



ED Update

Wright State Emergency Medicine Residency
Department of Emergency Medicine

Volume 34, Issue 1 February 2012

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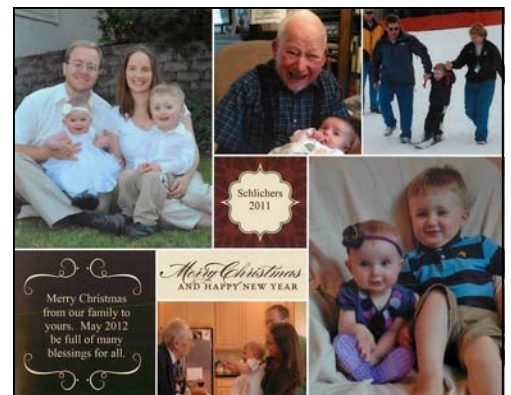
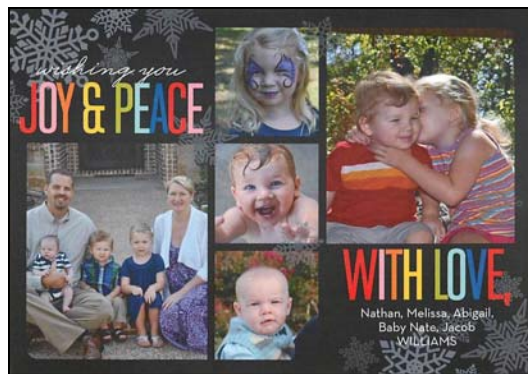
Editor:
Jonathan Singer, M.D.

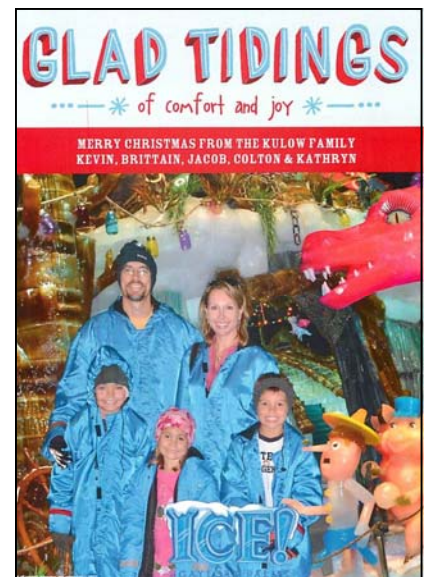
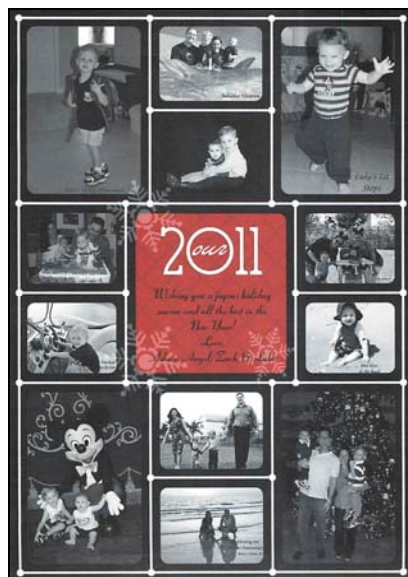
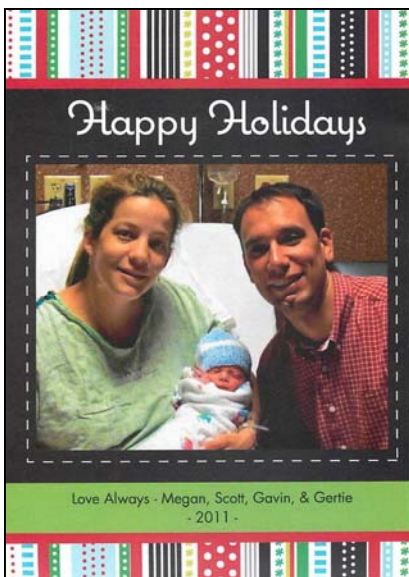
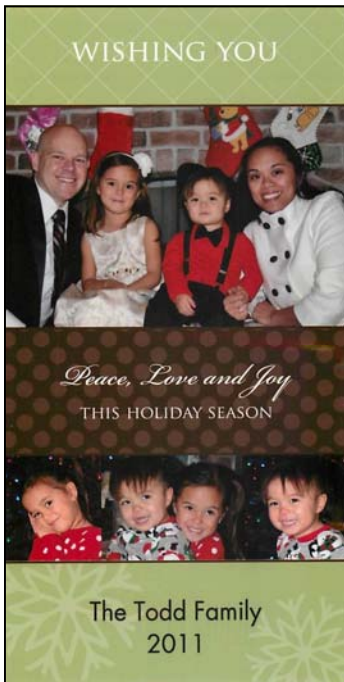
Co-editor & Design:
Cassie Browning

