

Tobacco-Related Disease Research Program (TRDRP)

Call for Applications - 2015

The TRDRP offers a unique source of funding that supports investigators at all eligible California institutions. The program funds research that contributes to the elimination of smoking and tobacco use and mitigates the human and economic costs of tobacco use in California. TRDRP's research priorities and funding investments are designed to focus on under-funded and emerging critical areas of study in the area of tobacco-related disease and tobacco control research.

All applications must address one or more of the program's five research priorities:

- **Environmental Exposure**
- **Early Diagnosis**
- **Regulatory Science**
- **Disparities, Cessation, and Neuroscience**
- **Industry Influence**

KEY DATES

| | Exploratory, Research Project, Participatory and Career Development Awards |
|--|--|
| Letter of Intent (LOI) Materials Available | July 1, 2014 |
| LOI Due | September 12, 2014 (12 PM PDT) Required |
| Applications Due | December 1, 2014 (12 PM PST) |
| Applications Reviewed | February 2015 |
| Applicants Notified | May 2015 |
| Awards Start | July 1, 2015 |

The electronic format for proposal submission is subject to change due to an ongoing database conversion project at RGPO. For the 2014-15 application cycle, please submit your LOI using the proposalCENTRAL system **NO LATER THAN 12PM PDT on Friday, September 12, 2014**. Upon submission of your LOI you will receive an automatic confirmation of receipt. Please keep this for your records. If you do not receive an automatic confirmation notice, your LOI will not be deemed received by RGPO and will not be reviewed. All applicants who have submitted the LOI in a timely manner will also receive a second email indicating the status of the LOI (approved/denied), no later than September 26, 2014. If your LOI is approved, further instructions will be provided on how to access the new database system in order to submit a full application after October 1, 2014.

If you are a currently funded TRDRP grantee who is interested in applying for a Cornelius Hopper Diversity Award Supplement, please contact the program prior to starting the application process.

| Grant Type | Purpose of Award | Maximum Award (Total Direct Cost) | Maximum Award Duration (Years) |
|---|---|--|---------------------------------------|
| Exploratory & Developmental (XT) | To gather preliminary data or demonstrate proof-of-principle. | \$200,000 | 2 |
| Research Project (RT) | To conduct promising research supported by existing preliminary data. | \$375,000 | 3 |
| Participatory Research - Pilot CARA (BT) and SARA (GT) | To conduct initial phase of a CARA or SARA project: solidify collaborations, identify research questions, negotiate roles and responsibilities, and detail the research plan and methods. | \$200,000 | 2 |
| Participatory Research - Full CARA (AT) and SARA (HT) | To conduct research by a collaborative partnership on tobacco control issues identified as important and meaningful to specific communities/schools in California. | \$375,000 | 3 |
| Postdoctoral Fellowship (FT) | To obtain postdoctoral research training under a designated mentor | \$135,000 | 3 |
| Dissertation Research (DT) | To support the dissertation research of a doctoral candidate. | \$60,000 | 2 |
| Special Projects (ST) | To support scientific conferences and other research dissemination activities. To support early investigation into emerging issues in tobacco control or tobacco-related disease research. | \$5,000 | 1 |
| Cornelius Hopper Diversity Supplement (CHDAS) | To train promising individuals either from underrepresented communities and/or who wish to pursue careers on tobacco-related research focused on underserved communities. | \$30,000 | 2 |

NOTE: Investigators may submit more than one proposal per funding cycle; however, only one grant per funding cycle will be awarded to an individual Principal Investigator.

Summary of Changes for the 2015 Call for Applications

The content of the 2015 TRDRP Call for Applications remains largely unchanged from the previous year except for key changes to the deadlines. Award mechanisms as well as direct cost caps remain the same, as do the research priorities. Our resubmission policy has been revised to be consistent with the [NIH policy](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-074.html) (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-074.html>). Nonetheless, we strongly encourage you to review the research priorities and award mechanisms carefully before submitting an application.

NOTE: Funding from **The California Cancer Research Fund** is being offered as part of this Call for Applications.

General Eligibility

Investigators from California not-for-profit organizations are eligible for TRDRP funding, including but not limited to colleges, universities, hospitals, laboratories, research institutions, local health departments, community-based organizations, voluntary health agencies, health maintenance organizations, and other tobacco control groups. The sponsoring institution in accordance with its own policies and procedures should designate the Principal Investigator. The Principal Investigator must supervise the research project and then trainee directly and in person. Although the research undertaken with TRDRP funds must be conducted primarily in California, part of the work may be done outside California if the need to do so is well-justified (e.g., it is integral to the achievements of a specific aim), and the results of such work may be applied to understanding the causes and/or improving the prevention and treatment of tobacco-related diseases in California.

In accordance with University of California policy, Principal Investigators who are University employees and who receive any part of their salary through the University must submit grant proposals through their UC campus contracts and grants office (see "[Policy on the Requirement to Submit Proposals and to Receive Award for Grants and Contracts through the University](http://policy.ucop.edu/doc/2500500/ReqSubmitProp-Awar)" [<http://policy.ucop.edu/doc/2500500/ReqSubmitProp-Awar>],” University of California Office of the President, December 15, 1994). Exceptions must be approved by the UC campus where the Principal Investigator is employed. US citizenship is not a requirement for eligibility.

Submission Process

Submission of a Letter of Intent (LOI) is required to apply for all research awards except for Special Projects and Cornelius Hopper Diversity Award Supplements. You will have access to the application web pages when the LOI is approved, at which time you will receive a notification e-mail. To be accepted to submit a full application, a LOI must address one or more of TRDRP’s five research priorities.

LOIs must be submitted using [proposalCENTRAL](#), the program’s contracted web-based application and grants management system. Full proposals must be submitted using our new electronic grant submission database system. Applicants with an approved LOI will be sent instructions for accessing the new database system after October 1, 2014.

For technical help with [proposalCENTRAL](#), please email pcsupport@altum.com or call 800-875-2562 (Toll-free U.S. and Canada). ProposalCENTRAL customer support is available Monday – Friday from 8:30am - 5:00pm (EST).

