



Correlation analysis between single nucleotide polymorphism of *DRD1* gene and stereotyped behavior of blue fox

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ABSTRACT. This study was performed to investigate the correlation between stereotyped behavior of the blue fox and single nucleotide polymorphisms (SNPs) of the *DRD1* gene. We choose the *DRD1* gene as a major gene for investigating the correlation of gene polymorphism and self-biting disease by means of direct sequencing. Part of the *DRD1* gene exon of the blue fox was cloned; the length of the whole sequence was 864 bp. Four SNPs were detected and analyzed by the chi-square analysis; the results showed that the gene polymorphism of T206C in the *DRD1* gene had a significant correlation with self-biting ($P < 0.01$). Therefore, marker-assistant selection on self-biting of blue foxes using these SNPs can be applied to select healthy individuals.

Key words: Blue fox; Stereotyped behavior; SNP; *DRD1* gene