

### Program Graduates Earn Doctorates, Conduct Research

A number of graduates of the University of Arkansas athletic training education master's program have gone on to obtain doctoral degrees in various fields, both at the U of A and other institutions.

Jeff Bonacci, a clinical assistant professor of kinesiology, coordinates the master's degree program. He said research in the field is vitally important.

"I am truly proud of our alumni who have completed their terminal degree," Bonacci said. "The ever-evolving need

for research in athletic training education, musculoskeletal injury and prevention, and the physiological responses to exercise are paramount in providing outstanding health care to the physically active and injured athlete. Razorback graduates of our program like this will continue this venture of answering the questions of health care providers."

Graduates of the program who went on to earn doctorates recently answered several questions about their experiences and the work they are doing now.



#### KIRK EVANSON

**Hometown:** Arkadelphia, Arkansas

**Degrees:** Doctor of Philosophy in kinesiology, University of Arkansas, 2011; Master of Athletic Training, University of Arkansas, 2005; Bachelor of Arts in music education, Arkansas Tech University, 1995

**Current position:** Assistant professor of exercise science, Florida State University; researches vascular ion channels and how the effects of age, gender and disease affect ion channel expression and function.

**Why did you pursue a doctorate?** I wanted to conduct research.

**How did the athletic training master's degree program prepare you for your doctoral program?** The master's degree introduced me to the academic environment. Nothing can really prepare you for the Ph.D. program, but the master's degree allows you to see a glimpse of the world that you don't see as an undergraduate.



#### YUSUKE NAKAYAMA

**Hometown:** Susono, Japan

**Degrees:** Doctor of Philosophy in kinesiology/athletic training, Michigan State University, 2013; Master of Athletic Training, University of Arkansas, 2008; Bachelor of Science in sports science, Waseda University, 2004

**Current position:** Assistant athletic trainer/performance scientist, Cleveland Cavaliers; assists the head athletic trainer in overall athletic training duties, assists the high performance director in driving innovation and cutting edge scientific methods and helps in the education of both coaches and players on effective

training techniques and protocols.

**Why did you pursue a doctorate?** To set the grounds for understanding sports science and research in order to apply them to clinical practice effectively and appropriately.

**How did the athletic training master's degree program prepare you for your doctoral program?** Being able to view and interpret the research from clinician's perspective was essential to achieve my goal of pursuing a doctorate. My clinical experience at U of A while being introduced to basic research helped me build a foundation of my doctorate work.



## Program Director's Corner By Jeff Bonacci, D.A., A.T.C., L.A.T.



Bonacci

Hello Razorback Alumni, prospective students, and friends of the athletic training education program. This summer, we have increased our normal incoming class from 15 to 22 students. As usual, the class of 2018 comes from all around the country.

With the increased enrollment comes a need for more resources. We have hired an additional faculty member for the athletic training education program. We are very pleased that Mrs. Lesley Vandermark, A.T.C. and Ph.D. student from the University of Connecticut, will join our athletic training faculty in August.

In addition, you can imagine with an increase in class size, there is a need for more teaching space. You might remember that the mini-gymnasium on the third floor of the HPER building adjacent to the Human Performance Lab has been acquired as our new teaching lab. The 3,000-square-foot newly renovated facility will be outfitted with 12 new hi-lo tables, cabinetry, television screens, and computerized

instructional capabilities. We are very appreciative of Dean Tom Smith for his financial support in this new facility.

The new teaching lab will be an outstanding addition in providing quality instruction to our future graduates. Photos of the new teaching lab and detailed highlights of Mrs. Vandermark will be featured in our fall 2016 newsletter.

The 2016 10th annual Razorback Winter Symposium was well attended once again. The keynote speakers were Gary Johnson, team physician and orthopedic surgeon for the University of Kentucky, who spoke on current trends in knee reconstruction of injured athletes, and Fraser Leversedge, team physician and orthopedic hand surgeon for Duke University, provided the evidence-based practice lecture on hands and wrist injuries to the injured athlete. Four students presented poster presentations ranging from case-studies of deep vein thrombosis in the upper extremity of a collegiate baseball player to spine boarding case of an injured football player.

In Baltimore, our second year students – Meghan Barrington, Aleena Kanner, and Jordan Williams – will represent NATA District VI in the National Student Athletic Training Quiz Bowl.

## Student Research Incorporates Sophisticated Technology

By Brendon McDermott, Ph.D., A.T.C.



