# The American College of Epidemiology Annual Scientific Sessions

# Epidemiology, Risk Assessment, and Public Policy



October 2-4, 1999

Hyatt Regency Bethesda, MD

### **General Information**

### Epidemiology, Risk Assessment, and Public Policy

The development of sound policies for public health and regulation depends on both the range of quality of available scientific data and the way in which these data are interpreted and used. Regulatory decisions often require risk assessment. What is the role of epidemiologists and epidemiology in this process?

Through plenary sessions and pre-conference workshops, the 1999 meeting will focus on important issues in this controversial and growing area. Topics that will be covered include:

- · Advances in risk assessment methods
- The appropriate use of epidemiological data in risk assessment
- · Lessons for epidemiologists from radiation risk assessment
- Issues in assessing environmental chemical risks
- Translating genetic epidemiology into risk prediction
- · Making policy based on risk politics and science
- · Genetic susceptibility emerging challenges
- · Ethical implications for society and the profession

Through debate and roundtables, the meeting will also provide an opportunity to discuss how government policies and the interests of regulated industries and exposed communities may change the way we operate. In particular, attendees will have an opportunity to discuss:

- · Guidelines and standards of practice
- Access to data by epidemiologists, government, and industry
- · Setting the research agenda
- · Tensions between researchers, regulators, and the regulated
- · Epidemiology and the courts

Please join us in Bethesda, October 2-4, 1999, at the Hyatt Regency.

### Thanks to Our Sponsors!

American Industrial Health Council

National Institute of Environmental Health Sciences

George Washington University

### 1999 ACE Program Committee

Patricia Hartge, ScD Marlene Goldman, ScD

Rosanne McTyre, PhD, MPH Gerhard Raabe, DrPH, MS

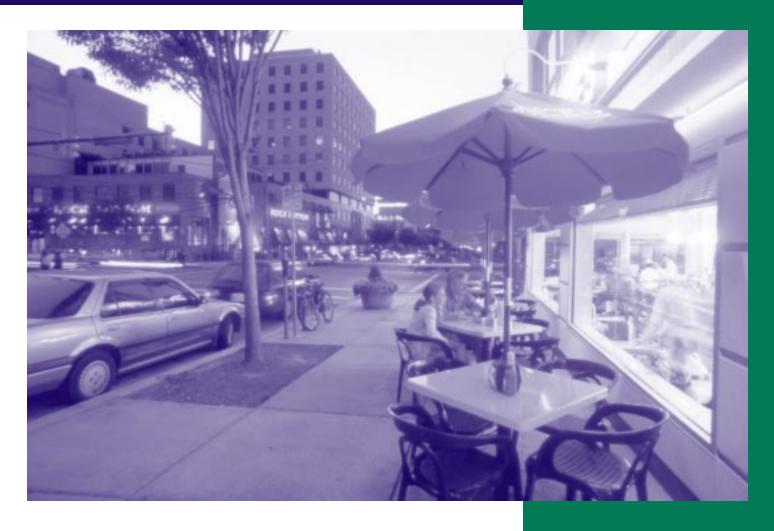
Jonathan Samet, MD, MS

Robert Schnatter, DrPH, MSc

Douglas Weed, MD, PhD

### 1999 ACE Education Committee Chair

Dale Sandler, PhD



#### **Accommodations**

The site of the 1999 Annual Meeting is the Hyatt Regency, Bethesda, MD. The specially negotiated room rate for ACE meeting attendees is \$145. Call 301/657-1234 or 800/233-1234 to make your reservations. The special rate is based on space availability, so please reserve early. In order to receive the College's rate please mention that you are calling for the College's Annual Meeting. The hotel must receive reservations by September 10, 1999.

The Hyatt Regency Bethesda is located at Bethesda Metro Center, just 6 miles from downtown Washington, D.C., with convenient access to the Capital Beltway and Metro Subway. The Hyatt is also within walking distance of restaurants, theaters and world-class shopping. The Metro easily reaches the US Capitol and all national monuments, museums, and attractions.

### **Specially Reduced Airfares**

Special airfares have been negotiated from most US cities. Conference Travel, Ltd. arranged these discounted fares and can be reached to make reservations at (800) 448-6989. They will also check the lowest available rates on all airlines. The College benefits directly from each ticket purchased through Conference Travel, Ltd.

