

BiosRhythms

GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Department of Biostatistics

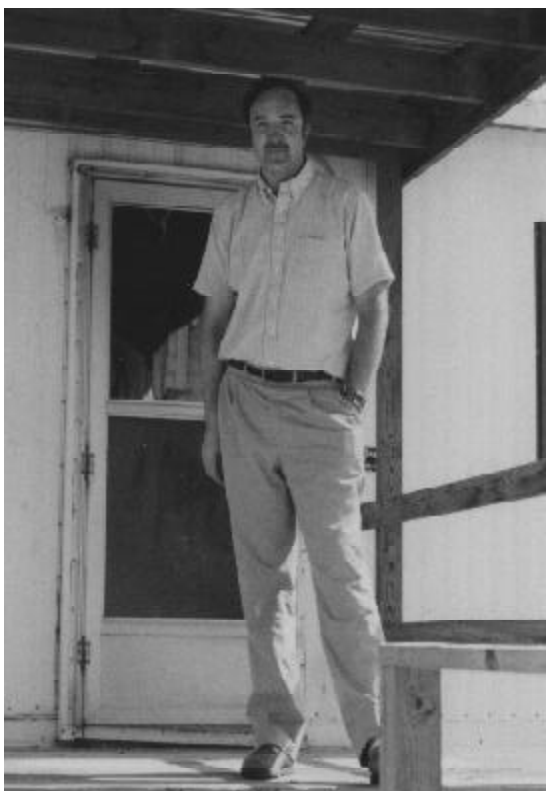
60th ANNIVERSARY CELEBRATION PLANNED FOR FALL 2009

The Department of Biostatistics is delighted to invite alumni and friends to a three-day celebration of the 60th anniversary of biostatistics at UNC. Beginning with a luncheon celebration on Tuesday, October 13, and ending with luncheon on Thursday, October 15, plans include an exciting program of lectures on cutting-edge developments in theory and applications, updates on the current status and future of our undergraduate and graduate training programs, and reflections on the impact our department has made on the field of biostatistics as well as upon public health and medicine more broadly. On Wednesday, October 14, a banquet celebration will feature a keynote address highlighting the history and successes of the department. Please save the dates and plan to attend this "family reunion" in October 2009! Questions may be directed to Dr. Amy H. Herring, anniversary celebration committee chair, at aherring@bios.unc.edu. Registration will be online at www.sph.unc.edu/bios in early March.

Immediately preceding the anniversary celebration will be a *Festschrift** honoring the work of Professor Gary Koch. Beginning the afternoon of Monday, October 12, we will celebrate Gary's great contributions through a series of lectures and reminiscences. This two-day event will include a warm-hearted dinner tribute the evening of Monday, October 12, as well as a celebratory breakfast on Tuesday, October 13, featuring a selection of Dr. Koch's morning favorites. Inquiries may be directed to Dr. John Preisser, *Festschrift* chair, at jpreisse@bios.unc.edu. Alumni with ties to Dr. Koch are encouraged to contact John or Stephen Couch, external affairs liaison, at stephen_couch@unc.edu, with any memories, photographs or anecdotal bits that would be suitable to include in celebration materials.



Ruth Stephenson Hassanein and Ellen Kaplan, research associates in biostatistics examine data from the Univac computer in the 1960s



Dr. Gary Koch, outside of trailer 39, late 1980s

Sponsorship Opportunities:

Alumni and friends interested in sponsorship opportunities during the anniversary celebration or *Festschrift* should contact Steven Couch, external affairs liaison, at stephen_couch@unc.edu, or Amy Herring, anniversary celebration committee chair, at aherring@bios.unc.edu. In addition to event sponsorship, the department is also seeking funding to cover the cost of student registration at the anniversary celebration and *Festschrift*. Please feel free to contact Steven or Amy for more information.

**Festschrift*: a collection of writings published in honor of a scholar

MESSAGE FROM THE CHAIR



Dr. Michael R. Kosorok, professor and chair

This past year has been eventful for the department, and I continue to be thrilled to be chair of such a vibrant organization with so many things going on. I continue to discover new and surprising facts about our illustrious history that add to my already considerable appreciation for this excellent and unique department. On the other hand, with the worrisome economic challenges the world is facing right now, it is a time of deep and sober reflection. Fortunately, our department is doing well, and we have much to be optimistic about, given the fortitude and ingenuity of our faculty, alumni, students and staff. We will make it through this challenging season, and things will get better. Here are some of the highlights of 2008.

In April, Dr. F. Dubois Bowman (PhD, 2000) was the 2007 recipient of the James E. Grizzle Distinguished Alumni Award. Dr. Bowman presented a lecture following the awards ceremony entitled "A Look into the Human Brain: Neural Processing Representations of Behavior and Disease."

In May, the 2008 Greenberg Lecturer, Professor Norman Breslow, from the University of Washington, presented an outstanding and well-attended series of lectures on epidemiological methods, including some very interesting developments in case-control studies.

In September, the School was renamed the UNC Gillings School of Global Public Health in recognition of a remarkable gift from Dennis and Joan Gillings and an increased recognition of the profound role the school has in public health, both locally and internationally. The fall 2008 issue of *Carolina Public Health* (the School's magazine) features many articles about Dennis Gillings, the history of the Department of Biostatistics, and the role of our department in public health.

In October, we had a very enjoyable and productive faculty retreat in Wrightsville Beach, North Carolina. The purpose of this retreat was to set goals for the future and develop plans for increasing our excellence. The results from this retreat were included in our Graduate Program Review Report, submitted shortly after the retreat.

In November, we had our Graduate Program Review by a panel consisting of Professor Nick Jewell, from U.C. Berkeley; Professor Ross Prentice, from the Fred Hutchinson Cancer Center and the University of Washington; and Professor Ken Bollin, Henry Rudolph Immerwahr Distinguished Professor and director of the UNC Odum Institute. The last such review was in 1999. The report from the committee was extremely favorable and indicated that our department is in excellent shape and ranks among the very top biostatistics departments in the U.S. The committee has also recommended areas for further improvement. Many thanks go to the department's Self-Study Committee, led by Professor Jianwen Cai, associate chair.

This past year was also eventful and successful for student recruitment. We welcomed 33 new graduate students and 10 new undergraduate students in fall 2008. We want to express thanks for the excellent work of the admission committees, chaired by Professors Chirayath Suchindrin (for graduate admissions) and Jane Monaco (for undergraduate admissions), and also the students and staff who helped.

Two faculty members, Drs. Fred Wright and Haibo Zhou, were promoted to professor with tenure. Fred was recognized for his contributions in statistical genetics and genomics, and Haibo was recognized for his work in biased sampling and survival analysis. We also were fortunate to add several new joint faculty to our ranks. On a less positive note, Assistant Professor Mayetri Gupta resigned to accept a position at Boston University. We wish her success in her new endeavors. We currently have three faculty searches underway: two joint searches with the UNC Lineberger Comprehensive Cancer Center, one for research-track and one for tenure-track with expertise in clinical trials, and a joint search with the Center for Genome Sciences for a tenure-track position.

A number of faculty members received prestigious awards and recognitions this past year. Cary C. Boshamer Distinguished Professor Pranab Sen was honored with a Festschrift published in the Institute of Mathematical Statistics Collections series, entitled "Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen." Professor Sen was honored for his numerous contributions in nonparametric statistics, both applied and theoretical.

Associate Professor Donglin Zeng received the prestigious American Statistical Association's Gottfried E. Noether Young Scholar Award, established in 1999 to recognize distinguished researchers and teachers in nonparametric statistics. Donglin was also the recipient of the prestigious 2008 Roy Kuebler professional development award.

The research program in Carolina Biostatistics also continues to flourish. As with past years, the faculty and students have published many excellent papers in top-tier journals. Several important new research grants were also awarded to the department this year, as well as two competing renewals for R01 grants. The University of North Carolina also received a prestigious Clinical and Translational Science Award from NIH for which the department provides a biostatistics core. More details on many of these grants, as well as more information on many other departmental achievements, can be found later on in this newsletter, which I invite you to enjoy.

With warmest regards,

Michael

FROM THE REGISTRARS

Hello, everyone! We know you have been eagerly awaiting the arrival of *BiosRhythms*, and we are happy to provide another year's worth of exciting news. What a year it was! As we bid 2008 a fond farewell, we await the new opportunities that 2009 has to bring. All of you are the reason our department is so well respected. Your accomplishments in your sector of employment provide the foundation for us to continue to build our strong department. For that, we must say a heartfelt "Thank you." You contribute in ways you probably don't even realize, such as sharing your experiences in the wonderful department we have here at UNC with someone who is looking for a graduate program; offering a GRA or summer internship to a current student who is looking for practical experience; or offering a financial gift to the department that will assist a student with his or her aspirations. Your kindness and generosity are appreciated more than you can imagine.



Melissa Hobgood



Veronica Stallings

As usual, we will host our alumni reception at the ENAR and ASA meetings again this year. ENAR will be in San Antonio, Texas, March 15-18, at the Grand Hyatt San Antonio. The reception will be on the 16th, from 6:00 to 7:30 p.m., in the Grand Hyatt's Bowie Room B. You won't see us listed in the online program for ENAR, but we will be on the marquee and there will be a posting outside our event room. We'll send a reminder e-mail about the reception closer to the date. Plans haven't begun for ASA yet but will be posted on the department's Web pages when finalized. The ASA meeting is scheduled for August 1-6 at the Washington Convention Center in Washington, D.C. This is always a fun time to catch up.

Speaking of catching up, be sure to check out the Alumni News section in this newsletter to see who's doing what in the career world, whose family is growing, who's getting hitched, and everything else in between. If you have news items to share, e-mail them to Melissa (mhobgood@bios.unc.edu). Let us remind you to visit the alumni Web page (www.sph.unc.edu/alumni/alumni_directory.html) and update your address and professional information. Listing in the directory is free, and we encourage you to sign on. If you would like to donate to the university, the school, or to the department directly, simply contact Stephen Couch (stephen_couch@unc.edu). We appreciate all support from our alumni and friends.

One other thing to mention - in an attempt to have better communication with our alumni, we keep an internal list of alumni names, e-mail addresses and employer names. Please send this contact information to Melissa, so we can relay information about department news and events.

That should about do it for us in this issue! You'll hear more from us via e-mail as events get closer. Please feel free to send an e-mail to say hi. We love to hear from you all. We hope your holidays were joyous and your new year is a happy and prosperous one.

Warmest regards,

Melissa and Veronica

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Special thanks to Linda Kastleman!