MANTLE OF BEST WISHES

At the Department of Emergency Medicine, let us join those, who in the last few months have wished you well. We too, hope that your holidays were celebrated and that you'll experience health and happiness well into and beyond 2012.

From the Thanksgiving to New Year's timeframe we had been pleased to have heard from a great number of friends and alumni. We received multiple cards wishing us all joy, peace, love and merriment. Many sent photos of family members, including pets. We have incorporated many below and on the next page.





PARTIED HARDY (SEE PAGES 11-12)

We partied hardy at the holiday cheer loaned to our department by the Dayton Country Club. There was an active restaurant crowd beyond our southern border and a refined social gathering east of our confines, but we were unconsciously oblivious to anything other than a warm room of congregants. We were offered introductory wedges of fruit from South America and pastry coated fermentations of unknown goats and cows assembled half-way between a well stocked bar and an artificially flamed hearth. Sequentially groups crusaded to a buffet trayed assemblage of edibles. Then from a well fed position about a circle of friends we journeyed to an adjacent area where we were offered a choice of candy or wine. I chose an Australian Shiraz of a very good grape year, but unfortunately teetered home shortly after my tequila experience (Don Julio) and left the wine bottle on the table.

Santa appeared also in a seemingly inebriated state. He held a tall boy PBR and held out a great number of interesting gifts that he presented to the majority of PGY 1 class members. Unlike previous years, the gifts were “clean” and complimented their branded award. Santa then blessed several faculty members with awards. At his closure, all the first year class presented their best moves on the dance floor. I am oblivious to what occurred beyond that point as the music was my signal to head home.

LAST HOLIDAY PARTY

I was once awarded and several times nominated for the Teaching Excellence Award at the University. I was named the most valuable parent by the Roger Bacon High School Athletic Boosters Club. I was never in contention for our department’s non-existent MVP Award, so I really have no objective way to determine if I am over the hill. Further, I have sort of remained even keeled in terms of my productivity over the 30 years here. Again, this makes it tough to determine if I remain germane to our mission or am senile and have therefore stayed beyond my prime. My ability to pitch a softball down the middle of the plate can not be challenged. I am open to the possibility that I can’t name the sequences and doses of RSI drugs like I could in the past. So I’ll quit taking care of patients in June. That will resolve any database debate.

What my role in medicine will continue to be and what relationship I will retain with the department is also up in the air. Although the commuting distance and ever present threat and/or reality of escalating transportation costs may prohibit frequent visits here, I at least hope to infrequently visit. I have seen folks leave. They show up. Then they leave and show up further down the line, then don’t show again. Therefore, I see myself emulating behaviors of others. Perhaps I’ll catch another santa, perhaps I won’t.

CONGRATULATIONS!!!

Congrats to Stacey and Scott Poznanski on the arrival of Madyson Lynn Poznanski. She was born on December 3, 2011 at 4:31 pm. She weighed 7lbs. 1 oz. and was 19 inches long. She has integrated well into our conference audience.



Research Results

- Jim Olson, Ph.D.

NIH HOPEFUL

In collaboration with Dr. David Cool (Pharmacology and Toxicology) **Dr. Olson** submitted an application to the National Institute of Health for 5 years of funding. This application is closely based on the thesis work of Amanda Freeman, an MD/Ph.D. student in the BMS program currently working in our laboratory. If successful, the funds from this grant would support Amanda's research as she completes the studies for her doctoral research. The investigations will explore regulation of an important membrane transport system which is responsible for the brain's physiological and functional adaptation to increased intracellular volume during edema.

