

California Firefighter Cancer Prevention and Research Program Informational Webinar

Research Grants Program Office

Research & Innovation

University of California Office of the President

Monday, January 29, 2024

UNIVERSITY OF CALIFORNIA
Research & Innovation

California Firefighter Cancer Prevention and Research Program

Welcome and Introductions

Program Purpose

Background

Program Overview

Competition Timeline and Key Dates

Letter of Intent

Community-Based Participatory Research

Technical Assistance

Working with Smart Simple – Letter of Intent

Questions & Answers

California Firefighter Cancer Prevention and Research Program is a competitive grant program established by the State of California (AB 700) in 2023.

Grants to eligible educational institutions (University of California) to conduct research on the California fire service using a community-based participatory research model in collaboration with California firefighters.

Support research to prevent and reduce the incidence of cancer among CA firefighters

- Examining the hallmarks of cancer and key characteristics of carcinogens
- Characterizing biomarkers of cancer susceptibility or risk in firefighters
- Understanding carcinogenic exposures among firefighters
- Informing intervention strategies to lower risk of developing cancer in firefighters

Daily Exposure to Carcinogens



- Vehicle Fires
- Diesel Exhaust
- Asbestos & PM 2.5
- Metals
- PFAS
- Flame Retardants



Firefighting = IARC Group 1 Carcinogen

IARC Monographs Vol. 132

Occupational exposure as a firefighter is **carcinogenic to humans (Group 1)** on the basis of **sufficient evidence for cancer in humans**



The *IARC Monographs* classification indicates the level of certainty that an agent can cause cancer (*hazard identification*)

Higher level of certainty Lower level of certainty



Cancer types with **sufficient evidence** for cancer in humans:



Mesothelioma



Bladder cancer

Cancer types with **limited evidence** for cancer in humans:



Colon cancer



Prostate cancer



Testicular cancer

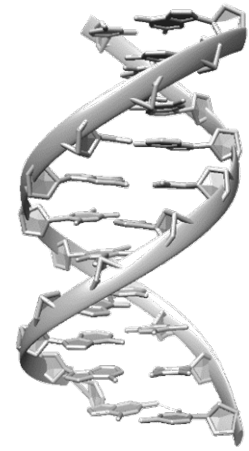


Melanoma of the skin

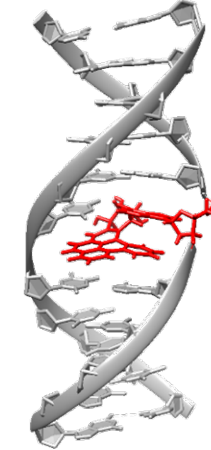


Non-Hodgkin lymphoma

IARC: Strong Evidence – Key Characteristics of Carcinogens



BEFORE



AFTER

GENOTOXICITY

- OXIDATIVE STRESS
- CHR. INFLAMMATION
- RECEPTOR MEDIATED CELL EFFECTS

EPIGENETIC ALTERATIONS

LOWER CANCER RISK

** HIGHER CANCER RISK **

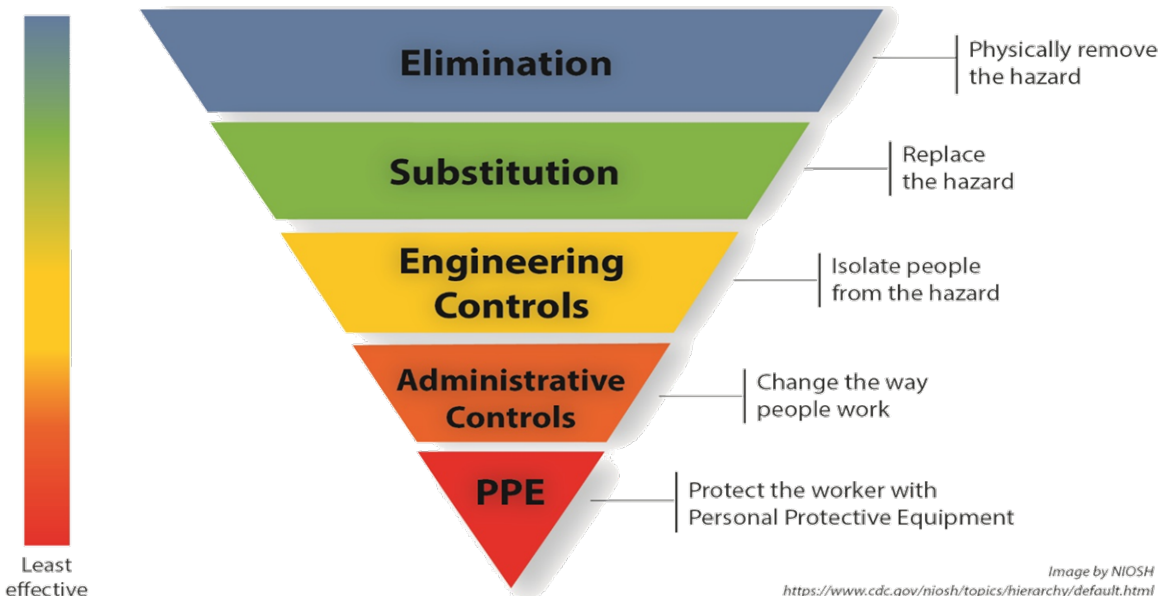
Hallmarks of Cancer

- Self-sufficiency/insensitivity growth signals
- Evading programmed cell death
- Deregulated metabolism
- Evading immune system
- Genome instability

Key Characteristics

- Electrophilic (metabolically activated to...)
- Alters DNA repair
- Immunosuppressive
- Alters cell proliferation

Data Driven Interventions to Reduce Firefighters' Cancer Risk



Purpose

- Competitive grant program funding community-based participatory research (CBPR) projects to reduce the incidence of cancer among California firefighters.
- Research conducted by community-academic partnerships among CA-based fire service organizations and UC campuses
- Research to prevent and reduce cancer among CA firefighters by examining the hallmarks of cancer and key characteristics of carcinogens related to firefighters' occupational exposures, characterizing biomarkers of cancer susceptibility or risk in firefighters, understanding carcinogenic exposures among firefighters, and informing intervention strategies to lower risks of developing cancer in firefighters

Program Administration

- Administered by UCOP RGPO in consultation with FIRESCOPE
- Proposals evaluated through a two-tiered process: peer review (outside experts) and programmatic review (FIRESCOPE)
- Substantial programmatic involvement in awards, including convening a FIRESCOPE advisory committee to provide firefighter expertise and leadership perspectives

Grant Types and Funding Levels

CA Firefighter Cancer Prevention Pilot Award

Supports the initial phase of the project, including strengthening collaborations, development of tools and methods, testing feasibility, and collecting pilot data.

Funding: \$300,000 in direct costs for a two-year project (plus indirect costs)

CA Firefighter Cancer Prevention Full Award

Projects with a fully developed research plan with supporting preliminary data, carried out by a well-integrated team of scientific and fire service members with demonstrated record of success conducting research.

Funding: \$750,000 in direct costs for a three-year project (plus indirect costs)

Grant Program Overview and Priorities

All proposals must address the priority area of: Engaging in community-based participatory research (CBPR) model of research.

Plus one or more of the following priority areas:

- Examining at least one of the hallmarks of cancer or the key characteristics of carcinogens as it relates to firefighters' occupational exposures and cancer risk.
- Identifying and/or examining biomarkers of known and suspected human carcinogen exposures in firefighters.
- Developing and/or testing methods to quantify occupational exposures and biological effects to carcinogens among CA firefighters.
- Examining the effect of exposures among CA firefighters to known and suspected human carcinogens.
- Developing and/or testing interventions to reduce occupational exposures to known and suspected human carcinogens among CA firefighters.
- Developing and/or testing systems-level interventions to reduce occupational exposures among CA firefighters. This includes, but is not limited to, policy and/or practice interventions at the department, organization, agency, and/or other type of group level.
- Developing and/or testing other methods for preventing or reducing the incidence of cancer in CA firefighters.

Grant Program Overview and Priorities

Projects that are not in alignment with this RFP include:

- Those focused on a disease area other than cancer.
- Projects that consult with fire service professionals, but do not partner with them.
- Projects where teams will limit output to a meta-analysis of published literature.
- Projects that do not study or partner with firefighters with occupational exposures to products of combustion.
- Projects that do not include partnerships with actively serving or retired California firefighters.
- Projects that measure chemical exposures in firefighters but do not include a plan to report back individualized research results to firefighters. Publication in scientific journals does not constitute report back of individualized research results to firefighters.

Applicant Eligibility

This community-based participatory research grant opportunity requires participation of a team consisting of individuals representing at least one **California-based fire service organization** (formal or informal) and at least one experienced **academically-trained UC-based researcher**.

- The fire service organization must identify one member who will act as the fire service Co-Principal Investigator (Co-PI) for the purposes of the project. The fire service organization may be any California-based group composed of actively serving and/or retired California firefighters, including state or local fire agencies, firefighter labor unions, or fire departments, or other formal or informal groups of firefighters meeting these criteria. To be eligible, the fire service organization needs to include individuals who experience occupational hazards to products of combustion as firefighters.
- The academic Co-Principal Investigator must be a University of California faculty or staff with principal investigator eligibility.
- All Co-Principal investigators must reside in California.

