State-of-the-Art Simulator Comes to UAB

What does it take to get a state of the art driving simulator?
It takes mental and physical hard work — dedication, determination, co-operation, persistence, and the removal of the front of a building! Dr. Stavrinos and the TRIP Lab team worked tirelessly to overcome these hurdles and achieve their goal of a state-of-the-art driving simulator, and in doing so, they also established the first-ever SUV driving simulator laboratory in the world as well as the first full-cab driving simulator in Alabama. Now that's impressive!

The TRIP Lab houses the first ever SUV driving simulator as well as the first full-cab simulator in Alabama.

On Tuesday, April 19, 2016, the TRIP Lab officially unveiled its new, fully immersive, driving simulator sponsored by Honda Manufacturing of Alabama and the Alabama Department of Transportation. This high-fidelity instrument is designed by Realtime Technologies, Inc., and takes the form of a 2016 Honda Pilot. The vehicle features a fully functional steering wheel, throttle, brake, gear selector, turn signals, and dashboard. A motion base system provides a normal ride height and pitch cues to the drivers for acceleration and braking (the driver feels the pull of slowing down and the push of speeding up). The roadway and surrounding scenery are provided on three 80” LCD projection screens. A large screen behind the cab allows the driver to see the simulated environment behind them using the center rear mirror. The side mirrors have LCD displays that show the driver...
what he/she would see from the side mirrors in an actual vehicle. A 5.1 sound system with full Doppler sound effects surrounds the vehicle for realistic vehicle and pass-by sounds. Speakers inside the vehicle provide the sound for warning systems, route guidance instructions, or interaction between the operators and subject driver. You really feel like you’re driving on the road!

The driving simulator has not gone unnoticed by local, national, and international media. A mere 10 days after its official opening, the driving simulator was featured on the TODAY Show. Jeff Rossen, the TODAY Show’s national investigative correspondent, traveled to Birmingham to visit the TRIP Lab’s simulator in person to examine how long your eyes are actually off the road when you take a selfie and post it to social media. He broadcast his experiences live on the TODAY Show. In August, CNN correspondent Kelly Wallace drove in the TRIP Lab’s simulator to see for herself how dangerous distracted driving can be. She found that she crashed nearly every time she tried to send a text or make a Facebook post. The driving simulator has also been featured by UAB and local media outlets. For more information about the simulator and links to the media coverage, please visit the TRIP Lab’s website (www.triplaboratory.com).
Driving Simulator Creates Cutting-Edge Research Opportunities

The first research study employing the TRIP Lab’s new simulator is Cognitive Research Utilizing Innovative Simulated Environments (CRUISE), made possible by funds from the Alabama Department of Transportation. This study examines the impact of roadway and driver factors on rural road crashes. There are two specific aims: (1) to examine at-risk drivers (teens and older adults) operating our state-of-the-art high fidelity driving simulator in varying roadway conditions (curvatures, weather conditions, light level, road elevation, intersections) and (2) to examine which individual difference factors (age, distractibility) predict risky driving behavior under varying roadway conditions. CRUISE is currently in the data collection phase, and is only the first of many exciting research studies soon to come from Dr. Stavrinos and her team at the TRIP Lab. Stay tuned!

The driving simulator also provides non-TRIP Lab affiliated investigators with cutting edge research opportunities. The driving simulator is available “for hire” to independent researchers. The faculty and staff of the UAB TRIP Lab are available to assist researchers with their driving simulator needs. Their experience with driving simulator-related research design and implementation, as well as data collection, analysis, and presentation is unparalleled, and they are happy to share their knowledge, experience, and resources to assist you in your research needs.

The driving simulator’s progressive software is fully customizable, and its powerful dynamics support accurate modeling of vehicle response to the conditions set. High quality graphics and sensitive haptic feedback allow the driver to become fully immersed in the virtual environment. A wide variety of driver behaviors/outcome measures can be recorded to fit a wide range of research aims and goals.

Why not take a tour of the TRIP Lab’s driving simulator facilities? The TRIP Lab offers a limited number of guided, private tours. Tours are available for researchers, students, and other interested groups. The students of UAB’s Injury Epidemiology course (EPI 603) were provided a tour as part of Dr. Stavrinos’ lecture on transportation safety. The UAB School of Engineering’s Enabling Technology Lab took a tour of the TRIP Lab facilities to discuss possible collaborative opportunities. A technical tour was provided to over fifty participants attending the fall workshop of the Gulf Region Intelligent Transportation Society (GRITS) after Dr. Stavrinos gave a keynote presentation to the group. GRITS members are advocates for the implementation of innovative technologies to improve safety for travelers in Mississippi, Louisiana, and Alabama, complementing the work being conducted in the TRIP Lab. Finally, Dr. Matthew Jarrett and his team from The University of Alabama’s ADHD and Anxiety Program toured the driving simulator facilities to familiarize themselves with the TRIP Lab’s capabilities and discuss possible future collaborations in the area of developmental disabilities and driving.

