

Smithsonian Exhibit Displays Alumnus' Fascinating Research

Darrick E. Antell, MD, FACS, DMD '78, a New York City plastic surgeon with a dental degree, finds his work recognized in an unlikely place—the Smithsonian Museum of Natural History

Darrick Antell, who has a practice in New York City, published a study titled "How Environment and Lifestyle Choices Influence the Aging Process" in the *Annals of Plastic Surgery* in December 1999. This groundbreaking study verifies the effect of environment and lifestyle choices on the aging process independently of genetic influences. Specifically, the study demonstrates through the use of striking photos of identical twins that smoking, excess sun and stress (the three S's) can accelerate the aging process.

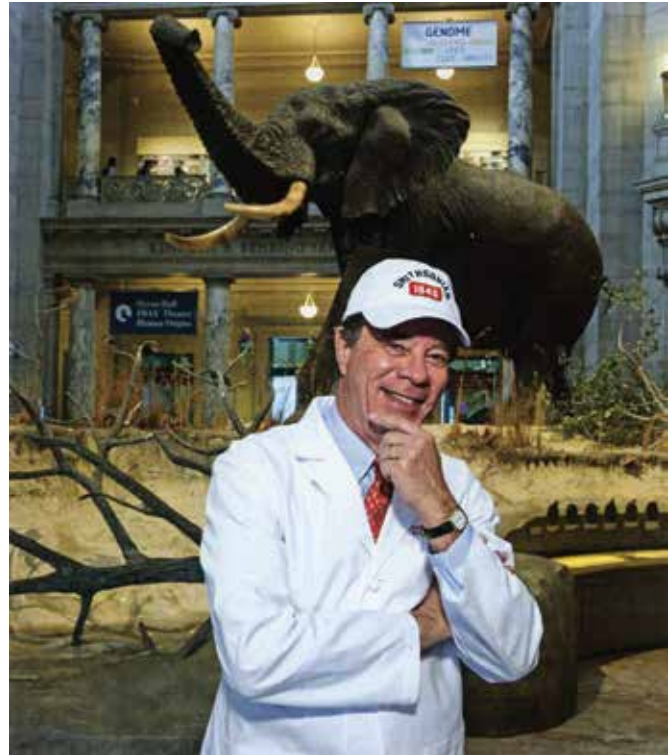
As part of the Smithsonian's observation of the tenth anniversary of the completion of the genetic-code sequence, the institution invited Dr. Antell to join the exhibition "Genome: Unlocking Life's Code." Dr. Antell's work was displayed alongside that of Dr. James Watson and Dr. Francis Crick, the legendary team that discovered the structure of the DNA double helix.

Dr. Antell's research on identical twins was inspired by a patient who asked him how long her facelift would last. Dr. Antell replied that the proper answer to her question would be forever, but prefaced that by saying if she had an identical twin who did not have a facelift, she'd always look younger than her twin. Although both of them would continue to age, the twin without the facelift will be visibly older.

With this analogy in mind, Dr. Antell started to study the effects of sun, smoking and stress on identical twins. He wondered if one twin maintained a healthier lifestyle, would that alone keep her more youthful in appearance than the other? He began by taking photographs of 68 identical twins at the annual Twins Festival in Twinsburg, Ohio in 1997. In some cases, one twin had been conservative and lived quietly while the other spent more time in the sun, consuming alcohol, smoking or enduring copious amounts of stress. Over the course of two years, Dr. Antell and his team gathered significant data from the twins, including in-depth interviews and questionnaires.

"The point of the two-year twin study was to document the 'nature versus nurture' debate about the effects of aging," says Dr. Antell. "We wanted to determine the effect of lifestyle versus heredity which causes us to age." The results of his pioneer study have become well known throughout the world and were the first to convincingly show that lifestyle choices dramatically affect the rate at which one ages.

A native of Independence, Ohio, Dr. Antell initially planned to become a dentist, following in his father's footsteps. He was



encouraged to study plastic surgery by a mentor who had also started by studying dentistry and notes that many of the early practitioners in the field of plastic surgery began by studying dentistry. "Having gone to dental school first was really helpful; it's terrific training in using your hands and understanding the underlying anatomy and facial dynamics," he says. He feels his MD and DMD degrees together give him unique expertise in analyzing and reconstructing the face.

Dr. Antell received his general surgery training at Stanford University Medical Center and received his specialized training in plastic and reconstructive surgery at the New York Hospital/Cornell Medical Center and the Memorial Sloan-Kettering Cancer Center in New York.

The genome display is now traveling and can be viewed at museums across the United States and the world. Dr. Antell hopes that the public learns from the exhibit as it travels throughout the country: "If you want to look young, don't overdo the three S's. Stay out of the sun, avoid stress, don't smoke, get adequate sleep and eat well. In other words, do all of the things your mom always told you to do!"