



American Thoracic Society

**METHODS IN EPIDEMIOLOGIC, CLINICAL &
OPERATIONS RESEARCH COURSE**

Level 4

**Global MECOR Course
Data Analysis and Scientific Writing**

October 10 to 14 2011

Brackenhurst Conference Centre, Nairobi, Kenya



ACKNOWLEDGMENTS

This course has been developed and implemented by
the American Thoracic Society (ATS)

This first global course is supported financially and in kind by:

The American Thoracic Society

The American Thoracic Society acknowledges and thanks:

Dr Bill Vollmer for developing the first *ATS MECOR* Global Course

Jane Ardrey and staff of PATS-MECOR for their invaluable support

GlaxoSmithKline for a travel scholarship

2011 ATS MECOR Program Staff

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COURSE SYLLABUS
TABLE OF CONTENTS

	Pages
Course Acknowledgements	1
Course Expectations/ Pre-requisites	3
Course Schedule	4 - 6
Course Faculty	7 +

**Global MECOR Course
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Brackenhurst Retreat Center
(near) Nairobi, Kenya
October 10-14, 2011**

Course expectations / pre-requisites

1. must have completed MECOR levels 1-3 or their equivalent;
2. must have completed data collection on a study conducted using a well-defined protocol and have analysis-ready data with at least basic descriptive statistics on all key variables;
3. must have access to statistical software loaded on their laptop and at least a basic familiarity with its use (e.g., data manipulation);
4. must commit to reviewing, prior to the course, a series of published articles (to be circulated by faculty) dealing with how to write a paper; and
5. must prepare a brief (3 minute) overview of their research question and study design to present to faculty and other participants on day 1.

Competencies

Participants will build on concepts learned in prior MECOR courses and apply them to the analysis of previously collected data and the preparation of a formal manuscript suitable for scientific journal submission. This course is designed for clinician researchers with good quality data from a well-designed study who need assistance either with data analysis or manuscript preparation or both. Participants are expected to work fairly autonomously under the mentorship of course faculty. However while faculty will advise on data analysis and will edit/critique manuscript drafts, participants will be expected to do most of their own analysis work and have primary responsibility for drafting their manuscripts.

Outcomes

At the conclusion of the week it is expected that students will have a complete first draft of their paper, and ideally a final draft that is ready for review and signoff by any co-authors. In addition, students are expected to prepare a powerpoint presentation summarizing their paper and to present this talk on the final day of the course.

Course format

Each day will consist of 1-2 optional morning lectures followed by independent time to work on papers with faculty assistance.

Day 1: Monday 10 October 2011

TIME	TOPIC	FACULTY
8:30 – 9:30 AM	PATS Welcome	Stephen Gordon and Sonia
9:30 – 9:45	Level 4 Welcome and Overview	Bill and Cecy
9:45 – 10:15	Introductions and Presentations of Paper Topics (3 minutes each)	Students *
10:15 – 10:45	Tea / Coffee Break	
10:45 – 11:45	Paper Writing – Introduction and Methods	Cecy
11:45 – 12:30 PM	Introduction to Statistical Modelling	Bill
12:30 – 1:30	Lunch	
1:30 – 3:30	Independent work	
3:30 – 4:00	Tea / Coffee Break	
4:00 – 5:00	Independent work	

* Students are expected to introduce themselves, state where they are from, give the working title of the paper they will be working on during the week, indicate the study design they used (e.g., case-control, cross-sectional survey, etc), and note where they are in terms of their paper (e.g., analyses are completed, have a working draft of the paper, etc). Also state their primary objective for the course. Please plan to take no more than three minutes, and please summarize this information in one or two powerpoint slides that you send to Sandy prior to coming to the course.

Day 2: Tuesday 11 October 2011

TIME	TOPIC	FACULTY
8:30 – 9:30 AM	Paper Writing - Results	Bill
9:30 – 10:45	Linear Regression	Cecy
10:45 – 11:15	Tea / Coffee Break	
11:15 – 12:00	Independent work	
12:00 – 1:30 PM	Lunch	
1:30 – 3:30	Independent work	
3:30 – 4:00	Tea / Coffee Break	
4:00 – 5:00	Independent work	

Day 3: Wednesday 12 October 2011

TIME	TOPIC	FACULTY
8:30 – 9:30 AM	Paper Writing – Discussion	Cecy
9:30 – 10:45	Logistic Regression	Bill
10:45 – 11:15	Tea / Coffee Break	
11:15 – 12:00	Independent work	
12:00 – 1:30 PM	Lunch	
1:30 – 3:30	Independent work	
3:30 – 4:00	Tea / Coffee Break	
4:00 – 5:00	Independent work	

Day 4: Thursday 13 October 2011

TIME	TOPIC	FACULTY
8:30 – 9:30 AM	Paper Writing – Title and Abstract	Bill
9:30 – 10:45	Survival Analysis	Cecy
10:45 – 11:15	Tea / Coffee Break	
11:15 -12:00	Independent work	
12:00 – 1:30 PM	Lunch	
1:30 – 3:30	Independent work	
3:30 – 4:00	Tea / Coffee Break	
4:00 – 5:00	Independent work	

