An op-ed written by Julio M. Ottino, dean of the McCormick School, and Mark P. Mills, a physicist, founder of the Digital Power Group, and McCormick Advisory Council member, was published in the Wall Street Journal in January. In “The Coming Tech-led Boom,” Ottino and Mills name three breakthroughs that promise to transform this century much as electricity, telephony, stainless steel, radio amplifiers, and automobiles transformed the last one. “In January 2012 we sit again on the cusp of three grand technological transformations with the potential to rival that of the past century. All find their epicenters in America: big data, smart manufacturing, and the wireless revolution,” the piece states.

Backman featured in Nature as a Top NIH Grant Awardee
Vadim Backman was featured in a February article in Nature as one of seven scientists who receive the most grants from the National Institutes of Health. Backman, professor of biomedical engineering, has received more than $3 million from the NIH to support his lab of 20 students. While the NIH is instituting a new policy requiring researchers who control more than $1.5 million in grants to undergo an extra review before further grants are approved, Backman doesn’t mind. He says competition among established researchers should be based on the strength of their ideas. “I like the idea of meritocracy,” he says in the article.

Biomedical Engineering Professor Featured in New York Times
Julius Dewald, professor of biomedical engineering and professor and chair of physical therapy and human movement science at the Feinberg School of Medicine, was featured in a New York Times article in January that highlighted his work in understanding strokes and developing rehabilitation robotics.

“Dr. Julius Dewald is trying to meld medicine, science, and engineering in a pathbreaking way to better understand such impairment and how robotic therapy might help people who have had strokes reach for a hamburger or pull on a fancy boot,” the article states.

Dewald uses EEGs and fMRIs to understand how joint control is linked to brain hemispheres after a stroke. His group has also developed robotics that can support the weight of a limb affected by a stroke, making it seem lighter and therefore requiring fewer brain signals to move. “Dr. Dewald’s team just concluded a pilot study with 10 patients and is starting a second with 20,” the article states. “A comprehensive clinical trial would follow. The goal is to produce robotic devices that cost less than $15,000, affordable for small clinics and some individuals.”

Senior Among “15 Women to Watch in Tech”
Hannah Chung (mechanical engineering ’12) has been named one of “15 Women to Watch in Tech” by Inc. magazine. Chung is one of the cofounders of Design for America, a Northwestern student initiative that aims to effect social change through interdisciplinary design. “With a background in engineering and art, 22-year-old Chung is passionate about making the world a better place,” the article states. Among her creations with the group is Jerry the Bear with Diabetes (designed with Aaron Horowitz), an interactive robotic toy for children with type 1 diabetes. DFA has expanded to eight universities since its founding in 2009, and Jerry the Bear will soon be used in clinical trials.