



ED Update

Wright State Emergency Medicine Residency
Department of Emergency Medicine

Volume 36, Issue 1 March 2014

Special Points of Interest:

- Christmas Cards
pgs. 2-3
- Christmas Party
pgs. 4-5
- CAP Lab pgs. 6-7
- Baby Announcements
pgs. 8-9
- Springer's Stuff
pg. 10
- CIMER Update pg.11
- The Wizarding of
Dr. Poz pg. 12
- Military Maneuvers
pg. 13
- Know-Nothing
pgs. 14-15
- From the Other Side
pg. 15
- Research Results
pgs. 16-17
- Chair Brown Knows
pg. 18

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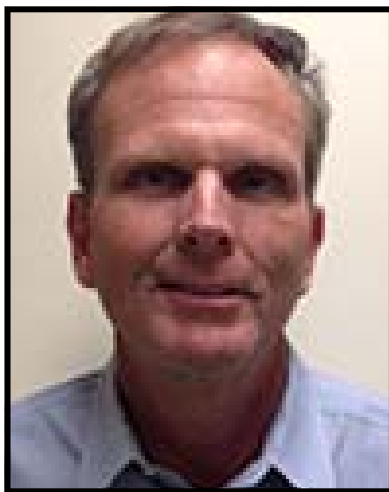
FROM THE EDITOR'S DESK

Greetings all! I hope this edition of the *ED Update* finds you and yours well. Resident orientation is well behind us; our interns are becoming seasoned veterans, our R2s are jockeying for chief-positions, and our seniors are looking for jobs or wondering where the USAF will send them. By the time this comes to press, we will hopefully be at the tail end of a long, cold and snowy winter. Despite the arctic conditions, our residency program pressed on undaunted. There is no such thing as a "snow day" for emergency physicians. Even if the wind-chill is 30 degrees below zero (we had a few of those,) the emergency department remains open. Got the sniffles? Take some Dayquil, put on a facemask, and get to work. Unless you are sick enough to be lying in one of your hospital beds, you need to be seeing patients. As always, our residents were up to the challenge. In addition, we found time to have some fun (see Holiday Party.) Here is the latest and the greatest from the WSU EM Residency Program. Read on...

Brian L. Springer

WELCOME NEW FACULTY

We welcomed two new faculty members to our EM family during the fall of 2013. Dr. **Dennis Mann**, former clinical faculty, joins us as our new Toxicology Director. Dr. **Catherine Marco** joins us from Toledo as our new Scholarly Works Director.



Dr. Dennis Mann, M.D., Ph.D.



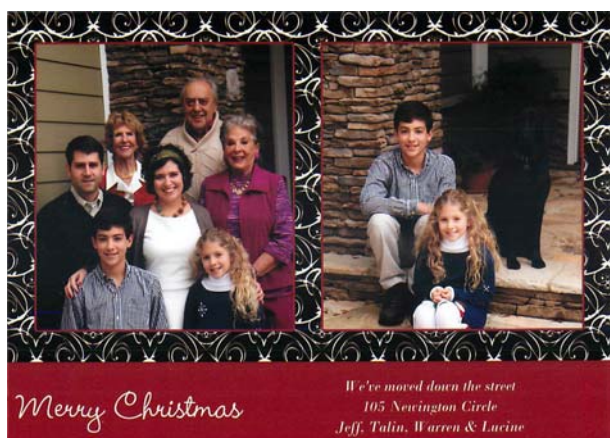
Dr. Catherine Marco, M.D., FACEP

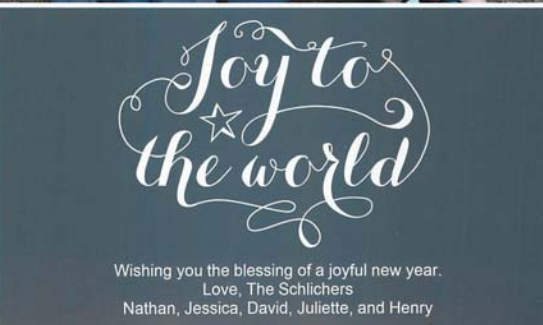
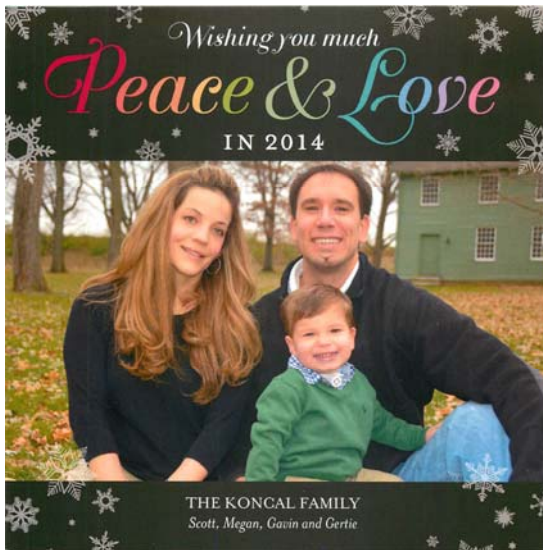
Cassie's Bulletin