McDermott

In our spring semester, we have first-year students who are getting some of their first exposures to data collection and research writing. Our second-years, on the other hand, are graduating, finding employment and finishing their research requirement for our program. Either way, they are busy developing future best-practices in clinical care related to various aspects

of patient care.

Dr. Bonacci and Dr. Kaitlin Gallagher have teamed up with our athletic training students for data collection using high-end accelerometry technology to assess movement of the cervical spine during extraction of a patient from a gymnastics pit. This study is an innovative protocol comparing varying techniques when a patient is injured in a stunt foam pit. The

results of this study are expected to be presented next summer at the NATA annual meeting.

This summer, two of our students will present at national conferences. Jordan Williams will present at the NATA annual meeting in Baltimore on his project involving patient-rated outcomes following ACL surgery. His data was aided significantly by Dr. Chris Arnold at Advanced Orthopaedic Specialists. Airika Phillips will present a unique case report of upper extremity deep vein thrombosis in a baseball player at the national ACSM meeting in Boston.

Our program is in final preparations on two manuscripts regarding heat illness prevention and treatment. For one, we have submitted one on tarp-assisted cooling (TACO) for the treatment of exertional heat stroke (it is effective!). In terms of heat illness prevention, we found that using phase change cooling inserts with compression gear enhances physiological and perceptual responses when working in the heat.

## PRECEPTOR HIGHLIGHT:

### Sharing Lessons About Communication, Work Ethic

Giving students studying to become athletic trainers real-world experience doesn't just mean the chance to apply what they learn in the classroom; it's also about showing them that communication is the key to keeping athletes healthy and Division I collegiate athletics is not all glamour.

Clinical preceptors such as Razorback athletic trainers Dave England and Natalie Trotter are in the perfect position to teach these lessons to University of Arkansas students in the graduate athletic training education program.

England brings more than 30 years of experience to his position as athletic trainer for men's basketball and baseball, while Trotter is in her fourth year as athletic trainer for women's basketball, women's golf and tennis.

During the two years of the master's level athletic training education program in the College of Education and Health Professions, the students gain experience in clinical settings that include Division I Razorback athletics, high school sports and medical clinics. Preceptors supervise the clinical practice of these students.

"The great thing here is that, during their two years in the program, they will experience several different sports," England said. "I tell them they need to be self-motivated; this is not a teaching athletic training room. We're trying to get our team ready for the floor so they will do well."

"They learn we often work 80-hour weeks and don't have weekends off," he continued.

The clinical experiences give students a chance to use what they are learning in the classroom and in textbooks.

"It's vastly different here than in their classes and labs," Trotter said. "They come here to apply what they are learning in the way we do things. They learn there are several different ways to do things."

The multiple rotations the students complete give them the chance to see different approaches taken by at least half a dozen individual athletic trainers.

"None of us does things the same way," England said. "As I was coming up, I stole bits and pieces from athletic trainers I worked with in my early jobs."

The preceptors also emphasize the importance of communication, as well as being enthusiastic when working with athletes.

"You have to communicate with parents, players, coaches and other people," England said. "If you are not a good



communicator, chances are you are not going to be in the business long. You have to be able to convince the athlete to do what you want them to do. They see how Natalie and I relate to others. We try to show them how to gain confidence of the team. The way you do things tells the athlete a lot about whether your treatment is going to work. You have to communicate you know what to do."

Students also need to understand that, if their goal is to work on the Division I or Southeastern Conference collegiate level or the professional sports level, that will not be their first job, England said. They need to be open to starting at a high school, for example.

"As they enter the professional world, they need to throw out their net wide," he said.

Trotter believes her role as a clinical preceptor is to help make sure students set goals and strategically pursue the experiences they need to set themselves apart from their peers, not just here but all over the country, who will also be looking for athletic training jobs.

"They need to strategically plan – from the first summer they enter the program – what they want to do and learn," she said.

One of the joys of being a preceptor is seeing students being successful, Trotter said.

"I get excited when they pass their (board certification) test," she said. "I get excited when they get job interviews. Years down the line, I'll get random calls from students telling me what they are doing or when they have questions. I tell students, if they do a good job, they can call me for anything."





