

BiosRhythms

SCHOOL OF PUBLIC HEALTH

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Department of Biostatistics

Ibrahim Awarded New Training Grant

The Department is pleased to announce a new training grant in genomics and cancer from the National Cancer Institute called "Biostatistics for Research in Genomics and

Several members of the Carolina Center for Genome Sciences (CCGS) will play integral roles in all phases of this training program. Academic courses for the program will include all

those in theoretical and applied statistics which are the core of a doctoral degree program for a statistician working in the health sciences, plus relevant courses in genetics,

the front row of the photo (left to right), are Che-Chin Lie, Daniela Abramovitz and Emma Huang. The post-doctoral trainee is Jason Pirone, pictured to the left of Dr. Joseph Ibrahim.



Cancer." The program, which received its first funding in May 2004, is directed by Dr. Joseph Ibrahim. The five-year program is designed for predoctoral and postdoctoral students in statistical genomics with a major emphasis in cancer genomics. The goal is to train biostatisticians in the biology, etiology, and genetics of cancer, as well as to train them to conduct state-of-the-art biostatistical methodologic research relevant to the genomics of cancer and related areas of genomics. The program is also designed to produce biostatisticians who can collaborate with other scientific researchers and oncologists on research issues related to genomics and cancer.

biology, and epidemiology related to cancer research. Biostatistical training in research and consultation will focus on important areas such as computational biology and sequence analysis, DNA microarray analysis, statistical methods in human and quantitative genetics, statistical methods for high dimensional data, multivariate analysis, nonparametric methods, longitudinal data analysis, survival analysis, Bayesian methods, computationally intensive methods and missing data.

The training grant has five predoctoral and two postdoctoral trainee slots. Currently, three predoctoral and one postdoctoral slot have been filled. Ibrahim plans to fill the remaining openings within the coming year. The current predoctoral trainees, shown in

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Department of Biostatistics
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~ Editor ~
April Smyth
919-966-7250
email:asmith@bios.unc.edu

~ Editorial Board ~
Ed Davis, Lawrence Kupper,
Veronica Stallings, Evie McKee,
Betsy Seagroves, Frances Hess

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MESSAGE FROM THE CHAIR

As I write, the fall semester is coming to a close. Our students are studying for final exams, faculty members are preparing for grading the exams, and all of us are thinking of the holiday season and new year.

In August we welcomed 36 new graduate students to the Carolina Biostatistics family. It is a bright, diverse group of young people and we are pleased to have them as students. Eighteen of the new students are in our doctoral program (11 PhD, 8 DrPH), and seventeen are masters students (12 MS, 5 MPH). Twenty-three of the in-coming students are women and nineteen are international students from seven different countries. That this is a very bright group of young people is shown by the fact that their average GRE score was 1330 (780 quantitative) and their average undergraduate GPA was 3.5. We are pleased to be able to attract excellent students.

Three of our faculty members were promoted this year. Dr. Michael Schell was promoted to Research Professor and Drs. Jianwen Cai and Keith Muller were promoted to Professor. Michael is recognized for his outstanding contributions to cancer research through the Lineberger Comprehensive Cancer Center. Jianwen is a world renowned expert in multivariate survival analysis. Keith is recognized for his outstanding work in Medical imaging, clinical trial design and teaching. We are fortunate to have such outstanding faculty members and congratulate them on their promotions.

Dr. Michael Hudgens joined the faculty in March as a Research Assistant Professor. Michael received his PhD in Biostatistics from Emory University and previously worked for several years at the Fred Hutchinson Cancer Center in Seattle. His research is on statistical issues related to the

design and analysis of vaccine trials, particularly related to HIV/AIDS vaccines. In recognition of his work, he was awarded the Young Investigator Award from the Statistics in Epidemiology section of the American Statistical Association at the 2004 Joint Statistical Meetings in August. He will continue this work with the Center for AIDS Research at UNC.

We are also pleased to welcome Dr. Ethan Lange, as Research Assistant Professor. Ethan's primary appointment is in the Department of Genetics with a secondary appointment in Biostatistics. Ethan received his PhD in Biostatistics from the University of Michigan and was previously on the faculty at Wake Forest University. His research is in statistical genetics.

A third new member of our faculty is Dr. Jane Monaco, who joined us as a Clinical Assistant Professor in August. Jane is a graduate of our Department and will be primarily responsible for the on-line teaching of biostatistics for the School. This program has grown so that we now teach BIOS 110 through the web to about 120 students per year.

We are sorry to be losing two faculty members in the near future. Dr. Gail Tudor, Clinical Assistant Professor, will be joining the faculty of Husson College in Bangor, Maine and Dr. Heejung Bang, Research Assistant Professor, will be leaving us to join the faculty at the Cornell Medical School in New York City. We will miss both of them and wish them the best of luck in their new positions.

Our faculty members continue to be recognized with awards. As noted above, Michael Hudgens won an award at the JSM. In addition, Jianwen Cai was awarded the McGavran Award for Excellence in Teaching by the School of Public Health. Jianwen was



recognized for her excellence in classroom teaching and for her outstanding record in directing doctoral dissertations.

We are also pleased that Dr. Lisa LaVange (PhD, 1983) was named as a Fellow of the American Statistical Association at the JSM in August. Lisa was recognized "for outstanding contributions to research, application, and development of software for analyzing complex surveys and clinical trials; for statistical administration in the pharmaceutical industry and for service to the profession."