- Cassie Browning



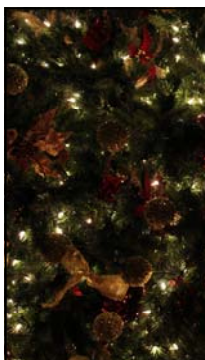
Thanks to everyone who sent us Christmas cards and letters. To our alumni, we enjoy catching up with all of you and hearing about what you have been up to since leaving the residency.





2013 Christmas Party



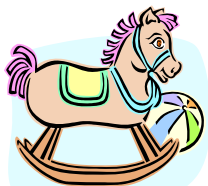


2013 CAP LAB

In December we held our annual CAP (Cadaver Anatomy Procedure) Lab in White Hall at the Boonshoft School of Medicine. It was attended by over 200 EMS personnel. Thanks to all the faculty, residents, clinical faculty, alumni and medical students who came to help out and make this event successful. A special thanks to 2013 graduate **Susan Geiger** for coming all the way from Nashville, TN!







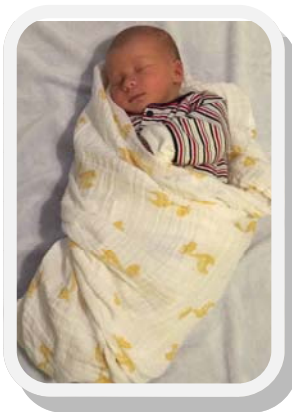
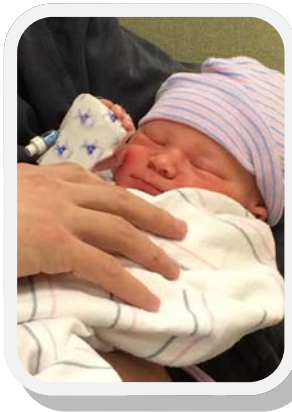
CONGRATULATIONS!!!



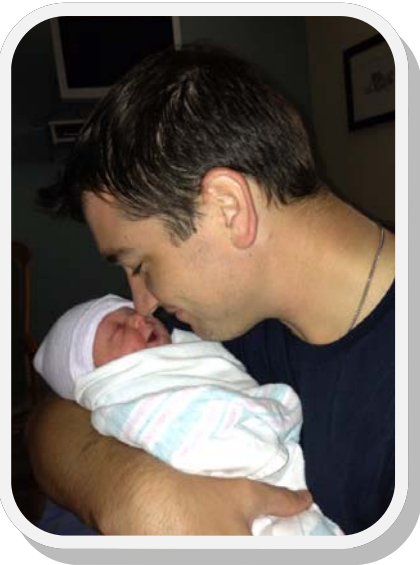
Congratulations to **Jon Juhasz** and his wife Lisa on their newest addition to their family. Todd Jon Juhasz was born at 11:16 pm on September 24, 2013. He weighed 9 lbs 0 oz and was 21 inches long. They are blessed with 3 boys and 3 girls.



Congratulations to alumni **Bryan Syska** and **Heidi Kabler** on the birth of their son, Stone Asher Kabler. Stone was born on January 4, 2014 at 1:37 pm. He weighed 7 lbs 10 oz and was 19.5 inches long.



Congratulations to **Alex** and **Mary Kate Bedard** on the arrival of their little girl. Nora Grace Bedard was born on June 25, 2013 at 2:12 am, weighing 7 lbs 10 oz and measuring 20 inches long.



Congratulations to **Scott** and **Melissa Rubenstein**. Harper Beth Rubenstein was born on January 9, 2014 at 7:00 am. She was 21 inches long and weighed 6 lbs 11 oz.