## Athletic Training Program Graduates Earn Doctorates, Conduct Research cont...



### HILLARY PLUMMER

**Hometown:** Snellville, Georgia

**Degrees:** Doctor of Philosophy in kinesiology with an emphasis in biomechanics, Auburn University, 2015; Master of Athletic Training, University of Arkansas, 2011; Bachelor of Science in exercise science, Georgia College & State University

**Current position:** Post-doctoral research associate in the Clinical Biomechanics Orthopedic & Sports Outcomes Research Lab at University of Southern California. We are working on a clinical trial examining the effects of closed-chain exercises in patients with full-thickness rotator cuff tears. The patients go through five

months of rehabilitation and we assess their range of motion, strength, rotator cuff muscle cross-sectional area, shoulder and scapula kinematics as well as patient-reported outcome measures prior to beginning rehabilitation, three months into rehabilitation, and at the end of five months. My role is to assist with the data collection sessions, recruit patients, monitor their progress through the first three months of rehabilitation with the physical therapists, and then at the three-month mark I will lead the patients through the remaining two months of the exercise protocol.

**Why did you pursue a doctorate?** I enjoy the aspect of developing a research question and then working to answer that question, specifically being able to utilize biomechanics to better understand the mechanisms that contribute to upper extremity injury. I was fortunate during my time at Arkansas to have the opportunity to get involved with the throwing and pitching research Gretchen Oliver was performing. I developed a strong passion for research. I have worked closely with youth baseball and softball players to provide biomechanical analyses on pitching and throwing mechanics in an effort to identify pathomechanics and reduce their risk of injury. My current line of research is directed toward investigating the role of lumbo-pelvic stability on pitching mechanics and the implications for injury. More specifically, it is identifying functional tests that can be implemented in a clinical setting to identify baseball pitchers at risk for injury.

**How did the athletic training master's prepare you for your doctoral program?** The master's program gave me a strong foundation in understanding research, injury mechanisms, prevention and treatment that I am able to use on a daily basis. The busy schedule of trying to balance classes, clinical hours and research during my master's really taught me great time management skills that came in handy when pursuing a Ph.D.

**Anything else you would like to add?** I am really excited about the growth of the athletic training program. Dr. Bonacci has done a great job with the program.

## Athletic Training Program Graduates Earn Doctorates, Conduct Research cont...



### BRANDY SCHNEIDER

**Hometown:** Brashear, Missouri

**Degrees:** Doctor of Education in learning and leadership, University of Tennessee-Chattanooga, 2012; Master of Athletic Training, University of Arkansas, 2004; Bachelor of Science, Truman State University, Kirksville, Missouri, 2002

**Current position:** Athletic training program director and instructor at Truman State University;

My job responsibilities include ensuring the current undergraduate athletic training program maintains its accreditation through the Commission on Accreditation of Athletic Training Education. I teach athletic training, health and exercise science classes on campus. Part of my current duties include designing a Master of Athletic Training program at Truman and getting that program accredited. I get to do what I enjoy each day, teaching future athletic trainers.

**Why did you pursue a doctorate?** During my time at UARK, I was impressed with the job Dr. Bonacci did in designing a Master of Athletic Training program. I knew then I wanted to gain field experience to eventually work in the faculty side of athletic training. I wanted field experience to provide real life examples to students. While I gained experience in the clinical aspect by working with different sports in a variety of venues, I wanted to become a better educator in the classroom. To do this, I researched doctoral programs that encouraged the development and growth of individuals in the classroom and in leadership positions. The doctorate degree at UTC allowed me to develop my classroom and leadership skills.

**How did the athletic training master's prepare you for your doctoral program?** The master's program at UARK prepared me for the doctoral program by broadening my vision of the inner workings of an educational program. I was able to make connections with physicians and other health care professionals that allowed me to gain knowledge about the need for collaboration. I observed how the program was run at UARK and saw many benefits to that design. I was able to provide insight into the learning and leadership program about how other educational programs are constructed. I experienced a group of faculty who wanted to see every member of our class succeed in the program.

**Anything else you would like to add?** The UARK program is an amazing program. I am proud to be a member of the first graduating class there and to see how much it has grown over the years. While I do not know that many people at the alumni reunions, I do like to see how many people attend each year and watch that number increase! Dr. Bonacci was a very caring and involved PD with our class! He really wanted to see everyone succeed.



## Athletic Training Program Graduates Earn Doctorates, Conduct Research cont...



### BETHANY L. SHIVERS

**Hometown:** Wurzburg, Germany, and Tuscaloosa, Alabama

**Degrees:** Doctor of Philosophy in kinesiology, exercise science, University of Arkansas, 2012; Master of Athletic Training, University of Arkansas, 2004; Bachelor of Arts in public relations, University of Alabama, 2001

**Current position:** Department of the Army civilian research scientist in the Injury Biomechanics Division of the U.S. Army Aeromedical Research Laboratory. My primary area of focus is the acute and chronic injuries associated with head supported mass (helmets and helmet-mounted technologies such as night vision goggles, head up displays, etc.). We establish medically based injury risk and

performance decrement criteria for helmets and helmet systems worn in aviation, dismounted and ground mounted operating environments. I'm also in the Alabama National Guard, which is part of the reason it took me eight years to complete my PhD! My experience as a soldier provides me with practical knowledge and applications for the work that we do to improve soldier protection and operational effectiveness. I love that I can serve on both sides of the uniform – as an Army civilian and as a soldier!

