Biostatistics Epidemiology Administration Computing Resource Health Outcomes

MEET MITHAT IN MIAMI

As the program chair, **Mithat Gönen** is inviting you to submit a contributed abstract for the annual Society for Clinical Trials meeting in Miami on May 20-23, 2012. The theme of the 2012 meeting is *Clinical Trials in Vulnerable Populations*, such as the elderly, children, prisoners, minorities, patients with mental disease and patients in emergency care.

Giving a talk or presenting a poster in the annual meeting are the most direct, not to mention enjoyable and beneficial, ways to engage in the SCT. While there will be several thematic sessions, the majority of presentations will cover other topics such as data management, trial conduct, recruitment, ethics, regulatory issues, information technology and statistical methodology. One notable exception is presentations that primarily deal with results from an individual trial, which we think is more appropriate for the relevant clinical and specialty societies.

Visit www.sctweb.org for more details, including specific submission requirements. See you in Miami!

SEEKING VOLUNTEERS

The Department Holiday Party planning will be starting soon and the committee is seeking creative and resourceful volunteers to help make this year's event memorable. Joining the party planning committee is a great way to meet others within the department. For those interested or have suggestions, please contact Shireen Lewis or Kara Fraga.

CRG CORNER

The Clinical Research Database (CRDB) runs on three platforms including CRDB Client, CRDB Web, and CRDBi. In addition to enhancements of existing CRDB forms and reports, the Computer Resource Group (CRG) is preparing the launch of the CRDBi onto new online systems in order to collaborate with participating clinical centers and cancer hospitals outside MSKCC.

CRDBi is the web client platform of the Clinical Research Database. The release version is currently CRDBi 1.27.1
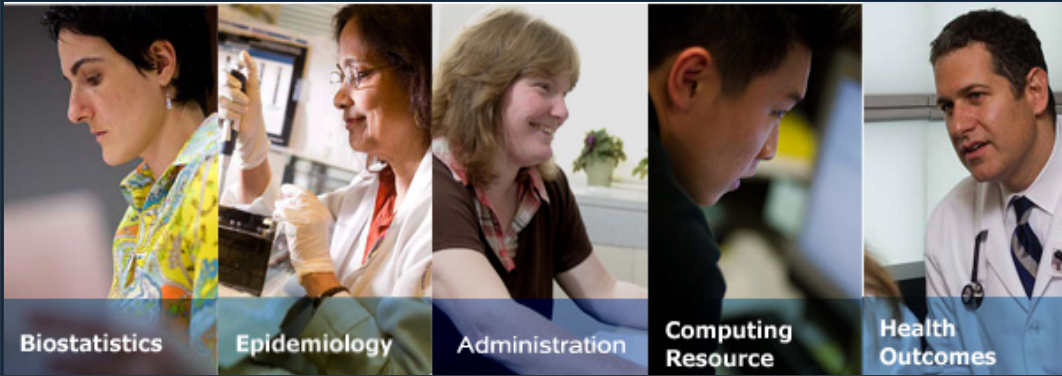
WELCOME SEAN DEVLIN!   NEW FACULTY IN BIOSTATISTICS

Sean Devlin, PhD, has been appointed Assistant Attending Biostatistician in the Biostatistics Service. Dr. Devlin obtained his PhD from the University of Washington, Seattle. He recently received the award for the 2011 Outstanding Doctoral Student in the Department of Biostatistics. His dissertation examined the use of nonparametric methods for the regression of the receiver operating characteristic (ROC) curve. These methods use an adaptive modeling approach, such as regression trees, to flexibly model the covariate relationship on the ROC curve or the biomarker distribution. In addition to his dissertation work, Dr. Devlin worked at the Resuscitation Outcomes Consortium, a large multicenter clinical trials center that investigates pre-hospital interventions. Prior to this position, he worked with a team at UW investigating the utilization of complementary and alternative medicine by individuals diagnosed with cancer, using a large insurance claims database matched to the SEER cancer registry. Dr. Devlin looks forward to collaborating with other investigators at MSKCC, and hopes to use future clinical research as a platform for methodological work.