Award Conditions

TRDRP awardees are expected to:

- Account for the expenditure of grant funds and for the performance of work as agreed upon in a timely manner, so that TRDRP may file reports and answer inquiries from the legislature and the public
- Contribute to the stated goals of the [Proposition 99 legislation](http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=104001-105000&file=104500-104545) [http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=104001-105000&file=104500-104545] and the Tobacco Education and Research Oversight Committee’s current [Master Plan](http://www.cdph.ca.gov/services/boards/teroc/Documents/Full%20Master%20Plan-Web.pdf) [http://www.cdph.ca.gov/services/boards/teroc/Documents/Full%20Master%20Plan-Web.pdf] for tobacco-related research, which include the systematic dissemination of research results to the public. The Institutional Official’s and Principal Investigator’s signatures on the cover page of the application signify that the individuals are aware of all conditions for receiving a grant from TRDRP
- Participate in TRDRP-sponsored activities to disseminate research results as able and as requested
- Communicate with the public about the funded work
- Attend TRDRP conferences and participate as requested
- Acknowledge the support of TRDRP on all publications and presentations resulting from the funded research

RGPO Policies

For all other application and grant-related policies as well as other funding opportunities, see ([UCOP Research Grants Programs Office](http://www.ucop.edu/research-grants-program/grant-administration/index.html) [RGPO]) [http://www.ucop.edu/research-grants-program/grant-administration/index.html]

- For policies related to pre-funding requirements, human and animal subject assurances and reporting requirements see ([Research Grants Programs Office Grant Administration Manual](http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/srp_gam.pdf)) [http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/srp_gam.pdf]
- For policies related to indirect cost recovery see ([RGPO Policy Updates](http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/rgpo_updates.pdf)) [http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/rgpo_updates.pdf]
- For policies related to conflict of interest see ([Research Grants Programs Office Conflict of Interest and Professional Activities Policy](http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/rgpo_coi_policy.pdf)) [http://www.ucop.edu/research-grants-program/_files/documents/srp_forms/rgpo_coi_policy.pdf]
- For policies on resubmissions, confidentiality of submitted materials and funding decision appeals contact ([RGPO Contracts and Grants](http://www.ucop.edu/research-grants-program/staff/contracts-grants/index.html)) (http://www.ucop.edu/research-grants-program/staff/contracts-grants/index.html)

Research Priorities

Environmental Exposure

Research Priority 1: Advance policies to reduce environmental exposure to the toxic effects of tobacco smoke and tobacco smoke residue, and assess and eliminate the environmental impact of cigarette butt waste.

Cigarette Butt Pollution — Cigarettes butts remain the most common form of litter on US roadways and beaches. The environmental burden of cigarette butts is staggering. 141 million pounds of filters were dumped into US environments in 2005. [California is no exception](http://www.sfgate.com/health/article/Kicking-cigarette-butts-out-of-California-is-aim-5183301.php#page-1) [http://www.sfgate.com/health/article/Kicking-cigarette-butts-out-of-California-is-aim-5183301.php#page-1]. Cigarette butt clean-up comes as a substantial cost to communities: in San Francisco alone over \$5.6 million is spent annually to clean up tobacco litter. Nearly all of cigarette filters are made of cellulose acetate, a non-biodegradable plastic that remains in the environment for a very long time. Ingested cigarettes are poisonous to children and adults as well as animals, and butt leachates are toxic to marine and freshwater fish. New knowledge about the impact of tobacco product waste on the environment and the risks to human health can raise awareness and inform sound policies aimed at mitigating tobacco waste pollution and tobacco consumption in sensitive environments.

Examples of relevant research topics include:

- Bioaccumulation as a result of cigarette butt waste pollution in aquatic environments
- Exposure and toxicity of cigarette butt waste
- Environmental and economic impact of cigarette production and tobacco product waste
- New policy approaches to reduce or mitigate waste at the municipal, county, or state level

Thirdhand Smoke (THS) — THS refers to the “residual tobacco smoke pollutants that remain on surfaces and in dust after tobacco has been smoked; or are re-emitted back into the gas phase; or react with oxidants and other compounds in the environment to yield secondary pollutants” ([Matt et al., 2011](http://www.ncbi.nlm.nih.gov/pubmed/21037269) [http://www.ncbi.nlm.nih.gov/pubmed/21037269]). Toxic compounds so far identified in THS include many that are also present in SHS and mainstream smoke, as well as novel tobacco-specific carcinogenic nitrosamines. Emerging evidence from animal model studies alerts that involuntary inhalation or dermal uptake of THS can be adverse to human health. A better understanding of THS and its effects on human health and disease would address a critical need for information in the formulation of policies related to indoor air quality.

Examples of relevant research topics include:

- Identity of THS constituents
- Toxicology of potentially dangerous THS constituents
- Biomarkers of THS exposure
- Risk assessment under normal conditions in the field

NOTE: Applicants who plan to pursue THS research are encouraged to design an approach that will benefit from the existing THS research capacity, infrastructure, and methodologies generated through the TRDRP-funded California [consortium](http://research.universityofcalifornia.edu/stories/2012/04/thirdhand-smoke.html) <http://research.universityofcalifornia.edu/stories/2012/04/thirdhand-smoke.html> on thirdhand smoke research.

Secondhand Smoke & Indoor Vaping — Secondhand smoke (SHS) is a Class A carcinogen and there is no risk-free exposure level to this indoor and outdoor pollutant. In order to support policies designed to minimize involuntary exposure to SHS, research is needed to understand SHS exposure and health risks in multiunit housing, casinos and the social-behavioral, economic and legal barriers to adoption of smoking bans in these areas.

The emergence of e-cigarettes has complicated policies related to SHS exposure. There is a paucity of research on the health effects of secondhand vapor (SHV), much of it contradictory. Research on SHV in the context of e-cigarettes is urgently needed to fill this knowledge gap and assist policymakers in assessing the risks & benefits of e-cigarettes and developing appropriate policies for their use in indoor environments.

