiencing disparities in the burden of breast cancer

In 2020 and 2021

CBCRP's Council approved 10 concept proposals to stimulate research in these three areas, including:

Intergenerational Transmission of Breast Cancer Health Inequities



Intergenerational Transmission of Breast Cancer Health Inequities Overview

Overall Aim: To examine whether intergenerational transmission of breast cancer susceptibility can be influenced by environmental exposures (e.g. chemical exposures; multi-level exposures to social determinants of health).

Studies will be viewed as responsive if they employ community-partnered participatory methods and are any of the following types of studies:

- Approach 1: epidemiology studies with stored biospecimens from earlier in life (e.g., prenatal period) and outcomes or strong intermediate markers in a least one subsequent generation;
- Approach 2: epidemiology studies that can utilize a mixed methods approach to analyze qualitative and quantitative data around intergenerational social determinants of health at the individual and community level;
- Approach 3: studies with access to one generation and breast cancer incidence outcomes in at least one subsequent generation.



Intergenerational Transmission of Breast Cancer Health Inequities Overview

Available Funds:

CBCRP intends to fund up to three projects with a duration of three to five years maximum at a maximum total direct cost of \$300,000 for Approach 1 and \$425,000 for Approaches 2 or 3.

Eligibility:

- Any individual or organization in California may apply.
- The research must be conducted primarily in California.



Intergenerational Transmission of Breast Cancer Health Inequities

Research Teams:

- Up to 3 community-partnered participatory research teams
- Each team will need at least one community Co-PI and at least one academic Co-PI.
 - Community-level stakeholders (e.g., residents, community leaders, community-based organizations)
 - Academic partners with relevant experience and expertise for the proposed project
- Interdisciplinary teams recommended with expertise in with expertise in breast cancer epidemiology, social science and intergenerational modeling in collaboration with community stakeholders.



Community-Partnered Participatory Research

- An equal partnership between academic Co-PI and community Co-PI
- Partnership works together to:
 - Identify the research question
 - Develop the research plan
 - Carry out the research
 - Interpret the results
 - Disseminate the results





The CPPR team

Academic Co-PI & Staff



Illustration: Ojima Abalaka

Community Co-PI, Staff, Clients, Community Members



Intergenerational Transmission of Breast Cancer Health Inequities - Research Questions

For this funding opportunity, we are interested in at least two generations, with exposure taking place in one generation and outcomes in at least one subsequent generation.

• Is the unequal burden of breast cancer seen in BIPOC influenced by intergenerational transmission of risk through early life exposure to specific environmental chemicals?

AND/OR

• Is the unequal burden of breast cancer incidence and/or mortality explained by persistent intergenerational macro and meso level social forces? Analysis of upstream causal factors include structural policies that contribute to systematic unequal access to resources (e.g. wealth, employment, education, housing, healthcare, etc.) and the built environment.

Approach 1 - Epidemiology

Suggested approaches include an epidemiology study with any or a combination of the following designs:

- Examine associations between early-life exposures to environmental chemicals and breast cancer risk (or intermediate markers for breast cancer risk) in F1 generation, if stored biospecimens from F0 generation during pregnancy are available.
- Examine associations between exposures to environmental chemicals during a WOS (pregnancy) and breast cancer risk in FO generation, if stored biospecimens from FO generation during pregnancy are available.
- Examine associations between exposure to environmental chemicals in early-life and intermediate markers of breast cancer risk in F2 generation, if stored biospecimens from at least F0 or F1 generations are available.
- Examine whether the associations are stronger after considering social macro-level forces related to health inequities like socioeconomic status (interaction model)
- Conduct intergenerational studies of community health with documented chemical exposures (e.g., dumping).

