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**HARBOR COMMUNITY
BENEFIT FOUNDATION**

May 10, 2016

Dear Sabrina and Theresa:

I am writing on behalf of HCBF to request that the Board of Harbor Commissioners or its designee take action on the attached request to concur with the joint selection, by the TraPac Appellants and the Luskin Center at UCLA, of Ed Avol as our new board member (for the "Director G" seat on our board), consistent with Section 7.1.2 of HCBF's bylaws.

As you find in the accompanying material, Mr. Avol is extremely qualified to fulfill the duties of a board member. As a professor of Clinical Preventive Medicine in the USC Keck School of Medicine, Mr. Avol has done exemplary work in the areas of children and environmental health, specifically related to areas such as the Port of Los Angeles.

As you know, the Harbor Community Benefit Foundation is required to use a process specified in HCBF's bylaws to nominate and select new board members (Directors) of HCBF during the first six years of HCBF's existence. For certain Director seats, the Board of Harbor Commissioners or its designee play a role in this nomination or selection. The "Director G" seat, currently occupied by Sean Hecht, is one of those Director seats. Mr. Hecht's term is at its expiration, and the nominating entities have selected a successor for this Director seat. We are accordingly forwarding you this request for action to concur with the nomination of his successor, so that the Port can take action at its earliest convenience.

Thus, I have attached the letter nominating Mr. Avol, as well as Mr. Avol's resume, for your review and consideration.

Please let me know if you have any questions or need anything else from me. Thank you for your work on this and for your patience.

All my best,

David Sloane, Board Chair
Harbor Community Benefit Foundation

More at
www.hcbf.org

*Collaborating to build a
safe, healthy, and
beautiful San Pedro and
Wilmington.*

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Avol, Edward L.

eRA COMMONS USER NAME (credential, e.g., agency login): edavol

POSITION TITLE: Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
University of California, San Diego, CA	B.A.	06/73	Mathematics
California Institute of Technology	M.S.	06/74	Environmental Engineering

A. Personal Statement

My formal training in Environmental Engineering Sciences and over 40 years in air quality monitoring and health research has provided me with a broad array of applicable research approaches and tools to apply to research designs, field operations, data analyses, and study interpretations. These experiences in exposure and health assessments allow me to direct and develop a variety of research efforts as well as train and oversee new investigators in the field. My continuing interest in how people become exposed, accurate documentation of those exposures and their potential cardio-respiratory health outcomes, the importance of temporal/spatial/physical patterns of exposure, and improved identification and characterization of environmentally-susceptible populations provide opportunity for study contributions, research efforts, and project insights. In addition, my activities as a lead investigator responsible for field operations characterization of exposure and health assessment for myriad community-based subject studies, and the training of staff to collect critical air monitoring data, have prepared me to serve as a mentor, advisor, and facilitator for a variety of exposure and health-based efforts.

B. Positions and Honors

Positions and Employment

- 1974-1976 Project Engineer, Rockwell International Air Monitoring Center, Newberry Park, CA
- 1976-1990 Research Associate, Senior Research Associate, and Director, Aerosol Chemistry Laboratory, Environmental Health Service, Rancho Los Amigos Medical Center, Downey, CA
- 1990-1992 Senior Project Manager, Engineering-Science, Inc., Berkeley, CA
- 1992 -present Associate Professor and Professor, Department of Preventive Medicine, University of Southern California, Los Angeles, CA

Other Experience and Professional Membership

- Air and Waste Management Associate (formerly Air Pollution Control Associate)
- American Association for Aerosol Research (AAAR)
- International Society of Exposure Science (ISES, formerly ISEA)

Member, Science Advisory Panel, Mickey Leland National Urban Air Toxics Research Center
USEPA Clean Air Science Advisory Committee (CASAC) Review Panel , Primary Standards for NOx and SOx
USEPA CASAC Review Panel, Primary Standards for Particulate Matter
USEPA CASAC Review Panel , Primary Standards for Ozone
Associate Editor, Journal of Exposure Science and Environmental Epidemiology (JESEE)
Ad-Hoc Member, IRAP and Special Emphasis NIH Study Sections
Member, Science Advisory Committee, Harvard University Clean Air Research Center (2009-2014)
Member, External Advisory Committee, UC Berkeley Children's Research Center (2015-)
Member, OEHHA Advisory Panel on Synthetic Turf Health Study (2016-)

