

FINDING THE GOOD SAMARITAN GENE

MU researcher studies the genetics behind altruism

WHY DO HUMANS ENGAGE IN ALTRUISTIC OR SELFLESS BEHAVIOR? In recent years, scientists have put forward evidence that augments the age-old nature-versus-nurture debate, showing the human tendency toward prosocial behavior — selfless acts that benefit others or society as a whole — may be a matter of genetics.

Last year, Gustavo Carlo, Human Development and Family Studies Millsap Professor of Diversity, studied the issue with Scott F. Stoltenberg, a researcher with University of Nebraska-Lincoln's Behavior Genetics Laboratory. The study gained wide attention for its findings: a single genetic variation appears to predict whether or not someone will engage in

selfless acts.

Carlo and Stoltenberg studied the genomes of 398 college students, asking their subjects to fill out questionnaires about their behavior and anxiety levels.

The results, recently published in the journal *Social Neuroscience*, show that people with one genetic variation exhibited a tendency toward social anxiety — a general unease around others that makes someone less inclined to lend personal help. Those with another variation were not only less anxious, the researchers found, but

also more likely to help others.

Carlo, whose research interests center on moral development in children and adolescents, said the findings “suggest a possible pathway” that could predispose

someone to altruistic behavior. He hopes further research can replicate and confirm the findings.

“There are a series of big questions this research can help illuminate for us,” Carlo said — such as, are humans inherently good or bad? For many decades, Carlo says, social scientists have focused on anti-social behaviors, such as delinquency, violence and aggression.

“It appears we’re genetically predisposed to altruism, just like we’re genetically predisposed to aggression,” Carlo said. Once we understand the genetic and biological mechanisms behind prosocial behaviors, Carlo says, the real question is then finding how to foster and promote our altruistic tendencies. “What the research is showing is that our human nature is both good and bad,” he said. “Research like this may eventually help us discover more ways to encourage the good inside all of us.”

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GUSTAVO CARLO

Walk while you work

Nutrition and Exercise Physiology faculty and staff experience benefits from treadmill desks

SPEAKING BY PHONE FROM HER OFFICE IN GWYNN HALL, you’d suspect Nikki Raedeke is, like most office workers, seated at her desk and typing away at a computer. Her steady, calm voice betrays the fact that she’s well into her six-mile workday.

Raedeke, assistant teaching professor and director of dietetics in MU’s Nutrition and Exercise Physiology (NEP) department, walks about six miles per day at her treadmill desk, or walking workstation. Strolling at a leisurely clip — two miles per hour — Raedeke remarked, “I love the idea of moving while working.”

The brand new NEP offices in Gwynn Hall are now buzzing with treadmill desks. Raedeke and the rest of the department now talk on the phone, read or send emails with ease from treadmill workstations. “It really is much easier than I had thought,” Raedeke said. “Most anyone can do it.”

Research has begun to show that sitting a lot, even if you’re in great

shape, is not good for the human body. A sedentary lifestyle can increase the risk for heart disease, diabetes and may even lower life expectancy. One particularly alarming study in 2006 by an epidemiologist at the American Cancer Society found that men who sit for six hours or more a day have an overall death rate twenty percent higher than men who are more active throughout the day.

The treadmill desk has emerged as an antidote to inactive office life, Raedeke says. She first got her desk in July 2012 and almost immediately felt more energized in the office. Soon, she realized she was losing weight. “I think I’ve realized that I’m a person who needs to move when I’m thinking,” she said. “It really helps my thought process.”

Raedeke keeps track of her distance on a spreadsheet she updates daily. In 2013, Raedeke walked 1,340 miles, over the length of 50 marathons.



Nikki Raedeke walks an average of six miles per day at her treadmill desk.

PHOTO BY AMY SANDERS