

### 2003 AAAR ANNUAL MEETING, ANAHEIM CA, OCTOBER 20-24

#### By Barbara Turpin, Conference Chair

I look forward to seeing you at the 22nd Annual Conference of the AAAR, in Anaheim, California on October 20-24, 2003. I would like to encourage you to

register early (i.e. before **September 29**) at the discounted rate, and to make your hotel reservations soon. Room reservations must be made by **September 17** to guarantee the negotiated rate. Late breaking posters will be accepted into August, as long as space is still available.

Bill Nazaroff has assembled an excellent variety of tutorials, including fundamental and advanced specialty topics in aerosol science. Our own Peter McMurry and Bill Nazaroff will be joined by John Fenn and Paige Tolbert to present



electrospray ionization, and particulate matter epidemiology. I am looking forward to four excellent talks! We are especially proud that the Nobel Prize was

awarded for an aerosol process last year. Dr. John Fenn shared this prize, and will share the account of the "birth" of electrospray ionization and speculate about the future of this new technology (check out page 6 for the history).

Three special symposia have been handcrafted to highlight heterogeneous chemistry, biological and chemical agent detection, and the California Regional Particulate Air Quality Study (CRPAQS). They provide an intense overview of the state-of-the-science in both platform and poster presentations. This year

plenary talks on atmospheric aerosol nucleation, human exposure to particulate matter from emissions to intake,

# **AAAR Thanks**

### The San Joaquin Valley Air Pollution Study Agency

As the sponsor of the California Regional Particulate Air Quality Study symposium Your support is kindly recognized. poster visibility will be enhanced with a PowerPoint introduction. Each session will conclude with a collection of poster authors making one minute poster "advertisements" stating the purpose and major finding of their poster. This process is intended to give the Conference participants a better sense of the overall accomplishments in the field over the last year and a greater incentive to investigate the author's claims more fully by visiting the posters.

Opportunities for family fun abound in the Anaheim area (including Disneyland, Universal Studios, Pacific beaches, and mountain hikes), and you might consider arriving early or staying late to get the most out of your trip (be sure to read *Experiencing Anaheim* on page 8).

### 2003 ANNUAL CONFERENCE SCHEDULE AT A GLANCE



#### RECEPTIONS

Welcome Reception Monday, October 20: 6:00 PM - 8:00 PM Exhibitor Reception Tuesday, October 21: 5:30 PM - 8:00 PM

AAAR ANNUAL BUSINESS MEETING Tuesday, October 21: 5:00 PM - 5:30 PM

#### **REGISTRATION HOURS**

Sunday, October 19: 5:00PM - 9:00PM Monday, October 20: 7:00AM - 5:00PM Tuesday, October 21: 7:00AM - 5:00PM Wednesday, October 22: 7:00AM - 5:00PM Thursday, October 23: 7:00AM - 5:00 PM Friday, October 24: 7:00AM - 12:00PM

#### EXHIBIT HOURS

Monday, October 20: 6:00PM - 8:00PM Tuesday, October 21: 9:00AM - 8:00PM Wednesday, October 22: 9:00AM - 5:00PM Thursday, October 23: 9:00AM - 1:00PM

#### POSTER SESSIONS

#1: Tuesday, October 21: 6:00 PM - 8:00 PM #2: Wednesday, October 22: 12:35 PM - 2:40 PM #3: Thursday, October 23: 4:30 PM - 6:30 PM

#### PLENARY LECTURES

#### Tuesday, October 21: 8:00AM - 8:45AM

**Session I**: Observations of New Particle Formation and Growth Rates in the Atmosphere Dr. Peter H. McMurry, Professor and Head of Mechanical Engineering, University of Minnesota, Minneapolis, Minnesota, USA

#### Wednesday, October 22: 8:00AM - 8:45AM

**Session 2**: Emissions-to-Intake Relationships for Air Pollution Sources

Dr. William W. Nazaroff, Professor of Environmental Engineering, Department of Civil and Environmental Engineering, University of California, Berkeley, California, USA