C. Contribution to Science

1. I am the Director of the Integrative Health Sciences Facility Core (IHSFC) in the NIEHS-supported Southern California Environmental Health Sciences Center, Director of the Population Resources Core of the FDA-funded Tobacco Center of Regulatory Science (TCOR) at USC, and an advisor and mentor on several NIH and regionally-funded studies to assess the association of air pollution with children's respiratory and cardiovascular health.
 1. Gauderman WJ, Avol E, Gilliland F, Vora H, Thomas D, Berhane K, McConnell R, Künzli N, Lurmann F, Rappaport E, Margolia H, Bates D, Peters J. The effect of air pollution on lung function development in children aged 10 to 18 years. *N Eng J Med* 2004;351:1057-67. PMID: 15356303
 2. Gilliland F, Avol E, Kinney P, Jerrett M, Dvonch T, Lurmann F, Buckley T, Breyse P, Keeler J, De Villiers T, McConnell R. Air pollution exposure assessment for epidemiologic studies of pregnant women and children: Lessons learned from the Centers for Children's Environmental Health and Disease Prevention Research. *Environ Health Perspect* 2005; 113(10):1447-54. PMC1281294
 3. Künzli N, Avol E, Wu J, Gauderman WJ, Rappaport E, Millstein J, Bennion J, McConnell R, Gilliland FD, Berhane K, Lurmann F, Winer A, Peters JM. Health effects of the 2003 southern California wildfire on children. *Am J Respir Crit Care Med* 2006; 174(11):1221–28. PMC2648104
 4. Gauderman WJ, Vora H, McConnell R, Berhane K, Gilliland F, Thomas D, Lurmann F, Avol E, Künzli N, Jerrett M, Peters J. The effect of exposure to traffic on lung development from 10 to 18 years of age. *Lancet* 2007; 369(9561):571-77 PMID: 17307103.
 5. Lurmann F, Avol E, Gilliland F. Emissions Reduction Policies and Recent Trends in Southern California's Ambient Air Quality. *J Air & Waste Management Assoc*, 2015, 65:3, 324-335. PMID:25947128
 6. Gauderman WJ, Urman R, Avol E, Berhane K, McConnell R, Rappaport E, Chang R, Lurmann F, Gilliland F. Association of Improved Air Quality with Lung Development in Children. *N Engl J Med*, 2015 Mar5:372(10):905-13. PMID:PMC4430551
 7. Berhane K, Chang C-C, McConnel R, Gauderman WJ, Avol E, Rappaport E, Urman R, Lurmann F, Gilliland F. Association of Changes in Air Quality with Bronchitic Symptoms in Children in California, 1993-2012. *JAMA*. 2016;315(14):1491-1501. Doi:10.1001/jama.2016.3444.
2. I am also actively involved in the centers' community outreach efforts, particularly with regard to the health and air quality impacts of the Los Angeles/Long Beach Port expansions.
 1. Peters JM, Avol EL, Navidi W, London SJ, Gauderman WJ, Lurmann F, Linn W, Margolis H, Rappaport E, Gong H. Jr., Thomas D. A study of twelve Southern California communities with differing levels and types of air pollution. I. Prevalence of respiratory morbidity. *Am J Respir Crit Care Med* 1999; 159:760-7. PMID: 10051248
 2. Avol EL, Gauderman WJ, Tan SM, London S, Peters JM. Respiratory effects of relocating to areas of differing air pollution levels. *Am J Respir Crit Care Med* 2001;164:2067-72. PMID:11739136
 3. Künzli, N, McConnell R, Bates D, Bastain T, Hricko A, Lurmann F, Avol E, Gilliland F, Peters J. Breathless in Los Angeles: The exhausting search for clean air. *Am J Public Health* 2003; 93(9):1494-9. PMC1447999

4. Eiguren-Fernandez A, Miguel AH, Froines JR, Thurairatnam S, Avol EL. Seasonal and spatial variation of polycyclic aromatic hydrocarbons in vapor-phase and PM in southern California urban and rural communities. *Aerosol Sci & Technol* 2004; 38(5):447-55.
5. Mueller-Anneling L, Avol E, Peters J, Thorne P. Ambient endotoxin concentrations in PM10 from southern California. *Environ Health Perspect* 2004; 112(5):583-8. PMC1241925
6. Fruin S, Urman R, Lurmann F, Gauderman J, Rappaport E, Franklin M, Gilliland FD, Shafer M, Gorski P, Avol E. Spatial Variation in Particulate Matter Components over a Large Urban Area. *Atmos Environ*, 2014 Feb 1; 83:211-219. PMID:PMC3932493

