

Members of the Scientific Review Panel on Toxic Air Contaminants

This page last reviewed on November 10, 2014

Pursuant to the section 39670 of the Health and Safety Code, nine members are shown by category below.

ACADEMIC ADMINISTRATION

S. Katharine Hammond, Ph.D.

Chair, Environmental Health Sciences Division Professor of Environmental Health Sciences

School of Public Health

University of California, Berkeley

ATMOSPHERIC SCIENCE

Cort Anastasio, Ph.D.

Professor of Tropospheric Chemistry and Department Vice Chair

Department of Land, Air and Water Resources

University of California, Davis

BIOCHEMISTRY/MOLECULAR BIOLOGY

Sarjeet S. Gill, Ph.D.

Professor of Cell Biology

Department of Cell Biology and Neuroscience

University of California, Riverside

BIOSTATISTICS

Stanton A. Glantz, Ph.D.

Professor of Medicine

Division of Cardiology, Department of Medicine

School of Medicine

University of California, San Francisco

EPIDEMIOLOGY

Beate R. Ritz, M.D., Ph.D.

Professor and Vice Chair

Department of Epidemiology and

Environmental Health Sciences

School of Public Health

University of California, Los Angeles

OCCUPATIONAL MEDICINE

Paul D. Blanc, M.D.

Chief, Division of Occupational and Environmental Medicine

Endowed Chair, Occupational Medicine

Professor of Medicine

University of California, San Francisco

ONCOLOGY

Alan R. Buckpitt, Ph.D.

Professor

Department of Molecular Biosciences

School of Veterinary Medicine

University of California, Davis

PATHOLOGY

Jesús A. Araujo, M.D., Ph.D.

Associate Professor

Director of Environmental Cardiology

Division of Cardiology

School of Medicine

University of California, Los Angeles

TOXICOLOGY

Michael T. Kleinman, Ph.D., Chairman

Adjunct Professor and Co-Director

Air Pollution Health Effects Laboratory

Department of Medicine

University of California, Irvine

Prof. Michael T. Kleinman

Research Area:

Health Effects



Contact Information

University of California, Irvine

FRF 100 Mail Code: 1825 Irvine, CA 92697-182

Telephone: (949) 824-4765 E-mail: mtkleinm@uci.edu

Faculty Home Page: http://www.faculty.uci.edu/profile.cfm?faculty_id=2235

Professor of Environmental Toxicology and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine, Adjunct Professor in College of Medicine [Ph.D. in Environmental Health Sciences from New York University, NY]. Professor Kleinman brings to the ORU expertise in the health effects of air pollution on animals and humans, as well as the development of analytical techniques for assessing biological and physiological responses to exposure to environmental contaminants and for determining concentrations of important chemical species in air.

Environmental pollutants represent important potential causes of preventable neurological, cardiological and pulmonary diseases. The research in Dr. Kleinman's laboratory uses immunological and molecular methods to examine the mechanisms by which toxic agents affect the lung and heart. Current studies include the effects of ambient particles on blood pressure and heart rate in sensitive animal models. Other studies examine the link between asthma and environmental exposures to ambient particles near real- world pollutant sources, such as freeways in Los Angeles.

Research focuses on mechanisms of cardiopulmonary injury following inhalation of toxic compounds. State-of-the-art methods are used to evaluate the roles of free radicals and oxidative stress in sensitive human volunteers and laboratory animals. In vitro methods are used to evaluate specific mechanisms. Dr. Kleinman's current studies involve the inhalation exposures to manufactured and combustion-generated nanomaterials fine and coarse particles using state of the art field exposure systems and real-time physiological monitoring methods. Recent findings demonstrate that fine and ultrafine particles near heavily trafficked roads increase the risk of developing airway allergies but this allergenic potential is attenuated at greater distances downwind of the source. The chemical and physical changes in the aerosol responsible for the heightened allegenicity of the near-source particles is an important focus of Dr. Kleinman's research.

