

THE EPA'S PARTICULATE MATTER (PM) HEALTH EFFECTS RESEARCH CENTERS PROGRAM: A Mid-Course (2 1/2 year) Report of Status, Progress, and Plans

**Morton Lippmann, Mark Frampton, Joel
Schwartz, Douglas Dockery, Richard Schlesinger, Petros
Koutrakis, John Froines, Andre Nel, Jack Finkelstein, John
Godleski, Joel Kaufman, Jane Koenig, Tim Larson, Dan
Luchtel, L.-J. Sally Liu, Günter Oberdörster, Annette Peters,
Jeremy Sarnat, Constantinos Sioutas, Helen Suh, Jeff
Sullivan, Mark Utell, Erich Wichmann, Judith Zelikoff**
doi:10.1289/ehp.5750 (available at <http://dx.doi.org/>)
Online 9 January 2003



SPECIAL REPORT

THE EPA'S PARTICULATE MATTER (PM) HEALTH EFFECTS RESEARCH CENTERS PROGRAM: A Mid-Course (2 1/2 year) Report of Status, Progress, and Plans

Prepared for Submission to: Environmental Health Perspectives

Coordinating Author: Morton Lippmann

Lead Authors of the Report Sections Were: Mark Frampton^e (Biological Mechanisms), Joel Schwartz^d (Acute Effects), Douglas Dockery^d (Chronic Effects), Richard Schlesinger^a (Dosimetry), Petros Koutrakis^d (Exposure Assessment), and John Froines^b (Special Center Attributes)

Other contributing authors were: Andre Nel^b, Jack Finkelstein^e, John Godleski^d, Joel Kaufman^c, Jane Koenig^c, Tim Larson^c, Dan Luchtel^c, L.-J. Sally Liu^c, Günter Oberdörster^e, Annette Peters^e (GSF Germany), Jeremy Sarnat^d, Constantinos Sioutas^f, Helen Suh^d, Jeff Sullivan^c, Mark Utell^e, Erich Wichmann^e (GSF Germany), Judith Zelikoff^a

Institutions:

^a New York University School of Medicine

^b UCLA School of Public Health and School of Medicine

^c University of Washington School of Public Health

^d Harvard University School of Public Health

^e University of Rochester School of Medicine and Dentistry,

^f University of Southern California

Author to Whom Page Proofs Should be Sent:

Morton Lippmann
NYU School of Medicine
57 Old Forge Road
Tuxedo, NY 10987
TEL: 845-731-3558
FAX: 845-351-5472
e-mail: lippmann@env.med.nyu.edu

Running Title: PM Centers' Health Effects Research Program

Keywords: particulate matter, criteria pollutants, mortality, morbidity, biological mechanisms, acute effects, chronic effects, dosimetry, exposure assessment, infrastructure

Acknowledgements: The support of the EPA STAR Program Center Grants; R827351 at NYU; R827352 at UCLA; R827355 at the University of Washington; R827353 at Harvard; and R927354 at the University of Rochester is gratefully acknowledged; as are the written contributions of many of the PM Center investigators in the programs.

ABSTRACT

In 1998, Congress mandated expanded EPA health effects research on ambient air particulate matter (PM), and a National Research Council (NRC) Committee to provide research oversight. EPA currently supports intramural and extramural PM research, including five academically-based PM Centers.

The PM Centers, in their first 2 1/2 years, have initiated research directed at critical issues identified by the NRC Committee, including collaborative activities, and sponsored Scientific Workshops in key research areas. Through these activities, there is a better understanding of PM health effects and scientific uncertainties. Future PM Centers research will focus on long-term effects associated with chronic PM exposures.

This report provides a synopsis of accomplishments to date, short-term goals (during the next 2 1/2 years) and longer term goals. It consists of six sections, i.e., 1) Biological Mechanisms; 2) Acute Effects; 3) Chronic Effects; 4) Dosimetry; 5) Exposure Assessment; and 6) the specific attributes of a coordinated PM Centers Program.