The New Sunshine ERC Newsletter !

Spring Semester 2010 Edition

A Note from the Director of the Sunshine ERC, Thomas Bernard, Ph.D., C.I.H. Welcome to the first issue of the Sunshine ERC Newsletter in its online format. We are justifiably proud of our five academic programs as well as the contributions to the professionals in the community through continuing education and hazardous substances training. One mark of a successful NIOSH Education and Research Center is that it is greater than the sum of its individual programs. The synergistic effect comes from the shared experiences across the programs for the students as well as the faculty and alumni. This newsletter is an opportunity for students, alumni and staff to describe experiences that might demonstrate the broad interaction among the professions and, at least, to illustrate activities within a program. For future editions, I encourage our ERC community and the professional community to contribute to the newsletter. Thank you for all of your efforts to promote occupational health and safety.

Guidelines for Submission:

Please submit your entries to Ellen Kent, MPH, at ekent@health.usf.edu.

Submissions are accepted on an on-going basis.

Suggested length of submissions: One paragraph.

Photos are encouraged.

Suggested topics: Please share your recent **professional** accomplishments, pertaining to your research, internships, and even your new jobs!

A Report of the First ERC Student Organization Interdisciplinary Scholarly Event: October 1st and 2nd, 2009 by Keith Proctor, OHM student

This past October, Roy DeHart, MD, MPH gave a presentation titled: "Preparation for Human Flights to Mars: An Integration of Occupational and Aerospace Medicine." His presentation was part of the COPH Dean's Lecture Series and was sponsored by the Sunshine ERC at USF. Dr. DeHart is very well known in the Aerospace Medicine community, based partly on the fact that he was the editor of the first three editions of the internationally acclaimed textbook, *Fundamentals of Aerospace Medicine* and partly because he served for many years as the Commander of the US Air Force School of Aerospace Medicine. Dr. DeHart began his presentation talking about some of the historical accomplishments at NASA and moved on to discuss both the possibilities and the pitfalls associated with future travel to Mars. One interesting obstacle that he reflected on was the interpersonal relationships of 6 to 8 crew members living together in cramped quarters for nearly three years. He also discussed some of the physiological difficulties anticipated after spending such an extended period of time in a microgravity environment. Currently, the record for the most consecutive days in space is 438, held by Russian Cosmonaut Valeri Polyakov, which is significantly less than the nearly 1100 days required for a mission to Mars. Additionally, Dr. DeHart talked about NASA's new Aries 1-X rocket, which is designed to carry a capsule for future space exploration similar to the capsules used in the Apollo program. Finally, he reminded the audience that the current economy is an obstacle to NASA funding which will certainly postpone, but hopefully not prohibit, such exploration. It was an extremely interesting presentation and USF was honored to have Dr. and Mrs. DeHart on campus.

(Note: the reader can see the photo gallery at Dr. Roy DeHart Reception and Lecture .)

Click here for the slide presentation PDF and click here for the video .

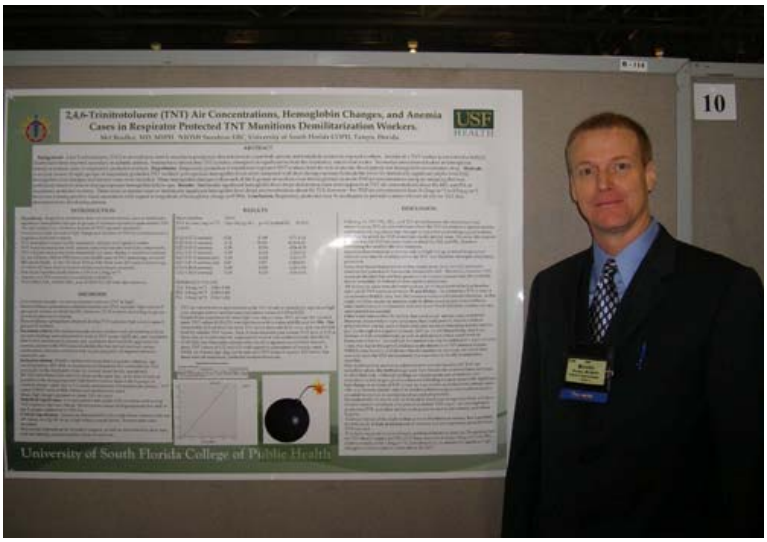
Occupational and Aerospace Medicine Rotation at the Kennedy Space Center by Keith Proctor, OHM student