SOMA

Heidi Abraham sent in this picture of some of the group that went to the SOMA (Special Operations Medical Association) meeting in December. See **Dr. Ten Eyck's** column for more on this meeting.

Left to right: Chris Dumont (Massachusetts state trooper), Woody Goffinett, **Heidi Abraham**, Bryan Rogers, **JR Pickett** and Becky Pickett.





Springer's Stuff

- Brian Springer, M.D.

In August, Kim and I took a road trip to York, Pennsylvania. I spoke at York College as part of an athletic trainer continuing education conference. I discussed the growing problem of the active shooter and how, as trained medical professionals, athletic trainers can respond and limit loss-of-life. York is the home of York Barbell and the USA Weightlifting Hall of Fame, and was once known as "Muscle town, USA." It is also the home of Maple Donuts which, after a long day of lecturing, are quite tasty. Whether you are looking to expand your muscles or expand your waist, York has something for you.

In September, we flew down to Bermuda to meet my family and celebrate my father's 70th birthday. Bermuda is a beautiful island and we all had great time. My niece is already a mug-for-the-camera diva-in-training, and my nephew is gradually turning from colicky/crying to chubby/cute. As for the Dark and Stormy (Gosling's Black Seal Rum and Ginger Ale,) the national beverage of Bermuda, how can you go wrong?



Chowing down on some of Pennsylvania's finest confections



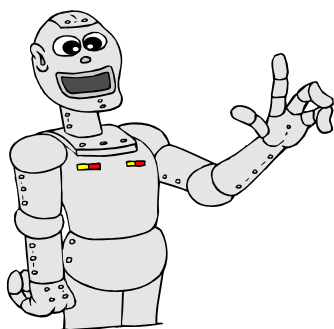
Kim helps enhance international relations by flirting (under the watchful eye of her husband) with British Royal Navy sailors in Bermuda



Springer family in front of the Fairmont Hamilton Princess

Truth be told, I do not have much to report as far as tactical medicine. Since September, I have been enrolled full-time at the Greene County Criminal Justice Academy as a cadet in the Ohio Basic Peace Officer Program. So every Monday through Friday (and a bunch of weekends) I have been hauling myself 30 miles to Xenia to stand tall in spit-shined boots and uniform and learn how to be a police officer. My free weekend days were mostly spent working in the ED (along with squeezing in some post-Academy split shifts during the week.) A long haul, but worth it so far. I am gaining tremendous insight into the operational and legal aspects of police work, and getting a background on some of the skills I picked up on-the-job working with SWAT these past years. Do not fear; I have no plans for a career change. Rather, I hope what I learn makes me a better tactical medical provider, and helps me better lead the Division of Tactical Emergency Medicine. Kudos to all of our residents (you know who you are) who have stepped up in my absence to help support our local and regional law enforcement special operations teams.

Until the next edition...



Update from the Center for Immersive Medical Education and Research (CIMER)

- Ray Ten Eyck, M.D.

The continuing divergence of the block rotations for the residency and the medical school this year presented a scheduling challenge. Fortunately, **Lynn DeWine** continued to provide the adult supervision for our simulation group and ensured that we were able to make it all fit. Most of our activities are still focused on our EM residents and the Boonshoft School of Medicine (BSOM) students. However, we continue to delve further into medical team training via interprofessional simulations which team our residents with students from the Wright State University School of Nursing and Health and the Kettering College Division of Nursing. We have progressively moved from third-year to second-year and now first-year EM residents working with senior nursing students. We are currently collaborating with the BSOM to initiate a simulation-based curriculum for medical students, nursing students, and pharmacy students. As usual, I expect to do more learning than teaching.

We had a unique opportunity to work with the intensive care faculty from Children's Medical Center in October as they launched their initial offering of the Pediatric Fundamental Critical Care Support course. They did a great job with the course and we were pleased to be a part of it. We completed two additional offerings of the "preparation for internship" simulation elective for our MS-4s. Unfortunately, **Dr. Mihata** was out of the country for the October offering, but he provided outstanding contributions to the January offering. I will greatly miss his help next year.