Examples of relevant research topics include:

- Indoor SHS measurement, and health effects of smoke exposure in multiunit housing
- The potential economic, social, and health care cost impact of controlling tobacco use in American Indian gaming casinos, California card rooms, and the US gaming industry
- Public perception of SHS exposure and response to policies to control SHS
- Current local policy approaches to controlling smoking in multiunit housing
- Tobacco industry practices at weakening public support for minimizing SHS exposure in multiunit housing and indoor public spaces
- Chemical composition of e-cigarette vapor and any secondary pollutants emitted from common e-cigarette brands; and impact of indoor e-cigarette vaping on human health

Outdoor Air — The effects of air pollution on smokers' health or the interaction of tobacco smoke with other airborne constituents in outdoor environments, particularly with industrial pollutants are not well studied. This is particularly salient in light of the disparate public health impact of smoking on communities of color. Retail tobacco outlets, targeted and intense tobacco advertising and under-priced tobacco products are concentrated in under-served communities and communities of color and air pollution is often concentrated in areas where these vulnerable populations live – near refineries, freeways, and industrial areas. Tobacco smoke itself can contribute significantly to the pollution burden in outdoor environments: nicotine concentrations in outdoor environments such as schools, amusement parks and airports, outside of office buildings can reach levels comparable to those found in smokers' homes. The interaction of active and passive smoking with outdoor air pollution is largely unexplored and could shed light on the pronounced health disparities related to smoking in disproportionately impacted communities.

Examples of relevant research topics include:

- The effect of secondhand smoke on outdoor air quality
- Interaction of tobacco smoke and other air-borne pollutants in the outdoor environment
- The impact, and potential disease outcomes, of the greater concentration of tobacco outlets in poor communities on outdoor air quality
- Mechanistic studies on if and how poor air quality and tobacco smoke result in increased risk to human health

Early Diagnosis

Research Priority 2: Advance innovative research in the early diagnosis of tobacco-related diseases.

Cancer - Because of the strong anti-smoking policies and tobacco taxes implemented in California since 1989, the incidence of tobacco-related cancers have been on the decline. The bad news is that cancer takes years to develop even in those smokers who have quit; so tobacco-related cancers, in particular lung cancer, will continue to exact a public health burden for years to come.

Given the complexity of the [genomic landscape of cancer](http://www.sciencemag.org/content/339/6127/1546.full) [http://www.sciencemag.org/content/339/6127/1546.full], it is clear that, rather than curing advanced cancer, the best chance for making an impact on cancer mortality is by focusing on the early detection of disease. The next generation of TRDRP cancer research support will focus solely on early diagnosis and secondary prevention of tobacco-related cancers. TRDRP is interested in funding research on non-invasive tests or imaging technologies using molecular biomarkers to identify those patients most at risk or for use as early diagnostic and prognostic screening purposes.

Example of relevant research topics include:

- Identification of early detection biomarkers of carcinoma *in situ*
- Clinical validation of known diagnostic biomarkers of disease
- Development of precision analytical techniques to reliably and economically measure trace levels of biomarkers in non-invasive tissue samples such as blood, serum, expired air, saliva, and urine
- Identification of genetic signatures that can be reliably associated with variations in disease susceptibility among users of tobacco products
- Mechanisms of pathogenesis with the potential to inform early diagnostic approaches

NOTE: We encourage California researchers interested in this area to utilize new information, molecular data, and other resources available from NIH-funded efforts such as the [Cancer Genome Atlas](http://cancergenome.nih.gov/) [http://cancergenome.nih.gov/] and the [Early Detection Research Network](http://edrn.nci.nih.gov/) [http://edrn.nci.nih.gov/] in their proposals to the TRDRP as we believe these will present new opportunities for the early detection of tobacco-related cancers.

Early detection of lung cancer in California's disproportionately impacted populations - TRDRP administers contributions to the [California Cancer Research Fund](https://www.ftb.ca.gov/individuals/vcfsr/indvolcon.shtml#14) (CCRF) [https://www.ftb.ca.gov/individuals/vcfsr/indvolcon.shtml#14], box number 413 on California state income taxes. CCRF contributions are to be allocated as grant awards to support research on the

causes and treatments for cancer, expanding community-based education on cancer, and providing culturally sensitive and appropriate prevention and awareness activities targeted toward communities that are disproportionately at risk or afflicted by cancer.

Based on recommendations by a TRDRP-convened Strategic Visioning Committee, CCRF funds have been allocated to support a limited number of pilot or exploratory study proposals into the early detection of lung cancer and the early detection of lung cancer in disproportionately impacted California groups that will be submitted in response to this Call for Applications.

Research is needed for African Americans, Hispanic, and Asian American ethnic groups on:

- Best practices for early lung cancer detection, especially in resource-limited treatment settings
- Overcoming barriers to lung cancer screening such as
 - healthcare access issues
 - fatalistic beliefs about screening and a positive diagnosis
- Appropriate follow-up procedures following a positive screen
- Culturally sensitive health communications on discussing detection and lung cancer
- Overcoming financial and other barriers to lung cancer screening and follow-up care
- Identification of psychosocial and biological correlates of lung cancer detection
- Cost/benefit analysis of lung cancer screening in disproportionately impacted communities

Chronic Obstructive Lung Disease (COPD) - Abstaining from smoking and minimizing exposure to environmental tobacco smoke are the only effective ways to prevent COPD and the only avenue for alleviating its debilitating symptoms. Unfortunately, for those individuals diagnosed with COPD who have moderate to severe pulmonary dysfunction, the symptoms are essentially irreversible even if the patient quits smoking. COPD is the currently the third leading cause of death in the US. Understanding how smoking causes COPD can inform earlier diagnosis, more effective treatment, and perhaps someday even reversal of the disease process.

Examples of relevant research topics include:

- The role of inflammation and oxidative stress in COPD pathogenesis
- Improved methodologies for early detection
- Biomarkers of susceptibility and progression

Cardiovascular Disease - Tobacco smoking and secondhand smoke exposure have long been recognized as prominent risk factors for cardiovascular disease. The mechanism by which known and as-yet-unidentified toxicants in smoked and smokeless tobacco products increase the risk of cardiovascular disease is still a promising area of research. This is particularly true in light of the [\[FDA's responsibility\]](#)

(http://www.fda.gov/TobaccoProducts/default.htm?utm_campaign=Google2&utm_source=fdaSearch&utm_medium=website&utm_term=tobacco&utm_content=1) to evaluate and regulate existing and emerging tobacco products.