Contact Dr. Stavrinos (dstavrin@uab.edu) for details of how to use the TRIP Lab’s driving simulator or to arrange a private tour.
As another year comes to an end, it is rewarding to reflect back on the significant accomplishments and progress of 2016 – a year I will always remember. I am proud to share with you the first-ever TRIP Lab newsletter (thanks to Dr. Andrea Underhill, our contributing editor, who dreamed this one up!). This one is a Year in Review. Thank you for hanging in there and reading – it’s a long one. The others will be less dense, but we wanted to get everyone up to speed on the past 12 months.

By way of background, I am trained as a Developmental Psychologist. This may come as a surprise to many of you because you don’t automatically relate transportation research and injury prevention to psychology. The path I traveled to get from my original interest of cognitive development to being a pediatric psychologist with an emphasis in transportation-related injury prevention and control is interesting, but a story for another time (for more information, see the commentary I published in Journal of Pediatric Psychology earlier this year titled, How I Navigated My Early Career As a Pediatric Psychologist.

I have many people to thank for helping me along that road – they know who they are. My path to transportation-related research and my list of people to thank are too long – so let’s jump to the part where the TRIP lab was established. The Translational Research for Injury Prevention (TRIP) Lab was established in 2009 while I was completing a post-doc at the UAB Injury Control Research Center. Some people said I couldn’t/shouldn’t start a lab. I chose to listen to the one person who said “If you say it exists, it exists.” In its first year, the TRIP Lab was essentially a laboratory in name only. It didn’t have its own office space or a staff. It was just an idea and a passion for research. The first year only saw about $50K in grant funding – which funded our first project, Distracted Driving Among Teens With and Without ADHD, but that funding was crucial to getting the ball rolling. I had a team of 4 students, I sought out collaborators, and used that money to get the TRIP Lab up on its own two feet.

Seven years later, our grant funding is 10x what it was in that first year, we have our own facility, a state-of-the-art high fidelity driving simulator, have mentored nearly 100 students, have a full-time lab manager (Mariah Stasiak), and a contributing editor (Dr. Andrea Underhill). It’s been an enormous amount of hard work, but that work has resulted in an explosion of success for the TRIP Lab. Seven must truly be a lucky number because in that short period the TRIP Lab grew from an idea to an internationally noted facility with a truly one-of-a-kind driving simulator; a fact that astounds me daily. It seems such a short time ago that the lab was just four students and I. Now the TRIP Lab partners with academic centers around the world and with entities such as Honda Manufacturing of Alabama and the Alabama Department of Transportation – who made the state-of-the-art driving simulator possible. The TRIP Lab has received national and international attention, and been featured on TODAY, CNN, and TEEN Vogue. Wow! It’s been quite a journey.

My experiences from graduate school taught me the importance of truly interdisciplinary work and that is what I wanted to accomplish with the TRIP Lab. So many fields have areas of research that can meaningfully contribute to reducing morbidity and mortality from motor vehicle crashes (MVCs), but many of the people in those fields don’t realize that potential. I sought out leaders in transportation-related fields (even if they didn’t know they were in a transportation-related field such as psychology, but also neuroscience, nursing, and others outside of traditional transportation fields of injury epidemiology or engineering) with whom to collaborate.

Although many of my students are training to be psychologists, I sought out bright students from a variety of disciplines to mentor and to assist with research. We have conducted dozens of studies that fall under the auspices of transportation injury prevention (ranging from distracted driving to drivers with developmental disabilities), but I’ve...
never viewed transportation research from within its traditional box.

One of the most rewarding parts of my career is seeing my students blossom into scientists. The laboratory is often the first place where students apply what they have learned in their course work towards a real-world topic. If the experience in the laboratory is a positive one, that is, if it is challenging and rewarding, then it may foster students’ interest in becoming future researchers. In fact, the laboratory was the driving force for choosing a research career for myself. By being actively involved in a research program, my curiosity for conducting my own research studies was fostered. Likewise, students under my mentorship, actively contribute through challenging hands-on experiences and rewarding opportunities to emerge as leaders.

I know I am biased but I have the most inspiring, hard-working, amazing group of students and I know you will agree with me after reading about all of their significant accomplishments noted throughout this newsletter. TRIPsters have the drive, dedication, and ambition to become the successful researchers they set out to be. My own mentoring experience was amazing. I had a champion who provided opportunities (though at the time may have seemed like more work!), but looking back I know they were special opportunities and teachable moments. When I asked one of my mentors how I could ever repay him for all the things he has done (and continues to do) to promote my career he said the answer is simple: Pay It Forward. I’ve embraced this idea and I try to do the things that Dr. Fine always did for me – including encouraging my students to participate in as many opportunities as possible, challenging them to show excellence, and continually reminding them to embrace the fact that it is OK to be underestimated. Finally, it is important that I do not ask them to do anything I wouldn’t be OK doing myself.

