



NEWSLETTER

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From the Program Director

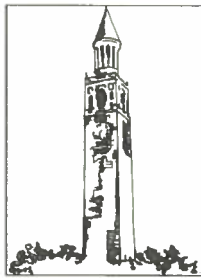
This newsletter is the first in a proposed series of regular communications which we hope will extend and foster a sense of community among our friends and colleagues who have trained in the Cardiovascular Disease Epidemiology Program at UNC. The program is nearing its 20th anniversary. First established as a formal curriculum in 1975, and currently funded through an NHLBI initiative, the program at UNC has remained consistent in its overall goal: to train active investigators and teachers with substantive knowledge and research skills in the area of cardiovascular disease epidemiology.

During the 20 years spanned by this program, research has proceeded from the elucidation of risk factors to the initiation of clinical trials testing the efficacy of risk factor modification, the development of national and international community intervention and demonstration programs, and the creation of ongoing surveillance systems. Advances in biologic sciences and in technologic development offering insights into the biomolecular mechanisms of cardiovascular disease have been rapid. Researchers in epidemiology today have access to novel measurement techniques which can be exported from laboratory to field, and which have placed the population-based study of pre-clinical disease within our reach.

We shall attempt, through the medium of these newsletters, to inform you of the changes and developments in our program at UNC. In turn, we hope that you will update us about the major events in your professional and personal lives; we will share this information with your colleagues, both current and past, from the CVD Training Program. In this first communication, we will focus primarily on the current activities in the Department. We hope to expand this focus in upcoming issues to

include information about your current activities, thoughts about our evolving field, and questions which we might address. To this end, we have included a short questionnaire intended to gather some preliminary information. This will help us to contact you in the future. Keep in touch!

Gerardo Heiss
Program Director

Trainees*Post-Doctoral Fellows*

As a pre-doctoral CVD trainee, **Duanping Liao, MD**, completed his Ph.D. in July 1994 with his successful defense of a dissertation entitled 'A Population Based Study of Heart Rate Variability'. As a post-doctoral trainee, he is continuing his work on heart rate variability and its relation to hypertension and incident CHD using the ARIC cohort data. He is also involved in a project to address the feasibility and repeatability of a computer algorithm in processing beat-to-beat heart rate data. **Mark Massing, MD**, began his post-doc after completing medical school at Duke University in August 1994. Mark is currently participating in several ongoing projects using ARIC data, and is assisting in the preparation of materials for the Chartbook on Socioeconomic Status and CVD Health and Disease. **Eric Whitsel, MD** is a graduate of the University of North Carolina School of Medicine and is currently working on an MPH as an NHLBI Fellow. Using data from the ARIC study, Eric is pursuing research interests in autonomic function, the QT interval of the ECG, and painless myocardial infarction.

During 1994, two post-doctoral CVD trainees left UNC to begin professional

careers as epidemiologists. **Pamela Schreiner, PhD**, completed her doctoral degree in public health in 1993 and remained in the Department of Epidemiology for another year to complete several manuscripts on the association of Lp(a) and cardiovascular disease. During the summer of 1993, Pam was a Visiting Scientist at the National Public Health Institute in Helsinki, Finland, working with the FINMONICA study. She accepted a position as Assistant Professor of Epidemiology at the University of Minnesota School of Public Health, and is currently principal investigator for the CARDIA Study in Minneapolis. **Sandra Thomas, MD, MPH**, joined the UNC CVD trainees during the fall of 1993. Her interests focused on the associations of smokeless tobacco and CHD and on the descriptive epidemiology of platelet counts, both in the ARIC study population. In the summer of 1994, Dr. Thomas became a member of the White House Advisory Council on Experimental Radiation Exposure. Another of our trainees, **Donna Arnett, PhD**, joined the faculty of the University of Minnesota School of Public Health in 1994. Donna completed her pre-doctoral traineeship in 1991, and was awarded a North Carolina Heart Association Postdoctoral Fellowship for the period 1992-94 to study the excess of cardiovascular disease in African-Americans. Now an Assistant Professor of Epidemiology, she is the co-principal investigator of the Family Heart Study at Minneapolis.