Examples of relevant research topics include:

- The effects and mechanism of action of tobacco toxicants and oxidative stress on endothelial function
- The identification of toxicants responsible for platelet activation
- The mechanism by which tobacco toxicants contribute to the development of insulin resistance

Regulatory Science

Research Priority 3: Expand the scientific basis to inform the regulation of nicotine and tobacco products at the local, state, and national levels.

The development and differentiation in product design and content of electronic cigarettes is clearly one of the foremost challenges confronting the regulatory sciences arena. These products require scientific examination to determine both their short and long-term health effects. The e-cigarette research agenda is a sprawling enterprise unto itself ranging from toxicological studies on the e-liquids and the aerosol emissions, through the addictive potential and abuse liability, to the effects of e-cigarettes on smoking norms, particularly among youth. E-cigarettes are marketed as harm reduction and cessation devices. Some studies suggest, however, that use of electronic cigarettes can lead to “dual use,” of both tobacco cigarettes and electronic cigarettes. In addition to e-cigarettes themselves, the relatively recent explosion in electronic nicotine delivery systems (ENDS) also includes hookah pens, vape pens, tank systems, and “mods,” some of which have the potential to overtake e-cigarettes in their popularity.

The larger than life appearance of e-cigarettes is joined by other potentially reduced exposure products (PREPs) such as snus, orbs, and lozenges. These, along with cigars, cigarillos, and blunts, are all in need of greater scientific understanding and scrutiny. Similarly, we need a greater critical understanding of reduced nicotine and de-nicotinized cigarettes, their use and their abuse potential. The question of menthol in tobacco remains a major regulatory issue at the local, state, and national level. Finally, the potential benefit of graphic warning labels has not been thoroughly analyzed and given their potential to impact domestic tobacco control efforts, international trade agreements need to be studied and understood thoroughly.

Disparities, Cessation, and Neuroscience

Research Priority 4a: Prevent and treat tobacco use and promote equity among disproportionately impacted groups.

While significant advances in the science and practice of tobacco control have been evident over the past 25 years, it is also clear that certain populations continue to bear a disproportionate burden of tobacco-related illness, death, and reduced quality of life ([Fagan, et al. \(2004\)](http://www.ncbi.nlm.nih.gov/pubmed/14759929) [<http://www.ncbi.nlm.nih.gov/pubmed/14759929>]; [Fagan, Moolchan, Lawrence, Fernander, & Ponder, 2007](http://www.ncbi.nlm.nih.gov/pubmed/17850611) [<http://www.ncbi.nlm.nih.gov/pubmed/17850611>]; [Moolchan et al., 2007](http://www.ncbi.nlm.nih.gov/pubmed/17850612) [<http://www.ncbi.nlm.nih.gov/pubmed/17850612>]).

Tobacco use and tobacco-related diseases continue to be disproportionately distributed among racial/ethnic minorities, sexual/gender minorities, the poor, homeless, individuals with mental illness, and military communities in California. We are interested in supporting research identified by the scientific literature and communities as important and needed to reduce tobacco-related health disparities. Specifically, research is needed on groups with little or no epidemiological data and tobacco prevention and cessation interventions including:

- Racial/ethnic minorities (African Americans, Koreans, Latinos, Native Americans, Pacific Islanders, Vietnamese)
- Sexual/gender minorities (Lesbian, Gay, Bisexual, Transgender)
- The poor
- The homeless
- Individuals with mental illness including addictive disorders
- Older smokers
- Active military and veterans
- Rural communities
- Blue-collar workers
- Youth (children, adolescents including transitional age youth – 16-25)

Investigators seeking to focus their research on a priority group that is not listed here are encouraged to contact the Program before submitting a Letter of Intent.

In order to more fully understand the context in which tobacco-related disparities occur, a greater understanding of social, cultural, and behavioral factors associated with tobacco-related disparities is still needed. We encourage research projects that focus on elucidating socioeconomic, psychological, cultural, and economic correlates of tobacco prevention and cessation in priority populations. Disentangling the contextual factors of tobacco-related disparities in a manner that can inform policymakers and policy change is a critical need.

Electronic Nicotine Delivery Systems (ENDS) - Electronic nicotine delivery systems (e-cigarettes, e-hookahs, e-cigars, vape pens, and tank systems) have taken nicotine experimentation, regular use, and addiction into uncharted territory. Research questions remain pertaining to the impact of ENDS on youth, efficacy for sustained smoking cessation, dual use with traditional tobacco products, impact of the current no-rules marketing environment, and uptake among priority groups. We welcome proposals that elucidate social, behavioral, cultural, and economic correlates of ENDS.

Delivering Tobacco Dependence Treatments to those Most in Need - Provisions in the Affordable Care Act are expected to expand healthcare services to low-income groups. We encourage research focused on improving delivery of tobacco dependence treatments to priority groups, particularly interventions delivered in non-traditional settings, including service agencies accessed by low-income families (e.g., WIC), prison re-entry and juvenile justice related programs, employment agencies, homeless shelters, mental health settings, and faith-based organizations. Research on tobacco treatment services for priority groups in traditional settings (e.g., primary care) continues to be a need. Proposals focused on

service delivery should also address adherence, retention, acceptability /feasibility, generalizability of approaches, and optimization for ethnic and cultural groups proposed in the recruitment plan.

Cessation Medications: Applicants proposing to use a cessation medication with adult smokers may be able to obtain medication at no cost through a TRDRP arrangement with a pharmaceutical company. Contact the Program for details.

Youth-focused Research - Youth-focused epidemiological, prevention, and cessation research conducted inside and outside of schools is needed and applicable to all TRDRP mechanisms.

The TRDRP and the California Department of Education (CDE) have identified the following research areas as responsive to tobacco control priorities. However, applicants may also submit applications addressing other youth-focused research needs.