As you are probably aware, Bill Roper resigned as Dean of the School of Public Health and was named as the Dean of the School of Medicine and CEO of North Carolina Memorial Hospital. While we miss him as our Dean, it is nice to know that we have a good friend across the street at the Medical School. The search for a new dean is on-going and we expect that the Provost will select a dean early in 2005.

I hope that you have had a prosperous year and look forward to seeing you at the receptions at the statistical meetings in Austin and Minneapolis. Better yet, we hope you will drop in to see us, should you be in the Chapel Hill area.

With warmest regards,
Ed

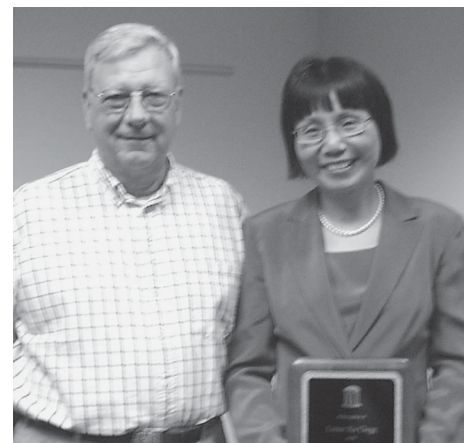
Limin (Lin) Clegg was selected to receive the James E. Grizzle Distinguished Alumnus Award this year. Dr. Clegg received her PhD from the Department in 1997 and is currently a Mathematical Statistician with the Cancer Statistics Branch of the National Cancer Institute (NCI). Clegg's research is aimed at improving and developing statistical methods for use in the analysis, presentation, and interpretation of population-based cancer data; she works with the Surveillance Research Program which oversees the NCI SEER (Surveillance, Epidemiology, and End Results) cancer registries and conducts and supports statistical research related to the cancer surveillance and cancer control missions of the NCI. Dr. Clegg has published extensively in both the statistical literature and in subject-matter literature that focus on cancer. She has served as a lead investigator and as project officer on large studies to develop international standards and consensus on methods

to accurately estimate cancer prevalence, which is important for designing cancer survivorship studies and for projecting medical care needs.

The James E. Grizzle Distinguished Alumnus Award was established to honor Dr. Grizzle, former Department Chair, for his outstanding contributions to biostatistical research and consulting. The award is presented to an alumnus (or alumna) of the University of North Carolina Department of Biostatistics in recognition of an outstanding record in the development of new statistical methodology and in the application of statistical methods to important public health problems. Evidence of an outstanding record is measured by the quality and quantity of peer-reviewed publications in both statistical and subject-matter journals. The intent of the award is to recognize and encourage rising stars in the field of Biostatistics. Previous winners of this award have been employed in

academia, government and private industry.

In honor of this award, Dr. Clegg presented the Biostatistics 2004 Foard Day Lecture titled, "Cancer prevalence calculation: A SEER (Surveillance, Epidemiology, and End Result) perspective." The 2005 Foard Day Lecture details have not been announced in full, but the lecture is scheduled for April 14.



Jim Grizzle with awardee, Lin Clegg.

Alumni awarded honors

Alumni and faculty member **Kant Bangdiwala** (PhD '80) was awarded the title "Visiting Professor" by the Faculty of Medicine of the Universidad de Valparaiso, Chile. This honorary title was awarded for his contribution to research methodology training of the faculty and students at the University. Also recognized with a similar award was **Sergio Munoz** (PhD '95). Bangdiwala was also an invited editor along with Drs. Laura Sadowski and Joanne Klevens for a special issue of the international journal *Injury Control & Safety Promotion*. This issue presents the major findings of intimate partner

violence distributions and risk factors from the World Studies of Abuse in Family Environment (WorldSAFE). Bangdiwala was also invited by the NIH to serve on a panel at the State-of-the-Science Conference entitled "Preventing Violence and Related Health-Risking Social Behaviors in Adolescents," held in October. Finally, Bangdiwala also participated as faculty in the *International Course on Transportation Planning & Safety*.

Update: New Vanderbilt Department

The Department of Biostatistics in the School of Medicine, under the leadership of alumnus **Frank Harrell** (PhD'79), is now one year old and has been growing rapidly. It now has 16 PhD faculty members. The department is exceedingly proud that one of the newest faculty members is **Lily Wang**, a 2004 BIOS PhD recipient. Lily's dissertation advisor, PK Sen, was the same advisor as Frank's and both biostatisticians are thankful for the opportunity to get their training at UNC SPH and to study under Dr Sen.

ALUMNI NEWS

David Hardison (PhD '81) joined the Science Applications International Corporation as corporate vice president responsible for business development within the Life Science's office.

Kryn Krautheim (MPH '00) began a new position at the National Center for Health Statistics in Research Triangle Park as a Survey Statistician in the Division of Vital Statistics.

Diane Gehan Carpenter (MS '93) moved to Zurich, Switzerland with her family in August, and is continuing to work part-time at Quintiles.

Xiaoping Yang (MS '00) has been a contract statistician for Novartis in Basel, Switzerland since February 2004.

Pamela Landsman-Blumberg (MPH '92) was married to David C. Blumberg in April 2003. This past year she received a DrPH in Health Policy from University of Michigan at Ann Arbor.

Beth Skalicky (MPH '03), who is currently a research analyst at the Highway Loss Data Institute, was married on August 14.

Michael Matthews (MSPH '77), has been named Principal Investigator for the Rural Virginia e-Health Initiative (RVEC). RVEC is funded by the Agency for Healthcare Research and Quality, through their Transforming Healthcare Quality Through Information Technology initiative.