Pre-Doctoral Trainees

Chris Nardo, MPH, began his traineeship in 1992. A graduate of San Diego State University School of Public Health, he worked in the pharmaceutical industry for several years before beginning his CVD training at UNC. Chris's dissertation proposal on postural change in blood pressure has been accepted and he expects to complete his pre-doctoral training in 1995.

Since becoming a trainee, Chris has co-authored a manuscript, "Non-Insulin Dependent Diabetes Mellitus and Fasting Insulin Concentrations are Associated with Increased Arterial Stiffness: The ARIC Study", and has completed the draft of two more manuscripts. In addition, Chris has been an active participant in the Program's teaching and administrative functions, serving as a teaching assistant, member of several student organizations, and in a data management capacity for the ARIC projects. **JJ Nelson, MSPH**, returned to graduate school in the Department of Epidemiology's doctoral program in the fall of 1994. A graduate of the UNC SPH Department of Biostatistics, she is a statistician and the project manager for the Asymptomatic Carotid Atherosclerosis Study (ACAS) clinical trial at the Collaborative Studies Coordinating Center. JJ's dissertation will examine the association between aspirin consumption and lower extremity arterial disease. **Kelly Evenson** and **Miriam Morey** complete the current cadre of CVD trainees. **Kelly** has a BA in Mathematics and Physical Education from UNC-CH and an MS in Exercise Physiology from the University of Wisconsin. Prior to starting the Ph.D. program in epidemiology, she worked in cardiac rehabilitation, employee wellness, and corporate fitness. **Miriam** also has a Masters Degree in Exercise Physiology, from Kent State University. She is PI of a major intervention study comparing aerobic vs. axial/aerobic training as they affect function in the elderly. She is also consulting on a community-based exercise intervention program, 'Afrobics', which aims to improve cardiovascular fitness, psychological well-being and to reduce blood pressure and weight in older African Americans.



Faculty Profiles

Quite a few faculty and adjunct faculty in the departments of epidemiology, biostatistics and medicine at UNC and the Department of Public Health Sciences at Bowman Gray School of Medicine are involved with our CVD Training Program. They form a cohesive group of individuals who collaborate on multiple ongoing research projects and teaching activities. They provide expertise in the areas of epidemiology, genetics, clinical disease, ultrasound imaging of atherosclerosis and measurement of arterial compliance, statistical methodology, and study design. In this first Newsletter, we will profile faculty from the Department of Epidemiology at Chapel Hill; in future letters we will introduce more of our collaborators.

Dr. Gerardo Heiss, Professor of Epidemiology, is the current CVD Training Program director. In addition to his role as teacher and academic advisor, Dr. Heiss is the Principal Investigator of the Atherosclerosis Risk in Communities Study in Forsyth County, NC., and for the Family Heart Study, also in Forsyth County. These research programs are described below. He is a co-investigator of the Cardiovascular Health Study (CHS), an NHLBI-supported, multicenter study of cardiovascular disease in older adults, and is a senior epidemiologist at the Collaborative Studies Coordinating Center, an outgrowth of the Lipids Research Centers Coordinating Center, administered by the Department of Biostatistics of the UNC School of Public Health.

Dr. H.A Tyroler, Alumni Distinguished Professor of Epidemiology, serves as the co-director of the CVD Training Program, and as co-PI for the Evans County Mortality Study, the joint Evans County and Charleston 30 Year Mortality Follow-up Studies, and the Atherosclerosis Risk in Communities Study at UNC. He serves on the Planning Committee for an upcoming NHLBI-sponsored conference on Socio-economic Status and Cardiovascular Health and Disease, scheduled for October 1995. In 1993, Dr. Tyroler received the Distinguished Achievement Award of the American Heart Association.

Dr. Wayne Rosamond, Assistant Professor, joined the CVD Epidemiology faculty in 1992. Previously at the University of Minnesota School of Public Health, where he served as Project Director for the Acute Myocardial Infarction Registry of the Minnesota Heart Survey, Dr. Rosamond is an expert in the area of community surveillance of cardiovascular disease. In addition to his teaching and academic advisory activities, Dr. Rosamond is the Director of the Community Surveillance arm of the ARIC Project at the Collaborative Studies Coordinating Center.