Bowman Receives Grizzle Award



F. Dubois Bowman (left) receives the Grizzle Award from Michael Kosorok, department chair

Human Brain Mapping. He has since published sole-authored papers developing spatio-temporal models for neuroimaging data in the *Journal of the American Statistical Association* and *Biostatistics*. In addition, he has published a number of co-authored methodological papers with graduate students and colleagues.

Dr. Bowman has been extremely successful at obtaining external funding. He also has a strong record of service, both at the national level and within Emory University, where he is an associate professor of biostatistics, and has established a Neuroimaging Biostatistics Research Group within his department. He also serves as the director of Emory's Center for Biomedical Imaging Statistics.

The Grizzle Award was established to honor Dr. James E. Grizzle, former department chair, for his outstanding contributions to biostatistical research and consulting. It is presented to a graduate of the UNC-Chapel Hill Department of Biostatistics in recognition of an outstanding record in the development of new statistical methodology and 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.

Alumni News

Rachael L. DiSantostefano (MS, 1993) gave birth to a son, Peter Bryce Manns, in March 2008. Her family (also including spouse, John, and 4-year-old son, Ian) reside in Chapel Hill, N.C. Rachael has been an epidemiologist at GlaxoSmithKline since 2005.

Alison Levin-Rector (BSPH, 2008) has started a post-baccalaureate fellowship through the University of Washington's Department of Global Health in the Institute for Health Metrics and Evaluation. Her work is funded by the Gates Foundation.

Gail Tudor (PhD, 1991) has been promoted to full professor and also serves as chair of sciences and mathematics at Husson University in Bangor, ME.

The Department of Biostatistics in the Vanderbilt University School of Medicine is pleased to announce the appointment of two more UNC biostatistics graduates as assistant professors: **Chris Slaughter** (PhD, 2007) and **Ben Saville** (PhD, 2008).

Debbie (Mills) Peek, (BSPH, 1983) recently accepted the position of assistant director of software development at Rho, a contract research organization founded by Mary and Ron Helms in Chapel Hill, N.C.

Alumnus Update - Dr. H. Carl Henley Jr.

Herbert Carlisle (Carl) Henley Jr. (PhD, 1971) reports:

I was professor of research methodology and of statistics in the UNC School of Social Work from 1968 to 1999. Unless MSW students exempted the research methodology course, I taught all incoming students during their first semester in our School. During their second semester, I taught all MSW students their statistics course. When we developed a doctoral program, I taught statistics to those students while continuing to teach research methods to the MSW students.

Those I taught were mostly from the United States, but I had students from such other countries as China, England, Holland, Japan, and many from South Africa. During the fall semester of 1989, I was a Visiting Professor at the University of Capetown School of Social Work, Capetown, South Africa. Among my greatest honors while at UNC was the fact that I was voted "Teacher of the Year" by the students in each of four decades: the 1960s, 1970s, 1980s, and the 1990s.

While a student in biostatistics, my mentors included Bernie Greenberg, Gary Koch, Jim Abernathy, Jim Grizzle, and Dana Quade. In July 1995, I had a spinal cord infarct (like a stroke), C2-C6, which left me partially paralyzed and with many muscles that did not work properly. But because I wanted to be able to play golf again, I engaged in a very strenuous rehab program which took almost all the energy that I had! The hard work paid off, though, because on June 26 of 1996 the Olympic Torch came through Chapel Hill and I was one of the people who got to carry it! I did learn to play golf again, and since my illness, I have made three holes-in-one! One of my favorite people to play golf with is Professor Larry Kupper of the UNC Department of Biostatistics.

I retired in summer 1999 because my rehab program took so much time and energy that I felt that I could no longer "do justice" to our students.

H. Carl Henley Jr., PhD
Professor Emeritus, UNC School of Social Work

Alumni News

Brent J. Shelton (MS, 1992; PhD, 1998) was promoted to (tenured) full professor in the College of Medicine at the University of Kentucky in July 2008. He is director of biostatistics for the UK Markey Cancer Center and teaches biostatistics courses in the UK College of Public Health, where he has a joint appointment in biostatistics. His courses include categorical data analysis, introductory survival analysis, and a missing data course. For the past four years he has also taught a doctoral research methods course to all DrPH students in public health. He is currently the principal investigator of a grant/contract sponsored by the North American Association of Central Cancer Registries and NCI to investigate appropriateness and applicability of statistical methods such as multiple imputation to address incomplete cancer registry data. His wife Joy continues to home-school their three children, Lauren (14), Haley (12), and Ethan (7). Brent's major challenge living in Lexington has been to mold his children as Tar Heel fans as opposed to the darker shade of blue that exists in the bluegrass country!

Frank E. Harrell Jr. (PhD, 1979), professor and chair of the Department of Biostatistics in the Vanderbilt University School of Medicine, is pleased that his department now has seven UNC biostatistics graduates on its roster! Two of Amy Herring's students are on the faculty at Vanderbilt.

DEPARTMENTAL HAPPENINGS

Mourning a Loss

Everything to which he set his hand flourished.

After many years of illness, Dr. Barry H. Margolin, 66, passed away at his home in Chapel Hill on January 28, 2009.

A native New Yorker, he graduated summa cum laude from City College of New York and received his PhD in the Department of Statistics at Harvard University. He was a faculty member in the Department of Statistics at Yale University for 10 years, and published widely in the area of experimental design. He came to North Carolina in 1977, and served as a mathematical statistician and head of the statistical methodology section at the National Institute of Environmental Health Sciences in Research Triangle Park. He was nationally and internationally recognized in the statistics of genetic toxicology, published extensively, participated as a consultant and collaborator on many projects, and was sought after as a speaker at many conferences and symposia. In 1987, he joined the faculty of the University of North Carolina School of Public Health as professor and chairman of the Department of Biostatistics; in 1989, he also became the director of the biostatistics facility at the UNC Lineberger Comprehensive Cancer Center, and served in those capacities until 1997, when declining health forced him to step down.



Dr. Barry H. Margolin

He was a fellow of the American Statistical Association and a member of the Institute of Mathematical Statistics, the International Statistical Institute and the Environmental Mutagen Society. Among his many honors were the American Statistical Association's Snedecor Award and Youden Award, and the National Institutes of Health Director's Award.

Barry brought his talents and energy not only to his professional life but also to his community. A member of Beth El Congregation in Durham, he served as President of the Durham-Chapel Hill Jewish Federation and co-founder of the Jewish Community Foundation of Durham-Chapel Hill.

Barry will be remembered for his brilliance and immense competence, his wonderful sense of humor, and his kindness and generosity. Even as illness stole these capacities from him, he bore his losses with quiet grace and dignity, gentle humor, and affection for family and friends.

Mourners include wife Connie, daughter Lauren, sister Diane Kressner and her husband Mark, sister-in-law Roberta Morris, niece Sara Goldfarb and her husband Michael, nephew Lyon Kressner, many cousins, and former students and colleagues around the world.

Funeral services were held on Friday, January 30, 2009 at 11:00 a.m. at Howerton-Bryan Funeral Chapel, 1005 West Main Street in Durham, followed by interment at the Durham Hebrew Cemetery.

In lieu of flowers, the family asks that contributions be sent to UNC Hospice, P.O. Box 1077, Pittsboro, NC 27312; to Beth El Synagogue, 1004 Watts Street, Durham, NC 27701; or to the University of Maryland Baltimore Foundation/Center for Celiac Research, 20 Penn Street, Rm. S303B, Baltimore, MD 21201.

School Renamed the UNC Gillings School of Global Public Health



Joan and Dennis Gillings

In recognition and appreciation of a \$50 million gift from Dennis and Joan Gillings, the University has officially renamed our school the UNC Gillings School of Global Public Health. The Gillingses pledged the gift, the largest single gift ever made to the University by individuals, in February 2007.

Dennis Gillings, PhD, a Commander of the British Empire and former professor in the UNC Department of Biostatistics, is chairman and CEO of Quintiles Transnational Corporation and a member of the School's Advisory Council. Joan Gillings has worked on the staff of the Carolina School of Public Health, sits on several university boards both in the U.S. and abroad, and has been recognized for her leadership in a number

of volunteer organizations. Dennis and Joan are strong community leaders, both in Chapel Hill and Wilmington, N.C.

The University is using the Gillings' gift to anticipate public health problems and accelerate their solutions. Already, the gift has funded 10 competitively selected Gillings Innovation Laboratories that seek sustainable solutions to some of the world's greatest public health challenges and three Gillings Visiting Professorships. Read more about them at www.sph.unc.edu/accelerate.

Faculty Retreat Looks to Future of Department

The biostatistics faculty attended a retreat on October 3 and 4 in Wrightsville Beach, N.C. The retreat committee, chaired by Dr. Lisa LaVange with members Jianwen Cai, Joe Ibrahim, Michael Kosorok, Danyu Lin, and Fred Wright, began planning the event in fall 2007 with two objectives in mind: (1) to build cohesiveness as a department through an enjoyable gathering, and (2) to develop a vision for the future of the department. All tenure-, research-, and clinical-track faculty as well as joint appointees were invited, and 29 faculty members attended the retreat. The retreat kicked off with a Friday night reception for faculty and their families. The work began early Saturday morning. Led by facilitator Zemo Trevathan of Strategic Measures, Inc., the faculty engaged in a series of small group discussions, each followed by summary reports to the entire group. The focus of discussions was on defining "excellence" as a department and included answering questions such as how to best measure excellence; how to ensure we are engaged in cutting edge research; how to strengthen our research collaborations, both within and external to the department; how to recruit the best faculty, and in what research areas; how to increase student funding; how to strengthen our graduate program; and what global initiatives we should undertake. At the end of the day, several new committees and task forces had been identified with clear, concrete objectives to achieve. Fun group activities were held throughout the day, including a hotly competed game of Jeopardy that highlighted some faculty weaknesses in UNC sports trivia. All in all, the retreat was considered a success, and the planning committee received a resounding 'yes' vote to make this a repeat event.



Biostatistics faculty in Wilmington, N.C.