Biological mechanisms related to oxidative stress have been identified after particulate matter exposure and Dr. Kleinman's team is also pursuing how these mechanisms affect pathological and physiological changes in the heart and lungs. Other interests include analytical and atmospheric chemistry, environmental sampling and analysis, and the application of mathematical and statistical methods to environmental and occupational assessments of exposure and risk.

Prior to joining the faculty at UCI in 1982, he was the Director of the Aerosol Exposure and Analytical Laboratory at Rancho Los Amigos Hospital in Downey, CA. Dr. Kleinman was also a Physical Scientist at the U.S. Atomic Energy Commission Health and Safety Laboratory (now the DOE Environmental Measurements Laboratory) in New York and has published approximately 100 peer-reviewed articles in the fields of environmental health sciences, atmospheric chemistry and radiochemistry, transport and fate of airborne contaminants in tropospheric and stratospheric air, apportionment and identification of sources of air pollution, and the effects of air pollution on health. Dr. Kleinman is the current chair of the California Air Quality Advisory Committee, a member of the U.S. EPA Clean Air Scientific Advisory Committee and also chairs the Executive Committee for the U.C. Toxic Substances Research and Teaching Program.

Research Interests:

- Inhalation toxicology
- Oxidative stress
- Cardiopulmonary diseases

Selected Honors and Awards:

MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

SCIENTIFIC REVIEW PANEL

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
SIERRA HEARING ROOM, 2ND FLOOR
1001 I STREET
SACRAMENTO, CALIFORNIA

FRIDAY, NOVEMBER 1, 2013 9:33 A.M.

JAMES F. PETERS, CSR, RPR CERTIFIED SHORTHAND REPORTER LICENSE NUMBER 10063 a new member to the Panel -- another new member, Cort

Anastasio. And I'd like to welcome him. And I'd like to
give Cort just a few minutes to just introduce himself.

PANEL MEMBER ANASTASIO: Thanks. So I'm Cort Anastasio. I'm a professor in land, air, and water resources.

Okay. Apparently, I was not on, so I'll start again. So my name is Cort Anastasio. I'm a professor in the Department of Land, Air and Water Resources at UC Davis. I'm and atmospheric chemist and my research focuses on reactions in condensed phases in the atmosphere, so that's cloud drops, fog drops, aerosol particles. We're also interested in the generation of reactive oxygen species by particles, and how that may be linked to human health effects.

CHAIRPERSON KLEINMAN: Thank you, Cort.

I'd like to give -- just take a few minutes for -- and go around the table, so that the people on the panel can introduce themselves.

PANEL MEMBER BLANC: Why don't you start actually, since we don't know you.

CHAIRPERSON KLEINMAN: I'll start. My name is
Mike Kleinman, in the School of Medicine at UC Irvine. I
am a professor in the Division of Occupational
Environmental Health. And most of my studies involve



Members of the Scientific Review Panel on Toxic Air Contaminants

This page last reviewed on May 20, 2014

Pursuant to the section 39670 of the Health and Safety Code, nine members are shown by category below.

ACADEMIC ADMINISTRATION

S. Katharine Hammond, Ph.D.

Chair, Environmental Health Sciences Division Professor of Environmental Health Sciences

School of Public Health

University of California, Berkeley

ATMOSPHERIC SCIENCE

Cort Anastasio, Ph.D.

Professor of Tropospheric Chemistry
and Department Vice Chair
Department of Land, Air and Water Resources
University of California, Davis

BIOCHEMISTRY/MOLECULAR BIOLOGY

Sarjeet S. Gill, Ph.D.

Professor of Cell Biology

Department of Cell Biology and Neuroscience

University of California, Riverside

BIOSTATISTICS

Stanton A. Glantz, Ph.D.

Professor of Medicine

Division of Cardiology, Department of Medicine

School of Medicine

University of California, San Francisco

EPIDEMIOLOGY

Beate R. Ritz, M.D., Ph.D.

Vice Chair Professor

Department of Epidemiology and

Environmental Health Sciences

School of Public Health

University of California, Los Angeles

OCCUPATIONAL MEDICINE

Paul D. Blanc, M.D.