Tonya (Sharp) King (PhD '99) and her husband Brian King are the proud parents of Caroline Elizabeth King, born February 12th, 2004, at more than 9 lbs and almost 22 inches long. Tonya is hoping a UNC basketball scholarship is in Caroline's future!



Lisa LaVange (PhD '83), has been elected as a 2004 American Statistical Association Fellow. LaVange was elected "For outstanding contributions to research, application, and development of statistical methods and software for analyzing complex survey and clinical trials." LaVange is Vice President of Biostatistics and Data Management at Inspire Pharmaceuticals, Inc.

Lisa Lavange (center) and family at the 2004 Joint Statistical Meeting in Toronto.

Chris Coffey (PhD '99) was recognized with the President's Excellence in Teaching Award by the University of Alabama at Birmingham's School of Public Health. Chris was also promoted this year to the rank of Associate Professor with tenure in the Department of Biostatistics. Also, Chris is proud to announce the birth of his second son, Barrett Travis, born on March 18.

Ji-Hyun Lee (DrPH '03) started a new position as Assistant Professor at the University of South Florida in September.

Barb Prillaman (MS '95), while in pursuit of a MA in Liberal Studies at Duke, has been promoted to Manager of Statistics at GlaxoSmithKline, and published two articles: "Classical Canon Fodder: Peter Schickele and the Role of Humor in 'Serious' Music" published in the Duke University journal *Transformations* and "St. Pierre the Enigma: The Puzzling Fall of the Beauvais Cathedral Vaults" accepted for publication in the *Journal of Graduate Liberal Studies*.

Kelly Forsythe Chelnik (MPH '03) was married in June of 2003 and is currently working as a biostatistician for Thomas Jefferson University in Philadelphia in the Division of Behavioral Epidemiology doing cancer prevention research.

Steve Wisseh (DrPH '00) is writing a new book, *You Can Do More with Biostatistics: The Minority Student's Guide to Careers and College Programs in Biostatistics*, in an effort to create awareness of biostatistics among US minorities.

Elston, 2004 Greenberg Speaker

Robert Elston, Professor and Director, Division of Genetic and Molecular Epidemiology, Department of Epidemiology and Biostatistics at Case Western Reserve University, presented the 2004 Bernard G. Greenberg Lecture Series last May. For the lecture series, Elston choose four topics: Biometrical Genetics: Past, Present and Future; The Study of Candidate Genes in Drug Trials: Sample Size Considerations; Epidemiology after the Genome Project; and The Analysis of Case-Control Data to Detect Candidate Genes.

Elston describes his professional interest as “the development of statistical measures for analyzing family and pedigree data for the identification of genes that cause disease, implementing them in computer programs, and applying them in collaborative research with others who collect family data.” Elston received his PhD in 1959 from Cornell University, and received his MA from Cambridge University. He has been elected a Fellow of the American Statistical Association and Fellow of the Institute of Mathematical Statistics, as well as a recipient of many genetics and epidemiological awards over the years. Elston began his academic career at UNC-CH as Research Assistant Professor in 1960, and later returned as Professor in 1969 to work in the department for 10 years. In fact, he was the Director of Graduate Studies for the Department for a number of years.

Pictured is Robert Elston (left) receiving award from Ed Davis.



From the Registrar:

2004 has drawn to a close and a new year is stretched out before us! I enjoy getting the alumni news; it is one of my favorite things. I get to walk around the department and say, “Hey, let me tell you what our alumni are doing” or “I got an email from an alum today.” You all keep me in the “know” so to speak and I certainly pass along the information. Thank you for letting us know your successes and triumphs. A few dates for you to put on your social calendars:

ENAR: Austin, TX, March 20-23, 2005. For meeting details, please visit www.enar.org/meetings
The UNC-Biostatistics reception will be held on March 21, 5:30 to 7:00 pm at the Hilton, Austin.

ASA: Minneapolis, MN, August 7-11, 2005. Visit www.amstat.org for meeting details.
Reception details are still in the planning stages. Keep up with current events by visiting our website, www.sph.unc.edu/bios.

Foard Lecture: April 14, 2005. The details of the 2005 Foard Lecture are not final. Check our website for reception and speaker details.

We hope to see each of you at these events. You will hear from me periodically through the year with updates about events and meetings. Please keep the emails coming. We wish you all well in 2005!

Warmest regards,
Melissa

DEPARTMENT GRANTS

Atherosclerosis, Plaque and CVD in Communities

The National Heart, Lung, and Blood Institute of the National Institutes of Health (NIH) is sponsoring a new project “Atherosclerosis, Plaque and CVD in Communities,” or ARIC Carotid Artery MRI, an ancillary study for the Atherosclerosis Risk in Communities (ARIC) Study.



This project will identify novel cellular, metabolic and genomic correlates of plaque and early pathologic changes in the arterial wall and determine their consequences for coronary heart disease and stroke using the ARIC Study biracial cohort, which has completed four examinations from 1987-1998 and continues to

collect follow up data on incident coronary heart disease and stroke.

This ancillary study will include a brief re-examination of a subset of the original ARIC cohort, 1200 participants with high values of carotid artery wall thickness and a random sample of 800 of those without high thickness with even numbers of participants from each of the four field centers. The exam will include an MRI of the carotid artery, biologic specimen collection, information on risk factors, and data on new arteriolosclerosis as measured by retinal photography. The added retinal component will extend study hypotheses to the microvasculature, with support through the National Eye Institute, NIH.