Approach 2 – Mixed Method Analytical Approach Social Epidemiology and Economic Evaluation

Use existing cohort studies with quantitative and qualitative data that can access at least two generations within families to examine intergenerational effect of systemic inequities to:

- Apply conceptual frameworks for studying intergenerational health disparities that focus on macro- level determinants including policies affecting income, housing, education, and wealth transmission.
- Identify specific intergenerational socio-ecological determinants of breast cancer risk; elucidate using social science conceptual approaches like pathways models and evaluations including multilevel economic models.
- Examine historical events or man-made (including environmental racism) or natural disasters that can leverage data on exposure to events and breast cancer outcomes across F0 and F1 generations
- Examine associations between trauma experienced by F0 generation and breast cancer risk in F1 generation; assess breast cancer risk in F0 generation as well.
- Examine whether associations are stronger if F0 trauma occurred earlier in life.

If possible, studies should oversample vulnerable populations that are traditionally impacted by social inequities.



Approach 3 – Case Control of Breast Cancer under 45

Create new de novo retrospective cohorts that can access at least two generations within families to examine intergenerational transmission of inequities. Sampling based on F2 breast cancer status with any of the following suggested designs or combinations of them:

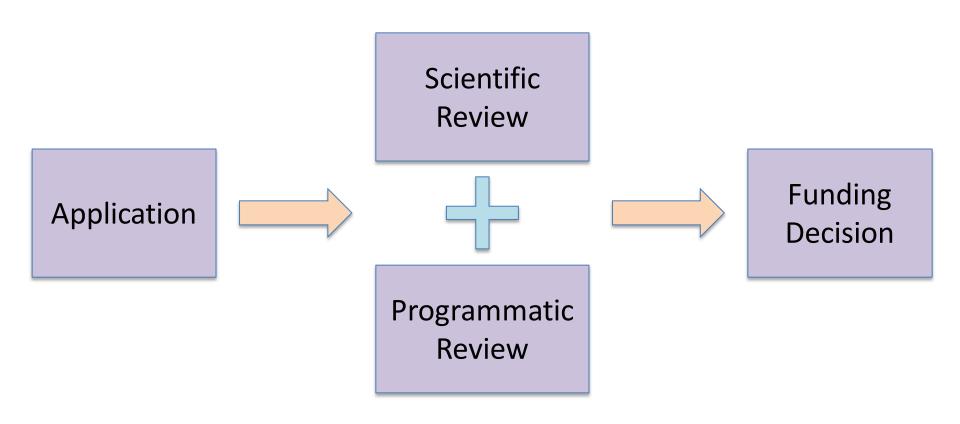
- Apply the same study design aims as Approach 2.
- Recruit F2 women with and without breast cancer with documented environmental exposures at the community level of inequitable environmental exposures (e.g., dumping).
- Collect lifecourse data on F2's mother (F1) and grandmother (F0).
- Establish potential for assessment of breast cancer risk in the F3 generation based on intermediate markers of risk.
- Assess epigenetic factors in biospecimens
- Collect data on paternal exposure



Intergenerational Transmission of Breast Cancer Health Inequities Dissemination Plan

- Proposals must include a dissemination plan and should discuss if the dissemination plan will be ongoing throughout the project or at the end and justify the frequency of the dissemination elements.
- Each plan should specify who on the project will be part of the dissemination team, who will be the target audience including nonresearch audiences, especially community members, practitioners and policy makers.
- The dissemination plan requirements should take into account audiences, messages, channels, milestones, and appropriate resources to reach milestones.
- Given the focus of this project on understanding the potentially large undercounting of risk based on intergenerational transmission, communication to both clinical and public health practitioners as well as policy makers is essential.

Two-Tier Evaluation Process



Breast Cancer

Intergenerational Transmission of Breast Cancer Health Inequities: Review Criteria

	Criteria
Scientific Review	PartnershipCommunity BenefitQuality of the ResearchFeasibility
Programmatic Review	 Responsiveness Lay Abstract Diversity, Equity and Inclusion Community Involvement Dissemination and translation potential



Application Components

Form/Attachment	Requirement
Lay Abstract	Required (Prog Rev)
Scientific Abstract	Required (Prog Rev)
Budget and Justification	Required
Research Plan	Required
Program Responsiveness	Required (Prog Rev)
Collaborative Agreements	Required (Prog Rev)
Biosketches	Required (Prog Rev)
Facilities	Required
Human Subjects	Required
Appendix	Optional



Important Dates

	Date
Applications due	March 2 2023 (12 pm noon PT)
Notification of funding status	July 1, 2023 (at the latest)
Project start date	August 1, 2023



Questions?



