



## Biostatistics R Us

The new Biostatistics Boutique has opened its doors at M. D. Anderson to a throng of clinicians, scientists and poodles, all in search of the halo of scientific respectability. Business was brisk the first day, but the staff of crack biostatisticians bore up like brave soldiers. "There was such a run on '<.05' p-values that we ran out and had to substitute confidence intervals until a rush-order shipment arrived from our supplier," stated one tired but happy number cruncher. "We may have to open Sundays to meet the demand!" While most customers took a conventional "Show me the p-value!" approach, more adventurous souls sampled predictive probabilities, non-linear models, and adaptive designs. It looks like Baskin Robbins may have some serious competition! Watch this space for future developments.

~ Rex

The statistics clinic is available Monday and Thursday, 10 AM to Noon, and Wednesday, 1 PM to 3 PM in the Department of Biostatistics, Second Floor in the Faculty Center.

## Our Stat Analysts



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## New Digs for Biostatistics



Yes, it's official.

The Department of Biostatistics has moved to the 2nd floor of the recently completed Faculty Center, otherwise known as "Big Pink," located at 1400 Holcombe, across from the Clark Clinic. The move was accomplished, to the Great Surprise of this dog, with a minimum of suffering, and we are back designing trials, analyzing data, and writing up manuscripts and grant proposals at our usual "just shy of the speed of light" clip. Once the promised book cases arrive, we can finish unpacking our many boxes of books and journals, and proceed to arrange tasteful, aesthetically pleasing, politically correct artwork on the walls, of course using only Institutionally Authorized Procedures for picture hanging. ~ Rex

## Statistical Analysts

(featured on page 1)

- 1) Diane Liu, M.S.
- 2) Hsi-Guang Sung, M.S.
- 3) Kyle Wathen, M.S.
- 4) Mark Munsell, M.S., Senior Statistical Analyst
- 5) Hyung-Woo Kim, M.S.
- 6) Dorota Doherty, Ph.D.
- 7) Simona Despa, M.S.
- 8) Xuemei Wang, M.S.
- 9) Feng Zhan, M.S.
- 10) Greg Ball, M.S.
- 11) Dan Ayers, M.S., Senior Statistical Analyst
- 12) Lei Feng, M.S.

## Words on the move...

"I was tempted to start slapping labels on everything...pencils, mouse pads, cups, etc." D. Ayers

"...of course, it doesn't apply to me since I only have a chair." G. Rosner

"I'll do it." L. Davis

"My office is the one that looks like a bowling alley." D. Berry

"Are we ready, team?" C. Sandles

"I'm still missing 7 computers from inventory." B. Schwarz (Biomathematics)

"The IT guy is going to cut off my head if you don't turn in your back-up requests." S. Laroche

"The tag on my chair says it's going to 2.3002, but the tag on my computer says that it's going to 2.3056.

Will I have a PC but no chair, or a chair but no PC?" J. Cook

"To be more accurate, I'd have to run a probability study." K. Hess, providing a guesstimate of the number of packing boxes he would need.

"Not much change. It will still be me, my computer, and 4 walls." G. Ball

"...we're in such chaos." T. Smith

"We'll just carry on." L. Kirschbaum

## Terry for Two Days.

It was our extreme privilege to have none other than Terry Therneau, the Internationally Famous statistical computing / survival analysis / bootstrapping expert, deliver his latest two-day seminar on survival analysis here, September 25 and 26. The lectures were vastly useful, informative, and entertaining. The 50+ participants included people from the Departments of Biostatistics, Epidemiology, Biomathematics and Leukemia at M. D. Anderson, as well as the U. T. School of Public Health, Baylor, and a few stray cocker spaniels who wanted to see what all the excitement was about. A good time and two delicious box lunches were had by all.



## Philosophy

As my mentor, Rin Tin Tin was wont to point out, the three things that matter most in the career development of a working scientist are: (1) publications, (2) publications, and, of course, (3) publications. Grant support doesn't hurt either, but that follows from (1) - (3) like an "Attaboy!" after a well-executed trick (cf. G. Jetson, "Fetching, Sitting, and the Wet Nose Principle," *Annals of Animals*, 37:22-38, 1967).



### Famous Quote.

And with regard to research, I offer the following quote, which has guided the careers of dogs everywhere for many years: "There are winners and there are losers, and all the rest is just talk!"

— Grady Penninger, Michigan State University wrestling coach, 1968, East Lansing Michigan.

