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## UAB-UTC Holds Third Annual Advisory Board Meeting

The UAB-UTC hosted its third annual Advisory Board Meeting at the Doubletree Hotel in downtown Birmingham, Alabama on December 9, 2008. In addition to many UTC Advisory Board Members and representatives from the academic sector, numerous transportation professionals turned out to network, trade ideas and learn more about the UAB-UTC's innovative research portfolio.

Participants included special guests Dr. Curtis Tompkins, Ms. Amy Stearns and Ms. Denise E. Dunn from the UTC's funding agency, the Research and Innovative Technology Administration (RITA). Dr. Tompkins, Director of RITA's University Transportation Centers Program, gave the Luncheon's Keynote address, speaking on the topic of "Transportation: Are We Asking the Right Questions?"

Ms. Stearns is the University Programs Specialist for RITA and UAB's Project Officer, while Ms.

Dunn is the Program Analyst for the University Transportation Centers Program.

After a comprehensive report on the Center's progress and future activities by Dr. Russ Fine, Professor of Medicine and Director of the UAB-UTC, meeting participants were provided with detailed status reports on the UAB-UTC's two major projects, both of which were launched this past year. The first project, "Emergency Medical Services & Congestion," is led by Dr. Gerald McGwin, UAB Professor and Vice-Chair of UAB's Department of Epidemiology, along with fellow investigators Dr. Jeff Crandall at the University of Virginia; Mr. Andrew Sullivan, a Research Engineer in UAB's School of Engineering; and Dr. Matthew Trowbridge, Assistant Professor in the Department of Emergency Medicine at the University of Virginia.

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The "EMS & Congestion" project is investigating the effects of urban sprawl on pre-hospital emergency care time, characterizing EMS providers' perspectives and experiences with congestion, and exploring the role of within vehicle technology for improving EMS response time.

The second project, "Development of a Dynamic Traffic Assignment and Simulation Model for Incident and Emergency Management Applications in the Birmingham Region," is led by Dr. Virginia Sisiopiku, Associate Professor of Civil Engineering at UAB, and Mr. Sullivan. The researchers hypothesize that congestion from traffic crashes and natural or man-made disasters can impose significant safety risks and disruptions on traffic flow, as it is likely to impede EMS workers in providing a timely response to injury victims. The research team also is working to understand and make suggestions to offset the suspected constellation of factors that would impact traffic in a large metropolitan area — like Birmingham — during such an event.

During the Keynote Luncheon, Dr. Fine presented the UAB-UTC's Founder's Award to United States Senator Richard Shelby, without whose vision and efforts the UAB-UTC could not have been established. Senator Shelby, who also has served four terms in the U.S. House of Representatives and eight years in the Alabama legislature, participates in a variety of committees and subcommittees for the Senate. He previously served as Chairman of the Transportation, Treasury and General Government Appropriations Subcommittee, and in this capacity he was successful in nearly doubling the amount of federal highway funds that Alabama received for important transportation-related projects, including UAB's Southern Consortium for Injury Biomechanics (established in 2000) and the UAB University Transportation Center (established in 2006).

Field representative Mr. Brad Wilson accepted the award on Senator Shelby's behalf.

Dr. Fine, UTC Leadership and Advisory Board Members also recognized the 2008-2009 UAB-UTC Student of the Year, Mr. Russell Griffin, MPH. For more information, please see the full article on Page 6.

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*Dr. Fine (right) presents the Founder's Award to field representative Brad Wilson, who accepted the award on behalf of U.S. Senator Richard Shelby.*



Matthew Trowbridge, MD, MPH, Assistant Professor at the University of Virginia, gives an update on his portion of the UTC project "EMS & Congestion."

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After lunch, meeting participants then were treated to an entertaining and informative presentation by Dr. John Staddon of Duke University. Dr. Staddon's presentation, titled "Distracting Miss Daisy: Why Stop Signs and Speed Limits Endanger Americans," was based on a recent article he wrote for *The Atlantic*. Dr. Staddon's premise is that stop signs and traffic signals in the United States may actually distract drivers and contribute to motor vehicle crashes. Dr. Staddon reported that there are about 36 percent more fatalities per mile of road in the U.S. than in England, and he maintains that this is probably because traffic signals and stop signs are placed off the road in the U.S., as opposed to more traffic-friendly roundabouts and signals painted on English roadways.



**Dr. John Staddon**

"Driving in America is annoying," Dr. Staddon said. "And traffic signals are not just annoying, they are dangerous."