How to submit a proposal in SmartSimple

Research Grants Program Office (RGPO) Contracts and Grants Unit (C&G)

- C&G works in collaboration with CBCRP, serving as interface on administrative and procedural aspects your **Application** submission and review process.
- Contact information:
 - Email: RGPOgrants@ucop.edu (Best method)



Key Dates & Tips

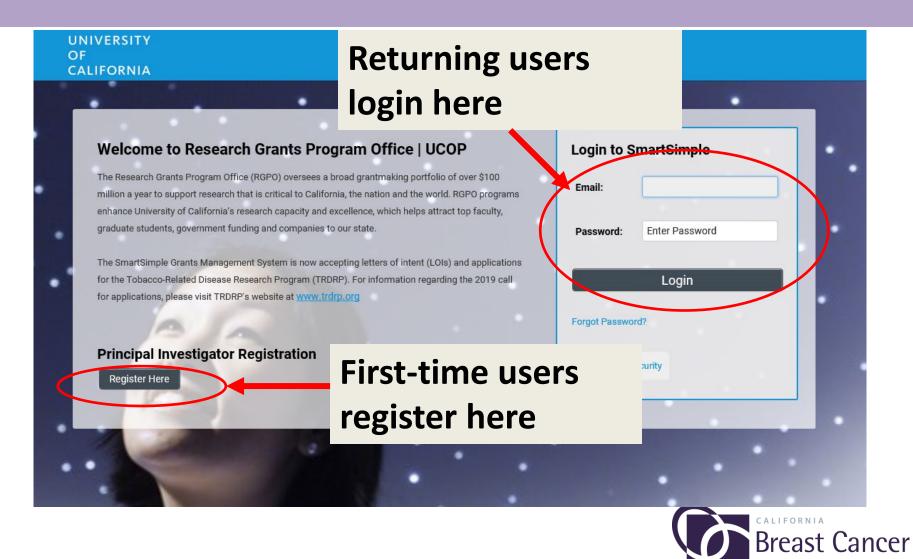
Award Type	Application Deadline
Investing in Communities' Local-Level Needs to Reduce Racial Disparities in Breast Cancer: Phase 1	March 2, 2023, 12pmPT
Novel Approaches to Predict or Prevent the Influences of Environmental Chemicals on Breast Cancer Risk	March 2, 2023, 12pmPT
Intergenerational Transmission of Breast Cancer Health Inequities	March 2, 2023, 12pmPT

- All materials must be submitted through SmartSimple
- Detailed instructions are provided on the CBCRP website and in SmartSimple

- Start early to become familiar with SmartSimple
- Submit early: No late applications will be accepted

Accessing SmartSimple

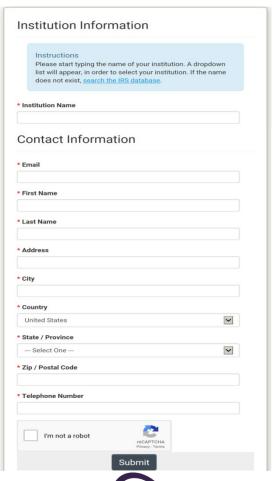
Login to SmartSimple: https://rgpogrants.ucop.edu/



