

Editor's Introduction to This Issue

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Transposable elements (TEs) are genetic elements that have the potential to move from one site to another in the genome. Therefore, TEs mediate diverse recombination events and eventually can contribute to genomic evolution. In addition, TEs contribute to genomic instability and diverse diseases, including cancer. However, the mechanisms and extent of disease contribution of TEs are not well known yet. Regarding these areas, three review papers are reported in this issue. Dr. Byung-Dong Kim of Seoul National University reviewed foldback intercoil (FBI) DNA and the mechanism of DNA transposition mediated by FBI. In this review, he introduced the FBI DNA element and the mechanistic features that are relevant to the application of FBI DNA to the mechanisms of DNA transposition. Dr. Nam-Soo Kim's group of Kangwon National University reviewed genome size variations in plants in relation to TEs. Of all eukaryotes, TEs are especially prevalent in plants. The extreme genomic size variation of plants has posed a conundrum in evolutionary genetics. The authors introduced genomic size variations in relation to TEs using some examples, such as the Liliaceae family, known to have large genomes in angiosperms. Dr. Heui-Soo Kim's group of

Pusan National University reviewed the biological implications of TEs in genomic evolution, genetic instability, and diverse human diseases. They gave an overview of the importance of TEs in studying genomic evolution and genetic instability and suggested that further in-depth studies on the mechanisms related to these phenomena will be useful for clinical applications. There is another interesting review regarding epigenetic regulation in this issue. Dr. Joomyeong Kim's group of Louisiana State University introduced the regulation and function of the Peg3 imprinted domain. The authors summarized the information that we have learned so far regarding the Peg3 domain and discussed the similarities and differences between the Peg3 and other imprinted domains. The other three articles are the Korean Association Resource (KARE) data genomic analysis award winners. The analysis of KARE data from young scientists' creative points of view has generated new interpretations and interesting evidence, which we should pay attention to in future studies.

Genomics & Informatics is already available in PubMed Central and PubMed. Recently, *Genomics & Informatics* applied to be listed in SCOPUS.

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