Within a research setting, students possess varying levels of training, knowledge, and experience. In the TRIP Lab there are graduate, post-baccalaureate, and undergraduate students from a variety of disciplines including psychology, computer science, neuroscience, medicine, and public health. A teaching method that has proven to be quite effective is a hierarchical peer teaching approach, such that more advanced students play an active role in teaching newer students. This rewards the more senior students with an opportunity to gain experience in mentoring as well as to further develop a sense of research independence. Less experienced students also benefit through learning from multiple teachers and multiple styles. This style has proven effective for us and I strongly believe it has contributed to our productivity and training.

In closing, I believe we can accomplish more and can do it more quickly if we work together. Car crashes remain the leading killer of young people. Engineers have made the roads significantly safer and have saved millions of lives; however, evidence-based behavioral interventions are sorely needed if we are to reduce this major public health burden. I believe in a translational, interdisciplinary approach as we move forward to tackle transportation injury prevention. The important thing is to make a positive difference in the world and that people work towards that goal regardless of their area of expertise. Let’s collaborate based on who has the best ability to contribute to a particular project, not based on whether you’re a psychologist, engineer, nurse, chemist, or whatever!

It has been an honor to direct the TRIP Lab and to work with so many bright minds in so many different fields. I’m excited to see what the future holds for the TRIP Lab as it continues to grow and expand. I am excited to continue mentoring the students who are the future of transportation research. We will continue to look for new approaches to combat transportation problems and will identify new partners in that battle.

I hope you enjoy the newsletter and will keep up-to-date with TRIP Lab happenings through our Facebook and Twitter accounts (@UABTRIPLab) and the web (www.triplaboratory.com).

Here’s to another productive year ahead!

Dr. Despina Stavrinos
CORD Mentorship

Each year, Dr. Stavrinos and the TRIP Lab mentor at least one student from UAB’s Center for Community OutReach Development (CORD). Among their successful activities, CORD conducts Summer Science Institutes (SSI) for hundreds of high school and pre-baccalaureate students, the great majority of whom are underrepresented in STEM careers.

This year, Ms. Caitlin Pope, TRIP Lab Graduate Assistant, took the lead role in the mentorship of Ashley Williams. Ms. Williams was part of CORD’s Blazing to Biomedical Career summer program. Once a part of the TRIP Lab family, Ms. Williams performed research alongside other undergraduate and graduate students and assisted with other laboratory activities.

Ms. Williams’ research focused on teens’ support for laws regarding distracted driving. Specifically, Ashley conducted secondary data analysis using the TRIP Lab’s UHAUL study. Using logistic regressions, Ashley found that the more students perceived interacting with a cellular device as a threat to personal safety, the greater the odds they supported legislation against texting and driving. Support for such legislation was also associated with external factors (such as police presence). This same pattern of external influence on personal driving habits was found for proposed laws regarding federal regulation of non-driving related technologies.

Ashley presented a poster describing her research, “Don’t text & drive, An investigation into teens’ support for laws regarding distracted driving,” at the 2016 CORD Symposium in Birmingham. She was first author on this poster, an opportunity encouraged of undergraduates working in the TRIP Lab, as Dr. Stavrinos recognizes the importance of learning to think critically and independently for future career development.

When not performing her own research, Ashley assisted in the TRIP Lab’s CRUISE study’s simulator scenario development and research assistant training by being the “guinea pig” for working out the kinks in study protocol. She also assisted with the initial telephone screening for the CRUISE study. This work, combined with her original research project, helped Ashley gain valuable skills in conducting and reviewing scientific literature, in research design, and in statistical analysis.

“While intimidating, having the opportunity to mentor a student so early in their collegiate career, such as the CORD students, is most gratifying as you can help plant the seed of scientific curiosity and watch the appreciation for research and knowledge grow. Mentoring Ashley Williams this summer was an awesome experience and a great teaching moment that provided me with training for my future career as a researcher in the academic setting.”

~Caitlin Pope
Ms. Williams is a student at Lawson State Community College and plans to transfer to UAB as a psychology major. She plans to attend law school in the future.

Although it is important to highlight the valuable skills Ashley gained during her internship, it is equally as important to note that it was a TRIP Lab Graduate Assistant, Ms. Caitlin Pope, who mentored Ms. Williams. Dr. Stavrinos has implemented a hierarchical peer teaching approach, such that more advanced students play an active role in teaching newer students. This arrangement allowed both women to gain valuable experience. Through this internship, Ms. Pope was able to further hone her own research and communication skills through mentoring someone through the research process. She also experienced, first hand, the satisfaction that comes from watching your “student” grow.

