

BOARD MEETING DATE: April 7, 2017

AGENDA NO. 8

PROPOSAL: Approve Transfer of Monies from Health Effects Research Fund to Brain & Lung Tumor and Air Pollution Foundation

SYNOPSIS: At the February 10, 2017 meeting of the Brain & Lung Tumor and Air Pollution Foundation (Foundation), the Foundation Board asked that funds that the SCAQMD Board previously transferred to the Health Effects Research Fund be designated for the Foundation's use to fund a toxicological study of the effect of PM air pollution (coarse/fine/ultrafine) on mice that are genetically predisposed to develop Alzheimer's disease. This action is to transfer \$750,000 from the Health Effects Research Fund to the Brain & Lung Tumor and Air Pollution Foundation to fund such research.

COMMITTEE: Administrative, March 10, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the transfer of \$750,000 from the Health Effects Research Fund (Fund 48) to the Brain & Lung Tumor and Air Pollution Foundation.

Wayne Natri
Executive Officer

MBO:lg

Background

At the June 2008 meeting, the Board established a Health Effects Research Fund and initially funded it with \$1.5 million from the BP Arco Settlement Fund. The Board further authorized, upon annual Board approval, the transfer of 20 percent of annual penalty money received that exceeds \$4 million in receipts to the Health Effects Research Fund. The available balance in this fund as of January 31, 2017 is \$1,527,686.

Findings from the Brain & Lung Tumor and Air Pollution Foundation funded research indicate that fine particulate exposure is associated with biochemical changes in the brains of laboratory animals that are consistent with the biochemical pattern found in human brain tumors. Another project found preliminary associations of particulate matter levels and the risk of childhood brain tumors. These preliminary findings are provocative, and are being followed up with additional study to better understand the relation of pollution exposure to the risk of contracting brain tumors.

Through the Asthma and Outdoor Air Quality Consortium, the Board has funded several research projects ranging from laboratory studies to epidemiology studies of air pollution health effects. Results of these projects have provided new information on health effects, including the findings of increased risk for asthma symptoms and lung inflammation in children exposed to traffic-related emissions and new findings of how pollutants can react with cell components to cause injury.

In November 2016, the Foundation awarded a contract to Cedars-Sinai to fund a study of the effects of air pollution on brain tumors (\$733,461, for a 1-year study). The proposal from Cedars-Sinai also included a second phase of the study, which was a study of air pollution and Alzheimer's disease – this portion of the study was not funded at that time. The total cost for the second phase of the project is \$750,000, for a 1-year project period. The project is a toxicological study of mice that are genetically pre-disposed to develop Alzheimer's disease. The study would look at specific genes that may be activated when mice are exposed to PM air pollution (coarse/fine/ultrafine).

Proposal

Staff is proposing that the Board authorize the transfer of \$750,000 from the Health Effects Research Fund to the Brain & Lung Tumor and Air Pollution Foundation to fund the second phase of the Cedars-Sinai project.

Resource Impacts

Funds are available from the Health Effects Research Fund (Fund 48).