Sean Devlin, PhD

PUBLICATIONS

❖ **Hierarchical modeling for estimating relative risks of rare genetic variants: properties of the pseudo-likelihood method**
Marinela Capanu and **Colin Begg** co-authored a paper recently published in *Biometrics*, which explores the properties of several proposed hierarchical modeling techniques to estimate the relative risks of rare genetic variants. The paper was selected for presentation at JSM 2012 at a Biometrics showcase session allocated to papers that the co-editors felt were especially noteworthy and of very high quality.

❖ **Variants in activators and downstream targets of ATM, radiation exposure and contralateral breast cancer risk in the WECARE Study.**
Jen Brooks, Anne Reiner, Jaya Satagopan, Marinela Capanu, Xiaolin Liang, Jonine Bernstein and WECARE colleagues published an article in *Human Mutation*. They found that carriers of a haplotype in RAD50 (a DNA repair gene) treated with radiation, had an over 4-fold greater CBC risk than unexposed carriers in The WECARE Study. This suggests that these women may be susceptible to the DNA-damaging effects of radiation therapy associated with radiation-induced breast cancer.

❖ **Body mass index and risk of second primary breast cancer: The WECARE Study.**
In another study published in *Breast Cancer Research and Treatment*, **Jen Brooks, Anne Reiner, Jonine Bernstein** and their WECARE colleagues found that overall, BMI was not associated with second primary breast cancer risk in The WECARE Study. However, a small group of obese, postmenopausal women with ER-negative first primary tumors was found to have more than a 5-fold greater risk than normal weight women with ER-negative first tumors.

❖ **Incorporating lower grade toxicity information into dose finding designs.**
Alexia Iasonos was a co-author of a recent article in *Clinical Trials* investigating whether the added information on intermediary toxicity grades, which are not dose-limiting toxicities, can improve the estimation of the maximum tolerated dose. The results of this simulation study show that only modest improvement can be obtained mostly when explicit models are used.

❖ **Properties of preliminary test estimators and shrinkage estimators for evaluating multiple exposures—application to questionnaire data from the 'Study of nevi in children'.**
Jaya Satagopan, **Christine Zhou**, and **Susan Oliveria** are co-authors with other colleagues on a paper that was published in the *Journal of the Royal Statistical Society Series C*. This paper establishes a relationship between preliminary test estimators and certain members of a family of empirical Bayes-type shrinkage estimators, uses this relationship to investigate the benefits and limitations of shrinkage estimators by evaluating their frequentist properties, and identifies a robust member of this family for use in practical settings.

PREVENTION, CONTROL, AND POPULATION RESEARCH SEMINAR SERIES

All PCPR seminars take place at 1275 York Avenue, Rm. M-107, 4:00–5:00 PM

❖ October 11, 2011
"Provocative Questions in Cancer and Epidemiology"
Patricia Hartge, ScD
Deputy Director, Epidemiology and Biostatistics Program
Division of Cancer Epidemiology & Genetics, National Cancer Institute

❖ November 8, 2011
"Breast Cancer Disparities: Ethnicity, Language Barriers and System-based Solutions"
Leah Karliner, MD, MAS
Assistant Professor of Medicine
Division of General Internal Medicine, Department of Medicine
University of California, San Francisco

BIOSTATISTICS SEMINARS

All Biostatistics seminars take place at 307 E. 63rd Street, 3rd Floor, Rm. 331, 4:00–5:00 PM

❖ October 5th   **Zhigang Zhang**
❖ October 12th   **Nicholas Jewell**
          University of California at Berkeley
❖ October 19th   **Katherine Panageas**
❖ October 26th   **Marinela Capanu**
❖ November 2nd   **Jack Kalbfleisch**
          University of Michigan
❖ November 9th   **Jaya Satagopan**
❖ November 16th   **Glenn Heller**
❖ November 30th   **Ronglai Shen**

Staff Promotions

❖ **Sara Olson** promoted to Associate Attending Epidemiologist
❖ **Brendan Phalan** promoted to Financial/Project Supervisor
❖ **Liora Pollick** promoted to RSA II
❖ **Sarah Yoo** promoted to Research Assistant

Staff Achievement

❖ In early August, **Eve Burstein** traveled to Tanzania to climb Mount Kilimanjaro. At 5,895 meters (19,341 feet), Kilimanjaro is the tallest mountain in Africa and the fourth highest of the seven summits. The group climbed through forest, moorland, alpine desert, and scree fields over the course of the six day hike, and arrived at the summit just in time to see the sun rise over the glaciers.