Day 5: Friday 14 October 2011

TIME	TOPIC	FACULTY
8:30 – 9:30 AM	Dealing with Journal Editors	Bill and Cecy
9:30 – 10:30	Independent work	
10:30 – 11:00	Tea / Coffee Break	
11:00 – 12:00	Independent work	
12:00 – 1:30 PM	Lunch	
1:30 – 3:30	Student Presentations* (10 mins each)	
3:30 – 4:00	Tea /Coffee break	
4:00 – 5:00	GRADUATION and presentation of certificates	

* Student presentations will be done jointly with members of the other PATS-MECOR course, grouping presentations into roughly similar categories similar to a traditional professional meeting

LEVEL 4 - Course Faculty

A. Sonia Buist MD

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Dr. Sonia Buist is currently Professor Emerita of Medicine at the Oregon Health & Science University. Dr. Buist obtained her medical degree from St Andrews University in Scotland, did her residency at the University of Colorado School of Medicine in Denver, and completed fellowships in pulmonary medicine and pulmonary physiology at the University of Oregon Medical School. Dr. Buist has been a member of numerous federal and international advisory groups. She is a past member of the New England Journal of Medicine Editorial Board and is a current member of the editorial board of Thorax and the Clinical Respiratory Journal. She has held numerous positions in the American Thoracic Society and was President in 1990-91. Dr. Buist's research interests are primarily in the areas of asthma and COPD, with particular emphasis on the epidemiology and management of these diseases. She was the recipient of the ATS Trudeau Medal in 2010 for her lifetime contributions to education and research.

Dr. Buist, together with Dr. Jon Samet, started the ATS IRE Program in 1994. Since then, the program, now called the MECOR (Methods in Epidemiologic, Clinical & Operations Research) Program has been held annually in Latin America (Mexico, Chile, Brazil, Argentina, Peru, Uruguay and Ecuador). In 2007, the MECOR Program started in Africa, in conjunction with the Pan African Thoracic Society (PATS-MECOR). The MECOR Program started in Turkey in 2008 in conjunction with the Turkish Thoracic Society, in India in 2009 and in Vietnam in 2011.

Dr William Vollmer PhD

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William M. Vollmer, PhD, Course Director, is a biostatistician and Senior Investigator with the Kaiser Permanente Center for Health Research in Portland, Oregon, USA. Dr. Vollmer has been doing epidemiology and health services research related to asthma and COPD since 1982, and has been involved with the MECOR program since its inception in 1994. He has taught at every level of the MECOR curriculum.

Dr Cecilia M. Patino MD, M.ed, PhD

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Dr Cecilia Patino (Cecy) obtained her medical degree from the National University of Cordoba in Cordoba, Argentina where she also did her residency, completed her fellowship in Allergy and Clinical Immunology and a Masters in Education. Dr. Patino completed her PhD in Epidemiology at the University of Southern California where she is currently Assistant Professor of Preventive Medicine. She is also the Director of Education of the Los-Angeles Basin Clinical and Translational Institute. Dr. Patino's research interests are primarily in the areas of asthma, quality of life and quality of care.

Dr. Patino as been a part of MECOR Latin America since 1995. She has completed Levels 1, 2, 3, and 4; was the course organizer in 1998 in Buenos Aires, Argentina and has been faculty of Levels 1 and 2 since 1999.

Course staff:

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Fran Du Melle is Sr. Director, International Activities for the American Thoracic Society. Her specific area of expertise includes international public health policy. Ms. Du Melle leads the American Thoracic Society's international policy and partnership building efforts and has utilized this specialized expertise in the area of international treaties including stratospheric ozone protection (the Montreal Protocol) and tobacco control (the Framework Convention for Tobacco Control); and global partnerships including the WHO Stop TB Partnership, the USAID funded Tuberculosis Coalition for Technical Assistance and the WHO Global Alliance against Respiratory Disease. As the Sr. Director, International Activities, Ms. Du Melle also provides staff leadership for the Society's strategic planning goal on Advancing Global Lung Health including the *ATS MECOR Program* (Methods in Epidemiologic, Clinical and Operations Research).

Dr Sandra Mooney OBE FFOM

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Dr Mooney trained in medicine at Bristol University UK and spent her main career as a consultant in occupational medicine, specializing in aviation medicine. She worked for British Airways Health Services from 1977 and retired from the post of Director Health Services in 2004.

Dr Mooney has been involved with MECOR courses first as an observer and helper in Latin America and then as administrator for the first three MECOR-Africa courses 2006 – 2009. She has assisted with the administration of MECOR courses in India and Vietnam and has carried out a review of the *ATS MECOR Programme* on behalf of the American Thoracic Society. Her role is to assist with the administration of the course. She has written a guide for administrators on all aspects of the practical organization of MECOR courses.