Chief, Division of Occupational
and Environmental Medicine
Endowed Chair, Occupational Medicine

Professor of Medicine

University of California, San Francisco

ONCOLOGY

Alan R. Buckpitt, Ph.D.

Professor

Department of Molecular Biosciences

School of Veterinary Medicine

University of California, Davis

PATHOLOGY

Jesús A. Araujo, M.D., Ph.D.

Associate Professor

Director of Environmental Cardiology

Division of Cardiology

School of Medicine

University of California, Los Angeles

TOXICOLOGY

Michael T. Kleinman, Ph.D., Chairman

Co-Director and Professor

Air Pollution Health Effects Laboratory

Department of Medicine

University of California, Irvine

Prof. Michael T. Kleinman

Research Area:

Health Effects



Contact Information

University of California, Irvine

FRF 100 Mail Code: 1825 Irvine, CA 92697-182

Telephone: (949) 824-4765 E-mail: mtkleinm@uci.edu

Faculty Home Page: http://www.faculty.uci.edu/profile.cfm?faculty_id=2235

Professor of Environmental Toxicology and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine, Adjunct Professor in College of Medicine [Ph.D. in Environmental Health Sciences from New York University, NY]. Professor Kleinman brings to the ORU expertise in the health effects of air pollution on animals and humans, as well as the development of analytical techniques for assessing biological and physiological responses to exposure to environmental contaminants and for determining concentrations of important chemical species in air.

Environmental pollutants represent important potential causes of preventable neurological, cardiological and pulmonary diseases. The research in Dr. Kleinman's laboratory uses immunological and molecular methods to examine the mechanisms by which toxic agents affect the lung and heart. Current studies include the effects of ambient particles on blood pressure and heart rate in sensitive animal models. Other studies examine the link between asthma and environmental exposures to ambient particles near real- world pollutant sources, such as freeways in Los Angeles.

Research focuses on mechanisms of cardiopulmonary injury following inhalation of toxic compounds. State-of-the-art methods are used to evaluate the roles of free radicals and oxidative stress in sensitive human volunteers and laboratory animals. In vitro methods are used to evaluate specific mechanisms. Dr. Kleinman's current studies involve the inhalation exposures to manufactured and combustion-generated nanomaterials fine and coarse particles using state of the art field exposure systems and real-time physiological monitoring methods. Recent findings demonstrate that fine and ultrafine particles near heavily trafficked roads increase the risk of developing airway allergies but this allergenic potential is attenuated at greater distances downwind of the source. The chemical and physical changes in the aerosol responsible for the heightened allegenicity of the near-source particles is an important focus of Dr. Kleinman's research.

Biological mechanisms related to oxidative stress have been identified after particulate matter exposure and Dr. Kleinman's team is also pursuing how these mechanisms affect pathological and physiological changes in the heart and lungs. Other interests include analytical and atmospheric chemistry, environmental sampling and analysis, and the application of mathematical and statistical methods to environmental and occupational assessments of exposure and risk.

Prior to joining the faculty at UCI in 1982, he was the Director of the Aerosol Exposure and Analytical Laboratory at Rancho Los Amigos Hospital in Downey, CA. Dr. Kleinman was also a Physical Scientist at the U.S. Atomic Energy Commission Health and Safety Laboratory (now the DOE Environmental Measurements Laboratory) in New York and has published approximately 100 peer-reviewed articles in the fields of environmental health sciences, atmospheric chemistry and radiochemistry, transport and fate of airborne contaminants in tropospheric and stratospheric air, apportionment and identification of sources of air pollution, and the effects of air pollution on health. Dr. Kleinman is the current chair of the California Air Quality Advisory Committee, a member of the U.S. EPA Clean Air Scientific Advisory Committee and also chairs the Executive Committee for the U.C. Toxic Substances Research and Teaching Program.

