

Brain & Lung Tumor and Air Pollution Foundation

21865 Copley Drive ❖ Diamond Bar CA 91765

Michael D. Antonovich, Chair

Robert Davidson, Vice Chair

Minutes March 3, 2006

The Annual Report of the Brain & Lung Tumor & Air Pollution Foundation (next page) was presented to the South Coast Air Quality Management District Governing Board at its March 3, 2006 meeting and was approved without discussion.

Dated: March 3, 2006

Chery Cooper, Foundation Secretary

APPROVAL OF MINUTES:

Date: _____

BOARD MEETING DATE: March 3, 2006

AGENDA NO. 30

PROPOSAL: Annual Meeting of the Brain & Lung Tumor and Air Pollution Foundation

SYNOPSIS: This item is to conduct the annual meeting of the Brain & Lung Tumor and Air Pollution Foundation. The Foundation staff will present an annual report detailing the research supported by the Foundation over the past year, the Foundation's plans for the future, and a financial report.

COMMITTEE: Not Applicable

RECOMMENDED ACTIONS:

1. Receive and file the annual report.
2. Ratify the Foundation disbursements described in the annual report.

Barry R. Wallerstein, D.Env.
Executive Officer

/ckc

2005 Annual Report

1. Background

In February 2003, the Board established the Brain Tumor and Air Pollution Foundation. In March 2004, the Foundation amended its Articles of Incorporation to change its name to Brain & Lung Tumor and Air Pollution Foundation (Foundation) and to specify that its purpose is related to the effects of air pollution on brain tumors and lung cancer. To carry out its purpose, the Foundation has funded research projects investigating the links between air pollution and brain and lung tumors. The dollar amount of the funding provided to date is \$1,467,590. The projects are described in greater detail below.

The mission of the Foundation is to support research studies on the association between air pollution and brain and lung tumors, as well as research for the development of novel therapeutics for such tumors.

2. Directors and Officers

The Directors of the Foundation are: Michael D. Antonovich, Chairman
Robert Davidson, Vice Chairman
Hal Bernson
Beatrice LaPisto-Kirtley
James W. Silva

The Foundation's staff is: Barry Wallerstein, Chief Executive Officer
Chery Cooper, Secretary
Rick Pearce, Treasurer

3. Report on the Foundation's Activities and Plans

Research Projects Funded to Date and Progress

A. Grant BTAP001: "Brain Tumors and Air Pollution"

Principal Investigator: Dr. Keith Black, Cedars Sinai Medical Center
Funding: \$559,250

The purpose of this grant was to investigate the biochemical and pathological changes in brain tissue of laboratory animals exposed to air pollutants, and whether any observed changes may be linked to formation and growth of tumors. The pollutants studied are ambient particulate matter, including coarse, fine, and ultrafine particulates, and toxic air contaminants that may be linked to brain tumor risk. Analyses include gene expression and tissue morphology changes.

This project has been completed, and the results were presented to the AQMD Governing Board in June, 2005. The findings from the animals exposed to ambient particulates indicate that the activities of some genes are altered in brain cells. One of these genes is related to production of a growth factor. These results, though preliminary, are intriguing and indicate that exposures to particles may be associated with alteration of cell regulation that could theoretically be associated with a pathway to cancer.

- B. Grant BTAP002: “Brain Tumor and Air Pollution: Studies of Existing Data”
Principal Investigator: Dr. Susan Preston-Martin, USC School of Medicine
Funding: \$158,340

This project consists of two parts. One is to analyze existing data on cause of mortality and air pollution levels from a national cohort of individuals that the American Cancer Society (ACS) has been following for over 20 years. Previous analysis of this database revealed that particulate levels were associated with an increased risk for lung cancer and cardiovascular disease. The task for the current grant is to conduct a similar analysis for brain cancer deaths.

This portion has been completed, and a draft report has been prepared and is undergoing review. No elevated risks for measures of ambient air pollution were found. An intriguing association of self-reported exposure to diesel exhaust and brain tumor mortality risk among women was found. These findings need to be followed up and confirmed to determine their significance.

The second component of the proposed study is to conduct an epidemiology study of exposure to air pollutants and the incidence of brain tumors in children living in the South Coast Air Basin. There were insufficient funds at the time of the project award to fund the complete proposal. This project received partial funding from the Foundation to cover the collection of data on children’s brain tumor incidence in the AQMD’s four-county area; and the preparation of this data for possible future study of the correlation of tumor incidence with past air pollution exposures should additional funding become available.

The acquisition of data on children’s brain tumor incidence has been completed. The data is being prepared in a format suitable for possible future study of the correlation of tumor incidence with past air pollution exposures. The researchers at USC estimate that an analysis of the tumor data with already available information on air pollution gradients can be accomplished at minimal cost. Staff is pursuing this possibility and will report back on estimated costs and schedule.

- C. Grant BTAP003: “Brain Tumors and Air Pollution”
Principal Investigator: Dr. Keith Black, Cedars Sinai Medical Center
Funding: \$1,500,000

Based on the results of the initial research project with Cedars-Sinai Medical Center, the Foundation Board approved this follow-up study. The project will focus on longer exposure periods to particulates and toxics. Approvals for

research protocols have been obtained, and exposures of laboratory animals to concentrated ambient particulate matter, including ultrafine particulates, are scheduled to begin this month. The exposures are being conducted by the U.C. Irvine Air Pollution Health Effects Laboratory.

4. Financial Report

As of January 31, 2006, the Foundation had a cash balance of \$760,619.48. Following is an accounting of the Foundation's operations since its inception (7/23/03):

Revenue from Operations	
Contributions	\$ 2,222,568
Interest Income	\$ 8,899
<i>Total Revenue from Operations</i>	\$ 2,231,467
Operating Expenses	
Grants Awarded	
Cedars-Sinai	\$ 1,309,250
USC	\$ 158,340
Corporation Filing Costs	\$ 580
Bank charges	\$ 277
Professional fees-audit	\$ 2,400
<i>Total Operating Expenses</i>	\$ 1,470,847
Cash Balance	\$ 760,620
Less: Cedars-Sinai 2 nd Year Funding	\$ (750,000)
Net Cash Balance	\$ 10,620

5. Plans for Upcoming Year

The Foundation will continue monitoring the progress of existing research projects. The Foundation will evaluate new projects and provide funding to the extent that additional funds become available.

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