- Prevalence, prevention, and cessation of ENDS and non-nicotine analogues
- Research that can inform school policy on ENDS and non-nicotine analogues
- Evaluation research on the impact of statewide tobacco use prevention efforts for youth
- Elucidation of the association and correlates of marijuana and tobacco dual use
- Risk and protective factors for tobacco use among priority population youth
- Tobacco industry marketing practices targeted to youth; best practices to counter industry influence
- Best practices for instructional content for youth tobacco prevention
- Strategies to enhance youth understanding of the environmental toxicity of tobacco litter and engage youth in anti-tobacco litter advocacy
- Best practices for embedding tobacco prevention in a multiple risk behavior intervention

Research Priority 4b: Studies on the basic neuroscience of nicotine addiction

Basic Neuroscience of Nicotine Addiction — Over 30 million people remain addicted to tobacco products generally and nicotine in particular. Understanding and alleviating nicotine addiction remains critical to tobacco cessation efforts. While advances in understanding how nicotine affects the brain and subsequently leads to dependence have been made, the key mechanisms and pathways that can blunt nicotine’s addictive properties are still to be fully identified and understood. Recently, there have been advances in understanding the efficacy of nicotine vaccines. Some studies show promise, while others question this direction for smoking cessation ([Fagerström & Tonstad, 2013](http://www.ncbi.nlm.nih.gov/pubmed/23545789) [http://www.ncbi.nlm.nih.gov/pubmed/23545789]; [Esterlis et al., 2013](http://www.ncbi.nlm.nih.gov/pubmed/23429725) [http://www.ncbi.nlm.nih.gov/pubmed/23429725]). These contradictory findings only further highlight the need for focused research on what therapeutic agents and processes can be identified to stem the tide of nicotine addiction. Moreover, with the ongoing discussion of “end game strategies,” focused research on reduced nicotine content cigarettes and ENDS are needed.

Examples of relevant research topics include:

- Identifying or improving vaccines that can prevent the uptake of nicotine

- Improving the efficacy of existing cessation drugs and/or identifying and developing more efficacious partial agonists
- Testing the efficacy and side effects of existing cessation drugs in racial/ethnic minority, LGBT and low socioeconomic status groups, sectors typically not fully represented in clinical trials
- The addictive potential of e-cigarette vapor
- The addictive potential and abuse liability of different tobacco products
- The effects of long-term use of low dose nicotine products

Industry Influence

Research Priority 5: Advance the ability of communities throughout California to assess and limit the influence of the tobacco industry.

From Tobacco to Nicotine - Monitoring, evaluating, and assessing the influence of the tobacco industry is essential, especially since these corporations are active at the local, state, and national level in dispensing funds in order to influence public opinion. The industry continues to recruit and retain smokers through price manipulation and supporting predatory marketing campaigns targeted at youth, communities of color, and other priority populations. Scientifically documenting industry practices in these communities and within the retail environment at the community level is critical to raising public awareness and informing tobacco control policies.

The tobacco industry remains very active in the California Legislature in blocking tobacco control bills aimed at strengthening indoor smoking regulations and at regulating ENDS and other new products. While not as developed and organized, the tobacco industry's influence at the local city and county level also needs to be more fully understood. Research is needed not only on the tobacco industry's largess in the political arena, but also their contributions to non-profit organizations, including environmental groups, civil rights organizations, private and public schools, civic, cultural, advocacy organizations, and the hospitality industry.

The tobacco industry's growing interest and ownership within the expanding electronic cigarette market needs thorough research. Some predict that when the large tobacco companies fully enter the market, e-cigarette sales, advertising, and usage will increase markedly. Tobacco and nicotine researchers should be poised to assess the impact that this will have on regular cigarette use and its context.

Examples of relevant research topics include:

- The role of the tobacco industry in affecting local policies and ordinances
- The tobacco industry's contributions to non-profit organizations and their effect on organizational policies and programs
- The tobacco industry's influence in our public schools, civic, cultural, advocacy organizations, and the hospitality industry
- The tobacco industry's role in maintaining smoking in Indian gaming casinos
- Evaluation of community efforts to blunt the activities of the tobacco industry
- The retail environment and marketing tactics
- E-cigarette promotion and marketing

- Research that documents health and economic outcomes attributable to tobacco control ordinances
- The impact of trade agreements on tobacco regulation and control

Mechanisms of Support

Research Project Award (RT mechanism)

Purpose: To conduct research that is fully developed and scientifically rigorous. Proposals should include sound background information, hypotheses and substantial, as well as promising, preliminary or supporting data. **Research Project applications should not be exploratory in nature and lacking in previously developed supporting data.**

Maximum Award Amount: \$375,000

Maximum Duration: 3 years

Allowable Direct Costs: Salaries, fringe benefits; supplies; equipment*, travel.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Full indirect costs are allowed to non-UC institutions. Indirect costs to UC campuses are capped at 25%.

Resubmission Policy: We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria:

- **Responsiveness to Intent of the Award Type:** Is the study fully developed rather than pilot or exploratory in nature? Does the applicant describe previous research upon which the study is based and report reasonably compelling previous findings and supporting data for the conduct of the proposed project?
- **Significance:** Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect

of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field of tobacco-related diseases, tobacco control, social & participatory research, nicotine addiction, prevention or policy?

- **Approach:** Are the conceptual or clinical framework, design, methods, and analyses adequately developed, well-integrated, well reasoned, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **Innovation:** Is the project original and innovative? For example: Does the project challenge existing paradigms, interventions, clinical practice, or policy issues; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?
- **Investigator:** Are the investigators appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the PD/PI and other researchers? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?
- **Environment:** Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?
- **Protection of Human Subjects from Research Risk:** If human subjects are involved protections from research risk relating to their participation in the proposed research will be assessed.
- **Inclusion of Women, Minorities and Children in Research:** If human subjects are involved the adequacy of plans to include subjects of both genders, all racial and ethnic groups (and subgroups), and children as appropriate for the scientific goals of the research will be assessed. Plans for the recruitment and retention of subjects will also be evaluated.
- **Care and Use of Vertebrate Animals in Research:** If vertebrate animals are involved in the project, plans for their care and use will be assessed.

