

TIRNAS AND TRFS BIOGENESIS AND REGULATION OF DISEASES

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TiRNAs and tRFs are a class of small molecular noncoding tRNA derived from precise processing of mature or precursor tRNAs. Most tiRNAs and tRFs described originate from nucleus-encoded tRNAs and only a few tiRNAs and tRFs have been reported. They have been suggested to play important roles in inhibiting protein synthesis, regulating gene expression, priming viral reverse transcriptases and the modulation of DNA damage response. However, the regulatory mechanisms and potential function of tiRNAs and tRFs remain poorly understood. This review is aimed to describe tiRNAs and tRFs, including their structure, biological functions and subcellular localization. The regulatory roles of tiRNAs and tRFs in translation, neurodegeneration metabolic diseases, viral infections, and carcinogenesis are also discussed in detail. Finally, it also highlights the potential applications of these noncoding tRNAs as biomarkers, gene regulation and links to disease

Biography

Feng Yan has completed his PhD from Yangzhou University. She is the Vice Director of Department of clinical Laboratory. She has published more than 49 papers in reputed journals.

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