~ Rex





## Oh, the Irony of It All!

Many of us recall the time, not so long ago, when the Bison were harassed and hunted nearly to extinction by brutal, uncaring frequentists armed with Neyman-Pearson tests and confidence intervals (ever try to explain one of *those* to a college freshman?). So, it was with no small amount of glee that The Don invited Telba Irony of the Food and Drug Administration to deliver a talk to the Biostatistics Department on June 21, entitled "Bison Statistics at the FDA: Past, Present and Perspectives for the Future." A good time was had by all. As Larry Freedman has pointed out in recent years, shortly after Butch Tsiatis announced that he had bailed out on the idea of having to adjust post-test confidence intervals to maintain their frequentist properties, "It's time for us all to get off our posteriors!" Soon, the Bison will be so numerous that they will cover the Great Plains as far as the eye can see.

~ Rex



## Surrogate end points in clinical trials

Section 112.d of the Food and Drug Administration Modernization Act of 1997 directed the Secretary to "establish a program to encourage the development of surrogate endpoints that are reasonably likely to predict clinical benefit for serious or life-threatening conditions for which there exist significant unmet medical needs."

### A correlate does not a surrogate make.

Fleming et al, 1996

Bucher et al (1999) concluded that "surrogate end points can only be considered validated when their relationship with the clinically important outcome has been firmly established in long-term randomized trials showing that modification of the surrogate is associated with concomitant modifications in the target outcome of interest."

- Bucher HC, Guyatt GH, Cook DJ et al. Applying clinical trial results. Part A: How to use an article measuring the effect of an intervention on surrogate end points. JAMA 1999; 282(8):771-778.
- Fleming TR, DeMets DL. Surrogate end points in clinical trials: Are we being misled? Ann Int Med 1996; 125:605-613.

## The Raw and the Cooked

This recipe was inspired by the films of Sergio Leone. If you don't like sushi, then you should skip it. But, in that case, why are you even reading my column?!! OK, go getcha some high quality tuna, extra virgin olive oil, 2 or 3 limes, wasabe, and a variety of fresh vegetables such as broccoli, cauliflower, carrots, sweet red bell peppers, and asparagus. Open a chilled bottle of chardonnay or fume blanc, pour yourself a glass, and begin to take sips at 60 to 120-second intervals. Keep the bottle near at hand in case your glass runs out and must be refilled.

Prepare the wasabe, or just use that stuff that comes in a big tube already prepared. Steam the vegetables but, in the immortal words of Martin Yan, "Don't Overcook!" Set the vegetables aside in a covered bowl to keep them warm. Using a very sharp knife, preferably with a wide blade, slice the tuna sideways into  $\frac{1}{4}$  inch thick steaks. Sprinkle or smear one side of each tuna steak with your favorite spices, such as my preferred combination of fresh ground pepper, parsley, garlic, and rosemary. Slice the limes in half. Into a pan large enough to contain all the tuna at once, or two pans if you don't have a really big one, pour a generous portion of the olive oil and heat it up.

Now you need to move fast, which should be interesting and even a little challenging if you have been properly sipping your wine. Lay the tuna spiceside-down in the hot oil. *Without turning the tuna*

*over*, after a total of about 45 seconds, remove all the tuna steaks with a spatula and place them right onto the plates for eatin'. The side of the tuna facing up should be RAW. Arrange the vegetables around the tuna in a tasteful, spatially balanced, but not overly anal-retentive manner...and serve, with  $\frac{1}{2}$  lime per person for squeezing onto the tuna, if desired, and an individualized portion of wasabe. Make sure those eating the tuna have an ample supply of the same wine you used in preparing their dinner.

**Labrador Lasagna.** Speaking of fine food, on September 30, The Wonderdog and various Biostatistical luminaries were the happy guests of Puck Berry, who provided a delicious Italian dinner of lasagna, salad, garlicky bread, an ocean of vino, and a variety of other savory comestibles. Puck, a purebred two-year-old black Labrador retriever, was assisted by his humans, Don and Donna Berry, who demonstrated the importance of having a talented and enthusiastic support staff. Guests were regaled with Puck's stories of his recent adventures in Santa Barbara, where he summers with Don and Donna each year.

~ Rex



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**Bayesian Biostatistics Workshop.** The Department of Biostatistics will be hosting the First Annual Short Course in Bayesian Biostatistics: Applications to Clinical and Pharmaceutical Research, January 16-19. A copious menu of modern topics in modeling, design, analysis, and computational methods will be offered. The faculty will include such stellar figures as our own Don ("The Don" of the Texas Bayesian Mafia) Berry, Brad ("Cadillac") Carlin, Gary Rosner, the FDA's Telba Irony, and, of course, Rex the Wonderdog. It's a good bet that a good time will be had by all, but just in case I'm preparing a special restaurant list to keep everyone well fed.

~ Rex

Program Directors for the First Annual Short Course: Kim-Anh Do, Ph.D., and Mark Munsell, M.S.