DEPARTMENTAL HAPPENINGS

Applied Survival Analysis and Bayesian Biostatistics Workshop

May 13-15, 2008

In May, UNC biostatistics professors Amy Herring and Lisa LaVange along with SAS Institutes, Inc. representative Maura Stokes, presented the follow-up to 2007's successful Bayesian Biostatistics Workshop. The three-day event was expanded to feature both survival analysis and Bayesian statistics. The applied survival analysis lecture of the first day, led by Professor Jianwen Cai, introduced basic and advanced concepts of applied survival analysis, with emphasis on implementation in SAS software. Course topics included censoring, Kaplan-Meier estimation, the log-rank test, the Cox proportional hazards model, time-dependent covariates, stratification, left truncation, model diagnostics, and models for multivariate failure times. The next two days featured the workshop on Bayesian biostatistics, once again led by Alumni Distinguished Professor Joseph G. Ibrahim. Ibrahim began with an introduction to Bayesian methods as well as practical examples using new software from SAS. Following that he then shared the stage with Drs. David Dunson and Amy Herring of UNC, who spoke on topics including Bayesian versus frequentist inference; Bayes' theorem; prior, posterior, and predictive distributions; inference and prediction; interval estimation; choice of prior distributions; and model assessment. Fang Chen of SAS Institutes provided a brief introduction to the new, experimental SAS MCMC procedure, which is a general-purpose Markov Chain Monte Carlo simulation procedure. The attendance skewed towards the industry side, and reviews were excellent. Responding to participant input, the 2009 Biostatistics Workshop, to be held on May 18-22, will include a two-day course on Clinical Trials Design, and two 1.5-day genetics workshops: the Genetic Association Analysis Workshop and the Microarray-based Gene Expression Analysis Workshop. To receive news, updates, and registration information, e-mail BiosWorkshop@unc.edu.

Successful 10-Year Graduate Review

Every eight to ten years, the UNC-Chapel Hill Graduate School commissions an external review of the quality of the undergraduate and graduate programs in the Department of Biostatistics. Our last review was in 1999, so this year, under the direction of Dr. Jianwen Cai, the Department prepared a current review. Upon completion of the written portion in October, the Department conducted an all-day retreat to evaluate current initiatives and set goals for the future. In November, the Department hosted a team of exemplary peer reviewers during a comprehensive onsite visit. This team included Dr. Nicholas Jewell (University of California - Berkeley), Dr. Ross Prentice (University of Washington and Fred Hutchinson Cancer Research Center), and Dr. Ken Bollen (UNC Department of Sociology). The results of this review revealed that UNC-Chapel Hill Biostatistics, long considered a historically excellent department, is re-emerging as one of the top departments in the country and the world, measured in terms of research output, teaching, and service. Thank you to everyone who participated in our Web-based survey last February or otherwise contributed to the graduate review. We congratulate all of our faculty, staff and students on their achievements, and look forward to building on the merits of the Department to forge continued advancements in health science research to solve public health problems in North Carolina, the U.S., and globally.

DEPARTMENTAL HAPPENINGS

FDA's Temple Speaks on Clinical Trials

Robert Temple, MD, often described as one of the most influential officials in the U.S. Food and Drug Administration's drug regulatory process, spoke at the School on March 6, 2008. As director of the Office of Medical Policy in the FDA's Center for Drug Evaluation and Research, Temple is responsible for regulating how clinical trials are promoted and how the quality of clinical trials is assessed.

In his talk, Temple discussed the "FDA Drug Approval Process, Potential Efficiencies and Active Control Trials." His lecture was sponsored by the School's UNC Center for Innovative Clinical Trials, which is the first Gillings Innovation Lab (see www.sph.unc.edu/clinical_trials). Dr. Joseph G. Ibrahim, Alumni Distinguished Professor in the School's Department of Biostatistics, directs the Center.

Dr. Temple's lecture slides can be located on the biostatistics Web site at www.sph.unc.edu/images/stories/academic_programs/bios/documents/temple_lectures.pdf.

Breslow Presents 2008 Bernard G. Greenberg Lecture Series

The 2008 Bernard G. Greenberg Distinguished Lecture Series was held May 19-20. This year's speaker was Dr. Norman E. Breslow, professor in the Department of Biostatistics at the University of Washington. Breslow presented three lectures over the two-day period, all held in the Blue Cross and Blue Shield of North Carolina Foundation Auditorium in the Michael Hooker Research Center. The schedule was as follows:

Lecture I: Monday, May 19, 10:00 a.m., The Case-Control Study: Origins and Modern Extensions

Lecture II: Monday, May 19, 2:00 p.m., The Value of Long Term Follow-up: Lessons from the National Wilms Tumor Study

Lecture III: Tuesday, May 20, 10:00 a.m., Horwitz-Thompson Estimation for Semiparametric Models and Two-phase Stratified Samples, with Application to Case-Cohort Studies

Named in honor of Bernard G. Greenberg, former dean of the School of Public Health and founding chair of the department, the Greenberg Lecture Series is held annually.



Michael Kosorok (left) with Norman Breslow

Save the Date: Upcoming Events in 2009

- * March 15-18: ENAR - Grand Hyatt San Antonio; alumni reception on March 16, Bowie Room B, 6-7:30 p.m.
- * April 1: 41st annual Fred T. Foard Jr. Memorial Lecture, featuring William McDonough, FAIA
- * April 15: Biostatistics Alumni Day, featuring Grizzle Award winner Dr. Guosheng Yin, University of Texas M. D. Anderson Cancer Center
- * May 4-5: Bernard G. Greenberg Distinguished Lecture Series, featuring Professor Niels Keiding, University of Copenhagen
- * May 18-22: Biostatistics Workshop
- * August 1-6: ASA - Washington Convention Center, Washington, D.C.; alumni reception date TBA
- * October 13-15: Festschrift for Gary Koch and Biostatistics 60th anniversary celebration

For more information about upcoming events, please visit our Web site at www.sph.unc.edu/bios.

DEPARTMENTAL HAPPENINGS

Center for Innovative Clinical Trials Has Outstanding First Year

Dr. Joseph Ibrahim was appointed director of the UNC Center for Innovative Clinical Trials on July 1, 2007. During this past year, Ibrahim created a detailed Web site for the Center (www.sph.unc.edu/clinical_trials) and has advertised it in several national and international publications as well as in interviews. He has also made several visits to companies in industry, regulatory agencies, and universities, and has presented workshops on clinical trials.

To date, the Center has secured contracts with Novartis and Amgen, and a contract with Merck is being finalized. Through its two signed contracts, the Center has been engaged in methodological research in (1) developing new methods for the analysis of longitudinal data in the presence of nonignorable missing data, and (2) developing novel statistical methods for Bayesian design and analysis of Phase II and proof-of-concept studies. The pending contract with Merck will examine new statistical methods for incomplete adjudication in clinical trials. It is anticipated that several methodological papers will be written from these collaborations and published in statistical and subject-matter journals.



Dr. Joseph Ibrahim

In addition to this, several members of the Center have written and submitted a P01 grant to the National Cancer Institute for the development of new statistical methods in clinical trials. Dr. Michael Kosorok will serve as principal investigator on the grant, and Ibrahim will be co-principal. In March 2008, Ibrahim visited Dr. Janet Woodcock, at the FDA, to introduce the Center. He proposed the Center's involvement in the critical path initiative for post-marketing assessment of safety, and Dr. Woodcock was very receptive to this. Ibrahim also proposed hosting a joint workshop with the FDA on statistical methods for meta-analysis. Both proposals are pending with the FDA and hopefully will be finalized over the course of the next year.

The Center has awarded three methodological grants to faculty members in the Department of Biostatistics for conducting research on new methods in clinical trials. The one-year, \$30,000 awards were given to Drs. Michael Kosorok, Anastasia Ivanova, and Haitao Chu. Kosorok's proposal focuses on new statistical methods for reinforcement learning in clinical trials. Ivanova's proposal focuses on the development of statistical methods for Phase II clinical trials design, and Chu's proposal focuses on statistical methods for the analysis of biomarker data subject to detection limits. These three proposals will lead to the development of several novel methods for clinical trials as well as several methodologic papers.

This past year, one of Ibrahim's primary goals was to increase awareness of the Center among key players in industry, regulatory agencies, and academia. He feels he has achieved this goal and hopes that during 2009, the Center can make a powerful impact in clinical trials methodology and practice.

Department Contributes to National Consortium Funded by the NIH's Clinical and Translational Science Award

The University of North Carolina at Chapel Hill has received a \$61 million NIH grant that will accelerate scientific discoveries directly benefitting patients in communities across North Carolina. This five-year grant provides support to the North Carolina Translational and Clinical Sciences (TRaCS) Institute, which was created with an annual commitment of \$3.5 million in state funding to UNC-Chapel Hill. The TRaCS Institute will develop pilot projects to translate technologies, diagnostics, therapies and evidence-based interventions for the benefit of underserved groups and others who need them.

This initiative is campus-wide, drawing on the diverse expertise of physicians and clinicians, biomedical researchers, and a broad spectrum of experts from public health, the social sciences, information technology, and other fields. The Department of Biostatistics is involved in the N.C. TraCS Institute through two core facilities - the biostatistics core and the biomedical informatics core. Dr. Michael Kosorok directs the TraCS biostatistics core, with Drs. Jason Fine and Lisa LaVange serving as deputy directors. One of the critical areas identified by UNC medical researchers as needing additional resources in a 2006 survey was statistical support. Consequently, the TraCS biostatistics core represents an expansion of resources on three fronts. Under the direction of Drs. Jason Fine and Paul Stewart, the collaborative services initiative of the biostatistics core will expand the number of faculty and staff statisticians available for direct consultation and collaboration with TraCS investigators. Regular office hours within the TraCS Institute are planned for easier access, and support services cover grant preparation, study design and analysis, and manuscript preparation. Research problems of statistical interest, identified through the collaborative service, will be the focus of the methodology initiative, led by Dr. Jianwen Cai. A pool of faculty from biostatistics and other departments at the Gillings School for Global Public Health with particular expertise in clinical trials, statistical genetics, imaging data, and outcomes research are funded for this initiative. Break-throughs in methodology and software are translated back into clinical practice through the work of the dissemination, training, and outreach initiative of the biostatistics core, led by Dr. Rosalie Dominik. The structure and function of the TraCS biostatistics core has the potential to transform the way clinical and translational research is conducted here at UNC-Chapel Hill and, eventually, throughout the state.

As part of the biomedical informatics core, faculty and staff members at the CSCC are serving a critical role in expanding the resources available to TraCS investigators for research data management. Building on 30 years of high quality and efficient data management systems at the CSCC, Hope Bryan and others are laying the groundwork for a fifth generation system to be designed and developed as part of the TraCS Institute that is both *standards-based* (to support data sharing with other CTSA institutions) and *scalable* (to support a variety of protocol types with a minimum of customization). As one of the deputy directors for the TraCS Institute itself, LaVange oversees the work of this initiative in addition to serving as a liaison between the biomedical informatics and biostatistics cores.

