Genetic differences are significantly associated with the likelihood that people take on managerial responsibilities, according to new research from UCL (University College London).

The study, published online in Leadership Quarterly, is the first to identify a specific DNA sequence associated with the tendency for individuals to occupy a leadership position. Using a large twin sample, the international research team, which included academics from Harvard, NYU, and the University of California, estimate that a quarter of the observed variation in leadership behaviour between individuals can be explained by genes passed down from their parents.

"We have identified a genotype, called rs4950, which appears to be associated with the passing of leadership ability down through generations," said lead author Dr Jan-Emmanuel De Neve (UCL School of Public Policy). "The conventional wisdom – that leadership is a skill – remains largely true, but we show it is also, in part, a genetic trait."

To find the genotype, Dr De Neve and his colleagues analysed data from two large-scale samples in the United States, available through the National Longitudinal Study of Adolescent Health (Add Health) and the Framingham Heart Study.

They compared genetic samples of approximately 4,000 individuals with information about jobs and relationships, finding that in both surveys there was a significant association between rs4950 and leadership. Leadership behaviour was measured by determining whether or not individuals occupy supervisory roles in the workplace.

The team found that although acquiring a leadership position mostly depends on developing skills, inheriting the leadership trait can also play an important role.

Dr De Neve said: "As recent as last August,