### **Program Summary**

### Saturday, October 2

1:00-6:00 pm Preconference Workshops

(Detailed descriptions of the workshops are included on pages 7-9.)

Workshop I — Introduction To Risk Assessment For Epidemiologists

Jonathan M. Samet, MD, MS; Thomas Burke, PhD, MPH; and Margo Schwab, PhD; Risk Sciences and Public Policy Institute, Johns Hopkins University School of Public Health

Workshop 2 — Everything You Wanted To Know About Molecular Genetics But Were Afraid To Ask

Jack Taylor, MD, PhD; National Institute of Environmental Health Sciences

Workshop 3 - Application of Molecular Genetics in Epidemiology

Bob Millikan, DVM, PhD; University of North Carolina at Chapel Hill and Christine Ambrosone, PhD; National Center for Toxicological Research (Co-Sponsored by the Molecular Epidemiology Group of the AACR)

Workshop 4 — Strategies for Successful Grant-Writing

Gwen Collman, PhD; George Malindzak, PhD; and David Mineo; Division of Extramural Research and Training, National Institute of Environmental Health Sciences, NIH; Germaine Buck, PhD, Department of Social and Preventive Medicine, State University of New York at Buffalo

### Sunday, October 3

8:00-8:15 am Welcome and Introduction

Robert Hiatt, MD, PhD, President

8:15-8:30 am Meeting Overview and Logistics

Hilary Waldenberg Lamb, MPA, Executive Director

8:30-9:00 am Keynote Address: "Why is Risk Assessment Important for Epidemiologists?"

Jonathan Samet, MD, MS, Professor and Chairman, Johns Hopkins University Department

of Epidemiology

9:00-9:30 am Coffee Break

9:30-12:00 noon Plenary Session I: Issues at the Interface of Epidemiology and Risk Assessment

Chair: Harris Pastides, PhD; University of South Carolina

Developing Epidemiologic Evidence for Risk Assessment: Implications for Design,

**Interpretation and Analysis** 

Leeka Kheifets, PhD

Guidelines for Epidemiologic Research: Do We Need Them for Risk Assessment?

Robin Leonard, PhD

Risk Assessment Mandates: Implications for Access to Epidemiologic Data

Manning Feinleib, MD, PhD

Interpretation of Epidemiologic Evidence at the Interface between

**Epidemiology and Risk Assessment** 

Patricia Buffler, PhD, MPH

12:00-1:30 pm Lunch Roundtable Workshop: Potential Conflicts of Interest and

The Challenge of Maintaining Objectivity in Epidemiologic Research

(By reservations only. Must pre-register for this workshop.)

Chair: Rosanne McTyre, PhD

Informal Roundtable discussions led by Fellows of the College.

1:45-4:00 pm Plenary Session II: Epidemiology and Population Risk Assessment:

**Lessons from Chemical and Radiation Exposures** 

Chair: Robert Schnatter, DrPH, MSc; Exxon Biomedical Sciences Inc.

Quantifying Uncertainty Using Epidemiologic Data: The BEIR VI Report on Radon

Daniel Krewski, PhD

**Qualitative Assessment of Uncertainty in Epidemiologic Data: Non-Ionizing Radiation** *Martha Linet, MD* 

Remaining Uncertainties in a Mature Risk Assessment Example: Ionizing Radiation Roy Shore, PhD, DrPH

Contrasting Uses of Epidemiologic Data: Benzene and Dioxin

Gerhard Raabe, DrPH

Translating Epidemiologic Evidence into Public Policy: Lessons from the Agent Orange Debate

David Tollerud, MD, MPH

4:30-5:30 pm Business Meeting

For ACE Members

5:30-7:30 pm Poster Session and Reception

Chairs: Marlene Goldman, ScD, Harvard School of Public Health; and Dale Sandler, PhD,

National Institute of Environmental Health Sciences

Prizes will be awarded for the best student poster, the best risk assessment poster, and

the best general poster.

7:30-10:00 pm Continuing Poster Viewing

**Dinner on Your Own** 

### Monday, October 4

7:30-9:00 am Breakfast Roundtables

Chair: Gerhard Raabe, DrPH, MS, Mobil Business Resources

Influence of Politics and Public Opinion on Formulation of Public Health Practice: The Hepatitis C Story

Miriam Alter, PhD

**Epidemiologic Evidence and Firearms Legislation** 

David Cowan, PhD

**Challenges in Cervical Cancer Vaccine Development** 

Allan Hildesheim, PhD



Ethics Guidelines of the American College of Epidemiology

Germain Buck, PhD and Robert McKeown, PhD

New Freedom of Information Act: Implications for Epidemiology and Risk Assessment

G. Marie Swanson, PhD

Diversity in the Profession: Why has Progress Been So Slow?