Applicant Eligibility

- All proposals must be submitted by an Applicant Co-Principal Investigator (“Applicant Co-PI”), who can be either the academic or fire service Co-Principal Investigator. Regardless of who is the Applicant Co-PI, both the Fire Service Co-PI and the Academic Co-PI are equal partners.
- An individual may serve as Co-Principal Investigator on one pilot proposal and one full proposal in response to this RFP. However, the individual may serve as a Co-Investigator (Co-I) on other proposals.
- Additional research and fire service organizations may also participate in collaborating roles. While the applicant research and fire service organizations must be based in the state of California, the project team may include partner institutions from outside of California, if well justified.

RFP Release	Thursday, January 18, 2024
Informational Webinar	Monday, January 29, 2024
Required Letter of Intent (LOI) Due Date	Thursday, February 29, 2024 (by 12:00 noon Pacific Time)
Invitation to Submit Application	Thursday, March 14, 2024
Invited Application Due Date	Thursday, June 13, 2024 (by 12:00 noon Pacific Time)
Award Start Date	Sunday, December 1, 2024

Letter of Intent Content

- Type of award (Pilot or Full grant)
- Title of proposed research project
- Contact information for at least one Co-Principal Investigator (Co-PI)
 - University of California Co-Principal Investigator
 - Fire service organization Co-Principal Investigator
- Named applicant organizations and institutions
- Short description of proposed project (500 words maximum; 3500 characters)
- Anticipated budget request for the total project (based on award type)
- Optional: Suggested academic and fire service peer reviewers from outside California

- Useful in projects ranging from biomarker characterization to population-wide interventions
- Authentic and comprehensive partnership
- Integration of perspectives from fire service personnel and academics
- Co-PIs and team engage in:
 - Research question and specific aims generation,
 - Development of research methodology,
 - Project implementation,
 - Data gathering and analysis,
 - Report out of results to fire service community, academic audiences, and broader interested communities

Principles of CBPR



The CBPR Team



Fire Service Co-PI and Staff and Firefighters (broader community)



Academic Co-PI and Staff



Benefits of CBPR

- **It benefits the community**

Answers important questions, develops research & evaluation skills, funds community, builds capacity, provides data for advocacy & change

- **It improves the production of knowledge**

Methodology and analysis strengthened with community input, results (data) more likely to be disseminated and used

- **It benefits the academic field**

Enables ethical access to communities, leverages community knowledge to create more relevant research, research is used for change, provides data for publications, funds researcher

Traditional vs Community-Based Participatory Research

Traditional	CBPR
Outside expert	Team of stakeholders, multiple experts
Outside expert defines what needs to be studied and how	Stakeholders collectively decide focus and methods of research
Report of results may or may not be used to make changes	Stakeholders shaping research increases impact
Capacity for research leaves with the expert	Capacity for research is built internally
Unclear whether capacity for partnering grows	Capacity for partnering grows within both organizations and/or institutions

Co-PI Experience and Skills

Fire Service Co-PI

- Experience with the topic being researched
- Trust of the community involved in the research
- Skills for representing the community of interest and being a conduit with larger community
- Sees self as a collaborator, enjoys teaching

Academic Co-PI

- Trained and experienced in both the topic being researched and the research skills necessary to complete the project
 - Connected to other scientific expertise
 - Sees self as a collaborator, enjoys teaching
-

- **LOIs due February 29th, 2024 may be submitted with only one Co-PI named.**
- Program will provide technical assistance with finding appropriate partner Co-PI, and for other aspects of application.
- Email the California Firefighter Cancer Prevention and Research Program at firefighter-cancer@ucop.edu for help.
- Invited applications will require that both Co-PIs be named and have developed a memorandum of understanding for their partnership.

How to submit a proposal in SmartSimple

presented by

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

- C&G works in collaboration with the California Firefighter Cancer Prevention and Research Program, serving as interface on administrative and procedural aspects of your LOI and Application submission and review process.
- Contact information:
 - **Email:** RGPOgrants@ucop.edu

Key Dates & Tips

Award Type	LOI Deadline	Application Deadline
Pilot Award	February 29, 2024, 12pm Noon PT	June 13, 2024, 12pm Noon PT
Full Award	February 29, 2024, 12pm Noon PT	June 13, 2024, 12pm Noon PT

- All materials must be submitted through SmartSimple
- Detailed instructions are provided on the program 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/>

The image shows a screenshot of the SmartSimple login page. At the top left, the University of California logo is visible. The main content area is titled "Welcome to Research Grants Program Office | UCOP" and contains introductory text about the RGPO and the SmartSimple system. On the right side, there is a "Login to SmartSimple" form with fields for "Email:" and "Password:" (with a placeholder "Enter Password"), a "Login" button, and a "Forgot Password?" link. A red circle highlights the login form, and a red arrow points from the text "Returning users login here" to it. At the bottom left, there is a "Principal Investigator Registration" section with a "Register Here" button. A red circle highlights this button, and a red arrow points from the text "First-time users register here" to it.