#### Thursday, October 23: 8:00AM - 8:45AM

**Session 3**: Electrospray Wings for Molecular Elephants Dr. John Fenn, Research Professor, Department of Chemistry, Virginia Commonwealth University Professor Emeritus, Department of Chemical Engineering, Yale University, New Haven Connecticut, USA

#### Friday, October 24: 8:00AM - 8:45AM

Session 4: Understanding the Health Effects of Air

Pollution: An Epidemiologist's Quagmire

Dr. Paige E. Tolbert, Associate Professor, Department of Environmental and Occupational Health and Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, Georgia, USA

#### AAAR TUTORIALS MONDAY, OCTOBER 20, 2003 SESSION 1

### 8:00AM - 9:40AM

Introduction to Aerosol Mechanics I
 Dr. William C. Hinds, UCLA School of Public Health,
 Center for Occupational and Environmental Health,
 Department of Environmental Health Science, Los
 Angeles, California

 Particle Control Techniques
 Dr. David Leith, Department of Environmental Sciences and
 Engineering, University of North Carolina at Chapel Hill

 Aerosol Nucleation
 Dr. Barbara Wyslouzil, Worcester Polytechnic Institute,
 Chemical Engineering Department

 Bioaerosols: Extending Non-Culture Based Methods for
 Characterizing Microorganisms and Primary Biological

Environmental Engineering, University of Colorado, Boulder

#### SESSION 2

#### 10:00AM - 11:40AM

5. Introduction to Aerosol Mechanics II
Dr. William C. Hinds, UCLA School of Public Health, Center for Occupational and Environmental Health, Department of Environmental Health Science, Los Angeles, California
6. Indoor Aerosols
Dr. William W. Nazaroff, Department of Civil and Environmental Engineering, University of California, Berkeley, California
7. An Intuitive Approach to Light Scattering from Single Particles and Aggregates
Dr. Chris Sorensen, Kansas State University, Manhattan, Kansas

**8.** Filter-Based Aerosol Sampling and Analysis Dr. Judith Chow, Research Professor, Desert Research Institute, University and Community College System of Nevada, Reno

#### SESSION 3 1:00PM - 2:40PM

9. Particle Transport Modeling

Dr. Daniel J. Rader, Principal Member of Technical Staff, Sandia National Laboratories, Albuquerque, New Mexico

#### CONTINUED FROM PAGE 2

**10.** Analytical Methods for Source Apportionment Dr. James J. Schauer, Environmental Chemistry and Technology Program, College of Engineering and the Wisconsin State Laboratory of Hygiene, University of Wisconsin-Madison, Madison

11. Secondary Aerosol Formation

Dr. Paul J. Ziemann, Air Pollution Research Center and Department of Environmental Sciences, University of California, Riverside

**12.** Aerosols and the Respiratory Tract: A Primer Dr. Maura J. Sheehan, Professor of Environmental Health, West Chester University, Downingtown, Pennsylvania

#### SESSION 4

#### 3:00PM - 4:40PM

13. Modeling Atmospheric Aerosols
Dr. Spyros Pandis, Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, Pennsylvania
14. Chemical Mass Balance Receptor Modeling
Dr. John G. Watson, Research Professor, Desert Research Institute, University and Community College System of Nevada, Reno

**15.** Photochemistry of Atmospheric Particles and Aqueous Drops

Dr. Cort Anastasio, Associate Professor, Atmospheric Science Program, Department of Land, Air & Water Resources, University of California at Davis
16. Physiological Responses to Inhaled Particles Dr. Owen R. Moss, Biomathematical and Physical Sciences Division, CIIT Centers for Health Research, Research Triangle Park, North Carolina