ALUMNI ACCOLADES

Over the last seven years, more than 100 students have been mentored by Dr. Stavrinos and the faculty/staff of the UAB TRIP Lab. These students are now successfully pursuing a wide variety of academic and professional avenues. Throughout the newsletters we will highlight the accomplishments of selected alumni. Yes, we’re bragging, but we’re so proud of our TRIP Lab family. You will find Alumni Accolades scattered randomly throughout the newsletter, but all will be noted with the icon above. Please join us in congratulating our alumni on their noteworthy accomplishments!

ERICA YOUNG

Undergraduate Research Assistant, University Honors Program

Dr. Young, a graduate of UAB School of Medicine, is a family medicine resident in Savannah, GA. Following her residency, she plans to open a wellness center in the Savannah area.
Communication is Key

The revolutionary research done by TRIP Lab affiliated investigators is useless without real-world application. The first step toward turning research results into lifesaving changes is communication. The publication of manuscripts documenting the research in peer reviewed journals, and the presentation of research and results at scientific conferences is usually the first method of communication. This year, TRIP Lab faculty and staff have made their research results known through seven published manuscripts (there are another four already in press for 2017) and 29 presentations at conferences across the world.

While it’s not feasible to talk about each of these publications and presentations, there are a few that deserve a special mention. Ms. Caitlin Pope, TRIP Lab Graduate Research Assistant, received news in November 2016 that both of her first-author submissions were accepted for publication, one in *Accident Analysis and Prevention* and the other in *Journal of Developmental and Behavioral Pediatrics*. Ms. Haley Bishop won 1st Place for the Clinical Topics Section of the Civitan International/Simpson-Ramsey Neurodevelopment Symposium Poster Competition for her work, Social Skill Deficits in Adolescents with ADHD and Autism Spectrum Disorder. Graduate students Haley Bishop, Tyler Bell, and Benjamin McManus participated in the UAB Graduate School’s inaugural three-minute thesis competition. Bishop and McManus advanced to the semi-finals in the doctoral (PhD) track; Bell won the overall master’s competition.

TRIP Lab Undergraduate Research Assistants are also key players in dissemination of research findings. Ms. Morgan Parr, TRIP Lab Undergraduate Research Assistant, had a first-author publication published in *Accident Analysis and Prevention* which was also featured on local TV news and *Teen Vogue*. JaVarus Humphries won second place at the 2016 Fall Undergraduate Research Expo for his work, “The mediating role of fatigue between depressive symptoms and pain in fibromyalgia” (Graduate mentor: Tyler Bell). The high caliber of the research Ms. Delaney Diehl presented at the 2016 Fall Undergraduate Research Expo led to an invitation to present her work
at the upcoming 2017 Annual Committee on Equality of Professional Opportunity (CEPO) Meeting in Atlanta, GA.

Finally, Dr. Despina Stavrinos, TRIP Lab Director, was invited to give special lectures or presentations on multiple occasions, including the Civitan International/Simpson-Ramsey Neurodevelopment Symposium, Developmental Disabilities and Driving, the UAB Department of Computer and Information Sciences Seminar Series, Technological Innovations to Understand and Prevent Motor Vehicle Crashes, and the 95th Annual Meeting of the Transportation Research Board, Safety Perspectives on Distraction and Distracted Walking.


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**WILLIAM WAGNER**
*Undergraduate Research Assistant, Psychology Honors Program 2014 — 2016*

Mr. Wagner is currently pursuing a doctoral degree in UAB’s Lifespan Developmental Psychology Program. He began in 2016 and is working with Dr. Fred Biasini in the area of Autism.

**AYUSHI AMIN**
*Undergraduate Research Assistant, Psychology Honors Program 2010 — 2012*

Ms. Amin is currently attending the Southern College of Optometry in Memphis, TN. She is in her final year of optometry school and will soon be taking the second part of her Optometry Board exams.
Undergraduates Take the Spotlight

Learning to create and implement high quality research is vital for any prospective investigator. One often over-looked component of research is the effective communication of those results. Communication, whether it be to the academic community, the general population, or translation to real-world changes, is of equal importance as the research itself. The TRIP Lab does not overlook the importance of communication of research and results. In fact, presentation of research results is emphasized from the beginning of the student-researcher experience and many undergraduate students are afforded opportunities to publicly present and defend their TRIP Lab-related research projects.

This opportunity is crucial in the students’ research-based education, as it provides the practice necessary to explain and answer questions concerning their research to both academics and the general population. Refining this skill enables the student to better understand their own work, effectively utilize both praise and criticism, and gain the confidence to defend their research-related choices and conclusions.

This year, TRIP Lab undergraduate students featured their work in seven presentations at three different conferences. Delaney Diehl, JaVarus Humphries, Morgan Parr, and William Wagner presented their research projects at 2016 UAB Undergraduate EXPOs. The EXPO, held in the Spring, Summer, and Fall each year, commends excellence in undergraduate student research, creative activity and scholarship. William Wagner also presented his research at the 15th Annual University of Alabama System Honors Conference at the University of Alabama in Huntsville. The Honors Conference assembles undergraduate honors students from all UA campuses to exchange ideas and present their research. Finally, Julia Minopoli and William Wagner presented their work at the 2016 UAB Department of Psychology John WP Ost Undergraduate Research Competition. This competition honors the memory of UAB Professor John WP Ost and his dedication to undergraduate research training.