Exploratory/Developmental Research Award (XT mechanism)

Purpose: To gather preliminary data or demonstrate proof-of-principle with the ultimate goal being to provide the foundation for proposals for fully developed research project awards from other funding programs or TRDRP.

Maximum Award Amount: \$200,000

Maximum Duration: 2 years

Allowable Direct Costs: Salaries, fringe benefits; supplies; equipment*, travel.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Full indirect costs are allowed to non-UC institutions. Indirect costs to UC campuses are capped at 25%.

Resubmission Policy: We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria:

- **Responsiveness to Intent of the Award Type:** Is the study pilot or exploratory in nature? Does the study represent a new research trajectory that is not currently funded from other sources? Does the applicant describe how the pilot study will lead to an expanded research effort in the future including specific funding sources and award types?
- **Significance:** Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field of tobacco-related diseases, tobacco control, social & participatory research, nicotine addiction, prevention or policy?
- **Approach:** Are the conceptual or clinical framework, design, methods, and analyses adequately developed, well integrated, well reasoned, and appropriate to the aims of the project and the pilot nature of the grant type? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **Innovation:** Is the project original and innovative? For example: Does the project challenge existing paradigms, interventions, clinical practice, or policy issues; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?

- **Near Term Cost Leveraging Opportunities:** When the TRDRP-funded studies under an Exploratory/Development Research Award are completed, is there compelling promise and high likelihood that their results will constitute a larger RO1 or PO1 study with high probability of funding from another agency such as the NIH or from another TRDRP mechanism? In other words, with TRDRP funding of the proposal, can the applicant leverage funding from other sources to further develop this area of research, within 2-3 years after initial funding?
- **Investigators:** Are the investigators appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the PD/PI and other researchers? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?
- **Environment:** Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?
- **Protection of Human Subjects from Research Risk:** If human subjects are involved protections from research risk relating to their participation in the proposed research will be assessed.
- **Inclusion of Women, Minorities and Children in Research:** If human subjects are involved the adequacy of plans to include subjects of both genders, all racial and ethnic groups (and subgroups), and children as appropriate for the scientific goals of the research will be assessed. Plans for the recruitment and retention of subjects will also be evaluated.
- **Care and Use of Vertebrate Animals in Research:** If vertebrate animals are involved in the project, plans for their care and use will be assessed.

Pilot Community Academic Research Award (Pilot CARA – BT mechanism) and Pilot School Academic Research Award (Pilot SARA – GT mechanism)

Purpose: To conduct initial phase of a CARA or SARA project: solidify collaborations, identify research questions, negotiate roles and responsibilities, and conduct a pilot intervention or collect preliminary data for a later, fully developed intervention study. **Applicants must identify a community or school principal investigator and an academic principal investigator for this mechanism.**

Maximum Award Amount: \$200,000

Maximum Duration: 2 years

Allowable Direct Costs: Salaries, fringe benefits; supplies; equipment*, travel.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year for each of two co-investigators (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Full indirect costs are allowed to non-UC institutions. Indirect costs to UC campuses are capped at 25%.

Resubmission Policy: We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria:

- **Responsive to the Intent of the Award Mechanism:** Is the project pilot in nature? Are the proposed activities focused on accomplishing the preliminary work necessary to provide a strong basis for future collaborative research on a fully-developed project?
- **Significance:** Does this study address an important problem? If the aims of the application are achieved, will the completion of the elements stated in the pilot allow investigators to compete for a full CARA/SARA or larger grant from another funding agency? How will the community/school; community participants/students, staff, or faculty; academic institutions or community-based organizations; and their investigators benefit from the anticipated outcomes of the proposed research?
- **Approach:** Are the conceptual framework, design (including composition of study population), methods, and analyses appropriately developed for the pilot nature of the project? Are both the community/school and academic partner involved in the formation of the research question(s)? Does the proposed study methodology include the collection of preliminary data? Does the applicant clearly describe and/or define the community/school of interest? Do the research methods include perspectives and beliefs of community residents or school population of interest? Does the applicant describe procedures for community/school oversight during the implementation of the research? Does the applicant acknowledge potential problem areas and consider alternative tactics? Is the proposed work feasible?
- **Collaboration:** Are procedures identified to establish or strengthen the collaborative partnership? Do community/school members participate as equal partners in the research process (e.g., as core members of the research team or hired as research assistants)? Does the

research process apply the knowledge of community participants/school members in the phases of planning, implementation, and evaluation? Are measures included to assess the partnership? Are measures appropriately justified? Will the proposed study empower the community or school to address policy, economic, and social justice issues related to tobacco use? Are researchers and community or school members prepared to work together for an extended period of time?

- **Innovation:** Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- **Investigators:** Are the principal investigators and other key personnel listed in the grant proposal appropriately trained and well suited to carry out community- or school-based research? Are the roles and responsibilities of the partners clearly defined? Does the academic partner have a track record in the community, school or target school population? Has the community or school partner worked with researchers before? Has the academic partner placed the research question in its proper scientific context? How will the research process allow academic researchers to learn more about the community or school and how will community/school members learn about the academic research process? Is the work proposed appropriate to the experience level of the principal investigator and other researchers (if any)?
- **Environment:** How will the community or school locations in which the research will occur contribute to the probability of success? Does the proposed intervention take advantage of unique features of the community, school, involved and/or employ useful collaborative arrangements? Is there evidence of academic institutional support and community- or school-based organizational support?
- **Protection of Human Subjects from Research Risk:** Applicants must describe efforts to protect people from potential risks/ side effects of study participation and processes to ensure ethical treatment of all human participants involved in the study. Plans for the recruitment and retention of participants will also be evaluated.
- **Inclusion of Women, Minorities and Children in Research:** Applicants must describe recruitment methods to include participants of all genders, all racial and ethnic groups (and subgroups, e.g., Korean Americans vs. Asian Americans), and children as appropriate for the scientific goals of the research.

