The meeting will begin shortly.

A few logistics before we start:

- If you experience logistical difficulties, please use the Chat box or email Quoc Pham: qpham@healtheffects.org
- Please put questions about the RFA or application process in the Q&A box
- The recording is for internal purposes only
- After the webinar, HEI will post the webinar slides and all questions and answers to the HEI website
Today’s Agenda

Introduction to HEI

Overview of the RFA and Expectations for Research Proposals

Question and Answer Session
Introduction to HEI
The Health Effects Institute

An independent, nonprofit corporation chartered to produce policy-relevant, high-quality, and impartial science

Funded jointly by government and the worldwide motor vehicle industry and, occasionally, private foundations

Funds research that is selected, conducted, overseen, and reviewed independently of HEI’s sponsors

Does not take policy positions
Ensuring the Quality of Research Funded by HEI

HEI staff work with the Research Committee on:

- Strategic planning
- Defining research needs in Requests for Applications (RFAs)
- Selecting and overseeing funded studies
Overview of the RFA and Expectations for Research Proposals
The Development of RFA 23-1 was informed by HEI’s New Traffic Review
Methodologic Features of the Traffic Review

Conducted largest effort of this type to date.

✓ Evaluates the epidemiologic literature only.

✓ Focuses on a selected set of health outcomes chosen *a priori*, including mortality, cardiovascular and respiratory morbidity and birth outcomes.

Applies a new exposure framework.

✓ Considers only long-term exposure to traffic-related air pollution.

✓ Considers exposure contrasts in near-roadway and neighborhood environments.

Assesses confidence in the evidence for an association.

✓ 2 complementary methods with ratings of very low, low, moderate, or high for traffic-related air pollution mixture, not individual pollutants.
Some Observations

✓ The majority of studies were done in Europe and North America
✓ Most of the studies were published after 2008 – thus relatively recent
✓ Nitrogen dioxide (NO$_2$) was the traffic-related exposure indicator that was most widely used, followed by elemental carbon (EC) and fine particulate matter (PM$_{2.5}$)
✓ Exposure assessment of traffic-related air pollution is challenging

Source: Fuzzi et al. 2015.

Source: Karner et al. 2010.
Some Observations

✓ The transportation and mobility landscape is changing

✓ There is a complex interplay among factors that influence traffic-related air pollution and health

✓ There is a need for traffic-related air pollution and health studies in low- and middle-income countries

✓ There is a role for accountability studies and burden and health impact assessments
Overall Objectives of RFA 23-1

HEI is seeking to fund studies to assess health effects of long-term exposure to traffic-related air pollution. Studies should propose novel or improved methods and approaches to evaluate exposure to and health effects of traffic-related air pollutants as technologies and fuels change, the fleet turns over, mobility transforms, and electrification makes greater inroads.
Specific Objectives of RFA 23-1

1. In the proposed health studies, develop, validate, and apply novel or improved exposure assessment methods suitable for estimating exposures to traffic-related air pollutants.

2. Evaluate the effectiveness of key measures to reduce traffic-related air pollution and improve public health, as well as to assess the health benefits of measures designed to mitigate traffic or achieve other policy objectives.

3. Estimate the impacts on urban air quality and health of various new transportation and mobility scenarios, including a baseline (status quo or "business as usual") scenario.

4. Investigate health effects of long-term exposure to traffic-related air pollution in understudied low- and middle-income countries.

HEI seeks to fund studies that can accomplish at least one of the objectives listed. Note that in meeting the first three objectives, investigators should consider whether their work can effectively include effects in marginalized communities in high-income countries.
Key Study Design Features

Study populations and locations
   Urban populations in all regions of the world

Exposure assessment
   Long-term exposure, including current or more recent exposure
   Multiple pollutants as indicators of traffic-related air pollution
   Include PM$_{2.5}$ mass

Health outcomes
   Justify the selection of health outcomes

Explore the role of other environmental, social, and behavioral factors

Strong statistical plan
Criteria for Evaluating Research Applications

Relevance to the objectives of the RFA
Scientific merit
Experience, competence, and diversity of the research team
Adequacy of facilities
Reasonableness of the proposed budget
Research Team

Principal Investigators
- Researchers with advanced degrees (PhD, MD, or equivalent)
- Affiliated with an eligible established research organization in a position that allows grant submissions

HEI will consider the characteristics of the entire proposed study team, including:
- Past research and publication history
- Access to resources needed to complete the research
- Include researchers from countries where the analysis is proposed, especially if the work is in understudied low- and middle-income countries
- We encourage diverse research teams (we adopted the National Institute of Health definition on populations underrepresented in the scientific workforce)
Eligible Organizations

Lead organization must be an academic or independent, non-profit, free standing research institution

Scientists from non-regulatory government agencies can participate but not lead a study

For-profit companies can participate as consultants
Budget

Overall, a total of $5 million will be available for this RFA

HEI expects to fund a small number of studies (2 to 3 years in duration)

- Indirect costs are capped at 30% (cannot be waived)
- Includes preparation of the final report
Investigator Commitments

HEI issues cost-reimbursement contracts (not grants)

Guidelines for Quality Assurance / Quality Control and data sharing

Biannual progress reports, webinars and site visits to ensure high quality

Present a poster at HEI’s Annual Conference

Changes to proposed work or budget require Research Committee approval to ensure the study stays true to its original goals and the RFA

Final reporting requirements

PLEASE REVIEW HEI’S PROCESS BEFORE APPLYING:
https://www.healtheffects.org/research/investigators/commitments
Important Dates

**March 15, 2023:** Preliminary applications due

**March - April 2023:** HEI Research Committee reviews preliminary applications

**End of April:** Feedback to Investigators

**July 7, 2023:** Invited full applications due

**August 2023:** External review by an ad hoc panel

**September - October 2023:** HEI Research Committee reviews full applications

**October 31, 2023:** Winner(s) notified

**Fall 2023 and Early 2024:** HEI Board approval, IRB approval and contract negotiations

**Spring 2024:** Studies begin
Please type your questions about the RFA and application process via the Q&A function. If someone else has already typed the same question that you have, please upvote that person’s question.

If you have additional questions, please contact Hanna Boogaard: jboogaard@healtheffects.org

For general questions related to the HEI application process, please visit: https://www.healtheffects.org/faqs