STUDENT RESEARCH SUMMARY

The undergraduate, masters, and Ph.D. students working in our laboratory are making good progress in their research activities. Here is a quick summary of the status of their research.

Amanda Freeman (WSU Medical Student and Biomedical Sciences Ph.D. student) has made great strides comparing cell surface expression of an osmolyte transporter in neuronal and glial cells. The initial results of her experiments have been accepted for presentation to the American Society for Neurochemistry Meeting which will convene in Baltimore, Maryland in March 2012. In addition, and in collaboration with Dr. Cool and the Proteomics Analysis Laboratory at Wright State, Amanda has begun the first series of studies of analysis of protein chemistry using mass spectrometry.

Brian Tucker (NCBP Masters Student) has completed writing his thesis. His work has passed muster with his thesis advisor (your's truly) who, I am told, tends to write more words in comments than were in the original document. Brian's research centered on understanding cellular signaling mechanisms which lead to brain edema and cellular volume regulation during pathological conditions of increased oxidative stress. Brian is currently in medical school at Erie Medical College, but will come back early this year for a public defense of his thesis and a final grilling by his thesis committee.

Courtney Moore (NCBP Masters Student) is back again at the patch clamp station and has made successful electrophysiological recordings from cultured glial cells. After spending several weeks ridding the cultures of contaminating microbes, the cells appear healthy and are growing well.

Mandy Gutwein (NCBP Masters Student) is gaining skill with the techniques she will need to investigate mechanisms of cell volume regulation in the hippocampus during physiological neuronal activity. Mandy has prepared brain tissue and has positioned electrodes to stimulate synaptic activity while recording changes in cell volume. Mandy plans to convene her master's thesis committee after the first of the year and will present a formal research proposal at that time.

Michelle Durrant (WSU Undergraduate Student) spent the summer in our lab as a participant in the STREAMS program. Now, Michelle is the recipient of a grant from the American Diabetes Association to fund further research studies. Michelle will collaborate with Dr. Olson and Dr. Chen (Pharmacology and Toxicology) to examine mechanisms of brain cell injury during brain edema. She will utilize a model of Type II diabetes to test whether this genetic condition predisposes the brain to increased damage.



MEETINGS COMING AND GONE

The SAEM Midwest Regional Meeting was held in Toledo, Ohio in November. At the meeting, our department presented two posters during a moderated poster session. Amanda Freeman presented the latest results on cells surface expression of the taurine transporter in cultured neurons and glial cells during conditions of cells swelling. In addition, Dr. Olson presented the latest results from the nanoparticle project funded by the University of Dayton Research Institute and the Wallace Kettering Neurosciences Institute. The most recent results used electron micrographic analysis to demonstrate penetration of particles through the blood brain barrier. This meeting was attended by over 70 residents, medical students and faculty from the Midwest Region. The meeting included a keynote presentation on education research by Dr. Cheryl Hobgood, the SAEM president-elect.

The Ohio Physiological Society held its annual meeting at the University of Cincinnati in October 2011. At the meeting Dr. Olson and Amanda Freeman presented the posters similar to those described above and displayed at the SAEM Midwest Regional meeting. In addition, Dr. Guangze Li presented his poster from the 2011 Society of Neuroscience Meeting held in Washington, D.C. (see below). The meeting was attended by over 100 students and faculty from all over the state. The meeting included keynote presentations by Dr. Ernest Wright from the UCLA School of Medicine on targeting the glucose transporter for diabetes and Dr. Colleen Novak from Kent State University on the lean phenotype and her work describing activity levels and the maintenance of body weight - subjects surely to be of interest in this post-holiday season.

Also in November, Dr. Olson attended the Society for Neuroscience meeting in Washington DC where he presented the recent work from his co-authors Drs. Li and Chen (Department of Pharmacology and Toxicology). This research describes cellular mechanisms which exacerbate stroke injury in individuals with essential hypertension. The data suggest that increased production of reactive oxygen species mediated through NADPH oxidative systems exacerbate cellular injury and neuronal death during an ischemic stroke of individuals with essential hypertension. The results will be used to help explore genetic and therapeutic means of ameliorating the damage.

