

PSYCHOLOGY

The Power of Red

RED ALL OVER: What links speed, power, and the color red? Rochester dancer Samantha Johnson '11, a neuroscience major—and president of Louvre Performance Ensemble—from Half Moon Bay, Calif., demonstrates that it's not a sports car: it's your muscles. That's according to a new Rochester-led study that finds that when humans see red, their reactions become both faster and more forceful, but people are unaware of the color's intensifying effect. Andrew Elliot, a professor of psychology, and his colleague Henk Aarts, a professor of psychology at Utrecht University in the Netherlands, say the findings, published this spring in the journal *Emotion*, may have applications for sports and other activities in which a brief burst of strength and speed is needed. "Red enhances our physical reactions because it is seen as a danger cue," says Elliot, a lead researcher in the field of color psychology. —Susan Hagen



CITATIONS

Research Roundup

AGGRESSIVE BREAST TUMORS LINKED TO VITAMIN D DEFICIENCY

Low vitamin D levels among women with breast cancer correlate with more aggressive tumors and poorer prognosis, according to new research highlighted this spring at the American Society of Breast Surgeons meeting. The study—led by Luke Peppone, a research assistant professor of radiation oncology at the Wilmot Cancer Center—is the first to examine vitamin D and breast cancer progression. Peppone and senior investigator Kristin Skinner, an associate professor of surgery and director of the Wilmot Comprehensive Breast Care Center, examined prognostic factors for 155 women who underwent surgery for breast cancer between January 2009 and September 2010.

SMOKE-EXPOSED CHILDREN WITH FLU MORE LIKELY TO NEED ICU CARE

Children who are exposed to secondhand smoke are more likely to need intensive care and intubation when hospitalized with influenza. That's according to new research based at Golisano Children's Hospital and presented at the Pediatric Academic Society meeting in May. Researchers, including Karen Wilson, an assistant professor of pediatrics and author of the study abstract, also found that the children exposed to secondhand smoke had longer hospital stays. After controlling for underlying conditions, scientists—who analyzed the medical charts for 91 children hospitalized for flu at Golisano Children's Hospital between 2002 and 2009—discovered that children exposed to secondhand smoke were almost five times more likely to need intensive care and more than 11 times more likely to need intubation.

GENOME DUPLICATION ENCOURAGES RAPID ADAPTATION OF PLANTS

Plants adapt to the local weather and soil conditions in which they grow, and such environmental adaptations are known to evolve over thousands of years as mutations slowly accumulate in plants' genetic code. But a Rochester biologist has found that at least some plant adaptations can occur almost instantaneously, not by a change in DNA sequence, but simply by duplication of existing genetic material. The research by Justin Ramsey, an assistant professor of biology, and published this spring in the *Proceedings of the National Academy of Sciences*, found that yarrow plants with a greater number of sets of chromosomes had a greater survival advantage over other yarrow plants when moved to a new environment.

DOCUMENTING THE LITERARY RESISTANCE TO THE SPANISH INQUISITION

The Spanish Inquisition didn't silence all its critics—especially novelists and playwrights of the time, argues Ryan Prendergast, an associate professor of Spanish. In his new book, *Reading, Writing, and Errant Subjects in Inquisitorial Spain* (Ashgate Press, 2011), Prendergast focuses on Miguel de Cervantes's enduringly popular novel, *Don Quixote*, which was published in two parts in 1605 and 1615, as well as Moorish novels and theater from the period. Prendergast examines how religious and royal authorities conflated citizenship in Inquisitorial Spain with Catholicism, to the exclusion of Muslims, Jews, and other groups—and considers how literary texts from the period offer a critique of political and religious intolerance despite the threat of the Inquisition's legendary, though often exaggerated, punishments.

GENETIC DEFECT HOLDS CLUES TO RISK FOR SUDDEN CARDIAC DEATH

Scientists are unraveling for the first time how genetic defects can help predict the risk of dying suddenly in individuals with one of the leading causes of sudden cardiac death. A new study—led by Coeli Lopes, an assistant professor of medicine in the Aab Cardiovascular Research Institute and published in the journal *Science Translational Medicine*—shows that the function of specific genetic mutations are strong predictors of risk of sudden death and other cardiac events in patients with long QT syndrome, a rare, inherited heart rhythm disorder. The discovery could also provide insight into the assessment and treatment of millions of people who experience cardiac arrhythmias—irregular heart rhythms that cause the heart to beat too fast or too slow and can lead to sudden death if not corrected.