The remainder of the afternoon session was devoted to the presentation of "white-paper" research proposals developed by prospective investigators seeking future UAB-UTC funding for small-scale pilot projects. The prospective investigators and synopses of their proposed research follow:

- Jack Berry, PhD, a post-doctoral fellow with the Injury Control Research Center (ICRC) at UAB, presented his proposal titled "Comparing the Impact of Cell Phone Use and Alcohol Intoxication on Driving Performance: A Proposed Benchmarking Study." This study will provide a realistic and generalizable comparison of two potentially dangerous impairments to driving: cell phone use compared to driving under the influence of alcohol. If the risks are found to be similar, Dr. Berry hopes that the comparison could stimulate public support for legal restrictions on cell phone use while driving.



**Dr. Jack Berry**

- Glenn Cummings, MBA/HCM, RN, the Program Director for the Center for the Study of Rural Vehicular Trauma at the University of South Alabama, presented his proposal titled, "Enhancement of Global Positioning System Utilization in Emergency Medical Services." The purpose of this proposed study is to examine potential cost savings associated with GPS deployment with Emergency Medical Service Providers, as providers may be more amenable to adopting GPS technology if they see a return on their initial capital investments through reductions in maintenance and fuel expenditures. If more providers adopt GPS technology, the reduction in EMS time could also improve patient outcomes.



**Mr. Glenn Cummings**

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• Saravanan Gurupackiam, a PhD student at the University Transportation Center for Alabama at the



**Mr. Saravanan Gurupackiam**

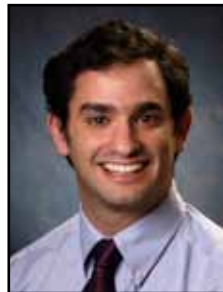
University of Alabama, presented his proposal titled "Parameters that Predict Arterial Traffic Congestion." This proposed project will focus on lane changing and gap acceptance related to different levels of congestion, working on the hypothesis that the keys to mitigating traffic congestion are a better understanding of the effects of congestion on traffic signalization, and the development of more rigorous signal system optimization methodologies.

• Salena Schmidtke, MS, BME, the President and CEO of BioInjury, LLC, an Alexandria, Virginia-based company, presented her firm's proposal, titled "Airbags in the 21st Century: Are Aging Airbags a Hidden Problem?" This retrospective study proposes to investigate the premise that deterioration of airbag systems in vehicles older than 10 years may impact how effective the airbags still are as frontal crash protection. To contain costs, BioInjury has proposed to use public domain national databases with which her firm has significant familiarity. As explained, a growing number of transportation research scientists are concerned that the problem could negate the assumed protection offered by the vehicle airbag, and might even inadvertently injure or kill the occupant it is intended to protect.



**Ms. Salena Schmidtke**

• David Schwebel, PhD, Associate professor and Vice-Chairman of UAB's Department of Psychology presented his proposal entitled "Teaching Young Children Pedestrian Safety Skills in Virtual Reality," which uses the UAB Youth Safety Lab's immersive, interactive virtual environment (developed with major, initial grant support from the UAB Injury Control Research Center, which is the organizational home of the UAB-UTC). Dr. Schwebel's proposed research seeks to improve the existing virtual pedestrian environment being used to study and prevent children's pedestrian injuries, and then validate the usability and functionality of the proposed improvements.



**Dr. David Schwebel**

*(Photo by Steven Wood)*

prevent children's pedestrian injuries, and then validate the usability and functionality of the proposed improvements.



*Dr. Curtis Tompkins (right), Director of University Transportation Centers Program for RITA, speaks with Dr. Ray Mundy (left), UTC Advisory Board Chairman, during the lunch break.*

• Despina Stavrinou, a PhD candidate in UAB's Department of Psychology as well as a senior graduate research assistant in the Injury Control Research Center, presented her research proposal titled "Distracted Driving: The Effect of Cell Phone Use and Text Messaging on Driving Performance in Teens With and Without Attention Deficit Hyperactivity Disorder (ADHD)." Ms. Stavrinou proposes to examine the driving behavior of teens with and without Attention Deficit Hyperactivity Disorder in a virtual driving simulator during simultaneous engagement with two distracting conditions: a cell phone conversation and a text-messaging task. The proposed study also will examine whether cognitive and behavioral deficits associated with ADHD impairs driving performance in a way that resembles a distracted driver.