Victor Schoenbach, PhD

**Epidemiology and the Law** 

Peter K. Eck, J.D., Chadbourne & Parke LLP

Voices and Views of Epidemiology and Risk Assessment

Rebecca Parkin, PhD

Risk Assessment in Drug Epidemiology

Judy Staffa, PhD, RPh

Studying Gene-Environment Interactions: Why Do Results Differ?

Christine Ambrosone, PhD for the Molecular Epidemiology Group of AACR

Risk Perception: The Role of the Media

Susan Oliveria, ScD, MPH, Memorial Sloan-Kettering Cancer Center

9:00-9:30 am 1999 Student Prize Paper

Colorectal Adenomas and the C677T MTHFR polymorphism: Evidence for generators and the C677T MTHFR polymorphism and the C677T MTHFR

environment interaction?

Cornelia Ulrich, PhD

Cancer Prevention Research Program
Fred Hutchinson Cancer Research Center

9:30-10:00 am Coffee Break

10:00-12:00 noon Plenary Session III: Epidemiology and Individual Risk Assessment: Challenges

in Genetic Risk

Chair: Patricia Hartge, ScD, National Cancer Institute

Genetic Risk Assessment in Breast Cancer

Jeffery Struewing, MD

Alzheimer's Disease, Apolipoprotien E, and the Challenge of Assessing Risk of

Neurologic Diseases Richard Mayeux, MD, MSc

Human Genome Epidemiology (HuGE): From Population to Individual Risk

Assessment

Muin Khoury, MD, PhD

Risk Assessment vs. Risk Perception: Ethical Issues in Communicating Uncertainty

Gail Geller, ScD

12:30-2:30 pm Banquet Lunch, Poster Prize Awards and Lilienfeld Award Address

Lilienfeld Award Address by Mervyn Susser, MB, BCh, FRCP(E)

Sergievsky Professor of Epidemiology Emeritus

Columbia University

3:00-5:00 pm Plenary Debate: Motion—Epidemiologists Ought to Engage in Public Health

Policy—From Assessing Risks to Protecting the Public

Moderator: Dale Sandler, PhD; National Institute of Environmental Health Sciences **Affirmative Position:** Camara Jones, MD, PhD, Harvard School of Public Health;

Douglas Weed, MD, PhD, National Cancer Institute

**Negative Position:** David Savitz, PhD, University of North Carolina;

Allen Wilcox, MD, PhD, National Institute of Environmental

Health Sciences

5:00 pm End of Sessions

Photos courtesy of the Conference and Visitors Bureau of Montgomery County, Maryland.

Front Cover: Montgomery County countryside

Page 3: Bethesda street scene—restaurants, shopping district

Page 5: Chesapeake & Ohio Canal Historic Park

Back Cover: Black Hills Regional Park

### **Pre-Conference Workshops**

# Workshop I — Risk Assessment and Public Policy: A Primer for Epidemiologists

**Jonathan A. Samet, MD, MS**, Chairman, Department of Epidemiology, Co-Director, The Risk Sciences and Public Policy Institute, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD

**Thomas A. Burke, PhD, MPH**, Associate Professor, Department of Health Policy and Management, Co-Director, The Risk Sciences and Public Policy Institute, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD

**Margo Schwab, PhD**, Assistant Director, The Risk Sciences and Public Policy Institute, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD

The goal of this workshop is to provide participants with an understanding of:

- The regulatory demands that influence how epidemiologic research is used by public policy makers in the US;
- The paradigm of quantitative risk assessment (QRA) and its place in bridging science and policy;
- · The value of QRA for structuring information and informing decisions;
- The current developments and evolving methods in risk assessment and risk management;
- The evolving role of the epidemiologist in the evaluation of health risks.

In the United States, risk assessment is either explicitly or implicitly required by many federal environmental, health, and safety statutes, and its application is growing worldwide. Epidemiologic data can fill a variety of roles in risk assessment and risk management. This five-hour workshop focuses on the application of risk assessment as a translational tool for moving from research findings to the implementation and evaluation of policies. We will emphasize the use of epidemiologic data through case studies and address the implications of risk assessment for epidemiologic researchers.