Amanda Freeman will present her up-to-date research findings at the American Society for Neurochemistry Meeting which will be held in Baltimore, Maryland in March, 2012. Her accepted abstract covers the results from approximately one-third of her doctoral dissertation work, but by the time of the meeting, her presentation is likely to include significantly more results.



Springer's Stuff

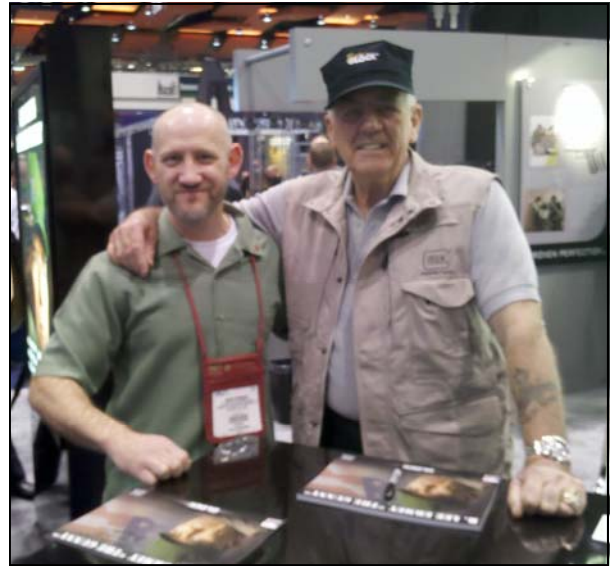
- Brian Springer, M.D.

GREETINGS

In October, I was in Chicago for the International Association of Chiefs of Police Annual Meeting. IACP's focus has traditionally been on occupational medicine; of late, interest in tactical medicine and trauma care has blossomed. I and other members of the IACP Police Physicians Section helped evaluate the state of current tactical medical care and proposed future directions for research and training in police medicine. As an added bonus, the vendor show was literally wall-to-wall of the latest law enforcement technology, to include weapons, body armor, vehicles (both air and ground), and (of course) medical gear. At the Glock booth, I met former Marine Drill Instructor (and now actor/celebrity) R. Lee Ermey and discovered that, even 20+ years out of Boot Camp, DI's instill terror in my heart.

VET VISITS

Halloween and Thanksgiving flew past at an astonishing rate. Then suddenly, our wiener dog (actually Kim's wiener dog), Wally, began limping. Within a few days, he was dragging his hindquarters. Several vet visits (and many thousands- yes, thousands- of dollars) later, he completed successful surgery for multilevel vertebral disc herniation. He is doing fine, once again running around in the yard after squirrels. Samson, our almost 8-year-old English mastiff, is slowly winding down following a year-long remission from lymphoma (and successful chemotherapy.) Sure, I am very happy that our vets will be able to make their Lexus car payments. But how Kim and I ever imagined that having pets would be any easier/cheaper/less heartbreaking than having kids is absolutely beyond my comprehension.



R Lee Ermey at IACP. Immediately following this picture, he made me do pushups



Kim and Wally, the "6 Million Dollar Wiener Dog"

N.C. TACTICS

December 5-9 found me in Salemburg, NC where Tactical Medics International hosted a tactical medicine course at the North Carolina Justice Academy. I was there instructing, with 3 of our residents in tow. **Zack Holt**, **Brian Pennington**, and **Jeff Robinson** all represented the residency well, absorbing TASER voltage, tear gas, pepper spray, and exhaustion with equal aplomb. We also had the opportunity to meet up with former residents **John Dorsch** and **Aaron Rubin**, who are stationed at nearby Pope Air Base. Unfortunately, they could not tell me what cool stuff they were doing with USAF special ops, because then they would have to kill me. They are both doing well, and I hope to see them again soon.

REALITIES

On a sobering note, the Virginia Tech Police Officer killed on December 8 was the partner of TMI instructor Jason Dominiczak. Many thanks to NC emergency physician (and tactical physician) Tim Smith, who flew Officer Dominiczak home in his private plane that same day. That evening, our night off before the final class day, TMI staff and students took over Ribeyes Steakhouse in Clinton, NC and posted an appropriate memorial. Many people think tactical medicine is all about playing cops & robbers. This officer's death, and its personal impact on the class, was a sharp reminder of the reality of the streets. My heartfelt condolences to Officer Crouse and his family, friends, and partners.