Research Interests:

- · Inhalation toxicology
- Oxidative stress
- · Cardiopulmonary diseases

Selected Honors and Awards:

THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search employees

	pro			
michael kleinman	UC Irvine	~	2007 🗸	search

Employees named "michael kleinman" in the UC Irvine for 2007

Page 1

Name▼DepartmentTitlePayMichael T KleinmanUC IrvineAdjunct Prof-gencomp-b\$158k

Page 1

Explore departments



Top salaries

2013 V show



THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search employees

michael kleinman	UC Irvine	∨ 2008 ∨ searc	ch

Employees named "michael kleinman" in the UC Irvine for 2008

Page 1

Name▼DepartmentTitlePayMichael T KleinmanUC IrvineAdjunct Prof-gencomp-b\$166k

Page 1

Explore departments



Top salaries





THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search employees

michael kleinman	UC Irvine	~	2009 🗸	search

Employees named "michael kleinman" in the UC Irvine for 2009

Page 1

NameVDepartmentTitlePayMichael T KleinmanUC IrvineAdjunct Prof-gencomp-b\$163k

Page 1

Explore departments



Top salaries





THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search employees

michael kleinman	UC Irvine	≥ 2010 ≥		search
gen s	15 " E N S "			A

Employees named "michael kleinman" in the UC Irvine for 2010

Page 1

Name▼DepartmentTitlePayMichael T KleinmanUC IrvineAdjunct Professor-HCOMP\$143k

Page 1

Explore departments



Top salaries

2013 V show

Top Salaries of 2013 (Civil Service, CSU and UC only)



O.

THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes 2013 University of California pay, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search	employ	ees
--------	--------	-----

Search employees			
michael kleinman	UC Irvine	9	2011 Search
Employees named	"michael kl	einman" in the UC Irvine for	r 2011
Page 1			
Name ▼	Department	<u>Title</u>	<u>Pay</u>
Michael T Kleinman	UC Irvine	Recall	\$85.7k
Page 1			
Explore departments	S		
Afro-american Museu	m	✓ 2013 ✓ explore	
Top salaries			

Top Salaries of 2013 (Civil Service, CSU and UC only)



show

2013

0

THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search e	empl	oyee	25
----------	------	------	----

michael kleinman UC Irvine 2012 V search

Employees named "michael kleinman" in the UC Irvine for 2012

Page 1

 Name
 ▼
 Department
 Title
 Pay

 Michael T Kleinman
 UC Irvine
 Recall Non-senate Acad
 \$48.3k

Page 1

Explore departments

Afro-american Museum 2013 vexplore

Top salaries

2013 V show

Top Salaries of 2013 (Civil Service, CSU and UC only)



Ö

THE SACRAMENTO BEE sachee.com

State Worker Salary Database

Updated July 3, 2014: Now includes **2013 University of California pay**, 2013 civil service pay, 2013 CSU pay, and 2012 state legislative pay.

This database allows you to search the salaries of California's 300,000-plus state workers and view up to seven years of their pay history.

Search by name or department. For quicker searches, use first and last name.

Sources: University of California President's Office, California State Controller's Office, California Legislature

Search employees

					-
michael kleinman	UC Irvine	~	2013	V	search

Employees named "michael kleinman" in the UC Irvine for 2013

Page 1

Name▼DepartmentTitlePayMichael T KleinmanUC IrvineRecall Non-faculty Acad\$42.6k

Page 1

Explore departments



Top salaries

2013 V show





(/)

Home (/) / Pensions (/agencies/pensions/) / 2011 (/pensions/2011/) / University of California

'michael kleinman' search results

Search within these records:

michael kleinman 2011 Search

Name (?a=university-	Job	Pension (?a=university-
california&q=michael+kleinman&y=2011&s=name)	Title/Employer/Pension	california&q=michael+kleinman&y=2011&s=
MICHAEL KLEINMAN (/pensions/2011/university-california/michael-kleinman/)	Employer: <u>Irvine</u> (/pensions/2011/university-california/?e=Irvine) Pension: <u>University of</u> California, 2011 (/pensions/2011/university-california/)	\$87,233.40

 $@ 2014 \ Transparent \ California \\ About (/pages/about/) | \ Contact (/pages/contact/) | \ Disclaimer (/pages/disclaimer/) | \ FAQ (/pages/faq/) \\$