The Collaborative Studies Coordinating Center (CSCC) in the Department of Biostatistics, School of Public Health, University of North Carolina at Chapel Hill is the coordinating center for the ARIC study, and serves as the coordinating center for the ARIC Carotid MRI study. Eric Boerwinkle, University of Houston, is the overall project principal investigator. The principal investigator for the coordinating center for the carotid artery MRI study will be Lloyd Chambless, Ph.D., who is also principal investigator for the ARIC Coordinating Center. Other Biostatistics faculty members participating in the new study are Diane Catellier, DrPH, and Fred Wright, PhD. The project is effective September 15, 2004 through June 30, 2008, and project total direct costs for the Collaborative Studies Coordinating Center at the University of North Carolina at Chapel Hill, are \$2,236,475.

Assistant Professor **Amy Herring** has received a grant from the U.S. Environmental Protection Agency for environmental statistics research. The 3-year, \$389,248 award is for development of Bayesian statistical methods that can be used to characterize complex multivariate exposures. Along with co-investigator David Savitz in the Department of Epidemiology, Herring will develop methods to examine the association between tap water disinfection by-products and pregnancy loss in a cohort of women in three U.S. cities. This is a second grant awarded to Herring this year; she has also received \$142,320 from the National Institute of Child Health and Human Development for a research project titled “Modeling Complex Exposures and Reproductive Outcomes.”

Fei Zou, Assistant Professor in the Department, is principal investigator for a new grant funded by the National Institute of Mental Health. Zou has been awarded \$143,881 through 2006 for this research project, “Statistical Analysis of RIX for Complex Traits.” With the recent resurgence of an emphasis on complex traits, new approaches and experimental crosses are being developed. Genes modulating the complexities of brain biology and behavioral, as well as gene-environment interactions, have been particularly difficult to identify. Recombinant inbred intercrosses (RIX) is a new experimental design for complex trait mapping with advantages over standard designs. Through this research, Zou is developing and testing statistical methods appropriate for analysis of RIX data, based on suitable adaptation of standard and most commonly used QTL mapping methodology.

In a separate award, Zou was the recipient of a 2004 Junior Faculty Award from the University of North Carolina in the amount of \$5,000.

Danyu Lin, Dennis Gillings Distinguished Professor in the Department, has been awarded a competing grant renewal for his previous work on the research project, “Statistical Methods in Current Cancer Research.” The award for \$823,782 from the National Cancer Institute funds Dr. Lin’s work through March 2008. Departmental faculty Donglin Zeng and Fei Zou serve as co-investigators. The broad, long-term objectives of this research are the developments of statistical methods for the analysis of censored failure times and incomplete repeated measures from longitudinal cancer studies. Software implementing the new methodologies will be developed for public use. This research will not only advance the fields of longitudinal data analysis, survival analysis and statistical genetics, but also will provide valuable new tools to cancer researchers.

Other Research Awards

Lloyd Chambless, “The Relation of Plasma Phytosterols to Incident CHD in Middle Aged Men and Women,” Integrated Therapeutics Group, Schering-Plough, 2/15/04-2/28/05, \$57,376

Michael Hudgens, “Statistical Methods in HIV Vaccine Efficacy Trials,” NIAID through Fred Hutchinson Cancer Research Center, 3/1/04-3/31/06, \$86,291

Joseph Ibrahim, “Statistical Methods for Characterizing Cardiotoxicity in AIDS,” CFAR Development Award, National Institute of Allergies & Infectious Diseases, 7/1/04-6/30/05, \$20,000

William Kalsbeek, “Proposal for Second Round of National Telephone Survey on Sun Exposure and Skin Protection,” American Cancer Society, Inc., 7/31/04-12/31/04, \$260,798

Danyu Lin, “Statistical Issues in AIDS Research” Competing Renewal, National Institute of Allergy & Infectious Diseases through University of Washington-Seattle, 5/1/04-4/30/09, \$317,299

Technology is Not Always the Right Answer

The Survey Research Unit (SRU), in efforts to gear up for a large national study on women’s health issues, conducted an experiment to test two modes of data collection. The standard mode the SRU uses for many of its surveys is computer-assisted telephone interviewing or CATI. Here an interviewer conducts a survey over the telephone with the assistance of a computer program to ensure that appropriate skip patterns are adhered to as well as minimizing the risk of data entry error. A newer mode, telephone audio computer assisted self-interviewing or T-ACASI, has been touted as the mode of choice when conducting sensitive surveys (e.g., illegal or sexual behaviors). In T-ACASI, the respondent replies to pre-recorded questions via the keys on the telephone. The idea is that respondents will be more truthful in their replies to sensitive questions because the role of the interviewer has been removed. Consequently, there is less embarrassment or pressure to respond in socially desirable ways.



These two modes of data collection were piloted to determine if sensitive items from a proprietary sexual dysfunction scale would be best administered by a live telephone interviewer (CATI) or by an automated self-administration telephone mode (T-ACASI.). Respondents were identified from a probability sample of households with telephone line access in the continental USA. To be eligible to participate, a woman had to be between the ages of 20 and 70 and in a stable relationship that had lasted for at least the past three months. They also needed a touchtone phone in order to participate. All respondents were administered non-sensitive questions in CATI (e.g., demographics, past medical health, reproductive and general health). One-hundred-and-seven respondents were randomly administered the sexuality items via T-ACASI while the remainder simply stayed online and completed these items in CATI. The results showed no mode differences. T-ACASI did not produce more “truthful” responses or uncover greater amounts of sexual dysfunction. Furthermore, correlations between scaled sexual scores and an overall index item, suggest that more variance was explained by the CATI mode, suggesting that the quality of data was better in that mode. Measures of reliability were also higher in the CATI mode.