Until the next edition...

Cassie's Bulletin

- Cassie Browning



LET US KNOW WHAT'S HAPPENING

We want to hear from you! We would like to include more information about our alumni in the *ED Update*. Please take a moment to send us a note to tell us what's been happening in your life. We would love to hear about your professional and personal activities. We would love to receive photos as well. Please send all news and photos to Cassie Browning at cassandra.browning@wright.edu. We look forward to hearing from you!

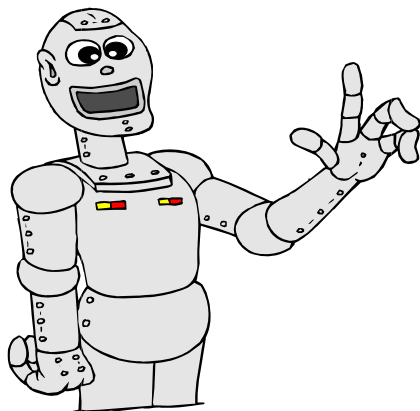


We want to hear from you!

Send emails to:

cassandra.browning@wright.edu





Update from the Center for Immersive Medical Education and Research (CIMER) - Ray Ten Eyck, M.D.

TRAUMA SIMS

The end of summer marked the completion of our largest collaborative training projects to date. The trauma practice simulations for KMC ED personnel went well from our prospective and the evaluations indicated that the sessions helped improve the team's confidence to function as a trauma team and complete the tasks needed to provide quality care for real patients. On November 15th, 2011 KMC initiated operations as a Level II trauma center and we were happy to have played a very small part in this endeavor. In follow up to the trauma simulations, we have continued our collaboration with KMC by providing our lab as a training facility for two ATLS courses and a PHTLS course.

EMS OUTREACH

In addition to our recurring core simulation curriculum for the EM residents, we continue to have increased interest from agencies outside the department. This fall we had the opportunity to provide simulation-based educational activities to over 200 EMS providers from Dayton FD, Fairborn FD, Huber Heights FD, and Riverside FD. We have continued our program with Children's Medical Center transport teams with new simulation sessions in October. In addition, we continue to work with the Nursing Institute of Southwest Ohio on collaborative training projects. One result of this collaboration was the incorporation of a new module providing a second simulation station at this year's CAP lab which provided over 200 attendees with experience in an EMS-assisted out-of-hospital simulated childbirth. Once again, we deployed the simulation van this year and featured an infant resuscitation simulation. In the way of exciting opportunities for collaborative education and research, we have had two very productive meetings with the leadership of Wright State University's College of Nursing regarding interest in interdisciplinary simulation-based training sessions.

CLERKSHIPS

The curriculum for the fourth-year medical student clerkship was revised this year, but we are providing the same level of training in both task training and case-based simulations as part of the core curriculum. The new addition for the MS-4s this year has been a simulation-based elective designed to help prepare them for internship. The first of two offerings of this elective was completed in November and the initial feedback was very positive.

ARRIVALS

We were happy to welcome a new staff member since our last update. David Shablak joined our staff at the end of August, filling the position vacated by Jeff Adams. Dave has been a great asset to our operations. Our other new addition is SimMan Essential who arrived in December and is our first wireless mannequin. We are in the process of learning how to use our new teaching tool prior to deploying it at CIMER or Calamityville.

PUBLICATIONS

Finally, in the way of scholarly activity, **Dr. Kohls** and **Dr. Kim** had their simulation cases published on the MedEdPORTAL this fall. A few of their classmates are working on revisions and I expect they will also be accepted for publication.

SECOND Life

- Glenn Hamilton, M.D.



NCMR/CALAMITYVILLE OPERATIONAL FUNDS SUPPORTED THROUGH 2013

As many of you know, implementing a new business model can take more time than anticipated. It has certainly been true regarding our efforts over the last five years while working to establish NCMR/Calamityville as a self-sustaining entity. The program has great promise and we've established strong interfaces and agreements with military, commercial, federal, state, and other agencies; but bringing it to the level that allows on-site operations without subsidy has not yet occurred.