Full Community Academic Research Award (Full CARA – AT mechanism) and Full School Academic Research Award (Full SARA – HT mechanism)

Purpose: To conduct a fully developed community-based participatory research study that includes an equitable partnership between a community group or school and an academic researcher on tobacco control issues identified as important and meaningful to specific communities/schools in California and that addresses an important tobacco control research gap. **Applicants must identify a community or school principal investigator and an academic principal investigator for this mechanism.**

Maximum Award Amount: \$375,000

Maximum Duration: 3 years

Allowable Direct Costs: Salaries, fringe benefits; supplies; equipment*, travel.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year for each of two co-investigators (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Full indirect costs are allowed to non-UC institutions. Indirect costs to UC campuses are capped at 25%.

Other: Supplemental funding is available for eligible schools. Contact your Program Officer.

Resubmission Policy: We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria (Review criteria for the Pilot CARA/SARA mechanism also apply and constitute foundational work for a Full CARA/SARA proposal):

- **Responsiveness to Intent of the Award Type:** Is the project fully developed rather than pilot or exploratory in nature? Does the applicant describe previous collaborative research that involved a process to build strong collaborative relationships and report reasonably compelling previous findings supporting the conduct of the proposed project?
- **Significance:** Applicants should address important problems identified by the target community/school and demonstrate how scientific knowledge, community/school relations,

and academic/community/school collaboration will be advanced. Applicants must describe how the community or school will benefit from the anticipated outcomes of the proposed research.

- **Approach:** The conceptual framework, experimental design, research methods and a description of the study population must be adequately developed, well-integrated, and appropriate to the aims of the project. CARA and SARA applicants must clearly describe and define the community/school of interest and maintain a balance between inclusion of rigorous research methods and integration of the perspectives of community residents or school members. Applicants must delineate how the research findings will be disseminated within and to other communities and schools. Additionally, applicants must describe the plan to disseminate research findings to groups involved and/or impacted by the research findings including the academic community. The applicant must describe procedures for community/school oversight during the implementation of the research. Applicants should acknowledge potential problem areas and consider alternative tactics in discussing the feasibility of their project.
- **Collaboration:** Community/school members and academic representatives should participate as equal partners in the research process. Specifically, both the community/school partner and the academic partner should be involved in all phases of planning, implementation, and evaluation of the proposed research. Both partners must be involved in analytic issues: interpretation, synthesis, and the verification of findings and conclusions. Applicants should discuss how the proposed research intervention will empower the community/school to address political, social and economic issues related to tobacco use. Applicants must indicate that they are prepared to work together for an extended period of time.
- **Innovation:** The proposed research project should employ novel concepts, approaches, and methods. Identifying original and innovative paradigms and/or developing new methodologies or technologies can elevate the level of importance and potential public health impact of the participatory research effort.
- **Investigators:** The principal investigators and other key personnel listed in the grant proposal should be appropriately trained and experienced to carry out community-based participatory research and/or school-based participatory research. Applicants should highlight the academic partner's track record in the community/school and the community/school partner's history of working with researchers and/or research projects. The academic partner has the responsibility of placing the jointly identified research question in its proper scientific context. The research

process should allow the academic partner to learn more about the community/school and community/school members to learn more about the academic research process.

- **Environment:** The community and/or school environment in which the work will be done should contribute to the probability of a successful intervention and collaboration. The proposed intervention should take advantage of unique features of the target community/school to bolster collaborative arrangements. Applicants should demonstrate evidence of academic institutional support and community/school support.
- **Protection of Human Subjects from Research Risk:** Applicants must describe efforts to protect people from potential risks/ side effects of study participation and processes to ensure ethical treatment of all human participants involved in the study. Plans for the recruitment and retention of participants will also be evaluated.
- **Inclusion of Women, Minorities and Children in Research:** Applicants must describe recruitment methods to include participants of all genders, all racial and ethnic groups (and subgroups, e.g., Korean Americans vs. Asian Americans), and children as appropriate for the scientific goals of the research.

Dissertation Research Award (DT mechanism)

Purpose: To support the dissertation research of a doctoral candidate.

Maximum Award Amount: \$30,000 per year

Maximum Duration: 2 years

Allowable Direct Costs:

\$20,000/year for stipend, supplies and domestic travel.

\$10,000/per year for tuition/enrollment fee remission, fringe benefits, and health insurance.

Equipment* purchases are not allowed.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Indirect costs are capped at 8% for both UC and non-UC institutions.

Other:

- An 80% time commitment on the part of the postdoctoral fellow is required.
- Students must be advanced to candidacy and initiating their dissertation research no later than the award start date.
- A letter of support from the mentor and a minimum of two additional references are required.
- U.S. citizenship is not a requirement.
- **Resubmission Policy:** We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria:

- **Significance/Approach/Innovation:** Does the study address an important problem? Are the conceptual framework, design (including composition of study population), methods, and analyses adequately developed, well-integrated and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics? Is the proposed work feasible? Is the proposed work appropriate to the experience level of the principal investigator? Are the aims original and innovative?
- **Academic Qualifications:** Discuss the quality of the academic record and the prior research experience of the applicant.
- **Resources and Environment:** Discuss the qualifications and the research/training experience of the applicant's sponsor or research advisor.
- **Advisor's Commitment:** Discuss the match between the research interests of the student and the research advisor/sponsor; the commitment of the research advisor and other mentors to the candidate, citing letters of support.
- **Protection of Human Subjects from Research Risk:** If human subjects are involved protections from research risk relating to their participation in the proposed research will be assessed.
- **Inclusion of Women, Minorities and Children in Research:** If human subjects are involved the adequacy of plans to include subjects of both genders, all racial and ethnic groups (and

subgroups), and children as appropriate for the scientific goals of the research will be assessed. Plans for the recruitment and retention of subjects will also be evaluated.

- **Care and Use of Vertebrate Animals in Research:** If vertebrate animals are involved in the project, plans for their care and use will be assessed.