#### SPECIAL SYMPOSIA

Symposium 1: Chemical and Biological Agent Detection Organized by: David Fergenson, Lawrence Livermore National Laboratory
Symposium II: California Regional Particulate Air Quality Study (CRPAQS)
Organized by: Michael J. Kleeman, University of California-Davis, Civil Environmental Engineering and Karen Magliano, California Air Resource Board
Symposium III: Heterogeneous Aerosol Chemistry Organized by: James N. Smith, NCAR and Jose L. Jimenez, University of Colorado

## Aerosols In The Spotlight

Chain agglomerate of aerosols generated from household candle burning imaged using an FEI Quanta 400 ESEM at Bucknell University

Image submitted by Dr. Timothy Raymond, Chemical Engineering Department, Bucknell University, Lewisburg, PA 17837





### FROM THE EDITOR

#### By Lupita D. Montoya, Editor



Dear AAAR colleagues,

It is amazing how quickly this year is moving along. This is our last issue of *Particulars* before our annual meeting in Anaheim. We hope to see you there and hope this issue is useful in your preparations for attending the meeting.

Be sure to check out *Experiencing Anaheim* on page 8. If you would like to learn more about what Anaheim and Los Angeles have to offer to visitors, visit the following websites:

www.anaheim.net/ www.anaheimoc.org/ www.ci.la.ca.us/lacity5.htm We expect the meeting itself to be particularly invigorating with outstanding plenary speakers, including Dr. John Fenn, Nobel Prize winner in Chemistry for 2002. Make sure you review the tutorials offered this year, since we have a number of new courses and remember to continually visit the AAAR website (www.aaar.org) for regular updates.

We will continue to work with office headquarters to add new improvements to this newsletter. Please feel free to contact me with your comments and suggestions at lmontoya@hsph.harvard.edu.

Best regards,

Lupita D. Menteya

Lupita D. Montoya Editor

### 2003 ELECTION NOMINEES

The AAAR Nominating Committee has selected candidates for the offices of vice-president-elect, treasurer-elect and three positions on the board of directors.

Full members should have received their ballot by mail. Don't forget- the ballot must be received on or before **August 29, 2003** in the AAAR Headquarters Office, 17000 Commerce Parkway, Suite C, Mt. Laurel, NJ 08054. Candidates for vice-president-elect are William Nazaroff and Anthony Wexler. Candidates for treasurer-elect are Lara Gundel and Ed Stuebing. Board of directors nominees are Bean Chen, Donald Dabdub, Sergey Grinshpun, Chong Kim, Micheal Kleinman and Cindy Twohy. For complete biographical sketches, please refer to your official ballot.

### WELCOME NEW MEMBERS

VICANTE ESTEVE-CAND Universitat Jaume 1

JAN HOVORKA, PHD Charles University in Prague

HAMMAD IRSHAD Lovelace Respiratory Research Institute

SUDARSHAN K. LOYALKA Columbia University of Missouri BRIAN MADER\*

WILLIAM **C. MALM** National Park Service

JOHANNES C.M. MARIJNISSEN Delft University of Tech

YINDN RUDICH Weizmann Institute of Science **PETER C. SEVILLE** Aston University

JEFFREY SIEGEL University of Texas at Austin

\* Student member

### A MESSAGE FROM THE PRESIDENT

#### Susanne Hering

#### There are many new "firsts" for AAAR this year

This year we held our first spring specialty conference. Chaired by Cliff Davidson, Paul Solomon and Robert Phalen, this conference brought together the health community and atmospheric scientists to address the very topical issue of particulate air pollutants. The conference was a success on many fronts. The final conference registration figures show 552 registrants, of whom 249 were AAAR members, 206 were nonmembers and 96 of whom were students. This is exactly the balance of interdisciplinary exchange the conference aimed to achieve. Indeed it was our aim to bring together a core of AAAR members with those from outside our organization who may be indirectly involved with aerosol research. Without a doubt the successful outreach beyond the traditional bounds of AAAR for our first-ever specialty conference is a tribute to the efforts of Cliff, Paul and Bob, and we thank them!

