

The front line of epigenetics research

~ Multidisciplinary grasp from basic research to drug discovery ~

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Since whole human genome was read in 2003, it was expected that the relation between the genetic information and diseases was elucidated completely. However, those relationship was more complex than it had been considered before and there still remain many unknowns. So, epigenetics, the regulatory mechanism of gene expression independent on the changes in DNA sequence, has drawn attention. It is suggested that epigenetics is one of the main causes of many diseases and many reports actually show the relation between epigenetics and various diseases such as cancer. But on the other hand, the drug discovery research targeting epigenetics is still developing. One of the possible reasons is that the analysis tool for epigenetics is insufficient and epigenetics has not been fully understood. Therefore, in this symposium, we introduce the broad epigenetics researches from the basic biology to the drug discovery and share the cutting-edge knowledges to activate the drug discovery research targeting epigenetics. In addition, it is expected that young researchers from the different fields will discuss the epigenetics and obtain new knowledges, thought and ideas that it is difficult to obtain from their own fields. We hope that this symposium will be the opportunity to understand epigenetics from different angles and to consider the new strategies for treatment of diseases.