

(Meta-)genome mining for new ribo-regulators - DTU Orbit (09/11/2017)

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Riboswitches are small structural elements within messenger RNA (mRNA) that can change their conformation in response to specific environmental exposures. These changes can alter mRNA transcription or translation. Such riboregulators are emerging as a substantial contributor to bacterial gene control. Yet such RNA-based regulation remains challenging to study, in part because of a lack of effective high-throughput technologies for their unbiased identification. On page 187 of this issue, Dar et al. describe a novel method for genome-wide experimental identification of genes that are regulated by conditional transcription termination, which likely is a result of RNA structural switching. This work further enhances our understanding of bacterial gene regulation and expands the universe of RNA-based regulatory devices that can be deployed in synthetic biology applications.

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Authors: Sommer, M. O. A. (Intern), Suess, B. (Ekstern)

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