Producing protein from circular RNA in E.Coli

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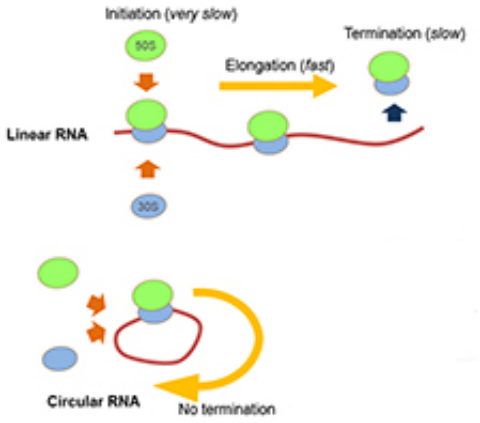

Circular RNAs were recently shown to be abundant in mice and humans where they influence gene expression.

In a study published today in the journal *Angewandte Chemie*, the team, led by Dr Hiroshi Abe report that circular RNA strands treated with the E. coli cell-free system can be translated to produce 100 times more protein than their linear counterparts.

"The translation process is a lot more efficient on circular RNAs than on linear templates because the speed of the re-initiation process is greatly increased," explains Dr. Abe.

This new technique could be used for the synthesis of tandem-repeat peptides such as those found in biologically important proteins such as silk, collagen and epidermal growth factor.

More information: Abe, N. et al. Rolling circle amplification in a prokaryotic translation system using small circular RNA, *Angewandte Chemie International Edition*, 2013

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