

Editor's Introduction to This Issue (G&I 16:1, 2018)

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This issue covers two original articles about Hanwoo, the native cattle in Korea. Dr. Dajeong Lim's group used microsatellite (MS) and single nucleotide polymorphism (SNP) genotypes from 1,480 Hanwoos and presented the imputation result of MS genotype from SNP data. In the trend that MS markers, which were used mainly in the past, are gradually replaced by SNP markers, this paper will provide useful guideline to utilize past genetic data in combination with recent technology. Dr. Donghyun Shin's group calculated the substitution rate of SNPs using the whole genome sequence data of Hanwoo and Holstein, and presented ontology data of the genes in the protected region with a low substitution rate and in the region with the great difference in substitution rate. This result not only enhances

the understanding of the genetic characteristics of Hanwoo, but also provides insight into the genetic selection and evolution of livestock.

This issue also contains a detailed and interesting review on the mammalian olfactory receptors by S. June Oh. The olfactory receptor family belongs to one of the largest superfamilies in the mammalian genome and its expression, function, and the association with disease in non-olfactory tissues have recently been reported. This topic is thought to attract many readers as a link between evolution and disease, and it is expected that many interesting follow-up studies will continue in the future.

For further details, please visit the G&I homepage (<https://genominfo.org/>).

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