Update: Biostatistics Summer Undergraduate Research and Education (BSURE) Program

The Biostatistics Summer Undergraduate Research and Education (BSURE) Program conducted its inaugural program during summer 2008. The BSURE program is a 10-week summer undergraduate program in the UNC Department of Biostatistics.

Ten applications were evaluated, and four offers were made. Of the four, one student was entered into the program, Mina Soryal, a junior mathematics/statistics major at The College of New Jersey. Soryal was mentored by Drs. Joe Ibrahim and Lloyd Edwards. He received hands-on experience and training in biostatistical theory, statistical computation, and data management. Soryal helped to revisit two related cancer clinical trials and conduct detailed analyses of the trials with respect to the relapse-free survival and survival endpoints. The title of his report is "A Tale of Two Studies: Eastern Cooperative Oncology Group Study E1684 and E1690" (UNC Department of Biostatistics, 2008).

For more information about the BSURE program, please visit www.sph.unc.edu/bios/the_biostatistics_summer_undergraduate_research_and_education_bsure_program_5735_5017.html.

DEPARTMENTAL GRANTS

Herring Awarded Grant for R40: Maternal and Child Health Research Program



Dr. Amy Herring

Dr. Amy Herring, associate professor of biostatistics, was awarded a one-year grant entitled "Statistical Methods and Health Outcomes" for \$100,000 by the Health Resources and Services Administration. Dr. Herring will serve as lead principal investigator.

The objective of this study is to develop new statistical methods for better assessing the influence of pregnancy weight gain on maternal and child health, which in turn may help refine recommendations about appropriate weight gain during pregnancy. Specific aims include (1) developing methodology for comparison of trajectories of weight gain across body mass index (BMI) groups to determine whether pregravid BMI status is associated with the shape and number of the weight gain patterns; (2) developing model selection procedures for latent class trajectory models to determine whether maternal characteristics are predictive of pregnancy weight gain trajectories; and (3) applying the methods to determine whether the estimated weight gain trajectories are related to short-term maternal and child health outcomes.

Herring currently serves as a consultant to an Institute of Medicine committee charged with determining whether weight gain recommendations provided to pregnant women should be revised.

Preisser Receives Funding



Dr. John Preisser

Dr. John Preisser, research professor of biostatistics, has been awarded a subcontract in the amount of \$80,576 to provide statistical consultation on a study entitled "Clustering of Underage Alcohol Use in Communities and its Contextual Influences." The principal investigator of the three-year grant, awarded by the National Institute on Alcohol Abuse and Alcoholism, is Dr. Beth A. Reboussin at Wake Forest University School of Medicine. Dr. Preisser will serve as subcontract principal investigator.

The grant proposal involves secondary data analysis of the largest-ever randomized community trial of underage alcohol use, capitalizing on data from repeated cross-sectional samples of approximately 6,800 youth (aged 14-20) from 68 U.S. cities. Subjects were surveyed in each of three years (2004, 2006 and 2007) and data was collected as part of the Enforcing Underage Drinking Laws Randomized Community Trial. The goal of this project is to examine the extent to which underage alcohol use clusters geographically in a sample of U.S. neighborhoods and cities and to construe a possible explanation for this clustering as it relates to individual, social, and community-level environmental contexts.

Zhou Wins Competing Renewal



Dr. Haibo Zhou

Dr. Haibo Zhou, professor of biostatistics, has won a competing renewal for his R01 grant entitled "Statistical Methods for Outcome-dependent Sampling" from the National Cancer Institute for three years in the amount of \$758,918. The main objective is to develop and evaluate improved statistical methods for the design and analysis of biomedical studies conducted with an outcome-auxiliary-dependent sampling design. An OADS design is a retrospective sampling scheme where one observes the exposure of certain covariates with a probability that depends on the outcome variable(s) and some auxiliary variables for the exposure. The results of this research will allow biomedical studies to be conducted more cost-effectively in practice and provide improved statistical power to detect the effect of interests. The proposed methods are particularly useful in cancer and environmental research where auxiliary exposure information and expensive exposure assessment are frequent challenges. This research has been continuously funded by NIH since September 1, 1999.

Wright Awarded Multiple Grants



Dr. Fred Wright

UNC Lineberger Comprehensive Cancer Center

Dr. Fred Wright, professor of biostatistics, has been awarded a one-year, \$100,000 research award from the UNC Lineberger Comprehensive Cancer Center, entitled "Methods to Analyze Tumor Copy Number Variation." Wright will serve as lead principal investigator. Co-investigators include Drs. Wei Sun and Fei Zou of the UNC Department of Biostatistics. The grant supports the development of biostatistical methods to map genes that are often mutated or changed in cancer tissue. This research area is increasingly important, supported by new research technologies and a major new initiative called the Cancer Genome Atlas from the National Cancer Institute (cancergenome.nih.gov). The award will spur the development of new methods, focusing on novel permutation techniques and likelihood approaches.

U.S. Environmental Protection Agency

Wright serves as co-principal investigator for the newly awarded Carolina Center for Computational Toxicology (comptox.unc.edu), directed by principal investigator Dr. Ivan Rusyn of the Department of Environmental Sciences and Engineering. The Center is a \$3.4 million, four-year grant from the U.S. EPA to advance the field of computational toxicology by helping to understand and predict individual differences in risks to environmental exposures. Interdisciplinary research in the Center includes fine-scale predictive simulations of protein-chemical interactions, devising modeling tools to predict the pathobiology of test compounds based on limited biological data, building tools to understand the role of genetic diversity in responses to toxicants, and developing discovery-driven predictions of in vivo outcomes based on statistical modeling of chemical structures.

National Heart, Lung and Blood Institute

Wright also is a co-principal investigator for a new R01 award from the National Heart, Lung and Blood Institute, entitled "Molecular Phenotypes for Cystic Fibrosis Lung Disease." The \$3 million, four-year grant will enable the collection of microarray gene expression data on 1,200 participants in an ongoing study to map the genetic variants that determine the severity of lung disease in cystic fibrosis. Professor Michael Knowles (UNC School of Medicine) is the principal investigator of the mapping study, and is also co-principal investigator for the new grant. The aim of the grant is to elucidate the underlying biological mechanisms for the disease process by examining which genes are turned on and off in individuals with cystic fibrosis, and relating these data to other clinical data in the patients. Drs. Fei Zou and Wei Sun are project co-investigators.

Additional News

Wright co-directs the data management and statistical analysis core of the UNC Developmental Disabilities Research Center (principal investigator: Joseph Piven, MD), which was recently renewed for an additional five-year term. The grant supports statistical analysis for a variety of projects with developmental disability relevance, including image analysis and statistical genetics. Additional biostatistics personnel supported by the Center include Associate Professor Hongtu Zhu.

DEPARTMENTAL GRANTS

Lin Receives Innovation Award from UCRF and R01 Competing Renewal



Dr. Danyu Lin

Dr. Danyu Lin, Dennis Gillings Distinguished Professor of biostatistics, received an Innovation Award from the University Cancer Research Fund's Competitive Grants Program for his grant entitled "Accelerating the Search for Genetic Determinants of Cancer." The UCRF Innovation Awards promote ground-breaking cancer research across the broad spectrum of cancer, from fundamental laboratory science to community intervention, disease prevention, and palliative care.

Lin's project will develop novel and high-impact statistical methods for the analysis of gene expression data and genetic association data. The specific aims of this project are (1) to develop graphical and numerical procedures to assess the predictive accuracy of gene expression levels on cancer recurrence and survival time; (2) to pursue valid and efficient methods for studying genetic effects and gene-environment interactions in the development of cancer; and (3) to explore appropriate methods for analyzing cancer-related phenotype data from case-control association studies of complex diseases. The proposed work will greatly enhance cancer genomics research at UNC and worldwide, and accelerate the search for effective interventions of cancer in the state of North Carolina and beyond.

Lin also won a competing renewal for an R01 grant entitled "Statistical Methods in Current Cancer Research" for an additional four years in the amount of \$1,157,841. The broad, long-term objectives of this research are the developments of statistical methods for the design and analysis of clinical and epidemiological cancer studies, with or without genetic components. This grant was first funded on April 1, 2000.

Couper Receives Funding from National Human Genome Research Institute



Dr. David Couper

Dr. David Couper, research associate professor of biostatistics, has been awarded a grant entitled "GWA for Gene-Environment Interaction Effects Influencing CHD" by the NIH's National Human Genome Research Institute. The two-year award is for \$146,000. The principal investigator is Dr. Eric Boerwinkle at the University of Texas Health Sciences Center at Houston. Dr. Couper will serve as subcontract Principal Investigator.

Utilizing the full scope of the Atherosclerosis Risk in Communities (ARIC) study resources of which Couper is a co-investigator, this project will bring together appropriate population-based samples, good phenotyping, details on environmental measures and state-of-the art analyses to identify environment-specific genetic effects influencing CHD, along with other heart, lung and blood phenotypes. Identification of these environment-specific genetic effects will improve risk prediction and shed light on novel biological pathways bridging health and disease.

Jane Monaco Awarded New Grant



Dr. Jane Monaco

Dr. Jane Monaco has received funding for the project, "North Carolina High School Students: Learning about Biostatistics, the Discipline and the Job Opportunities." This project will expose many North Carolina high school students currently taking AP Statistics to the opportunities available to study biostatistics as well as careers in biostatistics. The funding is part of the American Statistical Association Biometrics Section Initiative, "Developing the Next Generation of Biostatisticians," which supports innovative outreach projects focused on enhancing awareness of biostatistics among quantitatively-talented US students.

As part of this one-year project, Dr. Monaco will give presentations to several AP Statistics high school classes about the educational expectations and career opportunities for biostatisticians. Teachers participating in this aspect of the project will receive a one-year ASA K-12 membership. Information from these sessions will be converted to a multimedia presentation to be posted on the UNC-Chapel Hill Department of Biostatistics Web site accessible to the general public.

Additional outreach information will be distributed by mail to as many as 100 North Carolina high schools with materials describing biostatistics educational requirements, resources for job opportunities, and directions to access the multimedia presentation on our Web site.

Fine R01 Funding Renewed



Dr. Jason Fine

Dr. Jason Fine, professor of biostatistics, received a three-year competitive renewal award for his R01 grant entitled "Frailty Models and Survival Analysis in Cancer Research" for \$646,484 by the National Cancer Institute. Dr. Fine will serve as lead principal investigator.