Dr. June Stevens, Associate Professor, joined the UNC faculty in 1993 with a joint appointment in the Departments of Nutrition and Epidemiology. She brings to the CVD Training program her expertise in nutrition and coronary heart disease, an area of increasingly recognized importance. Prior to joining the UNC faculty, Dr. Stevens was associated with the Charleston Heart Study.



Introducing the Staff

Phyllis Johnson joined the CVD Epidemiology Program in the Fall of 1977 and is currently working as the Administrative Assistant to the Program. She continues to enjoy working with the CVD Trainees, and is looking forward to hearing from each of you. **Marilyn Knowles** joined the CVD epidemiology program in 1978, as Research Assistant to Dr. Tyroler. She has worked as a data manager and computer programmer on numerous projects over the years. Marilyn has also been interested in computer generated graphics design programs for generating teaching, slide and poster presentations. **Catherine Paton** has been with the CVD Epidemiology Program since 1989, and has played an active role in the ARIC and FHS studies. In December, 1994 Kay received her MSPH from the Department of Epidemiology.

Carmen Woody joined the CVD Epidemiology Program in 1984, as Secretary to Dr. Heiss. She continues to assist all CVD faculty, staff and students in their many research and teaching commitments.



Ongoing Research Projects

Atherosclerosis Risk in Communities (ARIC)

This major research effort is being conducted in four communities in the United States, and includes a cohort, as well as a community surveillance component. The purpose of the ARIC study is to investigate the etiology, progression and sequelae of atherosclerosis and its attendant risk factors, with a focus on pre-clinical disease, clinically manifest disease, medical care, and community trends. Of relevance to the CVD Training Grant, the North Carolina component of the ARIC Study includes a field center in Winston-Salem, the ARIC Ultrasound Reading Center, also in Winston-Salem, and the ARIC Coordinating Center in Chapel Hill. Dr. Heiss is the PI for both the ARIC field center and Ultrasound Reading Center and is supported in the study's research activities by the other CVD faculty, staff, students and trainees.

Family Heart Study

The NHLBI Family Heart Study (FHS) is designed to expand our knowledge of the familial determinants of CHD and related conditions in populations. Its primary goal is to identify genetic and non-genetic determinants of CHD, pre-clinical atherosclerosis, and CHD risk factors in African- and European Americans. Parent studies include the Forsyth and Minneapolis ARIC Study cohorts, the Utah Family Tree Study and the Framingham Offspring Study. The study is currently in its recruitment and examination phase.

Evans County and Charleston Collaborative Thirty Year Mortality Follow-up Studies.

These two prospective studies of cardiovascular disease, the Evans County Heart Study and the Charleston Heart Study, were initiated at approximately the same time in the early 1960's. Both are unique in their focus on examining differences in disease prevalence, incidence and potential risk factors between black and white participants. A thirty year vital status assessment has been completed, and a variety of studies are now underway, both to temporally extend earlier reports, and to test new hypothesis relating to the long term mortality profile of these communities.

Women's Pooling Project

This project will pool information from six epidemiologic studies in an attempt to elucidate the distribution and determinants of cardiovascular disease in women. Dr. H.A. Tyroler is a member of the Planning Committee. Both Evans County and Charleston Heart Study data are included in the pool. The investigators have submitted an abstract on body mass and mortality to the Annual Conference on CVD Epidemiology of the American Heart Association.

Women's Health Initiative

The University of North Carolina has been funded through contract with NIH as one of forty centers to carry out the largest study of CVD in women. Dr. David Sheps, Professor of Medicine and Adjunct Professor of Epidemiology is Principal Investigator for the North Carolina study, and Dr. Barbara Hulka, Professor and former Chair of the Department of Epidemiology is co PI. Dr. Tyroler is a member of the Advisory Board at UNC. The project is in the planning and recruitment phase.



Special Events

On September 22-23, 1994 the Department of Epidemiology, conducted an NHLBI-sponsored **Conference on Atherosclerosis Risk in African Americans**. The purpose of the Conference was to summarize and integrate available information on the burden of atherosclerosis and its clinical sequelae in African-Americans, to estimate the impact this has on the population's health and medical care needs, and to identify areas of needed research in this field. Investigators presented findings from the ARIC Study and a panel of distinguished investigators not involved with ARIC were invited to place this material in a broader context of work in the field. A summary of the conference is being prepared for publication.

