Former Board of Visitors Chair Joins Board of Trustees
Jimmy D. Clark has been appointed by Governor Bev Perdue to the NC State Board of Trustees. He replaces Gayle Lanier, whose term recently expired. Mr. Clark is owner and president of Guy M. Turner Inc., a Greensboro-based company founded in 1924. He received his Bachelor of Science degree in civil engineering from NC State in 1974 and is a registered professional engineer. Mr. Clark has served as chair of the NC State Board of Visitors and is a member of the NC State Engineering Foundation Board, Dean’s Circle, Student Aid Association, Alumni Association and The Walter Hines Page Society. He has also served on the Park Scholarship Selection Committee and has established the Jimmy D. Clark Distinguished Professorship for NC State’s Department of Civil, Construction and Environmental Engineering.

US Department of Transportation Comes to NC State to Discuss Mass Transit
Administrator of the Federal Transit Administration (FTA), Peter Rogoff, joined the Triangle Transit Authority (TTA) at a press conference on NC State’s campus to discuss plans of increased and enhanced mass transit in North Carolina. NC State has been working with Wake County, Triangle Transit and other municipalities to expand and improve public transit since 2007. A plan to connect the Triangle counties was adopted by the Capital Area Metropolitan Planning Organization (CAMPO) and became part of the 2035 Long Range Transportation Plan in May 2009. The event marked the end of a tour led by the TTA to show the FTA administrator the proposed route and plan of implementation for future transportation projects, such as a light rail service, and to demonstration potential impacts on the area.

US Commerce Undersecretary Visits Campus
US Under Secretary of Commerce for International Trade Francisco Sánchez visited campus as part of a trip to meet with North Carolina business and textile manufacturing leaders. Sánchez toured NC State’s Nonwovens Institute Partners Lab, which aims to transform research and development in air, blood and water filtration, demonstrating the university’s partnerships with leading companies across the globe. The Under Secretary also toured the Textile Protection and Comfort Center, viewing the “Pyroman” mannequin that withstands intense blasts of flames in order to test new protective garments for firefighters and first responders. Sánchez spoke to students, faculty and industry partners about the importance of advanced manufacturing in growing US jobs and exports.

Campus Honors Civil Rights Leader with Two-Week Celebration
The NC State community recognized the legacy of the late Rev. Martin Luther King Jr. with a two week celebration of civil rights. Students and faculty welcomed bestselling author Wes Moore to campus to address students at Stewart Theatre. He discussed his book, “The Other Wes Moore; One Name, Two Fates,” which tells his own story and that of a death row inmate who shares his name and a similar upbringing. Additional events included NC State and middle school students commemorating King’s memory with a day of service and education as part of the Center for Student Leadership, Ethics and Public Service’s (CSLEPS) 10th annual Martin Luther King Jr. Service Challenge.
Early College High School Prepares High Schoolers for STEM Success
A new partnership between NC State University and the Wake County Public School System is putting students on a fast track to college and solving some of the world’s most pressing problems. The Wake NC State Early College High School opened this past fall with an inaugural class of 55 students specializing in science, technology, engineering and mathematics (STEM) fields, where studies often show the United States lacking. The early college high school’s curriculum is built around the Grand Challenges for Engineering, 14 global issues identified by the National Academy of Engineering, ranging from reshaping the future of energy to preventing nuclear terrorism and creating better medicines. This year’s course of study is focused on providing access to clean water and engages students with the issue in each of the four disciplines. Part of the school’s mission is to address disparities in STEM fields by attracting students from populations traditionally under-represented in STEM jobs such as minorities, females and the economically challenged. The school offers a five-year program during which students can earn college credit and receive substantial exposure to the resources and opportunities of a university community.

New NC State Dye Increases Efficiency of Market’s Best Solar Cells
An NC State invention has significant potential to improve the efficiency of solar cells and other technologies that derive energy from light. Dr. Ahmed El-Shafei’s research group invented a new “sensitizer,” or dye, that harvests more ambient and solar light than any dyes currently on the market for use in dye-sensitized solar cells (DSSCs). The NC State-created dye has 14 percent more power density than the most state-of-the-art dye currently on the market, allowing solar cells to harvest a greater amount of energy. Indoors, these DSSCs can be used in technology to power cellular phones, laptop computers and MP3 players using ambient light. Outdoors, they could be used in conventional solar arrays or in improved energy-driven applications for building-integrated photovoltaic products including, but not limited to, windows, facades and skylights. A patent is pending on the new dye, and the university is in communication with potential industry partners about licensing use of NCSU-10, as well as funding additional research in this area.

NC State Vet and Engineer Perform World’s First Feline Knee Replacement
A tough cancer survivor named Cyrano received a brand new knee at NC State, making him the first ever feline recipient of an osseointegrated knee implant. The 10-year-old tabby cat was treated for bone cancer last year and is now in total remission, but the disease and treatment weakened the bone in his affected back leg and necessitated the implant. Owner, Sandy Lerner, felt that amputation would negatively affect the cat’s quality of life, and her search for other options brought her to NC State and the team of orthopedic surgeon Dr. Denis Marcellin-Little and industrial and systems engineer Dr. Ola Harrysson. Marcellin-Little and Harrysson are pioneers in osseointegration, a process that fuses a prosthetic limb with an animal’s (or human’s) bones. The NC State team, in collaboration with veterinarians and engineers from around the US and abroad, will provide Cyrano with the first ever custom-made, osseointegrated feline knee replacement. If all goes well, Cyrano should be back to his usual activities in about three months. This surgery highlights the importance of collaboration between medicine, engineering, designers and manufacturers, a unique multidisciplinary partnership and just one of NC State’s innovative approaches to solving the challenges of today.