Outside of the CAP lab, we had the opportunity to work with EMS in November through an outreach program with Kettering Fire Department thanks to sponsorship by Kettering Medical Center. Speaking of the CAP

lab, we moved from the big van to the main building this year and presented a simulation involving unique aspects

of prehospital care when responding to a patient with a left ventricular assist device (LVAD). With the participation and wonderful support of Sally Chiado, an LVAD coordinator from Christ Hospital in Cincinnati, we were able to help over 200 attendees practice the approach to this evolving technology which is not yet incorporated into the protocols of all EMS systems.



We were privileged to be invited back to the Special Operations Medical Association meeting to work with **Dr. Pickett**. With the support of **Dr. Wightman, Dr. Nestor-Arjun, Dave Cherolis** and **Dave Shablak**, we were able to play a small role in a great educational offering. We finished out the 2013 calendar year with two special labs. The first was the initial offering of a Pediatric Procedures lab for our R-1s thanks to the hard work of Dr. Nestor-Arjun and **Dr. Marlea Miano**, who created the curriculum last year. The second was a vascular access introduction lab for the Internal Medicine Interest Group from the BSOM. My thanks go out to **Dr. Broering, Dr. Brooke Smith**, and **Dr. Trentini** for volunteering their free time to provide an educational experience for the medical students and hopefully entice a few more to consider a career in Emergency Medicine.

If I only had a brain...



the Wizarding of Dr. Poz

MEDICAL STUDENTS

The world of undergraduate medical education is ever changing. At the national level, “Milestones” and “Entrustable Professional Activities” (EPAs) are at the forefront of curriculum change. EPAs have been defined as “unique units of professional work that can be used as a basis for workplace assessment and advancement” and will serve as the basis for curriculum reform in medical schools across the country. At Wright State we are embracing these changes both at the medical school level and at the clerkship level. As the Co-Chair of the Advanced Doctoring Phase Committee for the new Wright Curriculum of Boonshoft, we are developing new opportunities to better carry the foundational sciences into the final year of medical school, and also provide capstone experiences to improve the transition of our students into residency programs. As Clerkship Director, I am continuing to modify our required 4th year rotation, implementing new techniques to “Flip the Classroom” and provide active learning experiences. In addition, in line with the medical school changes, we are looking to expand and create elective and capstone opportunities for our students.

RESIDENCY CURRICULUM

At the start of this academic year, I was named Chair of the Curriculum Committee for the Residency Program with a charge to bring change into the weekly conference sessions and overall didactic curriculum. The committee has worked hard to implement many changes, including shorter presentations, less slides, and more engaging and interactive sessions. One of the biggest changes is yet to come, with the change in conference from Friday afternoon to Tuesday morning starting in July 2014!

We are celebrating these changes and embracing the new world of social media education with our very own new residency website and blog, www.wrightem.com. Our residents can follow our own conferences and the world of #FOAMed on twitter (Free Open Access Meducation - for more information on this, see the “Resources” section of the website.) It is a work in progress for me; however I have high hopes to bring the world of EM to WSU and WSU to the world of EM.

WOMEN IN EM

This year also marks the initiation of a new WSU residency interest group dedicated to women in EM. We meet on a bimonthly basis to discuss issues pertaining to women in EM and provide a supportive environment for our personal and professional development. Our primary focus is to initiate and cultivate mentoring relationships between EM women faculty, residents, medical students, spouses, and alumni. We welcome alumni and local physicians to participate in our meetings. For more information, do not hesitate to contact me.

On the national level, I continue my involvement with the Academy for Women in EM, an academy of the Society for Academic Emergency Medicine. As a current board member, I had the opportunity to be involved with several publications including a presentation as part of the Academic Emergency Medicine Peer Reviewed Lecture Series (PeRLs), and I am currently writing the “Pulmonary Disease” chapter for the upcoming textbook, *Gender and Sex in Acute Care Medicine: Principles and Practice*. This coming May, I am honored to assume the position of President-Elect of this prestigious organization.

HOME FRONT

My daughter is now 2 years old, and every bit as independent and amazing that a 2-year-old can be. She is already a nationwide traveler, accompanying Mom around the country on the lecture circuit. Over the next 3 months I will give talks at the ACGME conference, CORD, the International Teaching Course, and SAEM. Then we will head out for some leisure travel, and she will take her first international flight as we embark on a 3½-week vacation with my family to Australia and New Zealand to visit my brother. Needless to say, we are excited, but wish us luck on our 17-hour flight with a toddler!!