We have entered into a new contract with our publisher, Taylor and Francis, which will provide more open and quicker access to our journal via the web. Our new editorial team headed by Richard Flagan of Caltech, with Kikuo Okuyama of Hiroshima University, Japan and Robert Phalen of the University of California, Irvine as co-editors, is working together with Taylor and Francis to bring high-quality and speedy publication. Articles are now published on the web within a few weeks of acceptance. No longer must you wait until the publication month roles around -- once a manuscript is accepted it is immediately submitted to copy-editing. If you, as an author, provide a quick turn-around of your galleys, then it will be on the web within weeks. And it will contain the full, final citation. You may have already noticed that articles are already posted on the web for publication dates into November of this year.

This year's annual conference is in the capable hands of Barbara Turpin. Together with the working groups, she has brought us nearly 600 abstracts, and a most impressive list of plenary lecturers. Donald Dabdub has authored the website used for abstract submission, and from all reports it has worked far more smoothly for our needs than the professional services employed previously. William Nazaroff has done a stunning job in assembling this year's Tutorial Sessions. Tom Merrifield has been able to build on the successes at our spring specialty conference to bring together a most promising vendor exhibition.

Our field is growing, and we would like to grow with it, through our conferences and journal. Promulgation of the PM2.5 standard by the US Environmental Protection Agency has energized the work on urban particulate matter in recent years. Other research opportunities abound. Radiation forcing by airborne particles remains a dominant uncertainty in global climate modeling. The nanomaterials industry relies on aerosol processes and offers many opportunities for contributions in aerosol dynamic modeling and ultra-fine particle measurement. Indeed, there is now an overlap in ultrafine particle characterization for all three of these fields: particles and health, global climate, and nanoaerosols synthesis. Another active field is inhalation therapy, and is yet another example of aerosols as an "enabling technology". Bioaerosols have taken on a new importance.

Founded more than 20 years ago, our organization has grown to nearly 800 regular members and more than 200 student members. From the outset we have been an international society, with many members from Europe and Asia. Aerosol research is a growing field, both here and abroad. We welcome your continued support of AAAR, and encourage you to introduce worthy scientists and engineers into our society!

#### INDUSTRY NEWS

#### **TSI Announces Automated on-Line RMA for Service**

TSI Incorporated is pleased to announce the addition of an on-line return material authorization (RMA) system on its Web site, www.tsi.com. The goal of this system is to make returning TSI instruments for repair or recalibration easier than ever. Customers can arrange for verification, recalibration or repair of any TSI instrument. Log onto www.tsi.com and click on "RMA/Contact Information. You can either do everything online or download a PDF and fax it.

If you have special announcements or industry news to share with *Particulars* readers, please send press releases or information to **achezem@ahint.com**.

### PLENARY ON ELECTROSPRAY MASS SPECTROMETRY

#### By Juan de la Mora

As background for Professor Fenn's electrospray plenary at AAAR-2003, and to provide some feeling for the mix of time, chance, frustration and excitement often involved in the birth of great science and technology, it seems fitting to provide a brief history of what has been called the most important new development from Yale in the just-ended 20th Century.

During World War I, Yale physicist, John Zeleny, showed that a conducting liquid emerging from a small bore tube at high voltage relative to its surroundings would be dispersed as a fine spray of charged droplets by the intense field at the tube exit. He also noted that as solvent evaporated from those droplets they would disrupt into a plurality of smaller droplets. This Coulombic fission had been explained by Rayleigh in 1883 as being due to an increasing charge density on the shrinking droplet to the point, now called the "Rayleigh Limit", at which Coulomb repulsion overcomes the surface tension that holds the droplet together. Fifty years later, in 1968, a paper by polymer chemist Malcolm Dole at Northwestern University suggested that if these charged electrospray droplets comprised a dilute solution of large polymer molecules, a succession of such evaporation-disruption sequences would result in droplets so small that each one would contain only one polymer molecule. As the last solvent evaporated from that ultimate droplet, the residual molecule would retain some of its droplet's charge to become a gas phase polymer ion. The resulting aerosol of polymer ions could be bled into a vacuum system where the ions would be "weighed" by an appropriate mass analyzer. Thus, at long last, the elegance of interrogation by mass spectrometry might be applied to the fragile biomolecules that could not be ionized by conventional methods because they could not be vaporized without catastrophic decomposition.

