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## Clarifying the role 6S RNA in regulating the expression of essential genes for antibiotic synthesis in *S. coelicolor*

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Streptomyces are soil microorganisms that feature prominently in control the environment by producing hydrolytic enzymes degrading plant and animal residues. Under favorable conditions, many of them produce antibiotics and other biologically active substances. Streptomyces respond to environmental changes altered promoter specificity. Regulation expression by using low molecular weight RNA is particularly useful under stress conditions when energy costs is associated with expression of various genes. The project aims to contribute to elucidating the function of 6S RNA in *Streptomyces coelicolor*. Deletion mutation with inactivated gene *ssrS*, contribute to explain the role of 6SRNA in promoter specificity of RNA polymerase and expression of genes essential for the synthesis of antibiotics. Results obtained will be used to construct strains with antibiotic overproduction.

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