PM Centers Kick-Off Meeting

U.S. Environmental Protection Agency
Main Campus, Building C
Auditorium A & B
Research Triangle Park, NC

November 30 – December 1, 2005

Agenda

Day 1 – Wednesday, November 30

8:00 a.m. – 8:45 a.m.	Breakfast and Registration
8:45 a.m. – 9:00 a.m.	Welcome Gary Foley, Director, EPA National Center for Environmental Research
9:00 a.m. – 9:30 a.m.	Goals for the Meeting: Promoting Collaboration in the PM Research Program Dan Costa, EPA National Program Director for Air Research
9:30 a.m. – 10:00 a.m.	San Joaquin Valley Aerosol Health Effects Center Overview Tony Wexler, Center Director
10:00 a.m. – 10:30 a.m.	Harvard University PM Research Center Overview Petros Koutrakis, Center Director
10:30 a.m. – 10:45 a.m.	Break
10:45 a.m. – 11:15 a.m.	Southern California Particle Center Overview John Froines, Center Director
11:15 a.m. – 11:45 a.m.	University of Rochester PM Research Center Overview Gunter Oberdorster, Center Director
11:45 a.m. – 1:15 p.m.	Lunch (PM Center Directors meet together for lunch)
1:15 p.m. – 1:45 p.m.	Johns Hopkins PM Research Center Overview Jon Samet, Center Director
1:45 p.m. – 2:15 p.m.	EPA Research Laboratories: PM Research Overview Dan Costa, EPA National Program Director for Air Research
2:15 p.m. – 2:45 p.m.	PM Science/Policy Futures: Deconstructing a Multiple Pollutant John Bachmann, Associate Director for Science/Policy and New Programs EPA Office of Air Quality Planning and Standards
2:45 p.m. – 3:00 p.m.	Break
3:00 p.m. – 4:30 p.m.	Breakout Session One — small groups meet on the following research topics: Susceptible Populations (animal and human) Discussion Leaders: Diane Gold/Harvard and Gunter Oberdorster/Rochester

Panel and Controlled Exposure Studies (design, measurements, end points, populations)
Discussion Leaders: Mark Frampton/Rochester and Ralph Delfino/SCPC

Application of "OMICS" Technology to Toxicology Studies
Discussion Leaders: Joe G.N. Garcia/Hopkins and Tony Huang/EPA

Mechanisms/Oxidative Stress
Discussion Leaders: Andre Nel/SCPC and Andy Ghio/EPA

Chronic Effects
Discussion Leaders: Doug Dockery/Harvard and Charlie Plopper/UC Davis

Source and Source-Oriented Sampling Research
Discussion Leaders: Costas Sioutas/SCPC and Michael Hays/EPA

Source Apportionment (different approaches, how to strengthen use of models with atmospheric science)
Discussion Leaders: Mike Kleeman/UC Davis and Linda Sheldon/EPA

4:30 p.m. – 5:30 p.m. Plenary: Report Back From Breakouts and Discussion

5:30 p.m. – 6:30 p.m. Reception (at EPA)

6:30 p.m. Group Dinner (at EPA)

Day 2 – Thursday, December 1

8:00 a.m. Breakfast

8:15 a.m. – 8:20 a.m. Introductions
Robert Devlin, Chief
Clinical Research Branch, National Health and Environmental Effects Research Laboratory, EPA

8:20 a.m. – 8:40 a.m. National Monitoring Strategy and Implications for Health Studies
Phil Lorang, Acting Group Leader, Ambient Air Monitoring Group
EPA Office of Air Quality Planning and Standards

8:40 a.m. – 9:00 a.m. Air Quality Data Base for Health Effects Studies
Geoffrey Sunshine, Health Effects Institute

9:00 a.m. – 10:30 a.m. Breakout Session Two: Multi-Disciplinary Components/Sources-to-Effects Research
Multi-disciplinary groups meet to discuss assigned questions (see next page)

10:30 a.m. – 10:45 a.m. Break

10:45 a.m. – 11:45 a.m. Plenary: Report Back From Breakouts and Discussion

11:45 a.m. – 1:00 p.m. Lunch

1:00 p.m. – 1:15 p.m. Plenary: Directions to Collaborative Groups
Robert Devlin, Chief
Clinical Research Branch, National Health and Environmental Effects Research Laboratory, EPA

1:15 pm. – 2:15p.m.	Small Group Discussions to Begin Collaboration Planning Meeting participants gather in small groups of their choosing to discuss specific collaborations in more concrete terms.
2:15 p.m.- 3:00 p.m.	Panel of PM Center Directors and EPA – Meeting Highlights and Next Steps
3:00 p.m.	Meeting Adjourns

Breakout Group Questions, Thursday, 9:00 a.m.

Group A — Discussion Leaders: John Godleski/Harvard and Patrick Breysse/Hopkins

What are the best approaches to identify/attribute sources (e.g., vehicular, agricultural, biomass burning, power plant, airports, shipping) and are different methods of attributing source emissions to ambient concentrations more suitable for different types of health studies?

Do different methods of attributing components to sources reveal differences in source characteristics that are of importance to health?

Group B — Discussion Leaders: Michelle Bell/Hopkins and Phil Hopke/Rochester

How does the interaction between source emissions and/or atmospheric chemistry potentially affect the toxicity of particles? For example, do acidic materials catalyze the formation of peroxides and other particle-bound ROS or does the deposition of acidic components onto the surface of the particles make other components such as metals more toxic?

Group C — Discussion Leaders: Rick Phipps/Rochester and Tony Wexler/UC Davis

Do emissions from different sources that contain the same component lead to different levels or types of health effects?

What source signatures are being used for which sources and why? Have we made any progress in attributing source signatures to toxic effects?

Group D — Discussion Leaders: Jon Samet/Hopkins and Ian Kennedy/UC Davis

What is the contribution of co-pollutants to PM observed health effects?

What are relevant co-pollutants (both gas and particulate), how can they be identified, and what is known about their interaction with PM?

How can one characterize dose-response relationships when co-pollutants are involved?

Group E — Discussion Leaders: Mark Utell/Rochester and Jamie Schauer/SCPC

Do current approaches to attributing sources to ambient concentrations adequately capture the variation in exposure to different particle sizes?

What are sizes of relevance or how can size lead to different health effects or different pathways, and is it feasible to generate laboratory surrogates that mimic sources or size ranges?

Group F — Discussion Leaders: Lucas Neas/EPA and Helen Suh/Harvard

In-vehicle and near-roadway studies: How can these studies evaluate the relative toxicity of components derived from specific sources (emissions, brakes, tires, etc.)?