Creating an Account on SmartSimple https://rgpogrants.ucop.edu/

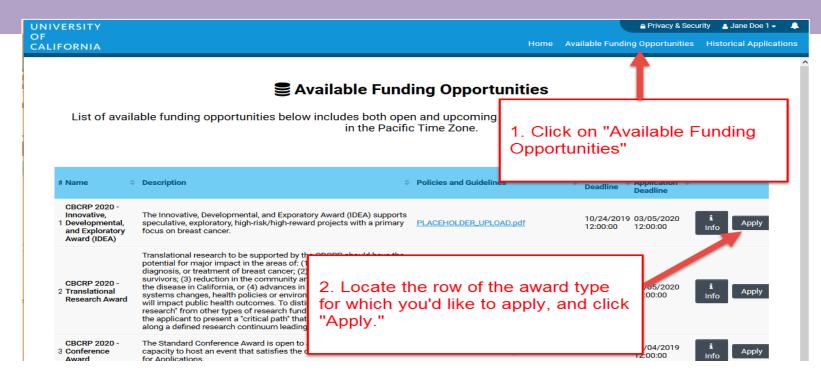
Enter your institution and complete your applicant contact information.

If you receive a message that an account with your email address already exists, return to the main login page and click "Forgot Password."





Preparing and Submitting an Application



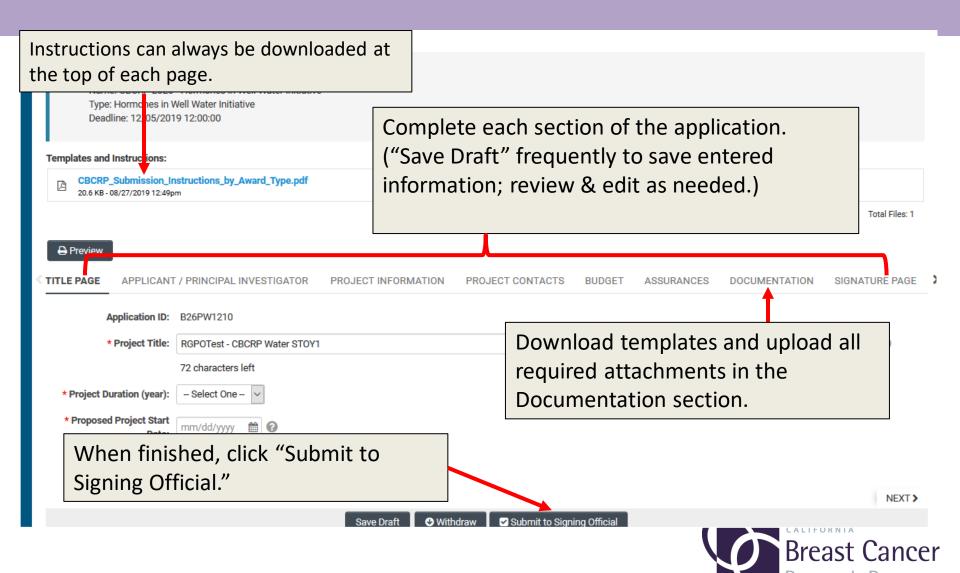
1. Click on the "Available Funding Opportunities" tab in the upper right corner.