Dole's experiments fell far short of proving his thesis but they caught the eye of Professor Seymour "Sandy" Lipsky, in Yale's Medical School who wanted to apply mass spectrometry to proteins and other bio-molecules. He showed Dole's paper to Csaba Horvath, a member of Yale's faculty in Chemical Engineering, who was working with him on High Performance Liquid Chromatography. Noting that Dole had referenced papers by Fenn on the uses of supersonic free jets expanding into vacuum, Horvath told Lipsky to talk with Fenn who had just joined Chemical Engineering at Yale. Realizing that Dole had not understood important features of free jets and did not have a good means of "weighing" the big ions he hoped to produce, Fenn became very interested and in 1975 persuaded graduate student "Mike" Labowsky to repeat Dole's experiments. Mike's results were much better than Dole's but still not very persuasive so he did his thesis (1977) with Professor Dan Rosner on an analysis of the evaporation of clouds of uncharged droplets!

In 1982 a young Japanese postdoc, "Gado" Yamashita, came to work with Fenn. They decided to look again at Dole's Electrospray Ionization (ESI), this time with small molecules whose ions could be easily "weighed" with an available quadrupole mass spectrometer. The results were very promising and led to two papers in 1984 reporting the first compelling evidence that nonvolatile molecules in solution could indeed be transformed intact into gas phase ions and then interrogated by Electrospray Ionization Mass Spectrometry (ESIMS). Over the next few years further studies in Fenn's laboratory with increasingly large molecules culminated in a 1988 paper in "Science" that presented the first mass spectra of multiply charged ions of proteins having molecular weights up to 50,000 or more. That report ignited an explosive and still uninterrupted growth of activity. The Science Citation Index for the year 2000 (prior to Fenn's Nobel prize) listed more than 1400 publications containing the word "Electrospray" in their title or abstract. (By comparison, there were "only" 1250 papers similarly linked to the word "fullerenes", the subject of a then recent Nobel Prize in chemistry.) Actually, most ESIMS results are not published but are squirreled away in the files of pharmaceutical companies. It's a rare drug today that doesn't have ESIMS somewhere in its background. The worldwide population of ESIMS instruments is more than 10,000, growing at a rate of more than 150 per month. Of the several patents on ESIMS awarded to Fenn and his students, one is so broad as to recognize "multiply charged ions" as a new composition of matter.

Dr. John Fenn is presently Research Professor in the Department of Chemistry, at Virginia Commonwealth University and Professor Emeritus at the Department of Chemical Engineering, Yale University.

### 2003 AAAR ANNUAL

### **CONFERENCE EXHIBITORS**

As of July 15, 2003

#### **Cambustion Limited**

J6 The Paddocks 347 Cherry Hinton Road Cambridge CB1 8DH United Kingdom +44 1223 210250 +44 1223 210190 info@cambustion.co.uk www.cambustion.com

#### **Grimm Technologies Incorporated**

P.O. Box 6358 Douglasville, GA 30154-6358 770 577-0853 770 577-0955 grimm@dustmonitor.com www.dustmonitor.com