The findings were surprising because the survey literature has suggested that the collection of sensitive information is enhanced when anonymity and interviewer-respondent distance are both increased. Instead, the women in our sample replied just as candidly to our interviewers as they did in the automated condition. Furthermore, measurement error was reduced in the live condition. Consequently, the national project is currently underway with “live” interviewers.

These findings were presented at the 20th International Conference on Pharmacoepidemiology and Therapeutic Risk Management Annual Meeting, Bordeaux, France.



Dr. Michael Hudgens, new Research Assistant Professor in the Department, was awarded the Young Investigator Award from the Statistics in Epidemiology section at the 2004 Joint Statistical Meetings (JSM) in Toronto last August, in honor of his paper entitled “Causal Vaccine Effects on Binary Post-infection Outcomes.” Papers were judged on the overall quality of the work and statistical methodologic value, innovation and creativity, substantive impact of the method and relevance to the discipline of epidemiology.

Dr. Hudgens joined our faculty on March 4, having previously served as Staff Scientist at the Fred Hutchinson Cancer Research Center and Visiting Scholar at the University of Washington. Dr. Hudgens earned his PhD in 2000 from Emory University, where he wrote his dissertation on “HIV, Interval Censoring and Competing Risks,” working with Ira Longini and Glen Satten. Dr. Hudgens is conducting both methodological and collaborative research in the general area of infectious diseases and vaccine studies.



Dr. Ethan Lange began his Biostatistics appointment as Research Assistant Professor on December 1. He holds a joint appointment with the Department of Genetics as an Assistant Professor. Dr. Lange received a BS in applied mathematics and a MA in mathematics from UCLA and subsequently a MS and PhD in biostatistics from the University of Michigan. He was recently an assistant professor in the Department of Public Health Sciences, Section on Biostatistics, at the Wake Forest School of Medicine. His primary area of research interest is statistical genetics.



A third new member of our faculty is **Dr. Jane Monaco**, who joined the Department as a Clinical Assistant Professor in August and will primarily be responsible for the on-line teaching of biostatistics for the School. Monaco is a graduate of our Department, earning her DrPH in biostatistics under the direction of Professors Jianwen Cai and James Grizzle. Prior to her dissertation work, she also earned an MS from our department, and a MS in mathematics, also from Carolina. Before joining our faculty, she taught mathematics and statistics at NCSU, UNC-CH and Meredith College. Other work experience includes several years at the Bowman Gray School of Medicine and the American Cancer Society in Atlanta.

New Staff

Betsy Carretta, Social Research Assistant I
Jung Sun Lee, Research Investigator
Karen Lovejoy, Office Assistant IV
Terry Mehlman, Application Analyst Programmer I
Jeff Oberhaus, Social Research Assistant I
Jingjing Wu, Application Analyst Programmer I

Faculty & Staff Promotions

Betsy Carretta, Social Research Assistant II
Lisa Gravens-Mueller, Biostatistician/Supervisor
Jianwen Cai, Professor
Keith Muller, Professor
Michael Schell, Research Professor

Cai, Winner of the McGavran Teaching Award

Congratulations to Jianwen Cai, Professor of Biostatistics, on two accounts. First, she won the 2004 McGavran Award for Excellence in Teaching, presented May 9th at the School of Public Health graduation ceremony at the Smith Center. This school-wide award is given annually to a faculty member in the School of Public Health for outstanding service in teaching, including activities beyond the classroom as well as academic courses. Jianwen has taught the introductory survival analysis course. She has supervised the research efforts of over 25 masters, doctoral, and postdoctoral students in the Department. Two of the doctoral students have been awarded the Bernard G. Greenberg Award presented by the School of Public Health and four won the Department's Barry H. Margolin Award; both awards recognize outstanding doctoral dissertations. Jianwen has also mentored students and postdoctoral fellows through three NIH funded grants on which she is the principal investigator. Professor Cai was also recognized this year when she was promoted from Associate Professor to Full Professor. She is the first female Full Professor in our department since the retirement of Regina Elandt-Johnson and Elizabeth Coulter.



Farewell to Gail Tudor

Gail Tudor left Carolina at the end of 2004. She has been a faculty member in the department for the last 6 years. While with our department, she developed and taught Bios 110 as an online course, taught Bios 162 and 163, and created a statistics course for medical students pursuing a MPH degree. Through her role as Assistant Director of the Biostatistics Consulting Laboratory, Gail leaves behind many wonderful clients and projects. Gail will start her new job as an associate professor at Husson College in Bangor, Maine in January. She will be teaching biostatistics and epidemiology to undergraduates and graduates, as well as encouraging more faculty research through her role as senior research analyst. Gail and her family look forward to the snow and the clean lakes in Maine!

We wish Gail the very best in her new adventure; she will be missed.

Truong Appointed New Role at SAMSI

Professor Young Truong has been appointed Associate Director of the Statistical and Applied Mathematical Sciences Institute (SAMSI). SAMSI is a Research Triangle institute partnering local universities and talent with national institutes and foundations in an effort to advance the most difficult and important data- and model-driven scientific challenges.