Breast Cancer

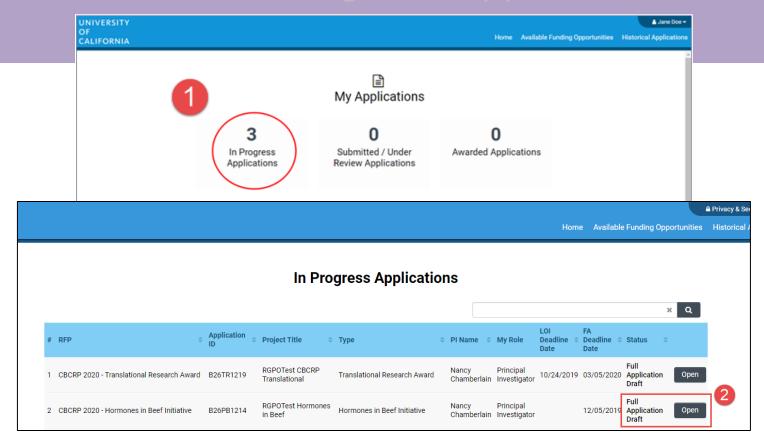
Research Program

2. Find the row that corresponds to the award you're interested in and click "Apply."

Application Submission



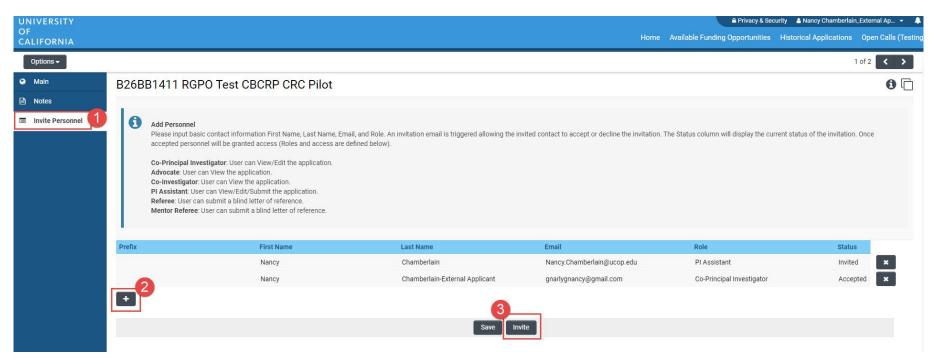
Location of "In Progress" Applications



- When returning to continue a draft application, click on "In Progress Applications" on the Home page of SmartSimple.
- 2. Locate the row for your draft application. Click "Open" to continue full application and access instructions and templates.

 California Breast Cancer

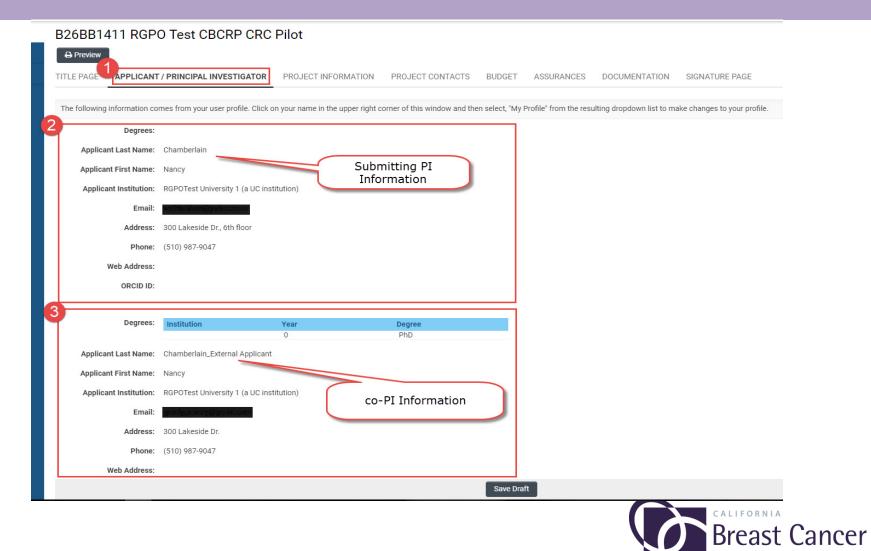
Inviting Co-PI to an Application (or other roles with Edit/View Access)



- 1) Select "Invite Personnel" in the left-hand column
- Click on the "+" button and type in name, email, and role of your co-PI (or PI Assistant)
- 1) Select "Invite" to send them an email to accept access to the proposal