Military Maneuvers



Roy Johnson,
Associate Program Director, Military

It has been an eventful fall and winter so far at the Wright-Patterson Emergency Department and on the military side of the residency. This year was another highly competitive year to select military EM residents. It is also the first year of the expansion of the Air Force side of the residency from 6 to 8 positions per year. I am excited about the incoming class. We have four medical students, two interns, and two field candidates. The medical students are **Joshua Burkhardt**, **Mackenzie Farley**, **Benjamin Holland**, and **Prabu Selvam**. **Eric Schott** is currently an internal medicine intern and **Tyler Kallsen** is a general surgery intern here at Wright-Patterson. **Russell Day** is a special operations flight surgeon. And rounding out the class is **Michael Oertly** a practicing family medicine physician. I expect great things from this class and have no doubts that they will step up.

Our own Associate Professor of Emergency Medicine, LtCol **Glenn Burns**, was selected to begin a fellowship in toxicology at Ohio State in Columbus starting this summer. It is his goal to continue to have an active working relationship with the residency and to return to be part of the academic faculty upon his completion.

Summer staffing is always an issue at the base and for the military academic faculty. This year is no different. Glenn Burns will be starting his toxicology fellowship. **Ryan Mihata** will be moving on to be a squadron commander in Japan. **James Manley** will be moving to Germany. **Joe Novak** will be taking a very unique position in Hungary as a flight surgeon. And although we don't know for sure, we have been told that Col **Wightman** might not be with us beyond this summer. **Paul Deflorio** has moved forward on his application to do a residency in aerospace medicine and if selected will start this summer. And I have been told of a pending deployment for myself that will go through the summer. This will leave us thin on the base and thin on academic faculty. **Leslie Vojta** will take over for me as the AF Program Director while I am gone. **Brian Pennington** is working closely with Joe Novak to ensure that the residency ultrasound program continues smoothly. **Meaghan Nelles** will keep things going with running EMS on base. We have some strong incoming physicians, but when they will actually arrive and be fully privileged is up in the air.

Challenges present opportunities, and since joining the faculty I have always been impressed with how we step up and make things happen when called upon. Being the APD for the program is my favorite and the most professionally rewarding part of my job when I am not deployed. I look forward to another great year working with the residents and staff at Wright State.

Know-Nothing

John Wightman, Education Director

Although the material has changed, the fundamental form of the didactic curriculum has been in place for decades. I undertook a major reorganization to better coordinate topics when I took over as the Education Director in 2006. Nonetheless, the time had come for a change to better synchronize the curriculum with how twenty-somethings learn.

Growth requires change. Sometimes change is slow, steady, and imperceptible; but sometimes it occurs in spurts, which is more dramatic and can be painful for some. This academic year, a Curriculum Committee was formed to evaluate the existing didactic curriculum, and make any recommendations necessary for improvement. Upcoming changes will be dramatic. We will have to wait and see how painful they will be.

It was difficult for me to find the right Chinese characters to represent “change,” because there were so many. It seems the fundamental pictograph is *gǎi*, though, this is more often combined with other characters to convey the real essence of what is intended. For instance, *gǎi biān* means to revise and *gǎi guò* means to correct or fix, but *gǎi gé* means to reform and *gǎi liáng* means to improve. I believe we are shooting for *gǎi biàn*, which means to transform.

改变

Transformation into something better is what we aimed to achieve.

Based on studies during her WSU faculty development fellowship, new techniques she had been discovering at conferences, and a network of innovators she knows – and no doubt

due to brain wiring more like a Mac than a PC—**Stacey Poznanski** was the driving force behind the program’s efforts to transform the curriculum. Other faculty and senior residents were key participants during biweekly meetings and home projects for over four months.

The most substantial transformation was from one iteration of a three-year curriculum to two iterations of a one-and-a-half year curriculum. This will allow residents a better chance of catching any given topic, as some are missed while on vacations or on rotations that make it difficult to attend educational activities. Many other residency programs have gone to this model.

Accreditation bodies still have an expectation that certain topics will be covered, so this change necessitated shortening almost all core presentations to 35 minutes, and teasing out 15-minute topics on what we have termed “pearls” related to ECG and image interpretations, bedside ultrasonography, other procedures, visual diagnoses, and other brief topics. For instance, I did one on subungual hematoma management with a brief statement of the controversies and issues, a summary of existing evidence, recommendations based on reading and my experience, and quick discussions of procedural interventions. The pearls from that talk can be found at our new blog site, www.wrightem.com. Navigate “Residents” à “Curriculum” à “Conference Pearls” then click on “COMMENT” to learn more.