Most undergraduate students complete their degrees without research or the communication of research. It is more than a little impressive that five TRIP Lab undergraduate researchers not only designed and implemented their own high-quality research, but presented the results to their peers, mentors, and the academic community. These students have a bright future ahead of them and should be commended for their hard work.
Welcome Mariah Stasiak

We are happy to welcome Ms. Mariah Stasiak as the newest member of the TRIP Lab team! A UAB Alumna, Mariah holds a BS in Psychology and is currently a post-baccalaureate degree seeking student pursuing Human Resources Management. She plans to further her education beyond the baccalaureate level by pursuing a Master in Business Administration while gaining hands-on experience with the TRIP Lab. Ms. Stasiak will serve as the TRIP Lab’s Program Coordinator/Lab Manager helping Dr. Stavrinos with the ever-increasing daily business of running the TRIP Lab. This responsibility is quite hefty, but we’re sure she will love the work as much as we do, and embrace her status as a TRIPster.

Mariah honed the skills necessary to manage the TRIP Lab through previous work as a clinical medical assistant and injury clinic case manager. Although we are introducing her as a new family member, Mariah has worked for the TRIP Lab before! In 2014, she joined the TRIP Lab as an undergraduate research assistant, where she had the opportunity to learn pertinent research skills, get to know the TRIP Lab family, and receive the excellent mentorship of Dr. Stavrinos. Mariah is thrilled to be back with the TRIPsters as a full-time employee.

When not working, Mariah has a flare for ocean/lake adventures, but is spending most of her time planning her October 2017 wedding! Congratulations, Mariah! Please give Ms. Stasiak a warm welcome, introduce yourself, and help her get to know (or get re-acquainted with) her UAB family.

Giving Back to the Academic Community

There is a certain amount of give-and-take involved in the academic world. Journal articles, conference submissions, grants, etc., are peer reviewed prior to publication, acceptance, or funding. Peer reviewers are often volunteers, squeezing extra work into an already packed work schedule.

Why would someone who is so busy volunteer to take on more work? The answer is simple — to maintain high standards for research within their field. Researchers depend on others in their own and similar fields to ensure that the work being promoted is of the highest scientific quality possible. The TRIP Lab takes this responsibility seriously. Below are a few examples of their giving back to the academic community in 2016:

- Reviewed manuscripts for approximately a dozen journals
- Organized a workshop on distracted walking for Transportation Research Board (TRB)
- Participated in the TRB Young Driver Subcommittee Mid-Year Meeting
- Served as an abstract reviewer
  - TRB
  - Southeastern Psychological Association (SEPA)

JENNIFER (JONES) HARGROVE
Graduate Research Assistant
2010 — 2011

Ms. Hargrove is a PhD Candidate at University of North Carolina- Chapel Hill in Injury Epidemiology. She is scheduled to defend her dissertation shortly before this newsletter is published. Her research is a combination of both injury epidemiology and pharmaco-epidemiology. Additionally, she is involved with a motor vehicle crash data linkage study.
Eisenhower Fellows

The Dwight David Eisenhower Transportation Fellowship Program attracts the best and the brightest students into transportation-related education and research disciplines, thereby advancing transportation workforce development. Eisenhower Fellows are the brightest minds in their respective fields. Being awarded such a fellowship is an immense accomplishment, and one not achieved by many students. As you may imagine, there are thousands of applicants each year, yet competition is daunting and only about 150 fellows are selected.

In 2016, not one, not two, but THREE TRIP Lab student researchers were named Dwight David Eisenhower Transportation Fellows. This remarkable accomplishment speaks volumes about the quality of student the TRIP Lab attracts as well as the immense strength of mentorship provided by Dr. Stavrinos, a former Eisenhower fellow herself. This prestigious award’s full benefits include tuition, stipend, and travel expenses to the Transportation Research Board’s annual meeting.

Ms. Haley Bishop, Ms. Caitlin Pope, and Ms. Shannon Wittig Eisenhower Fellows for the 2016-2017 Academic Year. All three women will receive funding for their travel to the 2017 Meeting of the Transportation Research Board in Washington, DC, where they will officially accept their award.

Congratulations to Haley, Caitlin, Shannon, Dr. Stavrinos, and the entire TRIP Lab family on this amazing accomplishment!