#### **Magee Scientific**

1829 Francisco Street Berkeley, CA 94703 510 845-2801 510 845-7137 sales@mageesci.com www.mageesci.com

#### **MSP Corporation**

5910 Rice Creek Parkway, Suite 300 Shoreview, MN 55126 651 287-8130 651 287-8140 sales@mspcorp.com www.mspcorp.com

#### **Rupprecht & Patashnick**

25 Corporate Circle Albany, NY 12203 518 452-0065 518 452-0067 info@rpco.com www.rpco.com

#### **TSI Incorporated**

500 Cardigan Road Shoreview, MN 55126-3996 651 490-2811 651 490-3824 particle@tsi.com www.tsi.com

#### URG

116 S. Merritt Mill Road Chapel Hill, NC 27516 919 942-2753 919 942-3522 info@urgcorp.com www.urgcorp.com

If you would like to exhibit at the 22nd Annual Conference in Anaheim, California, October 20-24, 2003, please contact Linda Still at **lstill@ahint.com** or **856-439-9080**.

## PARTICULARS

PARTICULARS IS PUBLISHED BY THE AMERICAN ASSOCIATION FOR AEROSOL RESEARCH AS THE PRIMARY INFORMATION SOURCE FOR ASSOCIATION MEMBERS.

#### AAAR

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#### EXPERIENCING ANAHEIM

Anaheim, now the tenth largest city in California, began in 1857 as a colony of German farmers and vintners. Founding member George Hansen surveyed the original 200 acres, which now comprises the city's downtown area, bounded by North, South, East and West streets. The city's name is a composition of "Ana" from the nearby Santa Ana river and "heim," German for home. Those early pioneers considered this location their "home by the river."

Farming was their occupation and lifestyle. Among the crops for the first few decades were grapes grown for wine. But a plague in the 1870's wiped out the vineyards and in their place, groves of citrus trees were planted. The first commercial oranges in Orange County were grown in Anaheim, where the growers attributed their success to the local hills, which protected the fruit against the cold winds coming down from the mountains.

Anaheim enjoys a Mediterranean climate, with an average temperature of 70 degrees and only 9.8 inches of rain per year. It definitely does not snow in Anaheim, but if you're itching to strap on the skis, there are a variety of mountain resorts available within a short driving distance. If your tastes run more to surf and sand, you're in luck, because Anaheim is located only 13 miles from the Pacific Coastline.

The climate is conducive to a wide variety of outdoor activities. In fact, there is even a twenty-mile bike trail leading along the Santa Ana River right to the beach! In addition, there are several challenging and beautiful golf courses, two of which are owned by the city, a small stocked lake for fishermen, numerous public parks and recreational facilities, tennis clubs, and horse trails.

Anaheim is located 28 miles southeast of downtown Los Angeles, and 90 miles north of San Diego. The city is located in Orange County, one of the nation's most dynamic and technologically forward areas. Anaheim is well connected to the rest of the world by Orange County's John Wayne Airport and numerous other airports in the region. Amtrak also services Anaheim for coast-tocoast travel needs as well as Metrolink for commuting between Anaheim and other outlying areas.

If you have the chance to visit pre or post convention check out the "Best in 3 Days Itinerary":

#### Day 1

You're going to Disneyland!

#### Day 2

Get up early and head to Laguna Beach, before the crowds arrive. Breakfast alfresco, then take a walk on the sand. Afterward, stroll around the local streets adorned with great bookstores and art galleries. Don't miss the volleyball court where White Men Can't Jump was filmed. In the afternoon, drive north to Crystal Cove State Park, which contains more than three miles of sandy coves and beaches, grassy terraces and wooded canyons, and 18 miles of hiking trails. The tidepools are marvelous here; there's nothing like poking among them at sunset when the water is bright with color. Have dinner in one of Laguna's many fine ocean view restaurants.

#### Day 3

Spend the day in Newport Beach. You have to arrive early at the foot of the Newport Beach pier to see the dory fleet land with the catch of the day. Relax on the beach near the pier for a while, then head north to the Balboa Pavilion. Have lunch in the restaurant here. The harbor views are great. You can see the waterfront up close on a harbor cruise, which will take you past some of the homes of the rich and famous. For a shorter ride, take the three-minute ferry trip to Balboa Island -- the boat also leaves from near Balboa Pavilion -- and stroll Marine Avenue. In the evening, head inland to Costa Mesa, where you can wander through South Coast Plaza, one of the world's largest retail, entertainment, and dining complexes, or visit The Lab, the area's "antimall," a selection of renegade fashion, book, and music stores. Here, alternative types sip Chai teas, practicing the art of extemporaneous poetry and appearing hopelessly hip.