One of the desired effects of shortened presentations will be increased attention. However, residents will have to assume more responsibility for pre-reading and independent study afterwards. Small-group YDCs will remain largely unchanged at the residents’ requests. One addition to the overall curriculum will be a quarterly conference combined with the trauma service at Kettering Memorial Hospital. I will be giving the lead presentation on “Blast Trauma in Civilian Settings.”

The new curriculum began shortly after the New Year. The next big change will be moving from Friday afternoons to Tuesday mornings starting in July. Congratulations to **Ed Fieg** for taking over as the new Program Director in the midst of all this!

Long-time readers of *The Update* know why this column is called “Know Nothing.”

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知

The expression “know-nothing” is depicted as *wúzhī* [above] combining *wú*, which can mean “none” or “to lack” something, and *zhī*, which can mean “to know” or “to be aware” of something. However, this derives from the deeper philosophical concept of *wúzhī* [below].

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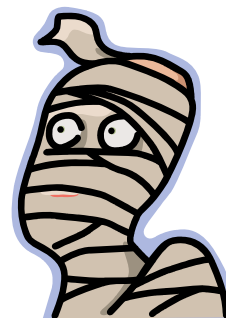
A state of *wúzhī* can be interpreted as the purposeful shunning of any knowledge that assumes whatever is “known” won’t change. There is plenty to learn in residency, but it will all change – sometimes slowly and sometimes quickly.

The body of knowledge that encompasses emergency medicine is always growing and morphing. There is no such thing as a “fact,” because nothing remains stagnant forever. Everything either grows or dies. We must all keep growing as the specialty grows. This is why obtaining and sustaining life-long learning skills is so important.

The goal of our curriculum transformation is to help residents flourish in the ever-changing environments of training and practice.

FROM THE OTHER SIDE

- Jon Singer, M.D.



TIMING THE NAPS

If the clouds prevail and the sun sweeps across our Warren County retirement home, warming rays fill the shower between 3-4pm. I have learned the psychological benefit of angel’s breath on your wet body when your spouse keeps the house at 66 degrees (and 64 at night.)

To shower in preparation for watching “The Five” on Fox News, you have to have your chores completed. Of late, when inclement, I have attended to half of the interior walls and on the 40-something days I have taken a rake to the yard. I cut the grass mid-January to the consternation of the mailman, Doug. I have come to greet him at the street box as he comes like clockwork at 3:30, in between the 2:30 and 3 p.m. Kings Elementary and High School yellow buses. That traffic is as common as bike riders, couple walkers, and joggers who broaden the view out the front window.

Out back we are in competition with our neighbor for the attention of our woods-occupying birds. I think they use more expensive feed. I can contemplate the risk/reward ratio of purchasing black sunflower vs. cheaper wild bird seed as my eyes close for a post lunch nap. I also think of you all and I do not consider the images as a nightmare.

Stay well,

Jon



Research Results

- Jim Olson, Ph.D.

PROGRESS WITH THE PAPER DRIVE

Two papers co-authored by **Dr. Olson** and Dr. Li detailing research from our lab were submitted for publication since the last *Update*. Both were performed in collaboration with Drs. Jaiolin Zheng and Yanfang Chen in the Department of Pharmacology and Toxicology. The papers examine mechanisms which lead to increased brain injury following stroke in hypertensive patients. Two major findings came out of these research projects. First, the data strongly suggest oxidative stress mediated by angiotensin signaling is responsible for the majority of cell injury during a prolonged ischemic episode in individuals with essential hypertension. Second, we describe the important role that angiotensin converting enzyme-2 (ACE2) plays to counteract and balance the actions of angiotensin. Thus, therapeutic mediators of the ACE2 signaling pathway may protect the brain during an ischemic stroke. Novel therapies beyond rtPA may be of particular value for hypertensive patients. As of this *Update*, one of these papers has been accepted in the Journal of *CNS Neuroscience and Therapeutics*, while the other paper is in revision following a favorable review by the journal *Neuroscience*.