Dr. Tyroler is a member of the Planning Committee for an important and timely NIH-sponsored **Conference on Socioeconomic Status and Cardiovascular Health and Disease**, to be held in the fall of 1995. In preparation for the Conference, the Planning Committee is preparing a Chartbook on CVD morbidity and mortality in relation to socioeconomic status to be available to conference participants. Under Dr. Tyroler's direction, county level cardiovascular mortality trends among black and white men and women over time, in relation to ecologic indices of social status are being prepared. These analyses make use of currently available US vital statistics and Census data file.

Dr. Teri A. Manolio, MD, MHS, Director of the Epidemiology and Biometry Program, DECA, visited with students and faculty of the UNC CVD Epidemiology Training Program on October 12, 1994. She described the role of EBP in administering CVD Epidemiology training programs, and discussed comments and ideas from participants on the future direction of these programs. Trainees enjoyed the opportunity of meeting the new EBP director and discussing with her career opportunities in CVD epidemiology.

Presentations and Publications

We are justifiably proud of the substantial participation of the CVD trainees in the public scientific arena. Critical peer review represents the principal mechanisms for the dissemination of scientific findings. Listed below is a representative sample of the recent presentations and publications of CVD trainees and faculty. We hope that you will provide us with information regarding publications, presentations and honors which you would like to share with other CVD Training Program trainees in future Newsletters.

Liao D, Barnes RW, Chambless LE, Simpson RJ, Sorlie P, Heiss G. Population-based study of heart rate variability and prevalent myocardial infarction: The ARIC Study. Poster presented at the American Heart Association's 67th Annual Scientific Session. Nov. 14-17, 1994, Dallas, Texas.

Nardo C, Coresh J, Eckfeldt J, Shahar E. Serum creatinine and atherosclerotic plaques of the carotid artery: The ARIC Study. Abstract presented at the 34th Annual AHA Cardiovascular Epidemiology/Biostatistics and Behavioral Medicine Trainee Session, Mar. 16, 1994, Tampa, Florida.

Thomas S, Tyroler HA, Wu K, Cooper L, Green M, Zhong M, Heiss G. Cigarette smoking, smokeless tobacco, and platelet levels in males. An abstract presented at the 34th Annual AHA Cardiovascular Epidemiology/Biostatistics and Behavioral Medicine Trainee Session, Mar. 16, 1994, Tampa, Florida.

Ephross S, Davis CE, White A, Hutchinson R, Patsch W, Tyroler HA. Menopausal status and lipid risk factors in black and white women: The Atherosclerosis Risk in Communities (ARIC) Study. *Am. J. Epidemiol* 138:591-592, 1993.

Liao D, Chambless LE, Brancati F, Crow R, Barnes RW, Tyroler HA, Heiss G. (Abstract) Vagal tone measured by heart rate variability is associated with serum insulin, glucose and diabetes: The ARIC Study. *Am J Epidemiol* 137:S7, 1994.

Schreiner PJ, Morrisett JD, Sharrett AR, Patsch W, Tyroler HA, Heiss G. Lipoprotein(a) as a risk factor for preclinical atherosclerosis: The ARIC Study. *Atherosclerosis and Thrombosis* 13:826-833, 1993.

Schreiner PJ, Chambless LE, Brown SA, Watson RL, Toole J, Heiss G. Lipoprotein[a] as a correlate of stroke and transient ischemic attack prevalence in a biracial cohort: The ARIC Study. *Ann. Epidemiol* 4:351-359, 1994.

Schreiner PJ, Crouse JR, Evans GW, Terry J, Hinson W, Heiss G. (Abstract) Gender differences in central fat patterning assessed by magnetic resonance imaging: The ARIC Study. *Am J Epidemiol* 139(11):S58, 1994.

Hames CG, Rose K, Knowles M, Davis CE, Tyroler HA. Black-white comparisons of 20-year coronary heart disease mortality in the Evans County Heart Study. *Cardiology*, 1993; 82:122-136.

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