### Most requested restaurants in Anaheim

Bella Marri's Cuban Pete's Stuart Anderson's Black Angus Tangerine Ciao Italian Kitchen Hungry Hunter Mr. Stox Hastings Grill John's Philly Grille Iv El Misti Picanteria Arequipeña

### AAAR HOSTS ITS FIRST SPECIALTY CONFERENCE

#### **Cliff Davidson, Robert Phalen, and Paul Solomon**

The first AAAR Specialty Conference, entitled "Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health," was held in Pittsburgh on March 31-April 4, 2003. The conference brought together atmospheric scientists, health and welfare effects researchers, exposure scientists, and policy makers for presentations and interdisciplinary discussions. A total of 552 attendees participated, including 249 AAAR members, 207 non-members, and 96 students. A total of twenty one countries from North and South America, Europe, Africa, Asia, and Oceania were represented; 13% of the attendees were international.

The conference had an innovative format, beginning with Monday evening poster viewing followed by a full day of workshops. There were a total of 15 workshops, which were organized to provide input to plenary sessions on Wednesday through Friday. Each of the eight plenary sessions included two keynote talks, a panel discussion, and an integrative summary. The plenary sessions focused on key research questions, as listed below:

A) What are the policy perspectives linking PM emissions, the atmosphere, and effects?

B) What are the physical and chemical characteristics of PM? What health effects are associated with specific characteristics?

C) What are the sources of precursor gases and PM that are potentially causing health effects?

D) When and where are people exposed to PM?

E) Who are the susceptible subgroups affected by PM?

What host characteristics underlie their susceptibilities?

F) What relations exist between PM and human welfare? G) What relations exist between the PM problem, other air quality problems, and issues such as energy use and economic development?

H) How can we evaluate our progress in reducing PM health and welfare effects? How can we incorporate this information in refining strategies for reducing exposure?

Poster sessions covering these questions were interspersed with the plenary sessions during the meeting. The conference ended with a wrap-up session covering material presented throughout the week in the areas of atmospheric sciences, health effects, human exposure, and policy.

The conference was unique in several respects. There were over 100 invited speakers and panel members who made oral presentations at the workshops and plenary sessions, and these speakers were invariably among the most active researchers in their fields. Plenary sessions were designed to address the eight key research questions listed above; the questions were chosen only after considerable debate at organizing committee meetings involving experts from many disciplines. The workshops provided a mechanism for incorporating results of recent research into the plenary sessions. Posters summarizing current research also provided information for plenary discussions. Finally, the conference was highly



interdisciplinary, bringing together individuals with different backgrounds to share their opinions openly about the most important issues regarding PM and its effects. Of the 388 abstracts received, 36% were related to health effects while 64% were related to atmospheric sciences, showing significant representation from both communities.

There were twelve companies exhibiting at the conference, including BGI, Grimm Technologies, Magee Scientific, Met One Instruments, MSP Corporation, RJ Lee Group, Rupprecht and Patashnick, SKC Inc., Taylor and Francis, Thermo Electron Corporation, TSI, and URG.