Therefore we are deeply indebted to the Wright State University Leadership who have agreed to support the operational costs for NCMR/Calamityville through 12-31-13. This additional two years gives us time to become more financially established at the state and federal levels, and bring in our testbed and operational initiatives. The additional time allows us to bring in new talent and secure our relationships in the region, state, and beyond. We are grateful for the support of both the Boonshoft School of Medicine as well as Wright State University and look forward to delivering on the promise of this program.

NEW NCMR/CALAMITYVILLE WEBSITE ROLLS OUT JUST IN TIME FOR THE HOLIDAYS

The web address www.medicalreadiness.org, will transfer you to the new website for NCMR/Calamityville. It was rolled out just before the end of November, and we are appreciative of the assistance given to us by the marketing personnel for the BSOM. It is an exciting site with regular updates and plenty of photos of activities at NCMR and Calamityville. Please take a look and as always we would be very interested in your comments and observations.



QUICK READ AVAILABLE

We've discovered the monthly NCMR/Calamityville "Quick Read" does not reach every individual who receives the *ED Update*. Our format is organized around a 3 minute or less reading time and focuses on highlighting the activities and advances at NCMR/Calamityville during the previous month and outlining what is upcoming. If you have an interest in receiving the e-version of the QuickRead, please notify either Alaine White (alaine.white@wright.edu), or Ellen Purvis (Ellen.purvis@wright.edu). We look forward to seeing the names of alumni added to our 700+ person mailing list.

STRS REQUIRED HIATUS IN PLACE

If you send an email to glenn.hamilton@wright.edu, you will receive an automatic reply that states I am following State Teacher Retirement System requirements for a two month professional hiatus. The mail also gives my cell phone and personal email for any personal contact. In planning for this two month hiatus, we have worked closely with **Dr. Brown, Dr. Pickett** and the staff at NCMR/Calamityville to insure a seamless transition and a carrying forward of our many projects and initiatives. I look forward to returning on March 1, 2012.

RETIREMENT BECAME OFFICIAL 12-31-11

That's exactly thirty years to the date of my formal employment with Wright State University. Actually part-time employment began on October 1, 1981 as it was necessary to recruit the incoming class of 1982. During those three months I recruited for both Wright State and University of Cincinnati, sometimes meeting the same students on their tour. Starting with one additional faculty, 24 residents, and little money in the bank; we took off and have never looked back.

Knowing I'm returning in March as the Director, NCMR/Calamityville tempers my sense of parting, but it has been interesting to close out presentations at conference, YDCs, student months, and tox talks that were part of my long-term professional landscape for these many years. It's been a wonderful opportunity and we have truly had a superb group of talented faculty, residents, and staff. The best part is that it continues as it should and new opportunities abound. I'll be around for a while longer, and any of you are welcome to come out and visit.

DREAMS CAN COME TRUE....

Ever since attending the 1959 Old Car Festival in Greenfield Village in Dearborn as a young boy, I'd been aware of special annual event called the London to Brighton Veteran Car-Run in England. It celebrated the repeal of the 1896 Red Flag Law that required a man to walk 50 paces in front of any automobile with a red flag to protect children, horses, and pregnant women from the onslaught of the oncoming vehicle. The repeal of that law prompted a celebratory drive from London to Brighton an event that has been re-celebrated by pre-1904 automobile for many, many years.



After more than fifty years of waiting, I had the opportunity to participate in the rain-free (very important!) 2011 run. To offer perspective on the importance of this event, in the Edwardian and Victorian car world, there are approximately 1100 automobiles globally which would qualify to participate in the run. This year 565 of these automobiles showed up and impressively, 420 completed the 62 mile trek within the nine hour allotted timeframe. My auto was a 1904 curved dash Oldsmobile with a single cylinder, seven horsepower, rear wheel brakes and a tiller. Top speed was 18 mph downhill, with neither windshield nor top. Despite a few roadside repairs, our trip was made in seven hours 30 minutes and therefore we were awarded a medal for prompt arrival in Brighton. It was a wonderful and memorable event with some very interesting people, automobiles, and nearly a million people watching and waving over the 60 mile course. For an 'old car guy,' it was a once in a lifetime opportunity and reflects the "let's have more fun" approach that should appear at this stage of the game. More pictures are available to anyone willing to accept the risk of a detailed description of the event. Bon Voyage!

Christmas Party 2011