Kupper, University Service

Professor Lawrence Kupper participated in multiple service duties this year, in addition to his regular teaching, research and administrative responsibilities. Serving the university, he was elected to represent the School of Public Health as a member of the UNC Appointments, Promotions, and Tenure (APT) Committee for a 3-year term starting in July of 2004. The UNC APT Committee is responsible for evaluating all appointment, promotion, and tenure recommendations for the entire UNC campus, and reports directly to the Provost. Additionally during 2004, Kupper served as a member of the Search Committee for the new Dean of the School of Public Health. Externally, Kupper served as a consultant to the University of Florida on its future research and training plans in biostatistics and public health.

Couper, Marathon Runner

David Couper, Research Assistant Professor at the Department's Collaborative Studies Coordinating Center, participated in the Fourth annual 10K *Familias del Pueblo Road Race* held in Carrboro on October 2. Couper, a seasoned runner, won the Masters Male Division with a time of 37:33! Proceeds from *Familias del Pueblo Road Race* benefit El Centro Latino, a non-profit advocacy group in Carrboro.

Mourning a Loss

Dr. Elizabeth Coulter, Professor of Biostatistics for 24 years until her retirement from UNC-Chapel Hill in 1989, died on September 25, 2004. During much of her tenure, she also served as Director of Graduate Admissions for the Department.

Dr. Coulter is remembered as a delightful colleague and as a strong advocate for graduate students in Biostatistics. In her memory, her family has established a fund to be used for undergraduate recruitment. Please contact the School of Public Health External Affairs for more information regarding the fund.

Visiting Scholars from Russia

In early 2004, the Department was pleased to host Dr. Sergey Malov, a visiting scholar from St. Petersburg State University in Russia, and Dr. Viktoria Doudina, Visiting Professor in the Department of Health Behavior and Health Education. Both were part of a team working to establish an applied and interdisciplinary MPH program in what would be Russia's first school of public health. Additional St. Petersburg State University faculty are visiting other schools in the US and Europe to gain exposure to programs in epidemiology, biostatistics, health administration, social and behavioral science, and environmental science. While visiting, Dr. Malov was able to observe Biostatistics classes and meet with faculty.



Scott Zentz displays his certificate presented to him by our Chair, Ed Davis.

The 2004 Annual Staff Award for Excellence was awarded to Scott Zentz, Computer Systems Administrator I for the Department. Scott received a plaque and a check for \$150 at the Staff Appreciation luncheon on May 4. Scott started in the department as a temporary employee in May 2001 and was hired as a permanent employee within a year. He was nominated for his “untiring efforts in meeting the demands of computer requests made by faculty, staff, students and others.” Scott received many glowing nominations, and everyone agrees he is an invaluable asset to the department. Scott is very knowledgeable and helpful handling the department’s computer matters, but also he goes beyond the required duties of his position. One nominator wrote, “Scott is always willing to help with any computer problem, is punctual, knowledgeable, and does everything with kindness and compassion.” He handles multiple requests and questions (sometimes a barrage), not only with great skill and timeliness, but with a smile.

Bios Births!

New baby Ashley was born to statistical computing programmer Kwanhye Jung and his wife, Jun Bok Park, on April 2.

Tomas Antonio Rojas was born July 12, to Bios post-doc Flavio Rojas and his wife Ingrid. Tomas is the grandson Dr. Dana Quade, Professor Emeritus of Biostatistics.

The Preisser twins, Hannah Marie and John Carmichael, were born to faculty member John Preisser and his wife, Lisa Carmichael, in July.

Jinhong You, departmental post-doc, has a new baby boy, born November 3 weighing over 10 pounds!

Chris Baggett, Graduate Research Assistant at CSCC, is now father to Sophie Elizabeth Baggett born November 17.

Service Appreciation

5 Years

Marvin Black
Anastasia Ivanova
John Preisser
Leslie Southerland

15 Years

Veronica Stallings

20 Years

Marston Youngblood

30 Years

Mary Everette

Star Heel Awards

This awards program, sponsored by TIAA-CREF, allows departments to award a \$20 gift certificate to a deserving employee. Congratulations and thanks to the 2004 winners listed below:

Robert Agans
Sia Gilbert
Melissa Hobgood
Anna Hoffmeyer
Terri Lewis
Jesse Metzger
Laureen Pierre
April Smyth
Veronica Stallings
Margaret Tapp
Climmon Walker

Seagroves Retires, 30 Years of Service

Betsy Seagroves, Administrative Assistant in the Department of Biostatistics, officially retired December 31, 2004; however, Betsy continues to work part time in the Department as Assistant to the Chair and Associate Chair. Upon her retirement, Betsy had 30 years of state service. She began her career in January 1974 at the Institute for Environmental Studies which was moved to the Department of Epidemiology in 1980. She worked there 18 years before coming to Biostatistics in 1998. In Epidemiology she worked for Dr. Carl Shy, Director of the Environmental Epidemiology Program and Chair of the Department, and from 1986-1999 she was the Administrator for the School of Public Health IRB. Betsy continues to assist Ed and the Department with faculty recruitments and promotions, grant proposals, and a long list of duties which arise on a daily basis. We wish to congratulate Betsy on her retirement and thank her for her continued excellent service to the Department.



Betsy reads the large card signed by the whole department in appreciation for her service.

Four New Department Post-docs

This year the department was able to hire four post-docs with various backgrounds and skill sets.