The goal of this grant is to develop statistical methods for time-to-event endpoints which will be widely applicable in clinical, epidemiologic, and basic scientific research in oncology. The methods will be useful in identifying familial and environmental risk factors which are critical for correctly assessing future cancer risk in unaffected individuals and for developing effective preventive and therapeutic interventions in cancer patients.

CSCC Participates in Collaboration with the United Arab Emirates

The United Arab Emirates-UNC Epidemiologic (UAEE) Health and Indoor Air Quality study, scheduled for full field implementation in fall 2009, is a cross-sectional study of all seven UAE emirates. The study examines indoor and outdoor air pollution exposures, chronic health conditions, respiratory symptoms, individual and household-level characteristics, health behaviors, obesity, and "nutrition transition" in 600 randomly sampled households of Emirati citizens. Sponsored by the UAE Environmental Agency, the study is one of four components of the UAE National Strategy for Environment and Health, in which UAE and UNC researchers work collaboratively to develop a 10-year national plan to improve the environmental and health conditions in the UAE. The Collaborative Studies Coordinating Center is part of the collaboration with the departments of epidemiology, nutrition, and environmental sciences and engineering, participating in study design, data management, and data analysis. Several members of biostatistics faculty are working on this study, including Drs. William Kalsbeek (SRU) and Ed Davis (CSCC). Davis is serving as the CSCC principal investigator.

FACULTY & STAFF NEWS

Zeng Wins Two Outstanding Awards

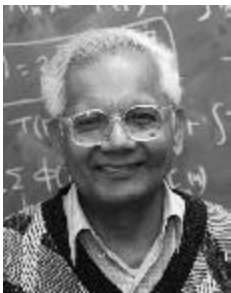


Dr. Donglin Zeng

Dr. Donglin Zeng, associate professor of biostatistics, was the recipient of the inaugural Kuebler Award. The Roy Kuebler Fund was established in 1999 to foster the development of mid-career faculty members and honors the memory of Dr. Kuebler, who was professor of biostatistics from 1958-1976. Kuebler set the standard for outstanding teaching at the UNC School of Public Health and was the School's first recipient of the Edward G. McGavran Award for Excellence in Teaching in 1975.

Zeng also won the American Statistical Association's Gottfried E. Noether Young Scholar Award, established in 1999 to recognize distinguished researchers and teachers and to support research in nonparametric statistics. Zeng received the award at the annual meeting held in Denver in August 2008. Noether was a leading scholar in nonparametric statistics with interests in research and teaching. He was head of the Department of Statistics at the University of Connecticut at Storrs for 14 years and, prior to that, professor of mathematics and statistics at Boston University for 15 years.

IMS Collections Publishes Volume to Honor Dr. Sen



Dr. Pranab K. Sen

The first issue of the new Institute of Mathematical Statistics (IMS) Collections series has been published. Volume 1 in the series, "Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen," is edited by N. Balakrishnan, Edsel Pena, and Mervyn J. Silvapulle. This volume covers "beyond parametrics" approaches, which include nonparametrics, semi-parametrics, Bayes methods, and many others. The volume reviews recent developments in this direction, focuses on some new methodologies and highlights their applications, and suggests some interesting open problems and possible new directions for further research.

A number of authors were invited to contribute an article for this volume. Not only are they experts in their field, but they also form a representative group of Sen's former students, colleagues, long-time friends, and other close professional associates.

Sen has contributed extensively to many areas of statistics, including order statistics, nonparametrics, robust inference, sequential methods, asymptotics, biostatistics, clinical trials, bio-environmental studies and bio-informatics. His long list of more than 600 publications, 22 books and volumes, and numerous citations during the past five decades bear testimony to his work.

Bangdiwala Recognized as Visiting Professor

Dr. Shrikant Bangdiwala, research professor of biostatistics, was designated by the Karolinska Institutet, Stockholm, as a 2008 Visiting Professor. He was also recognized by the University of Chile's Faculty of Medicine's School of Public Health as a Visiting Professor in January 2008. More details about Dr. Bangdiwala's 10-year collaboration with the University of Chile can be found on page 17 of this newsletter.



Dr. Shrikant Bangdiwala

School Celebrates 10-year Collaboration with University of Chile School of Public Health



*Drs. Bangdiwala and LaVange (right), with
Dr. Margozzini and Dean Solimano*

In 1998, a mid-winter trip to the southern hemisphere seemed like a hot idea to Dr. Shrikant Bangdiwala, research professor of biostatistics, and so he accepted an invitation to help organize and teach in a summer school at the University of Chile at Santiago. January 2008 marks the tenth anniversary of the successful collaboration which began that year.

Jose Francisco Cumsille, alumnus of the DrPH program in biostatistics at UNC-Chapel Hill and a faculty member at the University of Chile, wanted to offer his colleagues a series of week-long courses in Spanish to build capacity for public health research in Chile and Latin America. The courses would follow

the style of summer schools offered in English in institutions worldwide.

A start-up gift from Quintiles Transnational Corp. allowed the plan to become reality, and Quintiles has continued its generous support of the collaborative program.

Bangdiwala coordinates the UNC collaboration for the International Summer School Program in Santiago, which has involved UNC faculty members Drs. Gerardo Heiss and Jay Kaufman (Epidemiology) and Drs. Ed Davis, Gary Koch and Lisa LaVange (Biostatistics).

Instructors for this year's program, which ran January 7-18, 2008, included Bangdiwala, Davis, Kaufman and LaVange. Davis and Bangdiwala have taught in the Summer School every year since its inception.

The course allows public health and private health care professionals to gather in an academic environment and develop a more in-depth understanding of health issues. UNC faculty help attendees learn how to stimulate collaborative research and increase the capacity for quality public health research.

The program has grown dramatically over the last 10 years. Now, 20 to 25 courses are offered each January, serving about 600 public health professionals from many countries, including Mexico, Cuba, Argentina, Venezuela, Brazil, Peru and Colombia.

This year, in recognition of their "relevant academic and scientific merits and permanent collaboration with the [University of Chile] faculty," Bangdiwala, Heiss, and Kaufman were awarded the title of Visiting Professor by the Dean of the University of Chile at Santiago Faculty of Medicine, where the School of Public Health is housed.

Kupper Co-authors Textbook

Dr. Lawrence L. Kupper, Alumni Distinguished Professor of biostatistics, has recently co-authored a book with Dr. Stephen M. Rappaport of the University of California, Berkeley. Published in March 2008, this book is entitled *Quantitative Exposure Assessment*, and it documents two decades of published collaborative research work between Drs. Kupper and Rappaport, describing state-of-the-art quantitative methods for examining levels of chemical exposures and their effects in human populations. The book has been published by Lulu Press, an online publishing company.

Selected topics include historical developments of sampling strategies and occupational exposure limits, methods for characterizing lognormally distributed exposure levels within and between persons and across groups, the integration of exposure assessment with control options, assessment of the effects of exposure measurement error, the development of toxicokinetic methods for relating levels of chemical exposures to corresponding dose levels, and a comparison between air and biomarker measurements as surrogates for true exposure levels. To illustrate the application of the research methods discussed in the book, extensive use is made of numerous data sets obtained from populations exposed to air contaminants.

FACULTY & STAFF NEWS

Kosorok to Serve on NISS Board of Trustees

Dr. Michael R. Kosorok, professor and chair of biostatistics, has been elected to serve as a member of the National Institute of Statistical Sciences (NISS) Board of Trustees. He began his three-year term on July 1, 2008.

The National Institute of Statistical Sciences was established in 1990 by the national statistics societies and the Research Triangle universities and organizations, with the mission to identify, catalyze and foster high-impact, cross-disciplinary research involving the statistical sciences. The mission of NISS is to: perform and stimulate cross-disciplinary research involving statistics; confront complex, data-driven scientific problems of national importance; and provide career development opportunities for statisticians and scientists, especially those in the formative stages of their careers.

For more information about NISS, please visit www.niss.org.

Kupper Co-authors Article Cited by Reuters



Dr. Lawrence Kupper

Dr. Lawrence L. Kupper, Alumni Distinguished Professor, was the lead biostatistician on an article described on the Reuters Web site in November 2008. The article, entitled "Like Parent, Like Child: Child Food and Beverage Choices During Role Playing," was published in the November 2008 issue of the *Archives of Pediatrics & Adolescent Medicine*, an archive of the *Journal of the American Medical Association*.

In the study, the research team (involving researchers from Dartmouth and UNC) had 120 children, aged 2 to 6 years old, each take a turn shopping in a play grocery store. The children were instructed to buy anything that they wanted out of over 130 food and drink items. "Healthier" items included fruits, vegetables, whole-grain cereals, bread, and milk; "less healthy" items included desserts, candy, potato chips, soda, and sugary cereals. In addition, parents completed questionnaires on how often they purchased specific foods and beverages when accompa-

nied by their children.

The research findings strongly indicated that even very young children do not indiscriminantly reach for less healthy food and drink items. Instead, they seem to be forming food and drink preferences, potentially lasting ones, based essentially exclusively on their parents' food and drink choices. Currently, nutrition interventions typically begin most often with school-aged children. This research suggests that giving preschoolers exposure to, and a taste for, healthy foods and beverages could ultimately make it easier for them to keep up a lifetime of good eating and drinking habits.

Wright Mentioned in Newsweek Article

Fred Wright, professor of biostatistics, was mentioned in the July 12, 2008 issue of *Newsweek*. The article, "Lies, Damned Lies, and..." also features former UNC professor Michael Schell. Written by Sharon Begley, it spotlights statistical analysis and the invention of new tools such as the "false discovery rate."

For the complete article, visit www.sph.unc.edu/images/stories/academic_programs/bios/documents/newsweek_on_science_%26_statistics_%28july%2708%29.pdf.

Stewarts Participate in Small Boat Adventure Challenge

Dawn Stewart (CSCC), a.k.a. SandyBottom, and Paul Stewart (BIOS), a.k.a. DancesWithSandyBottom, both participated in the WaterTribe Everglades Challenge in March. This was Dawn's fifth Challenge in a kayak, and Paul's first, which he completed with their son, in a sailboat they built for the event. The Everglades Challenge is a one-week unsupported, expedition-style adventure race for kayaks, canoes, and small boats. The distance is roughly



300 nautical miles

depending on your course selection. “Unsupported” means that there are no safety boats or support crews to help participants during the race. “Expedition-style” means that participants must carry the same type of equipment and supplies they would carry on a major expedition. The Everglades Challenge follows the SW Florida coast line from Fort Desoto, in Tampa Bay, to Key Largo, Florida.

