Abstract

Helix, Hairpin, Bulge, external loop, internal loop, multi-branch loop are the elements of RNA secondary structure. We have designed a neural network to classify the RNA sequence into three categories i.e Hairpin, helix, neither of two. This can be extended to classify into all secondary structure elements. If all the elements are predicted then we can determine the entire structure of a RNA family. The parameters of neural network affect the performance of the
Effect of Neural Network Parameters on RNA Secondary Structure Classification

network. But there are no rules to define the value of these parameters of network. For a given problem the optimal value of parameters can be obtained by performing the experiments on their values. This paper shows the effect on the performance of classification by varying the number of hidden layers, number of neurons and activation functions.

Reference

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**Index Terms**

Computer Science  
Artificial Intelligence

**Key words**

Classification  
RNA secondary structure  
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activation function  
number of hidden layers