Dr. Jiancheng Jian started work in our department in March 2004. Jian is working with Professor Jianwen Cai on the research project “Nonparametric Modeling for Multivariate Survival Data.” Before coming to Carolina Jian worked at Peking University, Beijing; his research interests include nonparametric smoothing, statistics in finance, hypothesis testing, regression diagnostics, survival data analysis and time series.

Dr. Hanwen Huang received his PhD degree in the Physics Department of Peking University in 1995. Before he moved to UNC-CH, he was a research associate at the University of Colorado at Boulder. Hanwen is proficient in complicated analytic and numerical calculations and can fluently use C, C++, Fortran, Perl and other computing languages. In the next one and half years, he will work with Fei Zou on research in Bioinformatics.

Dr. Jason Pirone started a two year post-doctoral fellowship on August 20. He is being supported by the Cancer and Genomics Training Grant. Pirone received his PhD in August, 2004 from the Department of Statistics/Biomathematics (with a co-major in Environmental and Molecular Toxicology) from North Carolina State University. The title of his thesis was “Stochastic Modeling of Transcription Factor Binding Fluctuations.” He worked under the direction of Dr. Timothy Elston on his PhD dissertation. As a post-doc, Jason works with Joe Ibrahim on genomics projects joint with David Threadgill, and he also works on projects with Fred Wright and Mayetri Gupta, joint with Jason Lieb.

Dr. Kuo-Ping Li is a Post-doctoral Fellow supported by the NIH training grant, “Research Training in Population Statistics,” starting August 20. He received his PhD in physics from Carolina in 1999 and worked as a senior IT Analyst and Scientific Application programmer with the U. S. Environmental Agency. His previous research includes extreme value statistical analysis of properties of disordered electronic systems. Dr. Li works with Dr. Suchindran on modeling demographic processes with special attention to spatial demography. Dr. Li’s office is at the Carolina Population Center.

Outstanding Dissertation Award



Lan Kong was this year's recipient of the Barry H. Margolin Award for the Outstanding Doctoral Dissertation in the UNC Department of Biostatistics. Kong's PhD dissertation research, entitled "Analysis of Failure Time Data From Case-Cohort Studies with Semiparametric Transformation Models," was directed by Dr. Jianwen Cai and Dr. Pranab Sen. Kong received her PhD in May 2003.

Her dissertation research concerned the methodology for analyzing failure time data from case-cohort designs and focused on inference for the semiparametric transformation models for failure time data from case-cohort studies. In her dissertation, Kong developed innovative statistical inference procedures for fitting semiparametric transformation models to data from a case-cohort study based on an estimating equations approach. Her proposed methods were applied to a data set from a case-cohort study in the Atherosclerosis Risk in Communities study.

One manuscript based on her dissertation will appear in the June 2004 issue of *Biometrika*, and a second manuscript that includes detailed theoretical proofs has been submitted to *Annals of Statistics*. There are many directions to her dissertation work that she plans to investigate with future research. Kong is now a tenure track assistant professor in the University of Pittsburgh's Department of Biostatistics.

Best Master's Paper Award

Neepa Ray was selected to receive the Departmental Award for Best Master's Paper. Ms. Ray's master's paper topic was "Physical and Sexual Assault Among Women with Disabilities." Her work examined whether North Carolina women with disabilities are at increased risk of experiencing physical and sexual assault compared to North Carolina women without disabilities. Her work was jointly supervised by Professors Lawrence Kupper (Biostatistics) and Sandra Martin (Maternal and Child Health). A manuscript based on this work has been accepted for publication in the *Violence Against Women*. Ray received her MS degree in August 2003 and is currently employed as a biostatistician with RhoWorld, Inc.

Publication Award

Brain Neelon, a current PhD student, received the Kupper Dissertation Publication Award. Neelon's dissertation research was supervised by Dr. David Dunson, a Senior Investigator with the Biostatistics Branch at the National Institute of Environmental Health Sciences. The award-winning article was published in the June issue of *Biometrics* and is entitled "Bayesian Inference on Order-Constrained Parameters in Generalized Linear Models." Incorporating non-decreasing constraints on a regression function can result in enormous increases in power and efficiency, and so the methods described in this paper will have an important impact on the analysis of epidemiologic and toxicologic data. The Kupper Dissertation Publication Award is given annually to recognize an outstanding doctoral student and his or her dissertation advisor for the best doctoral dissertation-based paper appearing in a prestigious biostatistical journal; Drs. Neelon and Dunson are the first recipients of this award.



Shankar Viswanathan was awarded UNC Injury Prevention Research Center's Student Small Grant award for conducting the study entitled, "Epidemiology of Cleistanthus Collinus Poisoning Patients— A Case Series." *Cleistanthus collinus* (local name: oduvan) poisoning is a common suicidal poisoning method in southern India. This study aims to describe the profile of oduvan poisoning cases and determine the role and mechanism of hypokalemia and hyponatremia in these cases. In addition, the study will examine the risk factors for mortality. Viswanathan is a third year DrPH student in the department. His advisor is Dr. Shrikant Bangdiwala.

Guoqing Diao, Biostatistics PhD student, won an International Biometric Society's Eastern North American Region (ENAR) Student Award. This travel award covered \$500 of expenses for his travel to the 2004 ENAR Spring Meeting in Pittsburgh, Pennsylvania to present his paper, "Mapping Quantitative Trait Loci with Censored Observations." Diao's advisor is Dr. Danyu Lin.