## Workshop 2 — Everything You Wanted to Know About Molecular Genetics but Were Afraid to Ask

**Jack Taylor**, MD, PhD, Chief, Molecular and Genetic Epidemiology Section, National Institute of Environmental Health Sciences

The goal of this workshop is to provide participants with:

- Basic background in DNA/RNA structure, transcription, translation, and gene structure;
- General principles of working with DNA, including restriction, electrophoresis, denaturation, and annealing, along with detailed descriptions of the methods and epidemiologically relevant problems in PCR and both radioactive and fluorescent sequencing;

You may register for one workshop in addition to the meeting (see registration form). Workshops include practical details, case-studies, and, in some instances, actual "hands-on" experience. Workshops will run from 1:00-6:00 pm on Saturday, October 2, 1999.

- Recommendations for DNA sources, collection, extraction, and storage for epidemiologic studies, followed by a detailed description of polymorphisms and common methods and problems in polymorphysm analysis in epidemiologic studies;
- A description of selected techniques of interest to epidemiologists including sitedirected mutagenesis, allele-specific PCR, DNA chips, Taqman, and SSCP.

DNA analysis, ranging from mutation detection to genotyping, is an increasingly common component of epidemiologic studies. This workshop is designed to provide a background in the techniques of DNA analysis for epidemiologists. The workshop will provide a basic background for established researchers as well as graduate students who would like to have a clearer understanding of concepts and techniques used in molecular epidemiology. Starting from basic information about DNA and RNA structure, this course provides a step by step introduction to the principles involved in a variety of techniques used to assay DNA. Special emphasis is given to those techniques most useful to epidemiologic study, and to common problems and limitations associated with the techniques. This course should provide a base from which to plan studies, to understand the published literature, and to converse with laboratory colleagues.

# Workshop 3 — Application of Molecular Genetics in Epidemiology

**Christine Ambrosone, PhD**, Research Epidemiologist, Division of Molecular Epidemiology, National Center for Toxicological Research

**Robert Millikan, DVM, PhD**, Assistant Professor, Department of Epidemiology, University of North Carolina at Chapel Hill

This workshop is directed towards epidemiologists who already understand the most basic concepts of molecular biology and are interested in further exploration of the application of biomarkers, particularly measures of genetic susceptibility, to epidemiologic studies.

#### The Workshop will cover:

- · The nature of gene-environment interactions;
- The role of genetic polymorphisms in enzymes that may modify associations between endogenous or exogenous exposures and disease outcome;
- Analytic issues related to the study of complex biochemical pathways;
- · Practical considerations for molecular epidemiologic studies.

Biomarkers can be incorporated into population-based studies in order to enhance exposure assessment, understand disease mechanisms and dose-response-relationships, and uncover subgroups that are at enhanced risk for disease following exposure. A general consensus has emerged that, in order to be useful, biomarkers must first be validated, the laboratory assays must be worked out in detail, and transitional studies must be conducted to address sources of variability in human populations. These and other issues of importance to epidemiologic studies of gene-environment interactions will

be discussed. In addition, methods for sample acquisition and processing will be addressed, as will methodologic issues such as sample size and confounding. Finally, issues of informed consent and confidentiality that are relevant for any study that incorporates biological specimens will be discussed. Examples from ongoing and published case-control studies will be given as illustration.

(This workshop is co-sponsored by the Molecular Epidemiology Group of the AACR)

#### Workshop 4 — Strategies for Successful Grant Writing

**Gwen W. Collman, PhD**, Program Administrator - Environmental and Molecular Epidemiology, Division of Extramural Research and Training, National Institute of Environmental Health Sciences, NIH

**George Malindzak, PhD**, Program Administrator - Respiratory and Cardiovascular Toxicology, Division of Extramural Research and Training, National Institute of Environmental Health Sciences, NIH

**David Mineo**, Grants Management Officer, Division of Extramural Research and Training, National Institute of Environmental Health Sciences, NIH

**Germaine Buck, PhD**, Associate Professor, Department of Social and Preventive Medicine, State University of New York at Buffalo

#### This workshop will cover:

- The NIH grants process organization of NIH, application procedures, review process, important NIH grant policies;
- How to get help from NIH staff when you need it;
- Strategies for successful grant applications what works and what doesn't;
- What study section members look for when reviewing applications;
- How to access information about NIH funding opportunities from the World Wide Web.