KATHLEEN HAMRICK
Undergraduate Research Assistant
2010

Ms. Hamrick holds a Certificate in Technology and Entrepreneurship and is a 2017 Candidate for MBA from UAB. She also holds a Certificate in Advance Master Negotiation from Harvard Law School’s Program on Negotiation Executive Education Program. Ms. Hamrick the Director of the Innovation Lab at Innovation Depot, Inc. and a Technical Producer at TEDx. She serves as a content contributor for Tech.Co, freelance blogger, and a member of TEDxBirmingham’s organizing committee.
Student Spotlight

As is evidenced throughout this newsletter, the TRIP Lab attracts some truly remarkable students. Whether they be high school students, undergrads, or graduate students, these budding investigators leave their TRIP experience with crucial skills under the belt and often with accolades to add to their CV. It would be nice to be able to feature each of these deserving, hard-working students in the newsletter, but that is not really feasible. So, for each edition of the TRIP Lab Newsletter, one graduate and one undergraduate student who have stood out from the rest for one reason or another will be featured. For 2016, our Spotlight Students are Ms. Delaney Diehl, undergraduate research assistant, and Mr. Benjamin McManus, graduate research assistant. Congratulations Delaney and Ben on being chosen as the TRIP Lab’s first Spotlight Students!

As an undergraduate research assistant, Ms. Delaney Diehl, a UAB senior majoring in Psychology, has really made her presence known in the TRIP Lab. Since joining the TRIP family in Spring 2016, Delaney has written a literature review of novice driver training programs; represented the TRIP lab at a Muscle Shoals, AL, community outreach event where she spoke about the dangers of distracted driving; volunteered at the UAB Health and Safety Fair; and presented a research poster at UAB’s Fall Expo. That’s quite a bit for a short amount of time, and she’s not done yet! In the Spring of 2017, Delaney was selected for an oral presentation of her work at the Southeastern Psychological Association conference. In addition, she will be presenting a poster at UAB’s Spring (2017) Expo and the Ost research competition. When she’s not busy with all that research, she finds the time to assist work funded by the US Department of Transportation. It’s no wonder Delaney was chosen as the TRIP Lab’s first undergraduate Spotlight Student!

"Working in the TRIP Lab has been an incredible opportunity and has allowed me to develop a broader interest in research. Dr. Stavrinos has helped me to not only become a better student, but also has provided me with the foundation that I need for professional development. The mentorship provided by Dr. Stavrinos has been an invaluable experience and I am extremely grateful to have been given the opportunity to be a part of the lab."

~Delaney Diehl

Ms. Delaney Diehl, 2016 TRIP Lab Spotlight Student

Mr. Benjamin McManus is a PhD candidate in Lifespan Developmental Psychology at UAB. He has been associated with the TRIP Lab since 2010. There are too many things to say about Ben. He is a consummate professional with just the right amount of quirkiness thrown into the mix. In the interest of time, the highlights of Ben’s TRIP experience will be covered here, but he has many more notable accomplishments. In 2016, Ben attended the annual TRB meeting representing the TRIP Lab and Dr. Stavrinos when he spoke at a TRB human factors workshop about distracted pedestrians; gave an oral presentation to the Society for Research on Adolescents; has applied independently for 3 grants and had 1 funded (Effect of Occupational
“The TRIP Lab and Dr. Stavrinos’ guidance has played an integral part in advancing my research interests and academic career. The TRIP lab has taken me on a translational research journey where not only have I been able to take part in this exciting research, but also I have been able to disseminate this research and see others become excited about our work. Dr. Stavrinos has challenged me to discover new abilities and skills within myself while offering continued support to ensure I achieve my goals.”

~ Ben McManus

Demands on Driving Safety in Surgical Residents); received 2nd place for his oral presentation, Vigilance in commercial drivers: Individual differences moderate the effect of secondary tasks, at the 2016 UAB Graduate Student Research Days; won a preliminary heat for the 2016 UAB 3 Minute Thesis competition for his presentation entitled A hard days’ night: How work impacts driving safety; had a first-author manuscript published: McManus, B., Heaton, K., Vance, D. E., & Stavrinos, D. (2016). The useful field of view assessment predicts simulated commercial motor vehicle driving performance. Traffic Injury Prevention, 17(7), 763-769.; has another first-author manuscript in press at Journal of Experimental Psychology: Applied; and – by the way – successfully proposed his dissertation. It’s easy to see why Ben stands out!

More broadly, Ben has been involved in ten different TRIP-related research projects, and has created a niche for himself through his love of data analysis. As an undergraduate at UAB, he graduated with a double major (Psychology and Biology) and a double minor (Spanish and Chemistry). Again, it’s easy to see why Ben stands out among students. The quirkier aspects of his personality will be saved for another time. Be on the lookout!

The 2016 accomplishments of Delaney and Ben are remarkable, however, there are many Spotlight deserving students hard at work in the TRIP Lab. As time goes on, you will see that those students who call themselves TRIPsters are the best and the brightest coming into the TRIP Lab and become better and brighter during their time with the TRIP family.