Dawn also maintains a blog about her kayaking adventures at sandybottomkayaker.blogspot.com.

In Memorium

Carol Williams

In May 2008, the Survey Research Unit family lost one of its cornerstones when Carol Williams passed away. As supervisor of the SRU calling room from 1991 to 2005, Carol helped to set and maintain the high standard of quality for which the SRU is known. Over the years, she hired and trained hundreds of data collection specialists, always emphasizing the importance of professionalism, attention to detail and good work ethics. In addition to her role as calling room supervisor, Carol used her years of data collection experience to assist principal investigators in creating effective, unbiased questionnaires. As a long-time employee of the SRU, Carol not only made a lasting impact on how the SRU operates today, but she left behind many good friends as well. We wish to acknowledge and thank her.

Daniel Horvitz

Daniel G. Horvitz, former RTI executive vice president and a pioneer in statistical theory and survey research, passed away at the age of 87 this past June in Boca Raton, Florida.

Dan's many accomplishments include serving on the Manhattan Project at Los Alamos, New Mexico, during WWII; co-authoring the Horvitz-Thompson Estimator, a statistical tool that advanced survey research; and helping to design surveys on education, drug abuse and health care that guided U.S. government policy. He was among RTI's earliest scientists, joining the institute in 1962 and rising to executive vice president in the 1980s. He was also a former professor of statistics and biostatistics at N.C. State University and the University of North Carolina at Chapel Hill.

FACULTY & STAFF NEWS

New Joint Faculty

Dr. Jamie Crandell is a research assistant professor in the School of Nursing, with a joint position as research assistant professor of biostatistics.

Dr. Rosalie Dominik is a research associate professor in the department of medicine and biostatistics.

Dr. James Marron is the Amos Hawley Distinguished Professor of statistics and professor of biostatistics.

Dr. Andrew Nobel is a professor in the departments of statistics and biostatistics.

Dr. Richard Smith is the Mark L. Reed Distinguished Professor of statistics and a professor of biostatistics.

Faculty Promotions

Dr. Fred Wright, professor

Dr. Haibo Zhou, professor

Visiting Faculty

Yogendra P. Chanbey, professor and chairman of the Department of Mathematics and Statistics at Concordia University, in Montreal, collaborating with Dr. Pranab K. Sen

Aijiao Deng, associate professor at Wuhan University in Wuhan, China, collaborating with Dr. Jianwen Cai

Victor Leiva, professor of statistics at the University of Valparaiso in Valparaiso, Chile, collaborating with Dr. Pranab K. Sen

Antonio Pedroso de Lima, a professor of statistics at the University of Sao Paulo in Sao Paulo, Brazil, collaborating with Dr. Pranab K. Sen

Antonio Sanhueza, professor of statistics at the University de frontier in Temuco, Chile, collaborating with Dr. Pranab K. Sen

Merryn J. Silvapulle, professor of statistics at Monash University in Melbourne, Australia, collaborating with Dr. Pranab K. Sen

Julio M. Singer, professor of statistics at the University of Sao Paulo in Sao Paulo, Brazil, collaborating with Dr. Pranab K. Sen

Faculty Resignations

Dr. Mayetri Gupta, assistant professor

New Postdocs

Joyee Ghosh, under the direction of Dr. Amy Herring
Atsushi Kawaguchi, under the direction of Dr. Kinh Truong

Guoyou Qin, under the direction of Dr. Haibo Zhou

New Staff

Gina Andrews, research manager (CSCC)

Chris Baggett, biostatistician (CSCC)

Monika Caruso, administrative support specialist (BIOS)

Xiaofang Cheng, applications analyst (CSCC)

Joy Cook, research assistant (CSCC)

Gang Cui, biostatistician (CSCC)

Lisa Dusenberry, administrative assistant (CSCC)

Lauren Eakin, social/clinical research assistant (CSCC)

Natalia Gouskova, applications analyst (CSCC)

Kuo-Ping Li, applications specialist (BIOS)

Danielle Malone, research assistant (CSCC)

Neepa Ray, social/clinical research manager (CSCC)

Retired Staff

Sandy Irving, statistician (CSCC)

BIOS Births!

Helen Xiaoyue Chu was born to Haitao Chu and Lei Zhang on June 22, 2008, weighing 9.6 pounds and measuring 20.5 inches long.

Adelyn Church was born to Carter and Beth Church on July 4, 2008.

Cory and Troy Hughes, along with daughter Millie, welcomed Ella Claire to the family on September 22, 2008.

Niantao Jiang and wife Yuying Tong welcomed Michael Jiang to their family on February 5, 2008. Big sister Michelle had the honor of choosing her new baby brother's name!

Matt and Brie McGrievy welcomed their twins, Quentin Turner and Sabine Elise McGrievy, on April 21, 2008 at 6:01 and 6:07 p.m.

Bob Sumner is the proud father of Eli Jonah Sumner, born on September 30, 2008.

Jingjing Wu and her husband welcomed Alan Cheng at 8:45 a.m. on August 25, 2008. His big sister Alice is very excited to have a baby brother, and they have an online photo album at <http://jjcy.org>.

Service Appreciation

10 Years

Diane Catellier
David Couper
Kimberly Ring

15 Years

Ricky Christian
Linda Hartig
Dianne Mattingly
Monica Miles
Climmon Walker

The Department of Biostatistics Presents 2008 Staff Awards



Pictured above (left to right) are: Pingping Wu, James Locklear, Dr. Michael Kosorok, Jeff Oberhaus, and Deborah Marean.

James Locklear (CSCC), applications specialist, received the department's 2008 Staff Award of Excellence. James has devoted more than 20 years' of service to the department, the majority of which was spent at the CSCC. He currently works at the CSCC as a SAS programmer and team leader in an applications specialist role in the statistical computing (SC) group. Over the years, James has been a very competent team leader for the statistical computing effort on many of the CSCC's studies,

including ACAS, VISP, FAVORIT, TAAG, and the Hispanic Community Health Study. He has also stepped in to fill critical roles on other studies, such as ARIC, in times of special need.

The Department of Biostatistics also recognized staff members for achievements during the year through the Star Heels awards program. This program, sponsored by TIAA-CREF, allows departments to award a \$25 gift certificate to a deserving employee. The following employees are our Star Heels winners: Deborah Marean (SRU), Jeff Oberhaus (CSCC), and Pingping Wu (CSCC).

25 Years

Nancy Anderson
Hope Bryan
Ravi Matthew

30 Years

William Kalsbeek

35 Years

Richard Bilsborrow

SURVEY RESEARCH UNIT

Proposal Funded by the Los Angeles Homeless Services Authority

The Survey Research Unit has been awarded funding by the Los Angeles Homeless Services Authority (LAHSA) to conduct the 2009 Greater Los Angeles Homeless Count (GLAHC). The project involves developing the appropriate statistical models and methodologies to calculate numerical estimates and demographic characteristics of homeless people in Los Angeles County, California.



Dr. Robert Agans



Dr. William Kalsbeek

The LAHSA has completed two rounds of homeless enumerations and surveys in 2005 and 2007. The data generated by this research provides valuable information for homeless programs and services at the service planning area, county supervisorial districts as well as Los Angeles City Council districts. The scope of work for this proposal involves: street count sample design, shelter and institution count sample design, face-to-face homeless street and shelter sample as well as questionnaire design, general population telephone survey of the hidden homeless, analysis of key findings and reports, and a set of deliverables.

The SRU will face a number of important statistical and practical challenges in meeting the objectives of the 2009 GLAHC. One key statistical challenge is the mobility of the study's target population. A second related statistical challenge in enumerating and studying the homeless population is the relative rarity of this segment of the population. For example, the estimated raw count of 73,000 reported from the 2007 GLAHC points to a substantial homelessness problem in terms of its impact on the lives of those affected. This is a large number of homeless people, but they represent less than 1% of the general population of a county with over 10 million people. A third operational challenge stems from the configuration of proposed organizational partners for the 2009 GLAHC. To control field costs, various local organizations allied with the LAHSA (e.g., law enforcement agencies, fire departments, civic/benevolent groups) will provide volunteers to do the counting and interviewing of homeless in selected locations.

The SRU will not only serve as a consultant for the unsheltered and sheltered homeless counts conducted by the LAHSA, but will also conduct a fairly large (n=4000) telephone survey of the general population to measure the portion of homeless individuals living in areas on private property not fit for human habitation. The SRU will be responsible for producing the overall estimates of homelessness in Los Angeles County. The contract period is September 1, 2008, to August 31, 2009, for the amount of \$368,369. Drs. Robert Agans and William Kalsbeek are the principal investigators.

Contract Awarded by the United Way

Dr. Robert Agans, research associate, has been awarded a contract entitled "2008 North Carolina Parent Opinion Survey of Public School Sexuality Education" by the Adolescent Pregnancy Prevention Campaign of North Carolina, a non-profit United Way organization based in Durham, N.C. The award is for \$46,000. Agans is the principal investigator for this five-month project.

The sponsor is looking for an update on parents' views concerning sexuality education in North Carolina's public schools. The participants, parents and legal guardians, will be asked to complete a 10 minute telephone survey to identify their opinions regarding the content and implementation of school-based sexuality education programs. Determining parents' current opinions about sexuality education will ensure that their views are incorporated into updating the curriculum in North Carolina.

Kalsbeek Awarded Two New Grants

N.C. Division of Public Health

The Survey Research Unit, under the direction of Dr. William D. Kalsbeek, professor of biostatistics, received a \$12,000 award from the Chronic Disease and Injury Section of the North Carolina Division of Public Health entitled "N.C. Health Information Needs Assessment." The goal of this study is to create a broad and detailed list of health information needs in the form of questions that health information users wish answered about North Carolina residents, and to determine which of these questions can be answered by existing health data systems, thereby determining which health information needs remain unmet.

Bloomberg Foundation

The SRU received a \$148,064 award through the Bloomberg Foundation to the National Foundation for the Centers for Disease Control and Prevention entitled "Statistical Support in Sampling for the Bloomberg Global Initiative to Reduce Tobacco Use," with the goal of facilitating the process of developing and implementing high quality sample designs for 15 in-country surveys to be conducted as part of the Global Adult Tobacco Survey.

Dr. Kalsbeek, as an ongoing statistical consultant, provided developmental and methodological support through the Research Triangle Institute to the Office of Smoking and Health (OSH) and the Centers for Disease Control and Prevention as part of their work on the Youth Tobacco Survey and the Adult Tobacco Survey. The Survey Research Unit also will provide statistical consultation as needed to OSH in the development of an instructional manual for an Adult Tobacco Survey aimed at the Hispanic population.

