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## Exploring the metabolism and toxicity of amino sugars and 2-deoxyglucose in *Streptomyces*

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## Curriculum Vitae

Chao Li (Chinese: 李超) was born on September 21st 1993 in the city of Tongcheng, located in the Anhui province of China. After graduating from No.1 middle school of Tongcheng in 2012, he started his Bachelor of Science program at College of Life Sciences, Hebei University in Baoding city, Hebei province. In 2016, he obtained his BSc degree in Biotechnology, after which he pursued a Master of Marine Biology in Institute of Oceanology, Chinese Academy of Sciences in Qingdao city, Shandong province. During this period, he majored in Pharmacological Research on Antidiabetic Marine Natural Products. Under the supervision of professor Dr. Dayong Shi, he investigated the hypoglycemic effects of several marine natural products derived from seaweed, focusing on their pharmacological properties. After completing his MSc degree in 2019, he was awarded a scholarship from the China Scholarship Council (CSC) to carry out his PhD research at the Institute of Biology, Leiden University, the Netherlands, under supervision of Prof. dr. Gilles van Wezel, Prof. dr. Dennis Claessen and Dr. Lennart Schada von Borzyskowski. In his PhD project, he studied the novel proteins involved in aminosugar metabolism, and explored the mechanism of amino sugar and 2-deoxyglucose toxicity in *Streptomyces coelicolor*. In September 2024, Chao attended "15th Globe Industrial Microbiology Congress & Metabolic Engineering Summit" in Shanghai, and won the first prize of "Best Poster Award". The findings of his PhD project are presented in this thesis.

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## PublicaRons

**Li, C.**, Urem, M., Du, C., Zhang, L., van Wezel, G. P. Systems-wide analysis of the ROK-family regulatory gene *rokL6* and its role in the control of glucosamine toxicity in *Streptomyces coelicolor*. *Appl Environ Microbiol* **89**, e01674-01623 (2023).

**Li, C.**, Urem, M., Kotsogianni, I., Lau, J., Elsayed, S. S., Martin, N. I., McNae, I. W., Voskamp, P., Mayer, C., Rigali, S., Pannu, N., Abrahams, J. P., Schada von Borzyskowski, L., van Wezel, G. P. A new pathway in central metabolism mediates nutrient control of development and antibiotic production by *Streptomyces*. *bioRxiv* 2024-07 (2024).

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