Breast Cancer

Confirming Addition of co-Pl

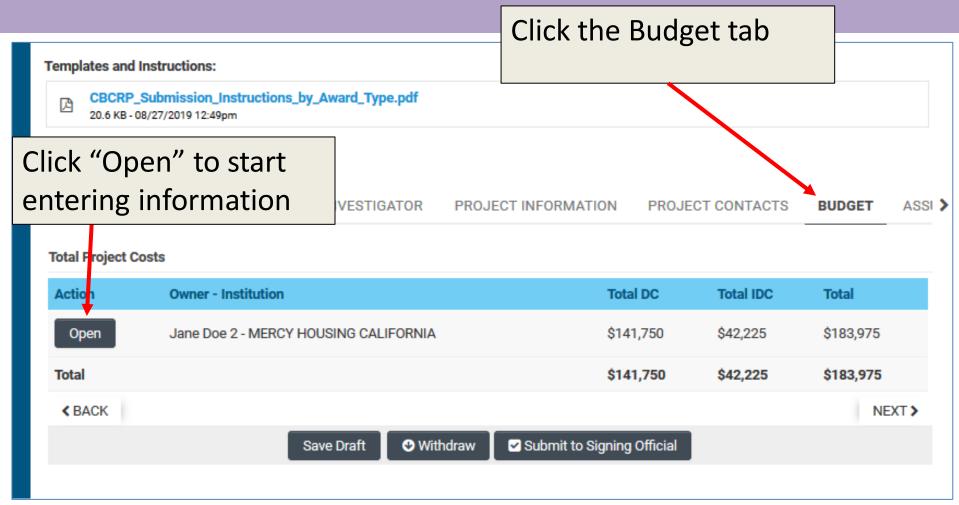


Budget Page with multiple budgets





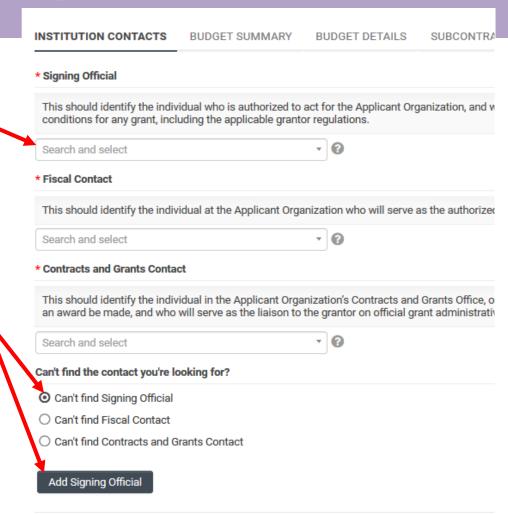
Budget tab





Budget tab – Adding Institution Contacts

Start typing the name of your signing official into the field and select from the list that populates. If you cannot find their name in the list, click "Can't find Signing Official", then click "Add Signing Official."





Budget tab – Editing the budget

Translational Research Award Application » Budget

♪ Back to Application



Budget Instructions:

Please open the budget and carefully read the limits set on the call for applications. If exceeded, system will alert and user is required to adjust the numbers.

INSTITUTION CONTACTS

BUDGET SUMMARY

BUDGET DETAILS

SUBCONTRACT BUDGET DETAILS

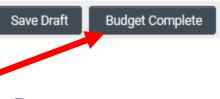
Please click the Edit Budget button below to enter your budget information.

Edit Budget

Jane Doe 1 - MERCY HOUSING CALIFORNIA

Budget Summary

Do not click "Budget Complete" until you have entered all the necessary budget figures and justification notes – clicking this button will lock your budget and you will not be able to make additional edits.





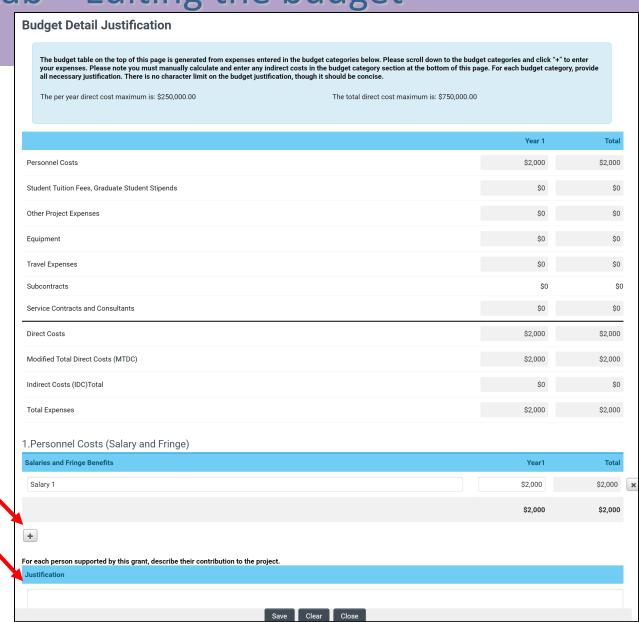
Budget tab – Editing the budget

Scroll down to "Personnel Costs."
Click "+" to add a new row.