Dr. Gerardo Heiss Named Kenan Professor



Dr. Gerardo Heiss

Dr. Gerardo Heiss has been named Kenan Distinguished Professor of epidemiology at the University of North Carolina at Chapel Hill's Gillings School of Global Public Health. The Kenan Professorship is an endowed faculty position awarded to outstanding scholars and teachers.

Heiss also is director of graduate studies for the School's Department of Epidemiology and faculty member at the Department of Biostatistics' Collaborative Studies Coordinating Center. He studies the burden of cardiovascular diseases in populations, their risk factors, and the roles of genetic and environmental determinants. His research has drawn on long-term cohort studies of risk factors as well as on registry systems that monitor the level and trends of disease in communities. Recent work by Heiss has focused on understanding chronic diseases of women and on the social origins of clinical and sub-clinical cardiovascular disease over the life course.

The Kenan professorships were created through a 1917 bequest from Mary Lily Kenan Flagler Bingham to honor her father and uncle, Thomas S. Kenan and James Graham Kenan. Her bequest was one of the largest gifts made to a state university at the time.

Carpenter Collaborates on Two Ancillary Studies with the Children's Hospital of Philadelphia

Dr. Myra A. Carpenter, senior investigator at the Collaborative Studies Coordinating Center and principal investigator of the Randomized Intervention for Children with Vesicoureteral Reflux (RIVUR) trial, is collaborating with investigators at the Children's Hospital of Philadelphia (CHOP) on two ancillary studies. Antimicrobial Resistance in Kids (ARKS), funded by a Thrasher Foundation grant to Theoklis Zaoutis, MD, at CHOP, will assess the association between antibiotic prophylaxis and the development of antimicrobial resistance in selected bacteria recovered from children on TMP/SMZ prophylaxis or placebo.

The Careful Urinary Tract Infection Evaluation (CUTIE) study, funded by a grant from the NIH's National Institute of Diabetes and Digestive and Kidney Diseases, to Ron Keren, MD, MPH at CHOP is a cohort study of the development of renal scarring in children without vesicoureteral reflux who are enrolled following their first or second urinary tract infection (UTI). These data will be analyzed along with RIVUR data to evaluate whether such reflux has an impact on the development of renal scarring following recurrent UTI. Dr. Carpenter is subcontract principal investigator for both of these studies.

Dr. Wayne Rosamond, professor of epidemiology and faculty member at the CSCC, has been awarded a subcontract in the amount of \$102,625 by the National Heart, Lung and Blood Institute to provide consultation on a study entitled "Epidemiology of Venous Thrombosis and Pulmonary Embolism (LITE Study Renewal)." This study is a continuation of the Longitudinal Investigation of Thromboembolism Etiology (LITE) project, which was a prospective study of venous thromboembolism (VTE) in the Atherosclerosis Risk in Communities (ARIC) Study and Cardiovascular Health Study (CHS) cohorts. The principal investigator of the four-year grant is Dr. Aaron Folsom at the University of Minnesota. Rosamond will serve as subcontract principal investigator. The long-term objective of this project is to identify additional risk factors for deep venous thromboembolism and pulmonary embolism, in order to better understand the etiology and possible prevention of VTE.

CSCC Wins Two National Patient Registry Projects

In the first half of 2008, the Collaborative Studies Coordinating Center was awarded two nationwide patient registries which aim to dramatically simplify the gathering of patient data, among other benefits. Maintaining registries is new to the Center, so these opportunities provide a chance to develop fresh data harvesting and management techniques. "We are very excited to add registry study design and coordination to the repertoire of CSCC capabilities," says Center Director, Dr. Lisa LaVange.

The Bronchiectasis Research Registry was awarded in late 2007 by the Chronic Obstructive Pulmonary Disease (COPD) Foundation. The goal of the registry is to aggregate data on patients diagnosed with non-cystic fibrosis bronchiectasis, a progressive, incurable disease of the lungs which afflicts thousands of people in the U.S. Centralizing patient information into a common registry will assist in the planning of future multi-center clinical trials. The registry will also be used to provide better insight into the diagnosis of the etiology of the different types of bronchiectasis, as well as the pathophysiology of the disorder.

There are presently 11 registry sites scattered across the country, one being UNC's own School of Medicine, headed by Dr. Michael Knowles. Patient enrollment began in early 2008. The principal investigator for this project is Dr. LaVange, CSCC director and Professor of the Practice in biostatistics. Visit the CSCC Web site at www.csc.unc.edu/bron for more information.

The second registry was awarded in mid-2008 by the National Multiple Sclerosis Society requiring the CSCC to function as the Data Coordination and Analysis Center (DCAC) for the Pediatric MS Centers of Excellence Network. The DCAC will develop a data management system for a consolidated database for the Network and will help investigators analyze data. The DCAC will also collaborate with Network investigators on designing, seeking funding for, and conducting research studies into causes of and treatments for pediatric-onset multiple sclerosis. Dr. David Couper, research associate professor in the Department of Biostatistics and CSCC deputy director, will lead the DCAC.

The National MS Society helps each person address the challenges of living with MS by funding cutting-edge research, driving change through advocacy, facilitating professional education, and providing programs and services that help people with MS and their families move their lives forward. Further information about the National MS Society is available at www.nationalmssociety.org.

CSCC Bids Sandy Irving a Fond Farewell



Sandy Irving

The Collaborative Studies Coordinating Center wishes a fond farewell to key longtime (35 years!) statistician Sandy Irving. Beginning in the pre-CSCC days of the Lipid Research Clinics (LRC) with Drs. Dale Williams and Ed Davis, Sandy is credited with defining the role of study project manager. Bear in mind, those were the days before desktop computers and fax machines. After the LRC, she managed the International Studies of CVD, where she represented the CSCC and UNC in many corners of the world, including Russia, Poland, and China, and began many overseas friendships. Many today know her as the mother hen of the CSCC's most well-known study, the Atherosclerosis Risk in Communities Study (ARIC). Staff and colleagues praised her dedication and friendship at a tea party in her honor, and a quilt made by colleagues at the ARIC cohort sites was presented. She has left the center with rather large shoes to fill, and she will be missed. Sandy is looking forward to spending more time with her children and grandchildren, as well as continuing her work in civil rights activism.

CSCC Milestone Service Ceremony

In February 2008, the CSCC honored stalwart staff and faculty members who have dedicated 10 or more years of service to the center. A dinner and awards ceremony was held in UNC's Carolina Club, with an awards presentation following. Dr. Lisa LaVange praised the group's dedication and hard work, while past center directors, Drs. Woody Chambless and Ed Davis, reflected on personal memories and center achievements. There was a slideshow as well, featuring past and present moments of staff camaraderie.



Biostatistics CSCC faculty and staff at UNC's Carolina Club

"It is wonderful to work with such smart, outgoing, and dedicated people," praised CSCC Director Lisa LaVange. "It is only because of you and your work that the CSCC is the best in the world at what it does." Such an event was long overdue, but Dr. LaVange hopes that it will set a tradition of celebrating faculty and staff who achieve milestone commitments to the CSCC.

Honored at the event were:

10 years - Linda Hartig, Bob Matherly, Bill McGee, Aluoch Ooro, Kim Ring, Jan Smith
15 years - Barbara Brown, Carolyn Hagy, Monica Miles, Wayne Rosamond, Dawn Stewart, Climmon Walker, Ding-Yi Zhao
20 years - Nancy Anderson, Myra Carpenter, James Locklear, Debbie Rubin Williams
25 years - Shrikant Bangdiwala, Hope Bryan, Woody Chambless, Nancy Cohn, Ravi Matthew, Marston Youngblood
30 years - Gerardo Heiss
35 years - Ed Davis, Sandy Irving

Of note, Ed Davis and Sandy Irving have been pledged to the Coordinating Center even before it began, as members of its original incarnation, the Lipid Research Clinics.

Pictures of the event can be seen on the CSCC Web site at: www.csc.unc.edu/csc/08Milestones.

Ooro Elected to Serve on Employee Forum

The CSCC's Aluoch Ooro has been elected to serve a two-year term on The University of North Carolina at Chapel Hill Employee Forum. The Forum is a group of staff members elected by their peers to address constructively the concerns of UNC-Chapel Hill employees by:

- * Seeking out the issues, interests, ideas, and participation of employees;
- * Developing proactive, progressive recommendations and advocating these to the administration and the represented employees ;
- * Providing an effective two-way communication link between the administration and the employees ;
- * Fostering an open and positive environment throughout the University community;
- * Supporting achievement of the University's mission of teaching, research, and public service.

The vision of the Employee Forum seeks to continually improve the quality of life at UNC-Chapel Hill for its students, faculty, and employees through mutual understanding, recognition of employee contributions, and respect for the worth of the individual.

33 New Graduate Students and 10 Undergraduates Join Biostatistics in Fall 2008



Biostatistics fall 2008 incoming class

The Department of Biostatistics welcomed the fall 2008 incoming class in August. Of 43 new students, 10 are enrolled in the BSPH undergraduate program, 13 in the PhD program, 5 in the DrPH program, 12 in the MS program and 3 in the MPH program. Our total number of students is 130 graduate students (70 PhD, 30 DrPH, 21 MS and 9 MPH) and 14 undergraduate students.

Among the graduate students, there are 16 U.S. citizens and three permanent residents. International students come from China, India, South Korea, Singapore and Taiwan. The majority of graduate students are mathematics or statistics majors, but other majors include biology, medicine, biomedical engineering, veterinary science and psychology. For the first time in quite a while, we have more incoming men graduate students than women! The enrollment distribution for fall is 23 males and 10 females.

Four of the incoming ten BSPH students graduated from the North Carolina School of Science and Mathematics, the nation's first residential public high school which focuses on a curriculum of math, science and technology. Several incoming undergraduates plan to double-major in math, biology, or international studies.

We welcome these talented young people to our department!