PUBLICATIONS (continued)

❖ [A fully Bayesian hidden Ising model for ChIP-seq data analysis](#)
Quincy Mo authored an article in *Biostatistics* proposing a dynamic signal profile algorithm combined with a fully Bayesian hidden Ising model for ChIP-seq data analysis. Chromatin immunoprecipitation followed by next generation sequencing (ChIP-seq) is a powerful technique used in a wide range of biological studies including genome–wide measurements of protein–DNA interactions, DNA methylation, and histone modifications. Compared with other methods, the proposed method achieves equal or higher sensitivity and spatial resolution in detecting transcription factor binding sites with lower false discovery rate. An R package titled iSeq implementing the proposed method is freely available at [Bioconductor: Open Source Software for Bioinformatics](#).

PLEASE JOIN US IN WELCOMING OUR NEW STAFF!

❖ **Pär Stattin, MD, PhD, Visiting Investigator**
Department of Surgical and Perioperative Sciences, Urology and Andrology
Umeå University Hospital, Umeå, Sweden
Pär Stattin, a professor in Urology at Umeå University Hospital, will be spending a year at MSKCC, where he will work closely with Andrew Vickers' team. Dr Stattin was instrumental in the development of "PCBaSE", a Swedish prostate cancer registry that links to numerous other Swedish databases (such as the cause of death registry and the prescription drug registry), and is an excellent resource for research on the epidemiology of prostate cancer and its treatment.

❖ **Mary Dallat, Research Fellow**
Mary Dallat is a new research fellow working with **Ann Zauber**. She obtained her MD, MSc in Public Health and BSc in physiology from Queens University, Belfast. She was awarded a joint Health Research Board and Health and Social Care Research and Development National Cancer Institute Health Economics fellowship. She is particularly interested in the protective effects of physical activity on health and her primary research goal is to estimate the cost-effectiveness of a recently introduced systems wide community intervention to promote physical activity levels in Northern Ireland. She will use micro-simulation modeling in these analyses.

❖ **Sang-Hee Min, Research Study Assistant**
Sang-Hee graduated from Wellesley College in May 2011 with her BA in Neuroscience and a Minor in Music. She is currently working with **Victoria Blinder** on Breast Cancer and the Workforce (BCW): Ethnic Differences in the Impact of Breast Cancer on Employment Status, Financial Situation, and Quality of Life. Sang-Hee will be recruiting participants who speak Korean, Chinese, and Spanish at sites throughout New York City.
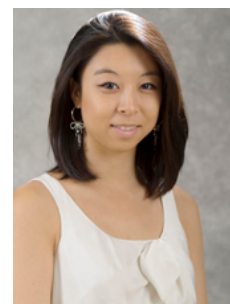
❖ **Matthew Kent, Data Analyst**
Matthew Kent has joined Andrew Vickers and his team. He will be specializing in informatics related work. Matthew graduated from Binghamton with BS in bioengineering and worked at Albert Einstein before coming to MSKCC.

❖ **Stacey Petruzella, Research Project Coordinator**
Stacey graduated with her MPH in Epidemiology & Biostatistics and her MS in Nutrition Policy from Tufts University. Prior to MSKCC she worked at the Yale University School of Medicine as the Project Director for the Yale Breast Study. Stacey will be supporting the research needs of **Helena Furberg** in the Epidemiology Service.

❖ **Laura Pinheiro, Senior Data Analyst**
Laura recently graduated with an MPH in Biostatistics and Epidemiology from Boston University School of Public Health. After graduation, she worked at Children's Hospital Boston in infectious disease surveillance. Laura will be working with the Health Outcomes Research Group on analysis of SEER-Medicare and other large databases.

❖ **Darren Tang – Associate Application Analyst**
Darren Tang has joined the Computing Resource Group under **Kai-Hsiung Lin** where his primary focus will be continued development of the CRDB and CRDBi applications. Prior to joining the team Darren worked at BN.com as Senior Software Engineer. Darren graduated from Columbia University with his MS in Computer Science.