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Returning users login here

Welcome to Research Grants Program Office | UCOP

The Research Grants Program Office (RGPO) oversees a broad grantmaking portfolio of over \$100 million a year to support research that is critical to California, the nation and the world. RGPO programs enhance University of California's research capacity and excellence, which helps attract top faculty, graduate students, government funding and companies to our state.

The SmartSimple Grants Management System is now accepting letters of intent (LOIs) and applications for the Tobacco-Related Disease Research Program (TRDRP). For information regarding the 2019 call for applications, please visit TRDRP's website at www.trdrp.org

Principal Investigator Registration

Register Here

First-time users register here

Login to SmartSimple

Email:

Password:

Login

[Forgot Password?](#)

[Security](#)

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.”**

Institution Information

Instructions
Please start typing the name of your institution. A dropdown list will appear, in order to select your institution. If the name does not exist, [search the IRS database.](#)

* **Institution Name**

Contact Information

* **Email**

* **First Name**

* **Last Name**

* **Address**


* **City**

* **Country**

* **State / Province**

* **Zip / Postal Code**

* **Telephone Number**

I'm not a robot  reCAPTCHA
Privacy - Terms

Submit

Preparing and Submitting an LOI or Application

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Home Available Funding Opportunities Historical Applications

Privacy & Security Jane Doe 1

Available Funding Opportunities

List of available funding opportunities below includes both open and upcoming in the Pacific Time Zone.

#	Name	Description	Policies and Guidelines	Deadline	Application Deadline	Info	Apply
1	CBCRP 2020 - Innovative, Developmental, and Exploratory Award (IDEA)	The Innovative, Developmental, and Exploratory Award (IDEA) supports speculative, exploratory, high-risk/high-reward projects with a primary focus on breast cancer.	PLACEHOLDER_UPLOAD.pdf	10/24/2019 12:00:00	03/05/2020 12:00:00	Info	Apply
2	CBCRP 2020 - Translational Research Award	Translational research to be supported by the CBCRP should have the potential for major impact in the areas of: (1) diagnosis, or treatment of breast cancer; (2) survivors; (3) reduction in the community burden of the disease in California, or (4) advances in systems changes, health policies or environmental factors that will impact public health outcomes. To distinguish this research from other types of research funded by the CBCRP, the applicant to present a "critical path" that will impact public health outcomes. To distinguish this research from other types of research funded by the CBCRP, the applicant to present a "critical path" that will impact public health outcomes. To distinguish this research from other types of research funded by the CBCRP, the applicant to present a "critical path" that will impact public health outcomes.			03/05/2020 12:00:00	Info	Apply
3	CBCRP 2020 - Conference Award	The Standard Conference Award is open to all faculty and staff with the capacity to host an event that satisfies the criteria for Applications.			03/04/2019 12:00:00	Info	Apply

1. Click on "Available Funding Opportunities"

2. Locate the row of the award type for which you'd like to apply, and click "Apply."

1. Click on the **“Available Funding Opportunities”** tab in the upper right corner.
2. Find the row that corresponds to the award you’re interested in and click **“Apply.”**

LOI Submission Steps



Download instructions

i Letter of Intent RFP Details
Name: CBCRP 2020 - Translational Rese
Type: Translational Research Award
Deadline: 10/24/2019 12:00:00

Click the section headings to access and complete each section of the LOI.

Templates and Instructions:

Instructions_placeholder.docx
11.2 KB - 08/15/2019 10:46am

Total Files: 1

Preview

TITLE PAGE APPLICANT / PRINCIPAL INVESTIGATOR PROJECT INFORMATION BUDGET DOCUMENTATION SIGNATURE PAGE

Application ID: B26TR1198

* Project Title: ?

100 characters left

* Project Duration (year):

* Proposed Project Start Date: ?

* Proposed Project End Date: ?

* Is this a re-submission?

Please indicate if this is a resubmission of a prior application. A resubm currently reviewed grant cycle.

the

Yes

No

Click "Submit LOI" to submit the LOI.

NEXT >

Save Draft

Submit LOI

Withdraw

- Partnership and content questions: Email firefighter-cancer@ucop.edu
- SmartSimple questions: Email RGPOgrants@ucop.edu