

Rewriting the Code of Life in Community: CRISPR Interference and Activation as Precision Tools for Microbiome Engineering

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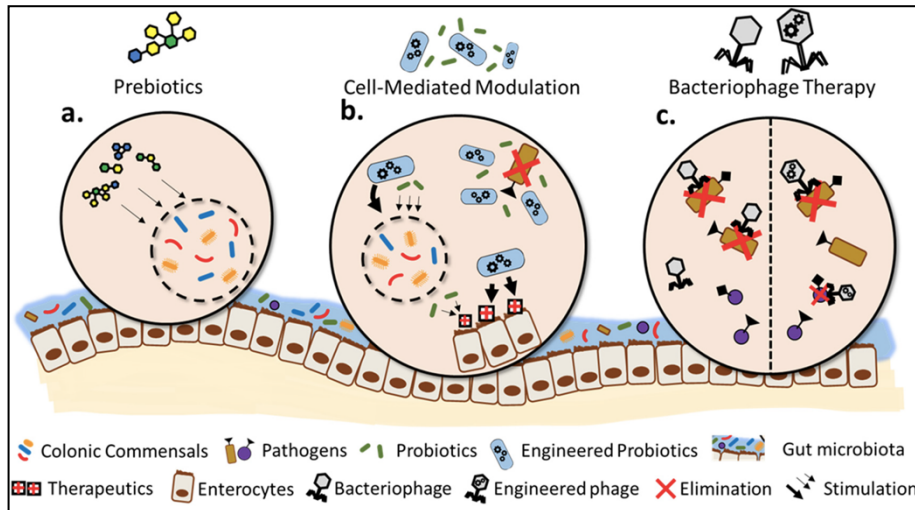


Figure (1). Overview of targeted methods to manipulate the gut microbiome. (a) Administration of targeted prebiotics to stimulate the growth of beneficial microbes; (b) use of targeted probiotics and engineered probiotics to eliminate pathogens or directly change the functional output of the gut microbiome; and (c) use of bacteriophages to eliminate specific species of pathogens or target pathogens with certain genes. By Lee *et al.*, 2018.

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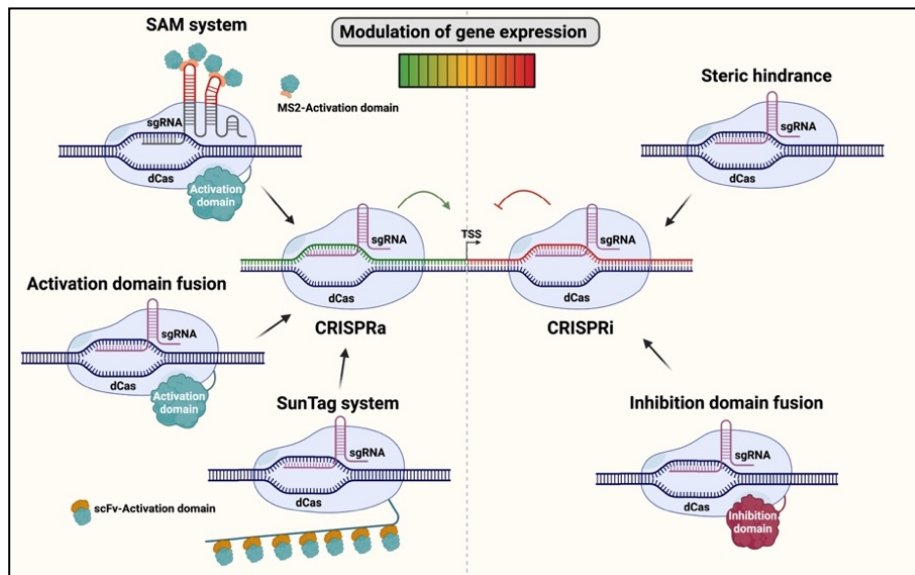


Figure (2): Orthogonal gene regulation by CRISPRa and CRISPRi

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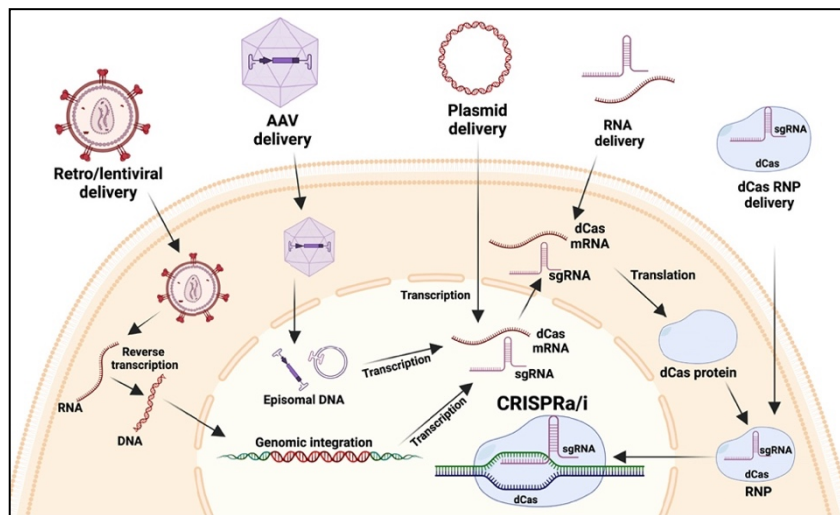


Figure (3): Delivery modalities for CRISPR-Cas-based transcriptional modulators. By Bendixen *et al.*, 2023.

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