Postdoctoral Fellowship Award (FT mechanism)

Purpose: To obtain postdoctoral research training under a designated mentor

Maximum Award Amount: \$45,000 per year

Maximum Duration: 3 years

Allowable Direct Costs: Salaries, fringe benefits; supplies; equipment*, travel.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Indirect costs are capped at 8% for both UC and non-UC institutions.

Other:

- A 75% time commitment on the part of the postdoctoral fellow is required.
- The candidate must be recognized by the applicant institution as a postdoctoral fellow no later than the award start date.
- The application must be prepared and submitted exclusively by the fellow and must outline an original research project (separate from the project of a mentor).
- A letter of support from the mentor and a minimum of two additional references are required. Letters of support should address the candidate's training, potential, and the commitment of the mentor and the department to the candidate's career development.
- U.S. citizenship is not a requirement.
- **Resubmission Policy:** We will accept a new application following an unsuccessful resubmission. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not include a response to the critiques from the previous review.

*Any item costing \$5,000 or more

Review Criteria:

- **Significance:** Does the study address an important problem? If the aims of the application are achieved, how will scientific knowledge be advanced? What will be the effect of these studies on the concepts or methods that drive this field?
- **Approach:** Are the conceptual framework, design (including composition of study population), methods, and analyses adequately developed, well-integrated and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics? Is the proposed work feasible?
- **Innovation:** Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- **Investigator's Independence and Potential:** Discuss the candidate's potential for establishing an independent research career. Specifically cite previous training and experience, and letters of recommendation.
- **Career advancement:** Discuss the likelihood that the proposed training experience will contribute significantly to the development of the candidate's career potential as an investigator in research on tobacco use and/or tobacco-related disease.
- **Advisor's commitment:** Discuss the quality of the training resources and environment, particularly the advisor and the department, citing advisor's letter of support.
- **Protection of Human Subjects from Research Risk:** If human subjects are involved protections from research risk relating to their participation in the proposed research will be assessed.
- **Inclusion of Women, Minorities and Children in Research:** If human subjects are involved the adequacy of plans to include subjects of both genders, all racial and ethnic groups (and subgroups), and children as appropriate for the scientific goals of the research will be assessed. Plans for the recruitment and retention of subjects will also be evaluated.
- **Care and Use of Vertebrate Animals in Research:** If vertebrate animals are involved in the project, plans for their care and use will be assessed.

Special Projects (ST mechanism)

Purpose: To support scientific conferences or to allow investigators to evaluate new and breaking issues in tobacco control or tobacco-related disease research.

Maximum Award Amount: \$5,000. May vary depending on type of project proposed.

Maximum Duration: 1 year

Allowable Direct Costs: \$5,000

Indirect Costs: May be applicable in certain instances.

Other:

- In order to qualify for funding, the planned activities must be directly related to one or more of TRDRP's Research Priorities.
- The activity must primarily take place in California, involve California investigators, and include, where applicable, discussants and speakers funded by TRDRP.
- Applications for Special Project Awards go through a separate review process. The TRDRP Scientific Advisory Committee makes recommendations regarding funding.
- Conference grants will be limited in number, scope, cost, and duration.
- Contact a Program Officer regarding the appropriateness of your proposal prior to submission.

Cornelius Hopper Diversity Award Supplement (CHDAS mechanism)

If you are a currently funded TRDRP grantee who is interested in applying for a Cornelius Hopper Diversity Award Supplement, please contact the program prior to starting the application process.

Purpose: To train promising individuals either from underrepresented communities and/or who wish to pursue careers on tobacco-related research focused on underserved communities.

Maximum Award Amount: \$15,000 per year

Maximum Duration: 2 years

Allowable Direct Costs:

\$15,000/year for salary, fringe benefits, tuition, and enrollment fees for the trainee, domestic travel

Equipment* purchases are not allowed.

Project-Related Travel: As needed (must be fully justified).

Travel to TRDRP Conference: Maximum \$500 (mandatory)

Scientific Conference Travel: \$2,000 per year (excluding a mandatory allocation of \$500 in one year of the project for travel to the TRDRP Conference).

Indirect Costs: Indirect costs are capped at 8% for both UC and non-UC institutions.

Other:

- Investigators must have at least one year left on their TRDRP award to ensure the best conditions and results for prospective trainees. Therefore, the CHDAS is available only after the first year of the grant application.
- The CHDAS is available to current principal investigators of: Research Project Awards; CARAs; SARAs; and Exploratory/Developmental Awards.
- Eligible trainees may be undergraduate students, graduate students, community members, school personnel or medical students.
- **Individuals who are eligible for TRDRP Dissertation or Postdoctoral Fellowship Awards are encouraged to apply through those mechanisms rather than applying for the CHDAS.**
- Principal investigators should encourage trainees from socioeconomic, cultural, ethnic, racial, linguistic, and geographic backgrounds who would otherwise not be adequately represented in their field or who are from underserved communities. However, in accordance with state law, preference will not be given to applicants based on race, color, ethnicity, gender, or national origin.

*Any item costing \$5,000 or more

Review Criteria:

- Trainee must demonstrate a commitment to tobacco research and tobacco control, including pursuit of a research or tobacco control career centered on tobacco-related disease.
- Trainees should document barriers, both current and past, that may prevent her or him from realizing a career in tobacco-related disease research or tobacco control. For example, the absence of a family member who attended college; matriculation at school with poor curricular support and financial backing for higher education; having a physical or learning disability; and/or working long hours while attending school.
- Trainees should describe **in their own words** the extent that their research interests focus on cultural, societal, health or educational disparities as they affect underserved segments of our

state. Additionally, describe how the proposed research or tobacco control training will be used toward ending California tobacco-related disease disparities.

- Principal investigators and trainees must construct a detailed, well-rounded training experience. This should include, but not be limited to: scientific research methods that will be learned; classes, seminars and symposia that will be attended; the identification of a relevant research question to be pursued; research team meeting participation; other mentor-like relationships the trainee will have with research team members; and, if applicable, any relevant involvement in the community, school, etc.
- Principal investigators should document the exact amount of time that they will regularly meet with the trainee. Investigators should also identify other members of the research team that will play a mentoring role and specify their time commitment to mentoring the trainee and their contribution to the trainee's learning experience.