**Ms. Despina Stavrinou**

The third annual meeting of the UAB-UTC Advisory Board was enormously well-received and described as "highly successful," because it attracted and engaged a wide range of transportation professionals from a variety of disciplines, all equally committed to improving the transportation field by moving forward research and discussion while enabling collaboration and problem-solving.

The meeting was adjourned by the Advisory Board's permanent chair, Dr. Ray Mundy, Director of the Center for Transportation Studies at the University of Missouri, St. Louis. The meeting was digitally recorded by Bolton Productions of Birmingham ([www.boltonproductiongroup.com](http://www.boltonproductiongroup.com)). DVD-based proceedings soon will be available from the UTC. For more information, contact Andrea Underhill at [Andrea.Underhill@ccc.uab.edu](mailto:Andrea.Underhill@ccc.uab.edu).

The next meeting of the UAB-UTC is being scheduled for December 2009.

# RITA Officials Conduct UAB-UTC's First Site Visit

Following the December 9 Advisory Board Meeting, RITA representatives spent the day with UAB-UTC leadership and investigators on an official Site Visit, discussing the progress of the UAB-UTC and the federal UTC program. The RITA representatives were Director of University Transportation Centers Program Dr. Curtis Tompkins, University Programs Specialist Ms. Amy Stearns and Program Analyst Ms. Denise E. Dunn.

Following introductions of the RITA team and a welcome from Dr. Russ Fine, UAB Professor of Medicine and Director of the UAB-UTC, and Richard Marchese, the Vice President of Research at UAB, the group took a tour of the UTC facilities. They then discussed the research selection process with Dr. Jay Goldman, Associate Director for Research and Scientific Oversight at the UAB-UTC, followed by a discussion of the performance evaluation methods with Dr. Kathleen Bolland, the Education and Outreach Advisor for the UTC. Dr. Bolland also

heads the Oversight and Evaluation Unit. Dr. Debra McCallum, Director of the Research Support Services Unit at the UTC, spoke with the RITA officials about the Research Support Services Unit, while Dr. Andrea Underhill, UTC Associate Director for Administration and Finance, covered technology transfer.

RITA representatives also talked about research projects and studies with several investigators, and discussed the education direction of the UTC, as well as plans for the future.

The UAB-UTC appreciates the enlightening opportunity to communicate directly with RITA, welcoming the feedback they were able to provide. This input will enable the Center to function more efficiently and communicate more effectively in the future.



*(Clockwise from top right)  
RITA'S Director of University  
Transportation Centers  
Program Dr. Curtis Tompkins,  
Program Analyst Ms. Denise E.  
Dunn and University Programs  
Specialist Ms. Amy Stearns.*

## UTC Recognizes CIS's Griffin as 2008-2009 Student of the Year

The UAB-UTC leadership is happy to announce that Russell Griffin, MPH, is our 2008-2009 Student of the Year. As Student of the Year, Russell received a \$1,000 cash award and participated in the awards ceremony held in Washington, D.C., honoring Students of the Year from UTCs across the country.

Russell is a third-year epidemiology doctoral student at the University of Alabama at Birmingham. He received his BS in biology and his MPH in epidemiology, both from UAB. A broader interest in trauma epidemiology led to his transportation-related work.

Russell is a data-processing specialist with UAB's Center for Injury Sciences (CIS) and is currently working with the UAB-UTC research project "EMS and Congestion," where he assists in the development, design and distribution of surveys to document EMS service providers' experience with congestion. When the survey is complete, Russell will assist in the analysis and reporting of this data. He is hopeful that he will be able to use the data from this study in his dissertation project.

Russell has a number of peer-reviewed publications exploring a wide variety of transportation issues, such as injury risk associated with second-generation airbags compared to first-generation airbags; vehicle rollover and electronic stability control systems; and the impact of vision screening laws on older driver fatality rates. In addition, he has co-authored a study on the impact of gas prices on injury and mortality rates among occupants of different vehicle types that is currently under review for publication. Russell also has peer-reviewed publications examining golf cart injuries, shopping cart injuries, scooter injuries, complications of burn

injury, consumer product-related injuries, improved techniques for abdominal wound closure, the association between mortality and age of transfused blood, and the impact of a regional trauma system on mortality distribution.

When not performing research, Russell enjoys teaching future epidemiologists. He has served as a teaching assistant for the master's-level introductory epidemiology class for the past three years, and as the lead TA for this class for the past two years.