SARAH STANNARD
Undergraduate Research Assistant
2012 — 2013

Ms. Stannard works at UAB as an Executive Editorial Assistant for an Editor in Chief for an Anesthesia journal. Her current position is providing great insight and experience on publishing research, but she would like to eventually make her way back to the field(s) of psychology and health research.

JAMES BARNETT CHENOWETH
Undergraduate Research Assistant
2010 — 2011

Mr. Chenoweth currently works with UAB’s Treatment Opportunities for Safer Communities (TASC). He is an Emergency Medicine Research Interviewer. Mr. Chenoweth and TASC seek to improve the criminal justice system through innovation, research and service.
Researchers Do More Than Research

Although much of the discussion of the faculty and staff of the TRIP Lab focuses on their cutting-edge research, it’s important to remember that researchers do more than research. One of the major responsibilities of many university-based researchers is teaching. The TRIP Lab researchers are no exception.

The TRIP Lab believes teaching is one of the most important tasks a researcher can undertake. Teaching is constantly done in the laboratory through mentorship, leadership, and guidance of junior researchers, but not all students have, or have yet had, the opportunity to be a part of a mentoring relationship. As the importance of educating the future generation of scientists is crucial, the importance of more traditional, classroom and online education cannot be understated. Teaching also helps the researcher because you never truly understand something until you teach it to someone else.

The number and types of courses taught varies from year to year, but in 2016, Dr. Stavrinos and TRIP Lab Graduate Research Assistants taught Elementary Statistics (Dr. Stavrinos, Ben McManus), Elementary Statistics laboratory component (Ben McManus, Tyler Bell), Psychology of Aging (Caitlin Pope), and Intellectual and Developmental Disabilities (Haley Bishop). These courses are delivered through UAB’s Department of Psychology.

When not researching, communicating results, writing grants, teaching classes, or volunteering their time for activities within the academic community, the TRIP Lab family is active in community service and outreach. This year, the TRIP Lab had a major presence at four events throughout the greater Birmingham area.

- UAB Occupational Health and Safety Fair
- #URKEYS2DRV – Teen Driver Safety Summit
- Trussville Playstation Event
- UAB Early HeadStart Health Fair at the Birmingham Zoo

These community outreach events further highlight the key roles that students, particularly undergraduates, play in the TRIP Lab. Graduate and undergraduates students are both offered unique opportunities to gain exposure to a variety of research/academic-related activities.

Increasing awareness of safety issues that can reduce or eliminate transportation-related deaths and injuries is a fundamental priority for the TRIP Lab. The events attended this year allow TRIPsters to speak directly with their target audience – the general driving population. It’s a grassroots method, but educating people one at a time does save lives.
SHARON WELBURN  
*Undergraduate Research Assistant*  
*2009 — 2014*

Ms. Welburn is currently the data manager on the Long Life Family Study at University of Pittsburgh School of Public Health where she is a PhD student in the Department of Epidemiology.

MELISSA WALTERS  
*Undergraduate Research Assistant*  
*2012*

Ms. Walters is currently a doctoral student at Adler University pursuing a degree in Clinical Psychology with an emphasis in Primary Care and Neuropsychology. She is a first year full-time student and works part-time as an ABA Behavioral Therapist at North Shore Pediatric Therapy. Ms. Walters volunteers as a development intern at Project Exploration, a nonprofit organization that promotes STEM education and after school programs for underrepresented youths. As a development intern, she assists in the finding of grants and scholarships that will support the project’s cause. She also contributes to the writing of the grants she finds for the program.

ANNIE ARTIGA GARNER  
*Graduate Research Assistant*  
*2015*

Ms. Garner, one of TRIP Lab’s first student researchers, served as a NRSA Postdoctoral Fellow at Cincinnati Children’s Hospital Medical Center. She is currently a tenure-track Assistant Professor of Psychology at Saint Louis University.

MYRON TURNER  
*High School Intern*  
*2015*

Mr. Turner has been accepted to UAB where he plans to major in mechanical engineering.

JENNIFER (CHU) BROADWATER  
*Undergraduate Research Assistant*  
*2013*

Ms. Broadwater is studying Pharmacy at Samford’s McWhorter School of Pharmacy.
TRIP Lab Awarded Inter-Disciplinary Funding

Maintaining a state-of-the-art driving simulator and research facility is not an easy task. One of the many challenges faced is ensuring the facility is adequately funded for the forward-thinking research desired. A budget outline would be boring to read, so let’s just say that, even with careful budgeting and cost-sharing, it takes a relatively large amount of money to maintain the supplies, technology, and staff necessary to keep the TRIP Lab the high-quality, comprehensive facility it is today.