**Why did you pursue a doctorate?** I'm a curious person by nature. I'm always questioning why something is happening, or what circumstances lead to a certain result. As an athletic trainer, this was useful because it allowed me to think critically about the mechanism of injury and structures involved for injury evaluations and also in determining the best approaches to target functionally relevant rehabilitation plans. My natural curiosity extended into a love of research. There are so many cool and fun questions to ask, and finding the answers is an awesome journey that inevitably leads to more questions.

**How did the athletic training master's degree program prepare you for your doctoral program?** I think successful athletic trainers need to be critical thinkers and creative problem solvers. These skills are directly applicable to research as well. The master's program taught us to hone these skills. The program required an incredible work ethic and dedication to the end goal due to the more than challenging course load and practical experience requirements. Completing a doctoral program requires the same dedication and work ethic. It's a grind, but it is well worth it in the end.

**Anything else you would like to add?** I've deployed twice, once to Iraq and once to Afghanistan. One of the roles I had on my most recent deployment to Kabul, Afghanistan was the Female Engagement Officer for our brigade. This role allowed me to interact with local Afghans as we helped them establish medical clinics, schools, and athletic facilities. Our brigade surgeon requested my assistance with a medical outreach mission to work with a local police station commander's son who presented with severe contractures of the leg musculature leading to very limited mobility and pain. Although we weren't able to fully evaluate him or get a definitive diagnosis, I was able to help establish a rehabilitation plan for him with targeted exercises and stretching techniques that improved his mobility and decreased his pain. It was a very rewarding experience both as a soldier, and as an ATC.



## Athletic Training Program Graduates Earn Doctorates, Conduct Research cont...



### AUDREY STONE

**Hometown:** Benton, Arkansas

**Degrees:** Doctor of Philosophy in kinesiology with a focus in exercise science, University of Arkansas, 2010; Master of Athletic Training, University of Arkansas 2007; Bachelor of Science in health science, University of Arkansas at Little Rock, 2005

**Current position:** Assistant professor of exercise science at the University of Texas at Austin; I teach graduate and undergraduate classes including "General Medical Conditions in Athletic Training." I am also the head of the Autonomic Control of Circulation Laboratory where I investigate the mechanisms of exercise that lead to the reflexive increases in sympathetic activity (i.e., the exercise pressor reflex). I am interested in how this reflex is altered in those with diabetes as well as how exercise training and diet can alter this reflex.

**Why did you pursue a doctorate?** I pursued a doctorate in order to be able to research exercise performance variables in athletes. I was always interested in exercise physiology, and a doctoral degree would allow me to further explore the area. About a year into my degree, I realized that I was more interested in the basic science behind exercise physiology and how it was affected by different diseases. From there, I changed the focus of my research to neurovascular control during exercise and stepped away from exercise performance.

**How did the athletic training master's degree program prepare you for your doctoral program?** The athletic training program got me excited about the human body and how it works. I loved/love the subject matter and I still enjoy teaching athletic training classes. My master's degree in athletic training introduced me to a whole bank of "why" questions and I've been able to pursue some of those questions now that I have a doctorate.

**Anything else you would like to add?** Drs. Jeff Bonacci and Gretchen Oliver (former clinical instructor) did an excellent job for the program, and I really appreciate all of their support.

## Class of 2018 Comes In with 3.75 GPA Average

DOMINIC ALEJANDRE Manteca, California,  
California State University-Monterey Bay  
KAILEY BAKER Forrest, Virginia, Virginia Tech University  
ELLEN BUCHER Plankinton, South Dakota,  
Briarcliff College, Sioux City, Iowa  
TYLER CAMPBELL Lamar, Missouri, Missouri State University  
TJ CARTER Brandon, Mississippi, Mississippi State University  
GRADY FINLEY Sheridan, Arkansas,  
University of the Ozarks, Clarksville  
ALEX FOREHAN Morning View, Kentucky,  
University of Kentucky  
MICHELLE GARCIA Buda, Texas, St. Edwards University  
MALKIA GEDEON Mount Vernon, New York,  
University of Kentucky  
ABBEY HESS Metairie, Louisiana, Mississippi State University  
KATIE JOHNSON Friendswood, Texas,  
University of Texas-Commerce