This workshop will cover the fundamental skills of grantsmanship. The process of applying for research funding at the NIH will be demystified. Participants will be updated on policies that guide the grants process. A tutorial on how to put together a successful grant application will draw on examples from epidemiologic studies. A study section member will share her experience on review panels and provide advice on what reviewers typically look for. Ample time will be set aside for small group discussion of individual grant proposals, including critiques and suggestions for improving specific applications of workshop participants.

# Persons registering for Workshop 4 should submit the following no later than September 10:

- Title page including name, address, phone number, research interests, tentative grant proposal title, postdoctoral training appointment and supervisor\* (if applicable).
- Statement of significance of the proposed research - including public health impact, hypothesis, and up to 3 specific aims.
- Abstract (follow PHS 398 guidelines).

\*Registration will be waived for up to 10 post-doctoral fellows in recognized training programs based on the quality of the application. Please indicate whether you are applying for tuition waiver and provide proof of post-doctoral appointment (letter from supervisor or other authority confirming your appointment).

### **Membership Application**

(Please type or print clearly)		
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Social Security Number		
Date of Birth		
Gender: ☐ Male ☐ Female		
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Please list your current place	of employment/affili	ation, your position, and title:
Areas of Research Expertise:		
31 Behavioral	52 • Occupational	42 🗖 General
47 Infectious	37 Diabetes	58 Respiratory
32 Cancer	53 Perinatal	43 Genetics
48  Injury  Cardiovascular	38 ☐ Drug 54 ☐ Health Policy	59 🖵 Sero Epi 44 🖵 Geriatric
49 Molecular	39 Environmental	60 Tropical Disease
34 Chronic Disease	55 Psychosocial	45 Health Services
50 Neuro Epi	40 🗖 Epi Methods	61
35 Clinical	56 Radiological	46 🗖 Hospital
51 Nutrition	41 🗖 Eye	62 Other (specify)
36 ☐ Dental	57 Reproductive	
Current Employment:		
71 Retired/Emeritus	73 Industry	76 Private research firm
72 University/Med School/	74 - Federal govern	
School of Public Health	75 🗖 State, Local gov	vernment 78 🗖 Other (specify)

Attach your curriculum vitae (and any supporting materials) to this application and mail to:

ACE Admissions Committee 4101 Lake Boone Trail Suite 201 Raleigh, NC 27607

#### **Questions? Contact:**

John Acquavella (314) 694-8831 John.F. Acquavella∂monsanto.com

### **Registration Form**

# The American College of Epidemiology **Annual Scientific Sessions**

October 2-4, 1999 / Hyatt Regency / Bethesda, MD

Pre-registration closes on September 10, 1999. Registrations received after September 10 will be processed at on-site rates. Refunds will be issued for cancellations received in writing by September 24, 1999.

Please print or type the following information. Ît will be used to print your name badge and mail your confirmation.

Name:	first	middle	last	degree
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<ul><li>□ Workshop 2 - En</li><li>□ Workshop 3 - A</li><li>□ Workshop 4 - Sn</li><li>submit docume</li></ul>	stroduction To Risk Asse werything You Wanted T pplication of Molecular trategies for Successful onts as indicated in the v ag for a post-doctoral re	o Know About Molec Genetics in Epidemic Grant-Writing* (*Note workshop description	ular Genetics But V ology e: Persons registeri	Were Afraid To Ask ing for this workshop should  No
(If yes, and you	do not qualify for a fee	waiver, you will be i	nvoiced for the cos	st of the workshop.)
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(must pre-register i	t <b>ion</b> — Registration incl	ludes lunch)		reaks, roundtable breakfast,
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*Proof of student s			\$125	\$
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Banquet – Do you	plan to attend the band	quet luncheon on Mo	nday, October 4?	☐ Yes ☐ No
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Special Services - ☐ Please check he		l accommodations to	fully participate. A	attach a written description.
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Authorized Card Ho	older <i>(Please print)</i> :			
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### Please Mail or Fax This Form With Payment To:

American College of Epidemiology 4101 Lake Boone Trail, Suite 201 Raleigh, NC 27607 Phone: 919-787-5181 Fax: 919-787-4916

#### **Questions?**

Please call us at 919-787-5181 or email us at info@acepidemiology.org

American College of Epidemiology

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