Se Hee Kim won the Greenberg Scholarship, an award offered to outstanding applicants by the Department of Biostatistics as a supplement to a traineeship or graduate research assistantship. This scholarship includes an award of \$2,500 per year. It is named for B. G. Greenberg, founder and former chair of the Department of Biostatistics, and is made possible by generous contributions by the Greenberg family and friends.

The following students' abstracts were accepted at ENAR:

Muni Begum, Qingxia Chen, Guoqing Diao, Matt Gurka, Inkyung Jung, Andrew Sterrett.



Award winners (left to right) Arpita Ghosh, Tsui-Shan "Eva" Lu, Xiaoyan "Amy" Shi, and Li Chen

Arpita Ghosh received the David and Lucy Hardison Scholarship, offered to an outstanding applicant to encourage studies in bioinformatics in the department. This award provides a supplemental award of \$1,000 and is made possible by the gifts of the Hardison family.

Li Chen received this year's Fryer Award, given by the Department of Biostatistics. The Fryer Award carries a \$2,000 award. This award is made possible by contributions of John and Diane Fryer.

Xiaoyan (Amy) Shi received the GlaxoSmithKline Scholarship, which, made possible by a GlaxoSmithKline donation, awards \$1,000 to an applicant chosen by the department.

Tsui-Shan (Eva) Lu has been awarded the Mohberg Award, a supplemental award of \$1,000 for one year. This award is offered to an outstanding applicant to the Department of Biostatistics. This award is made possible by gifts to the Public Health Foundation by the family of Noel Mohberg.

New Student Statistics

Thirty-six new students registered in Biostatistics programs this fall, approximately half of whom are doctoral students (11 PhD, 8 DrPh) and half who are in the master's programs (12 MS and 5 MPH). Twenty-three members of the entering class are female, and nineteen are international students who came from China, Korea, India, Taiwan, Japan, Kenya and Lithuania. The incoming students have diverse backgrounds, with eighteen majoring in mathematics or statistics, ten in biological sciences and eight in social sciences.

Delta Omega Awards

Delta Omega is a National Honor Society which exists to encourage research, provide scholarships, and recognize achievements in the field of public health. This year the following persons received honors from the Delta Omega Society:

Inductees:

Jingjing Wu
Rebekkah Dann

Undergraduate Award:

Omar Halawa

Faculty Award:

Fred Wright

Book Award:

Jackie Johnson

Second Title for Team Biostatistics



With captain Andy leading, the team "Biostatistics" crushed their badminton opponents to win their second Intramural Fall badminton championship. Defending their title this year, biostatistics had no problem whitewashing all their opponents clinching the best-of-three series with each team comfortably. The team members are (clockwise): Shankar Viswanathan, Andrew Sterret, Yeonseung Chung, Jamie Perin, and Anita Abraham.

2004 Graduates

May 2004

Allison Burns	MPH
Harper Gordek	MPH
Hye-jin Jo	MS
Amy Kennedy	MS
Mukesh Patel	MPH
Jingjing Wu	MS

August 2004

Hyunsook Chin	MPH
Shibing Deng	PhD
Matthew Gurka	PhD
Inkyung Jung	PhD
Susan McRitchie	MS
Tania Robbins	MS
Lily Wang	PhD

December 2004

William Cade	MPH
Nathan Carter	MS
Brooke Heubner	MS
Cathy Jenkins	MS
Xiaojuan Liao	MS
Benjamin Saville	MS
Todd Schwartz	DrPH

Gifts to the Department of Biostatistics may be earmarked for one of our gift funds. If you make a gift with no designation, the gift will go into a general fund for the department.

Biostatistics Alumni Fund - to support the Master's Paper Award and Barry H. Margolin Dissertation Award for the best doctoral dissertation in the department each year.

Bernard Greenberg Scholarship Fund - to provide support for merit-based scholarships for students in the Department of Biostatistics.

John and Diane Fryer Fellowship- to support a fellowship in biostatistics and to recruit outstanding students.

The C. David and Lucy S. Hardison Endowed Scholarship Fund in Bioinformatics - to support a scholarship fund in honor of David and Lucy Hardison.

Kupper Dissertation Publication Award Fund- to honor yearly both the doctoral student and the dissertation advisor of the best doctoral dissertation-based paper published in a prestigious biostatistical journal.

Roy Kuebler Fund - to support junior faculty sabbaticals.

Max Halperin Scholarship Fund - to provide a fellowship to a deserving first or second year doctoral student currently enrolled in the Department of Biostatistics.

Mohberg Scholarship in Biostatistics - to support a scholarship fund in honor of the Mohberg family.

PK Sen Visiting Professorship in Biostatistics- to support visiting faculty from developing countries.

The Biostatistics Student Travel Fund- to support biostatistics student travel.

The Biostatistics Staff Development Fund - to support an annual Staff Award for Excellence in the department.

Checks should be payable to: The UNC Chapel Hill Department of Biostatistics. So that your gift may be properly credited, please indicate that it should be applied to one of the gift funds named above. Mail to:

Vera Bennett
Department of Biostatistics
School of Public Health, CB#7420
Chapel Hill, NC 27599-7420.

All contributions are tax deductible. If your employer matches gifts to educational institutions, please enclose the appropriate forms.

We thank the following individuals and corporations, whose donations provide much needed funds to support BIOS graduate education. We are very grateful for your help. If, for any reason, you know of a name we have omitted, please let us know and we will see that he/she is recognized in the next issue of *BiosRhythms*.

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Department of Biostatistics
School of Public Health
CB# 7420, 3103 E McGavran-Greenberg Hall
The University of North Carolina at Chapel Hill
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