The TRIP Lab is primarily grant-funded. The search for funding opportunities and the writing of grants are continuous activities. This year, the TRIP Lab was awarded several new grants including:

• **UAB College of Arts and Sciences Interdisciplinary Innovation Team Award**, project: *Fitness to Drive after Mild Traumatic Brain Injury among Teen Drivers* (co-PIs, Dr. Kathy Monroe, Children’s Hospital of AL; Dr. Drew Davis, Pediatrics and Physical Medicine & Rehabilitation; Dr. Thomas Novack, Physical Medicine & Rehabilitation; Dr. Ginger Yang, Nationwide Children’s Hospital)

• **Functional Neurorecovery Collaborative Research Pilot Award**, project: *Simulated Driving Assessment for Individuals with TBIs* (co-PI, Dr. Thomas Novack, Physical Medicine & Rehabilitation)

• **Civitan International Research Center 3T MRI Pilot Research Grant**, project: *Neural Mechanisms of Driving Safety Among Young Individuals with Developmental Disabilities* (co-PI, Dr. Rajesh Kana, Psychology)

• **STRIDE Technology Transfer Grant**, project: *Technology Transfer: Distracted Driving – Overview Summary and Assessment of Ways to Alleviate* (co-PI, Dr. Robert Peters, Civil, Construction, & Environmental Engineering)

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**EUGENIA (MILI) BOOZER**  
*Post-Baccalaureate Student Assistant 2011*

Ms. Boozer is currently at the Florida Institute of Technology where she is finishing up her Psychology Doctorate. She is starting the interview process for clinical internships, including one at UAB. Ms. Boozer reflects fondly on her time with the TRIP Lab and states that early research experience has benefited her greatly throughout her academic career.

**SABRINA MANGIERI**  
*Undergraduate Research Assistant 2011*

Ms. Mangieri graduated UAB with a doctorate in physical therapy and is working in Jasper, AL.
Mr. James Barefield, Mr. Gaston Calhoun, Mr. Ray Blackmon, and Mr. Derrick Foster, members of the Vehicle Quality Department from Honda Manufacturing of Alabama, visited the UAB TRIP Lab in December to tour the new state-of-the-art driving simulator and learn more about how Dr. Stavrinos and her team of researchers study distracted driving. The members of the vehicle quality department are some of the last people to see and work on vehicles before they leave the Alabama plant to be sold, and spend much of their time testing vehicle equipment safety. Honda Manufacturing of Alabama is interested in collaborating with the UAB TRIP Lab and using the driving simulator, outfitted with a 2016 Honda Pilot, to implement test driver training scenarios to gain insight into distracted driving factors present within the Honda plant, test tracks, as well as on the roads with customers behind the wheel.

The TRIP Lab looks forward to collaborating with Honda Manufacturing of Alabama in the future.

MOLLY COX
Undergraduate Research Assistant
2011 — 2012

Ms. Cox is a Research Assistant with the UAB Department of Ophthalmology’s Psychological & Neuropsychological Clinical Research Services unit. She works as a behavioral health interventionist for several randomized control trials. Ms. Cox is excelling in her current position and is further fueling her passion to pursue a PhD.
2016: A YEAR IN REVIEW

JAMES WALKER BLACKSTON
Post-Baccalaureate Student Assistant
2015

Mr. Blackston is a candidate for the degree of Master of Public Health in Applied Epidemiology. Additionally, he works as a tutor at UAB and a Southern Ambassador at Birmingham Southern College.

LINDSAY (HARRISON) BURLESON
Post-Baccalaureate Student Assistant
2010

Ms. Burleson is in private practice in Huntsville, AL at Behavioral Sciences of Alabama. She studied clinical Mental Health Counseling at the University of Montevallo in Alabama.

MADHURI PATEL
Undergraduate Research Assistant
2011

Ms. Patel is graduating from the Philadelphia College of Osteopathic Medicine — Georgia Campus in 2017. She is currently applying for medical residencies.

MICHAEL SCHWARTZ
Post-Baccalaureate Student Assistant
2010

Mr. Schwartz earned his Masters in Psychology from Stephen F Austin State University in Texas. He earned a Masters Degree in Computer Modeling and Simulation from the University of Central Florida where he has been accepted into the Human Factors Psychology PhD program. When not pursuing academic degrees, Mr. Schwartz founded the Wearable Electronics Augmented Reality (WEAR) Lab and Tanzen Technologies. WEAR focuses on usable interfaces for unique populations and Tanzen Technologies is developing a mobile injury rehabilitation system. Both entities have received National Science Foundation funding.

MICHAEL MCEWAN
Undergraduate Research Assistant
2014

Mr. McEwan is pursuing a Master of Public Health (MPH) in Applied Epidemiology, and is applying to graduate schools to pursue a PhD in Epidemiology.
Thank you for your interest in the UAB TRIP Lab! Look for our next newsletter in Spring 2017. Until then, you can keep up with our latest news on Facebook, Twitter, or our website.

facebook.com/uabtriplab    @UABTRIPLAB    triplaboratory.com

This newsletter and more information about the lab is available by scanning the QR code below.