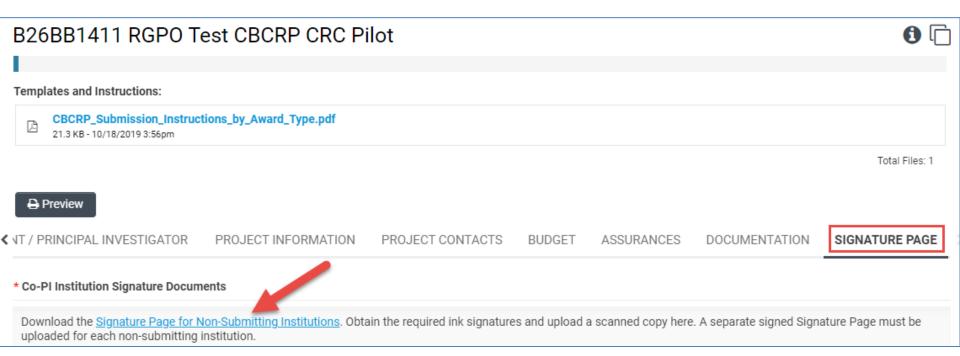
Entries will populate in the budget summary at the top of the page.

Enter budget justification.

Repeat for all budget categories.

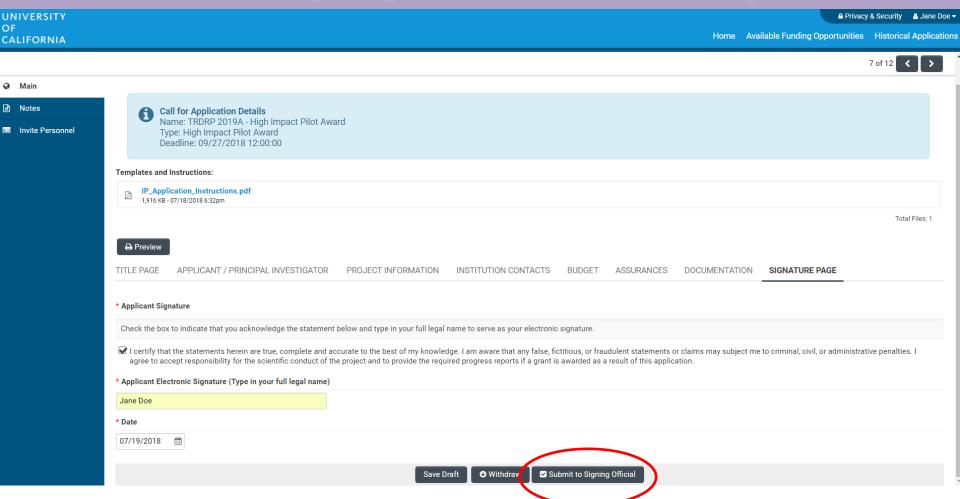


Submit to Signing Official – Co-PI





Submit to Signing Official – Submitting Pl





Intergenerational Transmission of Breast Cancer Health Inequities: Questions and Additional Information

Applications are due no later than March 2, 2023 (12 pm noon PT)!

Useful links:

- SmartSimple application system: https://rgpogrants.ucop.edu
- Webinar "How to use SmartSimple to Submit a Partnered Application"
- Intergenerational Transmission of Breast Cancer Health Inequities: https://www.cbcrp.org/funding-opportunities/sri/early-life-exposures.html
- Additional funding opportunities: <u>cbcrp.org/funding-opportunities/index.html</u>

For programmatic questions, contact Sharima Rasanayagam, CBCRP Program Officer:

Sharima.Rasanayagam@ucop.edu

For questions about Smart Simple, technical issues, or application instructions and forms, contact Research and Grants Program Office Contracts and Grants unit:

RGPOgrants@ucop.edu