SCIENTIFIC MEETINGS: PAST AND FUTURE

Past: I presented a Poster at the Annual Society for Neuroscience meeting held in San Diego, California in November 2013. This Poster presentation was data from one of our recently graduated Masters students, Mandy Gutwien. Unfortunately, Mandy was unable to attend the meeting due to her medical school studies in Indianapolis. Mandy's Thesis research presented in the Poster describes cellular mechanisms responsible for changes in brain cell volume during physiological stimulation.

Amanda Freeman, a former student in our laboratory, presented her Ph.D. thesis research at the 13th International Congress on Amino Acids, Peptides, and Proteins held in Galveston, Texas in October 2013. Amanda's talk was by invitation from the organizer of a workshop on taurine. The meeting was well attended by everyone who is anybody in taurine research. Having graduated from the BMS program with her Ph.D. last May, Amanda has now returned to her medical school rotations and will complete her M.D. degree in 2015. Nevertheless, she has found time to work on the manuscripts derived from her research data.

Future: As President-elect of the local chapter of the Society for Neuroscience (the Ohio-Miami Valley Chapter or OMV-SfN), it is my responsibility to organize our central activity for the year, Neuroscience Day 2014. The meeting, scheduled for May 17th, will be held at Wright State University in the Gandhi Auditorium of White Hall. In addition to presentations by faculty from the four institutions representing OMV-SfN (UD, UC, WSU, MU) this meeting will be an opportunity for students, faculty, and medical residents to present their research in a poster format. Our keynote speaker for the day will be Harald Sontheimer, Ph.D. from University of Alabama in Birmingham. Dr. Sontheimer started his career 25 years ago studying ion channels in glial cells. His work has lead him to develop a treatment for glioma cells which is currently in clinical trials. His presentation is likely to attract scientists and clinicians with interests in neuroscience, pediatrics, and oncology.

STUDENTS IN THE LABORATORY

Four Masters students from the Neuroscience, Cell Biology, and Physiology Department worked in the laboratory during the fall semester. Courtney Moore is in the final stages of gathering data for her research project and expects soon to have permission to write her Master's thesis. Augusta Eduafo has just begun her Master's degree thesis research in the lab. Amaal Salhie and Ryan Lawhorn also completed their research laboratory experience for their Master's degree during the last semester. The results of their research activities will be incorporated into manuscripts currently in preparation.

CHAIR BROWN KNOWS

- James Brown, M.D.



It has been some time since I made a contribution to the *Update*. It always seems like I have great plans shortly after an issue comes out and never have any time when the next one is due.

We have made some great additions to the faculty in the last several months – as you can tell from the front page. **Catherine Marco** joined us from the University of Toledo. Catherine was program director there and has agreed to fill **Jon Singer's** big shoes as our scholarly works director. She has really hit the ground running and has four projects in front of the IRB at last count. **Dennis Mann** moved from clinical faculty at MVH to our academic faculty this fall. Many of our more recent alumni will remember Dennis from their Valley rotations. Dennis has a Ph.D. in Pharmacology/Toxicology and has taken over the tox rotation. He too has filled a large hole in our faculty lineup for the last few years. **Glenn Burns**, currently military faculty, will be a toxicology fellow at OSU over the next couple of years. We hope that the Air Force will choose to return him to us once that is done. In the meantime, since he will be commuting from Springboro for fellowship, we hope to be able to use him at times to enhance the tox experience.

Our Holiday celebration this year was enhanced by some of the military alumni being able to join us at the last minute. **Rod Fontenette**, **Scott VanDeHoef**, and **Deann (Albee) Hoelscher** all came up from Cincinnati for the celebration. It is always nice to celebrate with family at that time of year; it is even better when some of the 'older kids' can come home.

Finally, a pleasant surprise happened to Judy and me at the end of January. While boarding a plane from Orlando (where we had gone to escape the sub-zero temperatures in Dayton), who sits in the seat directly behind me but **Nathan Allison**. We were able to get caught up during the deplaning process since we were all in the back of the plane. Small world!

SPECIAL NOTE FROM CASSIE

Thanks for reading this edition of the *ED Update*. You can be in our next issue! If you have anything you would like to share with the residency and would like it to go in the *ED Update* please email it to me at cassandra.browning@wright.edu, and I will put it in an upcoming issue. We would love to hear from you!

Also, please remember to keep us updated on any address, phone number and/or email changes so we can keep in contact.

Thank you!
Cassie

