

News Release

Are we genetically programmed to be generous? Hebrew University scientists say yes

Jerusalem, January 29, 2008 – Are those inclined towards generosity genetically programmed to behave that way?" A team of researchers, including Dr. Ariel Knafo of the Psychology Department at the Hebrew University of Jerusalem, believes that this could very well be the case.

Through an online task involving making a choice whether or not to give away money, the researchers found that those who chose to give away some or all of their money differed genetically from those involved in the exercise who chose not to give their money away.

The scientists conducted the experiment with 203 online "players". Each player could choose to keep the equivalent of \$12 he was allocated, or to give all or part of it to an anonymous other player.

Those involved also provided DNA samples which were analyzed and compared to their reactions. It was found that those who had certain variants of a gene called AVPR1a gave on average nearly 50 percent more money than those not displaying that variant. The results of the study were published online recently in the research journal *Genes, Brain and Behaviour*.

"The experiment provided the first evidence, to my knowledge, for a relationship between DNA variability and real human altruism," said Knafo, who conducted the research along with other researchers, including Prof. R. P. Ebstein, Prof. Gary Bornstein, and Salomon Israel of the Psychology Department at the Hebrew University of Jerusalem.

The gene AVPR1a codes for the production of a receptor that enables a hormone, arginine vasopressin, to act on brain cells. Vasopressin, in turn, has been implicated in social bonding. The researchers found greater altruism in players in which a key section of the AVPR1a gene, called its promoter, was longer. The promoter is the region of a gene that allows cellular machinery to bind to it and determine how much gene product is made. In the case of this gene, a longer promoter can result in greater activity.

The findings could help biologists sort out altruism's evolutionary history, according to the scientists. They noted that a version of AVPR1a also exists in rodents called voles, where it also promotes social bonding. This suggests that altruism has a long rooted genetic history, which may have taken on a new role during human evolution.

For more information, or for press contact with students, faculty or spokespersons from HU, please speak in the first instance to Mikki Saperia, on +44 (0)20 7691 1479 or email mikki.saperia@bfhu.org



About the Hebrew University

With 24,000 full-time students, the Hebrew University of Jerusalem is Israel's pre-eminent institute of higher education. Its faculty members pursue projects that are both essential to Israel's future and the benefit of humanity. It is a centre of international repute, with formal and informal ties extending to and from the worldwide scientific and academic community. Students come from all over Israel and across the Middle East to study in an atmosphere of academic and research excellence.

About the British Friends of the Hebrew University

Established in 1926, The British Friends of the Hebrew University is the oldest established Jewish charity in support of higher education. The charity works to promote and enhance the reputation of the Hebrew University, ensure that underprivileged students are given the opportunity to complete their studies, and help HU to maintain its standard of excellence and worldwide reputation for research.

BFHU acts as the UK's gateway to Hebrew University research, expertise and faculty, and provides financial and pastoral support for prospective and current students at HU, as well as supporting visiting and sabbatical Hebrew University lecturers during their time in the UK.