This past August, Patrick Whitney, MD and Keith Proctor, DO, USF Occupational Medicine residents, had the opportunity to perform a combined Occupational and Aerospace Medicine rotation at the Kennedy Space Center. The first night of the rotation, Pat and Keith witnessed Space Shuttle *Discovery* "rolling out" of the Vehicle Assembly Building (VAB) which involved the Mobile Launch Platform slowly moving towards the launch pad, traveling approximately 100 yards in two hours. The first week of the rotation was spent with the Aerospace Medicine team, which included two AM physicians, two aerospace nurses and an aerospace physiologist. Pat and Keith were tasked with developing a scenario for a shuttle launch mass casualty, which was scheduled for early October. The next week was spent with the KSC occupational health team, which consisted of 4 OM physicians and several support staff. Between the KSC employees and contractors, the Occupational Medicine clinic is responsible for the health and safety of nearly 14,000 personnel. The final week of the rotation was spent with the KSC Industrial Hygienists and Safety personnel. Pat and Keith were able to follow along on several safety and IH related surveys, including visits to the shuttle launch pad, the VAB, and one of the Orbiter Processing Facilities where they were within arm's length of the shuttle *Atlantis* as it was being readied for its next space mission.

During the course of their rotation, they also participated in a safety inspection of a launch pad where a Delta-II rocket was being prepared for flight and they visited historic sites at Cape Canaveral including the site where the capsule of Apollo 1 burned in 1967. The rotation was a tremendous learning experience and topics discussed ranged from ergonomics for office workers to cardiac physiology in a microgravity environment experienced by astronauts. Pat and Keith both agreed that this was the highlight of their residency program which culminated in close observation of the nighttime launch of *Discovery* as they were nearby the shuttle launch emergency response team.

Mel Bradley, recent ERC graduate, presents his research at APHA and receives prestigious Delta Omega Award

Mel Bradley represented both the Sunshine ERC and the COPH at the 2009 Delta Omega Poster session at the annual meeting of the American Public Health Association (APHA). The title of Mel's poster was ***2,4,6-Trinitrotoluene (TNT) Air Concentrations, Hemoglobin Changes, and Anemia Cases in Respirator Protected TNT Munitions Demilitarization Workers*** and the full abstract can be seen at http://www.deltaomega.org/Poster09.cfm. This was a highly competitive process! First, Mel was one of five COPH students whose abstracts were submitted to Delta Omega based upon their successful performance at the COPH Research day during National Public Health Week 2009 http://health.usf.edu/publichealth/officeresearch/nphw2009/index.html. Mel was then selected as one of only 19 students nationally to present a poster and receive a $350 cash prize from Delta Omega! Congratulations to Mel.



Here is Mel's dispatch:

My APHA poster presentation on TNT and anemia went well. I had one really interested nurse who I ended up speaking with for about half an hour. She was a rehabilitation/OH nurse who worked for Caterpillar in Peoria Illinois. I was able to do some networking, as I met a researcher in men's health from the Los Angeles VAMC, and a graduate student working with MSHA in Kentucky studying coal worker pneumoconioses. I also met a PhD epidemiologist from the CDC who had just returned from a trip to Geneva (WHO) and Vietnam where she was collecting data on tuberculosis. In the evening I attended the Delta Omega reception at the Ritz-Carlton and was proud to receive my certificate and award from Dean Petersen. The evening concluded with a USF COPH 25 year anniversary event at the Philadelphia Loews hotel and a video detailing the achievements of the COPH over the past 25 years!