In his role as TA, Russell provides assistance to the students in the classroom setting and provides instruction during the laboratory section of the class. As lead TA, Russell has the added responsibility of assisting in the design of the laboratory section of the class. After graduation, Russell hopes to continue his career in academia both performing transportation related research and training future transportation researchers and professionals.

Russell's broad research interests bring a fresh perspective to the transportation field. Through his numerous peer-reviewed publications so early in his career, he has already demonstrated his dedication to the transportation field as well as his effectiveness as a researcher and a communicator. His passion for teaching and interactions with students provide him the opportunity to expose countless future epidemiologists to transportation related topics and increase the number of transportation professionals.

Please join the UAB-UTC in congratulating Russell on his contributions to the transportation field and on his work training future transportation researchers and professionals.



*Dr. Fine (right)  
presents the  
Student of the Year  
Award to Russell  
Griffin, MPH.*

## UTC and School of Engineering Offer Certification Program for Transportation, Transportation Safety

The UAB-UTC, in conjunction with the UAB School of Engineering, Department of Civil, Construction & Environmental Engineering, is now offering a Certificate in Transportation Safety and Injury Control Engineering. The certificate program consists of one required course for three semester hours, and an additional four courses, for 12 semester hours, of transportation and transportation-safety electives.

The certificate will enable students, practicing transportation professionals and other professionals with an interest in transportation-related issues (such as urban

planners, transit administrative personnel or emergency preparedness administrators) to focus on transportation safety-related issues, while learning about the tools and technology that are useful in resolving these issues.

The program – a marriage between engineering and public health – allows students and other professionals to see not just the engineering side of transportation, but also the public health side.

For more information on this certificate, please visit <http://www.uab.edu/utc/Certification.htm>



*A boy completes a simulated street crossing in a virtual environment in a study about the risks of children using cell phones while crossing streets.*

## Cell Phones Dangerous for Child Pedestrians, UAB Study Finds

Children who talk on cell phones while crossing streets are at a higher risk for injuries or death in a pedestrian accident, said psychologists at the University of Alabama at Birmingham (UAB) in a new study that will appear in the February issue of *Pediatrics*.

In the study, 77 children, aged 10-11, completed simulated street crossings in a virtual environment. The children were asked to cross a virtual street six times without a cell phone and six times while talking on a cell phone with an unfamiliar research assistant.

The psychologists found that all of the

children, even those who were experienced with talking on cell phones, crossing streets or rated as highly attentive, were more likely to exhibit risky behaviors when crossing the virtual street while talking on a cell phone. Specifically, it took the children who were on a cell phone 20 percent longer to begin crossing the street and they were 43 percent more likely to be hit or have a close call with a vehicle in the virtual environment. Children on a cell phone also looked both ways 20 percent fewer times before crossing the street and gave themselves 8 percent less time to cross safely in front of oncoming traffic.

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Cell phones are quickly becoming ubiquitous among American schoolchildren, UAB psychologists wrote. "Commercial interests actively market cell phones for children and marketing research firms estimate that 54 percent of 8-12-year olds will have cell phones by the end of this year, double the 2006 rate."

The study concludes that just as drivers should limit cell phone use while driving, pedestrians, and especially child pedestrians, should avoid using cell phone while crossing streets, the UAB researchers said.

"Cell phones clearly offer convenience and safeguards to families, but they also may pose risk, particularly when children attempt to multi-task while conversing on the cell phone and have reduced cognitive capacity to devote to potentially dangerous activities such as crossing streets."

More research is needed to determine the impact that texting, listening to mp3 players and talking to peers has on children's ability cross streets safely.

The study has received widespread attention by more than 2500 newspapers, Web sites,

hospital newsletters and radio stations, including *Discovery*, *U.S. News & World Report*, MSNBC.com and the *New York Times*.

The study was published by UAB doctoral student Despina Stavrinou, M.A., under the direction of UAB psychologist David Schwebel, Ph.D. Stavrinou is a graduate assistant with the UAB-UTC and was the 2007-2008 UAB-UTC Student of the Year. Dr. Schwebel is a UTC-affiliated investigator. UAB student Katherine Byington also contributed to the study.



**Ms. Despina Stavrinou**

The study was partially supported by the UAB Injury Control Research Center through a grant from the Centers for Disease Control and Prevention and a cooperative agreement with the Federal Highway Administration.

*This article is adapted with permission from the University of Alabama at Birmingham Media Relations department.*

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