D. Research Supported

Ongoing Research Support

5P30ES07048-19

(Gilliland)

4/1/96-3/31/16

NIH/NIEHS

Environmental Exposures, Host Factors, and Human Disease

The Southern California Environmental Health Sciences Center studies the effects of environmental exposures on humans and determines host factors (genetic and otherwise) influencing responses to these exposures.

Role: Core Director

5P50 DA036106-02

(Samet, Pentz)

9/01/13–8/31/18

NIH/FDA

USC Tobacco Center of Regulatory Science (TCORS) for Vulnerable Populations

The USC Tobacco Center of Regulatory Science (TCORS) focuses on populations that are at high-risk for use of tobacco products and addiction in order to help the FDA reduce tobacco use and its disease burden. Addressing FDA priorities, researchers will examine social media and small retailers as ways that the tobacco industry reaches vulnerable populations, and how early smoking patterns predict tobacco product use and addiction. The TCORS will generate new research and training methods for regulatory science.

Role: Core Director

Completed Research Support

4910-RFA11-1/12-4 (Gilliland, Avol)

05/01/2012-07/31/14

Health Effects Institute (HEI)

The Effects Policy-driven Air Quality Improvements on Children's Respiratory Health

This study directly addresses the overall objectives of the HEI Request for Applications by focusing on the health effects of regulatory actions taken to improve air quality in a previously-documented susceptible population (children).

Role: co-PI

5P01ES011627-10 (Gilliland)

8/1/07-5/31/14

NIH/National Institute of Environmental Health Sciences

Genetics, Air Pollution, and Respiratory Effects in Children and Young Adults

This program project builds on the Children's Health Study, an on-going cohort of 12,000 children, studying the health impacts of air pollution in Southern California schoolchildren.

Role: Co-Investigator, Core Director

5R01ES014708-05

(Avol)

09/30/06-07/31/12

NIH/NIEHS

Air Pollution, Intima-media Thickness, and Lung Function In College Students

This project pursues the hypothesis that lifetime cumulative exposure to ambient air pollution is associated with sonographically measured carotid intima-media thickness (CIMT) in college students.

Role: PI

5R01ES014447-04 (Avol) 5/1/06-2/28/12
NIH/NIEHS

Air Pollution and Preclinical Atherosclerosis in Elementary School Children

This project pursues the hypothesis that long-term exposure to local and regional air pollutants from outdoor origin promotes atherogenesis in early life, leading to differences in CIMT in 10-12 year old children.

Role: PI

RD-83169701 (Kaufman) (Subcontract to Avol) 1/01/05-7/31/11
Environmental Protection Agency (EPA)

Prospective Study of Atherosclerosis, Clinical Cardiovascular Disease, and Long-Term Exposure to Ambient Particulate Matter and Other Air Pollutants in a Multi-Ethnic Cohort ("MESA Air Pollution")

Our participation in MESA Air is to provide exposure assessment support for the Los Angeles regional study of MESA subjects, as part of the national multi-center study. Community fixed-site, residential outdoor, residential indoor, and personal particle and gaseous samplers will be deployed to subjects recruited by UCLA clinical collaborators in a longitudinal study of cardiovascular disease progression.

Role: Subcontract PI

5 R01 HL076647-05 (Gilliland) 8/15/05-6/30/11
NIH/National Heart, Lung, and Blood Institute

Air Pollution, Inflammation, and New Onset Asthma

Specific aims of project: To use exhaled nitric oxide (eNO) to study the role of inflammation and oxidative/nitrosative stress in the pathobiology of new onset asthma, with a focus on air pollution and genetic susceptibility.

Role: Co-Investigator

5P01ES009581-10 (NIEHS) / RD83186101 (EPA) (Gilliland) 5/07/04 – 10/31/08
National Institute of Environmental Health Sciences

Environmental Protection Agency

Children's Environmental Health Center

The goal of the Children's Environmental Health Center is to understand how host susceptibility and environmental exposure determine children's respiratory disease.

Role: Co-Investigator, Core co-Director