Many of the papers presented at the conference will be published in special issues of several journals: *Aerosol Science and Technology, Journal of the Air and Waste Management Association, Journal of Geophysical Research, Atmospheric Environment, and Inhalation Toxicology.* 

We would like to thank members of the Organizing Committee, the Science Advisory Committee, and the Publications Committee for their outstanding efforts, as well as all of the presenters and other participants for helping to make this specialty conference a success. We gratefully acknowledge the financial support of the following agencies in making this conference possible:

**Environmental Protection Agency (primary sponsor)** Air and Waste Management Association American Association for Aerosol Research American Chemistry Council **American Petroleum Institute Department of Energy - National Energy Technology** Laboratory **EPRI** Ford Motor Company **Health Effects Institute International Society for Aerosols in Medicine** Mid-Atlantic Region Air Management Association NARSTO **National Oceanic and Atmospheric Administration** National Institute of Environmental Health Sciences **NYSERDA** Southern California Air Quality Management District Southern Company

### A NOTE FROM THE EXECUTIVE DIRECTOR

#### **Libby McDannell**



As you read this newsletter, summer will be almost over and the AAAR staff will be gearing up for what we anticipate to be another successful conference. In the last few months there have been some changes in the AAAR office, including the addition of me as your new executive director. I have worked with AAAR in the past in a different capacity. Most of

you I know and for those who don't know me, I look forward to meeting and working with you in my new role.

As you might expect, the staff has been working hard on conference preparation as well as day-to-day activities. Below is an update summarizing recent AAAR activities.

#### **AWARDS**

Thank you to everyone who submitted nominations for the AAAR awards. The Awards Committee is currently in the process of reviewing the nominations for the Friedlander, Liu, Sinclair and Whitby awards. The awards will be presented at this year's Annual Conference.

Co-sponsored by the International Society for Aerosols in Medicine (ISAM), the Thomas T. Mercer Award was given out this year at ISAM's Annual Conference. The award recognizes excellence in the areas of pharmaceutical aerosols and inhalable materials. The winner of this year's Mercer award was Guenter Oberdoerster.

As you may be aware, the award funds were started with endowments and are maintained through yearly contributions. We *strongly* encourage you to contribute a donation to an award of your choosing. This can be done when you register for the Annual Conference or renew your dues. Information on each award can be found on our website, **www.aaar.org**.

#### **WEB SITE - MEMBERS ONLY SECTION**

We have made some changes to the login process of the Members Only section. For your convenience, your username and password have been switched so your username is easier to remember.

You also now have the ability to change your password to one of your choosing. In addition, a feature has been added allowing you to enter your e-mail address when you forget your password and it will automatically be sent to you.

Contact the AAAR office (**info@aaar.org**) with any questions about your username or password.

#### **STUDENT ASSISTANT PROGRAM**

Students attending the 2003 Annual Conference in Anaheim can earn free tutorial tickets by working as session assistants. Each session assistant can attend two tutorials for a minimum of four sessions worked.

Session Assistants help out in technical sessions, poster sessions and tutorials by making sure the sessions run smoothly. They are responsible for turning lights, assisting speakers as needed, and aiding poster set-up.

Interested students should complete the application in the conference area of the website or contact Deanna Bright at **dbright@ahint.com** for more information.

We continue to provide the utmost support for the association and industry and I personally plan to work towards AAAR's goals to foster the exchange of information among members and with other disciplines. I look forward to seeing everyone again at this year's Annual Conference. Feel free to contact me for any reason at **emcdannell@ahint.com** or **856-439-9080**. I look forward to hearing from you!

Sincerely,

Libby McDannell

Libby McDannell Executive Director

#### UPCOMING AEROSOL CONFERENCES

August 31 - September 5, 2003 European Aerosol Conference Madrid, Spain

October 20-24, 2003 AAAR Annual Meeting Anaheim, California

November 9 - 11, 2003 **1st International Symposium on Incomplete Combustion** Kuopio, Finland November 13-14, 2003 NOSA Aerosol Symposium 2003 Copenhagen, Denmark

December 3-6, 2003 Inhalation Drug Delivery (Aerosol-Related Workshop) Princeton, New Jersey

September 6-10, 2004 European Aerosol Conference Budapest, Hungary October 4-8, 2004 AAAR Annual Meeting Atlanta, Georgia

September 10-15, 2006 Seventh International Aerosol Conference St. Paul, Minnesota