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. In 2008, the following people received honors from the Delta Omega Society:

Faculty Award for Outstanding Scholarship, Teaching, and Research: Dr. Jianwen Cai

Book Award for Outstanding Scholarship: Jamie Perin

Alumni Award : Dr. Limin Clegg

Service Award: Annie Green Howard

Outstanding Academic Achievement Award for Graduating Students 2007-2008: Dr. Bevan Huang, Dr. John Kairalla

Undergraduate Award: Victoria Ding

2008 Graduates

May 2008

Julie Rebecca Aldridge	MS
Carissa Marrie Baker-Smith	MPH
Yu-Ling Chang	PhD
Erika Denison Menius	MS
Katharine Marie Poole	MS

August 2008

Anita Ann Abraham	DrPH
Eugenio Andraca Carrera	PhD
Ashley Harris Beecham	MS
Benjamin Rigby Saville	PhD
Sean Simpson	PhD

December 2008

Gang Cui	MPH
Christoher Patrick Cummiskey	MPH
Scott Andrew Flanagan	MPH
Miao Jiang	MS
Che-Chin Lie	MS
Xiaoyan Amy Shi	PhD
Giovanni Veronesi	MS

STUDENT NEWS

2008 Student Awards

Margolin and Kupper Awards

Dr. Jonathan Gelfond (PhD, 2007) received the Barry Margolin Award for best dissertation and the Larry Kupper best publication award. Gelfond completed his dissertation, "Bayesian Model-based Methods for the Analysis of DNA Microarrays with Survival, Genetic, and Sequence Data," in 2007 under the advisement of Drs. Joseph Ibrahim and Fei Zou. Jon has outstanding methodologic and computing skills and has an excellent background in molecular biology and genetics. His expertise and experience in a vast array of statistical methodologies, including clinical, genomic, and longitudinal studies, makes him well on his way to having a very productive research career in biostatistics. Dr. Gelfond is an assistant professor in the Department of Epidemiology & Biostatistics at the University of Texas Health Science Center School of Medicine.

Halperin Award

Hana Lee is this year's recipient of the Max Halperin Scholarship award. Lee has a strong statistical background. She is currently a second-year student who recently switched to the PhD program in biostatistics.

The Halperin award is named in honor of Dr. Max Halperin, a graduate of the UNC-Chapel Hill Department of Statistics. The award is designed to encourage the development of young biostatisticians.

Elandt-Johnson Award

Allison Deal (MS, 2007) was awarded the Elandt-Johnson Master's Paper award for her work "Some Statistical Issues in Adapting Sample Designs for Rapid Response Surveillance when Comparing Overlapping Samples," which was completed as part of a grant from the Office of Surveillance at the



Allison Deal (left) receives the Elandt-Johnson Master's Paper Award from Michael Kosorok, department chair

National Centers for Disease Control (CDC). Its overall scientific objective was to investigate the statistical and practical implications of modifications in the design of CDC's ongoing Behavioral Risk Factor Surveillance System, to enable BRFSS data to also be used for rapid population assessments of influenza vaccination coverage, specifically to accommodate benchmarking coverage rate estimates for local areas of the State to statewide estimates in North Carolina.

Deal's work contributed significantly to evaluating the changes being considered by CDC to more rapidly meet public health information needs using BRFSS data. It demonstrates the manner in which the methodology of biostatistics can directly contribute to improving the quality of population-based information used in public health. Deal is a biostatistician at the UNC-Chapel Hill Lineberger Comprehensive Cancer Center.

Thomas Stewart and **Siddhartha Mandal** received funds from this year's John and Diane Fryer Fellowship, given by the Department of Biostatistics and made possible by contributions of John and Diane Fryer.

Eugene Urrutia won the Bernard 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 is named for Bernard G. Greenberg, founder and former chair of the Department of Biostatistics, and is made possible by generous contributions by the Greenberg family and friends.

Wan Suk Choi has been awarded the Mohberg Scholarship. This award is offered to an outstanding applicant to the Department and made possible by gifts to the Public Health Foundation by the family of Noel Mohberg.

Suprateek Kundu received the David and Lucy Hardison Scholarship, offered to an outstanding applicant to encourage studies in bioinformatics in the department. This award is made possible by the gifts of the Hardison family.

Steven Hoberman received the GlaxoSmithKline Scholarship, made possible by a GlaxoSmithKline donation to an applicant chosen by the department.

Wonil Chung received the Nguyen V. Dat Endowed Scholarship, offered to a graduate student in the Department of Biostatistics. This award is made possible by a generous gift from Nguyen Dat.

Recipients of ENAR and ASA Distinguished Student Paper Awards

Ju-Hyun Park and Xiaoyan Amy Shi were among last year's 20 recipients of the Eastern North American Region of the International Biometric Society (ENAR) Distinguished Student Paper Awards for 2008. The awards helped to send them to ENAR where they made presentations on their research. Jamie Perin won an American Statistical Association Section on Health Policy Statistics Student Paper Award.

Biostatistics Student Travel Awards

In 2008, the Biostatistics Student Travel Fund was able to help support sending 15 Biostatistics graduate students to ENAR and ASA meetings, where they made presentations on their research.

The travel fund was created and endowed in 2001 by Julie McMillan and other graduates of the Department. Dr. Gary Koch has offered to match contributions to this fund up to a specified amount. If you are interested in contributing, please see page 31 of this newsletter, "Opportunities for Giving," for further details. Thank you for your support.

BSA has Active Year

Outside of classwork and numerous research projects, many students have taken the opportunity to become involved with the Biostatistics Student Association (BSA) this past year. For the second year in a row, the students organized a departmental team for Relay-For-Life, a fundraiser benefitting the American Cancer Society. Thanks to the help of faculty, staff and students, we were able to raise almost two thousand dollars. We look forward to surpassing that amount this year. The BSA will also be organizing a collection drop-off for Toys for Tots this holiday season.

Doctoral student Ryan May won UNC's Intramural Male Athlete of the Year and led the Biostatistics Department to win second place in team participation, signing up students to play sports ranging from badminton to soccer to inner tube water polo. Our student volleyball team won the Intramural UNC Recreational League Championship this season.

The BSA continues to sell UNC Biostatistics travel mugs for \$10 each. If you are interested in this or in getting involved with any of the volunteer opportunities, please contact one of the BSA co-presidents:

Beth Horton - bethany.horton@gmail.com

Katy Jaffee - katyj@email.unc.edu



Biostatistics spring 2008 softball team
Front (l to r): Katie Poole, Allison Deal, Annie Green Howard, Virginia Pate, Jeanine Matuszewski
Back (l to r): Aaron Jones, Mike Hussey, Ryan May, Matt Matheson and Dustin Long

Students Make Presentations at ENAR and ASA Joint Statistical Meetings

The following Biostatistics students made presentations at the Eastern North American Region of the International Biometric Society meeting in March 2008:

- Anita Abraham, “A Cp Statistic for Fixed Effects Variable Selection in the Linear Mixed Model for Longitudinal Data,” Authors: Anita Abraham and Lloyd J. Edwards
- Lung-Chang Chien, “A Macro for Nearest Neighbor Imputation,” Authors: Lung-Chang Chien and Mark Weaver
- Yeonseung Chung, “Nonparametric Bayes Conditional Distribution Modeling with Variable Selection,” Authors: Yeonseung Chung and David B. Dunson
- Yijuan Hu, “A General Framework for Studying Haplotype Effects and Haplotype-Environment Interactions, With Applications to Untyped SNPs,” Authors: Yijuan Hu, Danyu Lin and Donglin Zeng
- Eunhee Kim, “Semiparametric ROC Models with Multiple Biomarkers,” Authors: Eunhee Kim and Donglin Zeng
- Ju-Hyun Park, “Bayesian Generalized Product Partition Model,” Authors: Ju-Hyun Park and David B. Dunson
- Xiaoyan Shi, “Adjusted Exponentially Tilted Empirical Likelihood with Applications to Neuroimaging Data,” Authors: Xiaoyan Shi, Hongtu Zhu, Joseph G. Ibrahim and Martin Styner
- Sean L. Simpson, “The GLM with a Generalized AR(1) Covariance Structure,” Authors: Sean L. Simpson, Lloyd J. Edwards, Keith E. Muller and Pranab K. Sen
- Daniela Sotres-Alvarez, “Dietary Patterns During Pregnancy: Factor Analysis and Latent Class Analysis,” Authors: Daniela Sotres-Alvarez, Amy Herring and A.M. Siega-Riz
- Giovanni Veronesi, “Cardiovascular primary prevention in Lombardia Region, northern Italy. Can accuracy of GP absolute risk calculation improve prevention guidelines adherence in high risk subjects?,” Authors: G. Veronesi, M.M. Ferrario, M. Dell’Oca, C. Fornari, R. Sega and G. Cesana

The following Biostatistics students made presentations at the Joint Statistical Meetings of the American Statistical Association in Salt Lake City, Utah in August 2008:

- Eugenio Andraca-Carrera, “Variance Estimation for Correlated Data,” Author: Eugenio Andraca-Carrera
- Hyunsoon Cho, “Bayesian case influence measures and applications,” Authors: Hyunsoon Cho, Hongtu Zhu and Joseph G. Ibrahim
- Yeonseung Chung, “The Probit Stick-Breaking Process Mixture for Conditional Distribution Modeling with Variable Selection,” Authors: Yeonseung Chung and David B. Dunson
- Arpita Ghosh, “Extensions of Conditional Likelihood Bias Adjustment for Disease Association Risk Estimates in Whole-Genome Scans,” Authors: Fred Wright, Arpita Ghosh and Fei Zou
- Yimei Li, “Intrinsic Regression Model for Positive-Definite Matrices with Applications to Diffusion Tensor Imaging,” Authors: Yimei Li, Hongtu Zhu, Yasheng Chen, Joseph G. Ibrahim and Weili Lin
- Tsui-Shan Lu, “Statistical Inferences for Outcome Dependent Sampling Design with Multivariate Outcomes,” Authors: Tsui-Shan Lu and Haibo Zhou

OPPORTUNITIES FOR GIVING

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 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

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

James D. Hosking Memorial Fund for CSCC Professional Development - to support training and travel expenses for staff to increase their growth and development in the field of clinical trials research

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

Regina C. Elandt-Johnson Master's Paper Award in Biostatistics - to provide an award in the name of Regina C. Elandt-Johnson to a student in the Department of Biostatistics for the accomplishment of an outstanding Master's paper

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

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

Pranab K. 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

The Nguyen V. Dat Endowed Scholarship in Biostatistics - to provide scholarship support to a graduate student in Biostatistics

Checks should be made payable to the UNC-Chapel Hill School of Public Health Foundation. So that your gift may be properly credited, please indicate "BIostatISTICS" in the memo line and please indicate further whether it should be applied to one of the gift funds named above.

Mail to:

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The University of North Carolina at Chapel Hill
Campus Box 7407
Chapel Hill, NC 27599-7407

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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