Twins become more different as they age

July 6 2005

The differences in identical twins increase with age, say researchers at the Spanish National Cancer Center in Madrid.

Geneticists told the Washington Post the findings bolster the fledgling research field epigenetics, which examines how environmental factors and life experiences may alter a person's DNA.

Spanish researchers, who studied the DNA of more than 40 sets of identical twins, examined processes that activate or deactivate genes.

Reporting in the Proceedings of the National Academy of Sciences, the team said differences between twins, which are very small when they are young, increase as they age.

Scientists also found the differences between twins who were raised apart are greater than those who were reared together.

"Both nature and nurture are acting on these twins," Spanish researcher Manel Esteller said. "Epigenetics is the bridge or the interplay between them."

"This could lead to far-reaching revelations about how our environment breeds predispositions for lots of diseases, like diabetes, cancer and heart disease," John Hopkins Professor Stephen Baylin said.