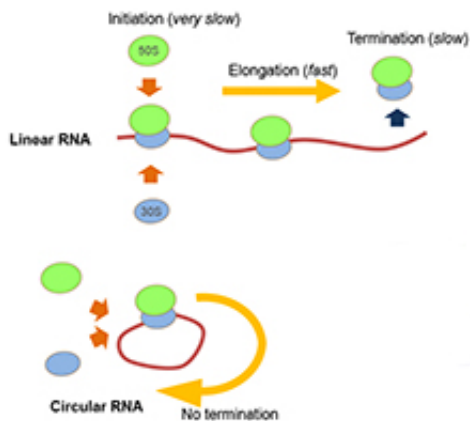


Producing protein from circular RNA in E.Coli

May 22 2013



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

Provided by RIKEN

Citation: Producing protein from circular RNA in E.Coli (2013, May 22) retrieved 2 May 2024 from <https://phys.org/news/2013-05-protein-circular-rna-ecoli.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.