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and Genome Evolution""2. MECHANISMS AND FUNCTIONS OF EPIGENETIC REGULATIONS IN THE PLANT GENOME ""; ""2.1. DNA Methylation Is a Critical Component in the System of Epigenetic Modifications in Plants""; ""2.2. Histone Modifications and DNA Methylation Are Interdependent ""; ""2.3. Chromatin Remodeling Shapes Chromatin Structure and Complements DNA and Histone Modifications""; ""3. EPIGENETIC MODIFICATIONS a€? A STRESS-RESPONSIVE MECHANISM CONTROLLING GENE REGULATION AND GENOME STABILITY""

""3.1. Effects of Stress on Epigenetic Regulations """"3.2. Small RNAs May Direct Epigenetic Modifications to a Specific Genomic Locus""; ""3.2.1. The Complexity and Functional Redundancy of smRNA Biogenesis Pathways in Arabidopsis ""; ""3.2.2. Mechanisms of smRNA-Directed Epigenetic Regulations ""; ""3.2.3. Small RNA Biogenesis is a Sensitive Stress-Responsive System ""; ""4. INDUCIBLE EPIGENETIC CHANGES MAY CHANGE GENOME STABILITY AND GUIDE GENOME EVOLUTION""; ""CONCLUDING REMARKS ""; ""ACKNOWLEDGMENTS ""; ""REFERENCES ""; ""EVOLUTION OF THE FPG/NEI FAMILY OF DNA GLYCOSYLASES ""

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""THE GENERAL STRESS RESPONSE ""

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