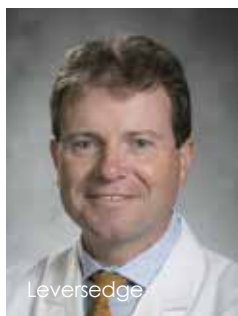
CHASE LADD Vicksburg, Mississippi, University of Mississippi  
TAYLOR LIPPERT Gray, Louisiana, University of Oklahoma  
BRANDON MYERS Webb City, Missouri,  
Missouri Southern University  
TAYLOR OVERTON Midlothian, Texas,  
University of North Texas  
KRISTEN PETERSON Richmond, Kentucky,  
University of Kentucky  
ERIC POLOMIS Green Bay, Wisconsin, University of Minnesota  
DAMON REEL Kokomo, Indiana, Anderson University, Fishers,  
Indiana  
TONY RODRIGUEZ Truckee, California, University of Oregon  
ERIC SCHWARTZ St. Peters, Missouri, Southern Illinois Univer-  
sity, Edwardsville  
JORDAN SHIMODA Waipahu, Hawaii,  
Southern Methodist University, Dallas  
MARIELLEN VEACH O'Fallon, Illinois, University of Illinois



## Athletic Training Lecture Series Continues to Bring in Leaders

The Athletic Training Lecture Series continued this spring with leaders in business practices in athletic training, women in athletic training, emergency procedures, and hand and wrist tendon injury assessment.

Fraser Leversedge, associate professor of orthopedics, board certified in hand and wrist surgery and team physician at Duke University, provided a guest lecture to the athletic training students on evaluating on the most prevalent hand and wrist injuries in athletics. The lecture was interactive and the importance of clinical anatomy knowledge was imperative to the students' education.



Leversedge earned his medical degree from Dartmouth Medical School and did his residency in orthopaedic surgery at Emory University Affiliated Hospitals. He also held a Fellowship in hand and upper extremity surgery at Washington University School of Medicine in Missouri.

Leversedge has an interest in brachial plexus and peripheral nerve repair and reconstruction, tendon repair and reconstruction, hand and wrist conditions, and congenital and pediatric conditions of the upper extremity. He provides care for athletes of all ages – from youth teams to professional athletes to the athletes at two Olympic Games. He is the director of the Hand & Upper Extremity Surgery Fellowship at Duke and enjoys teaching.



Kathy Dieringer, Ed.D., A.T.C., L.A.T., is the the National Athletic Trainers Association's District VI director. She spoke on March 30 about women in athletic training and a successful business model owning a private sports medicine clinic.

Dieringer co-owns three outpatient rehabilitation clinics (D&D Sports Med) in the north Texas area, employing over 45 staff members including physical therapists, occupational therapists, athletic trainers, and strength and conditioning coaches. She has worked in the collegiate, secondary schools, and clinical settings during her 30-plus

years of experience as a certified and licensed athletic trainer and is currently handling mostly administrative duties for her businesses.

In addition to serving on various state, district and NATA committees, Kathy has served as president of NATA District VI and chair of the NATA Clinical and Emerging Practices Athletic Trainers' Committee. She is currently the NATA District VI director and the secretary/treasurer of the NATA. She is an honored recipient of the NATA Athletic Trainer Service Award and the NATA Most Distinguished Athletic Trainer Award, and she has been inducted in the SWATA Hall of Fame.

Dieringer has spoken extensively about business concepts, how business pertains to athletic trainers, and how athletic trainers can create opportunities in the health care market, including through advocacy. She co-presented "Business of Athletic Training" at the NATA Clinical Symposia and at NATA district meetings numerous times, and she continues to work diligently to improve the status of athletic trainers in the health care community. As a clinician, Dieringer's expertise includes industrial rehabilitation and golf fitness and return to play.



Benjamin Abo, a doctor of osteopathic medicine, presented April 6 about life-saving emergency procedures that would greatly benefit health care providers especially those who aspire to join the medical field as athletic trainers or emergency medical technicians.

Abo also directed a lab on spine boarding techniques of the spine of the injured athlete exclusively for the athletic training students.

Abo is an emergency medicine resident physician at Mount Sinai Medical Center in Miami, Florida. He is also the medical director at City College EMS Program and an adjunct professor at Miami Dade College. Abo has 19 years of international emergency medicine and EMS experience. Abo was also the National Collegiate Emergency Medical Services Foundation 2013 EMS Provider of the Year for Heroism & Valor.