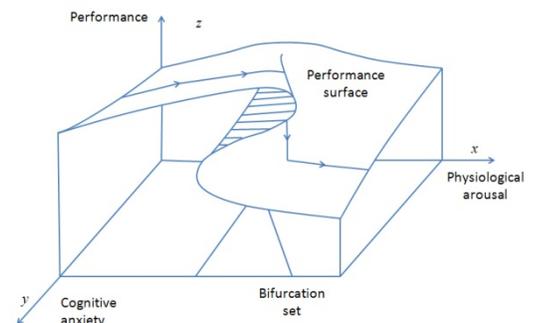# Spit Camp II

Analytical Strategy and Statistics for Salivary Bioscience

Over the years, graduates of "Spit Camp," our Salivary Bioscience Workshop program, have requested that we offer an advanced workshop to focus on "Statistics and Analytical Strategy". We are pleased to announce that the new Institute for Interdisciplinary Salivary Bioscience (IISBR) at ASU provides a venue to do so.

Starting in the spring of 2014 (then on a quarterly basis thereafter), this new workshop series will be offered for PIs, postdoctoral fellows/scholars, and advanced graduate students (with permission of the instructor). The program will be designed for those who have already collected salivary biomarker data, or are planning secondary analyses from existing data sets, and would like training and support as they work through the complex statistical issues involved in analyzing and modeling salivary analyte and biomarker data.

The overarching concept is that attendees will work with their own data (under direct supervision) to refine and develop research questions, and outline and execute analytical strategy— with the ultimate objective being to advance the project(s) sufficiently so that with minimal additional effort a product (i.e., publication or proposal) would be generated.
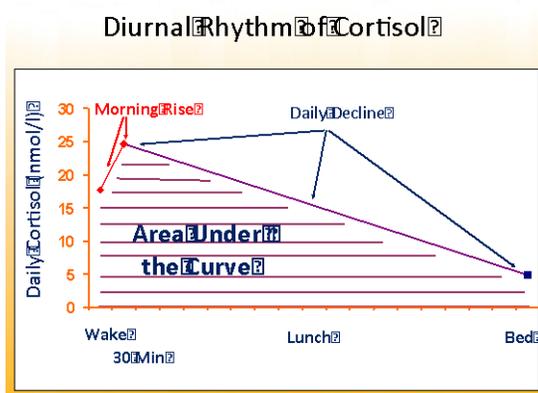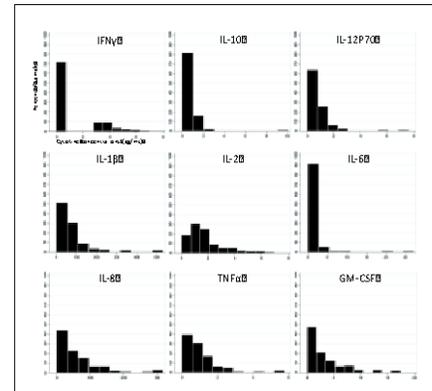

The program structure involves two stages. Stage one involves on-line supervised activity to ready datasets, gauge statistical knowledge and understanding, and match attendee's expectations to the program capability. Stage two involves two-days of instruction, individual work, lectures using archived data to illustrate common strategies, and collaborative problem-based learning.

For individuals that need support right away, we are able to provide statistical advice and support on an individual basis starting November 1, 2013.

Contact **Kelly Henning** (Program Manager, ASU IISBR) for information and registration details for Spit Camp II at 480-965-6944 or Kelly.k.henning@asu.edu. For more information about the Institute and Spit Camp I visit https://iisbr.asu.edu.
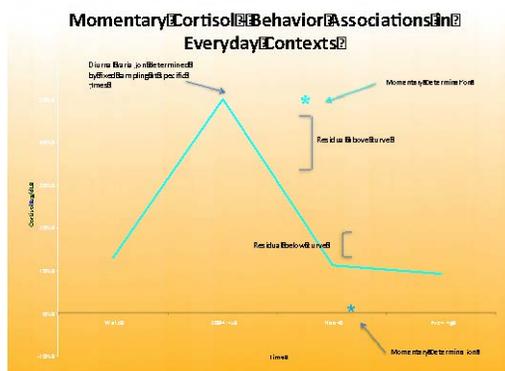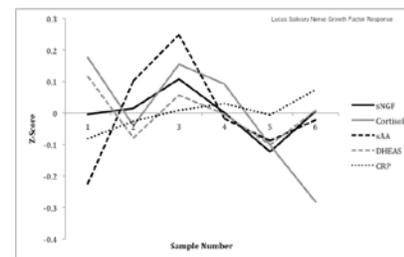
1. **Basic Information about Specific Salivary Analytes:** Units, plausible range, reference values, sources of variation, etc.

2. Statistical approaches that are not so sensitive to things like **non-normal distributions** (e.g., robust regression).

3. How to deal with **missing data**.

Diurnal Rhythm of Cortisol

4. **"Simple" Analytic Approaches:** How to calculate an awakening response, diurnal slope, area under the curve, including "what to do if the AUC variable contains negative values," how to calculate the AUC if the time between two collections is variable between persons, how to incorporate data regarding "collection time" in studies on diurnal rhythms, etc.

5. How to **model reactivity and recovery** using multilevel analyses (including HLM) and latent growth

6. How to **model attunement** between dyads and within members of social groups

7. How to **model coordination** between multiple salivary analytes across the day and across a challenge task.

8. **Ecological momentary** analytical strategy

Momentary Cortisol - Behavior Associations in Everyday Contexts

ASU
Institute for
Interdisciplinary Salivary Bioscience Research

A R I Z O N A   S T A T E   U N I V E R S I T Y

The program is directed by Douglas A. Granger, PhD., Foundation Professor and Director of IISBR, coordinated by Kelly Henning, Program Manager at IISBR, and instructed by Ellen Yeung, PhD. Ellen received her PhD from Arizona State University's highly acclaimed quantitative psychology program (mentored by Leona Aiken, Ph.D) and has experience working with both behavioral and biological data. Attendees may also receive input and feedback from adjunct faculty at IISBR who have successfully tackled complex models involving salivary analtyes in the recent literature including--- Dorothee Out, Ph.D., Leiden University; Gerry Giesbrecht, Ph.D., University of Calgary; Sara Johnson, Ph.D., Johns Hopkins University; Marc Taylor, Ph.D., US Naval Health Research Center, San Diego; and Heidemarie Laurent, Ph.D., University of Oregon.