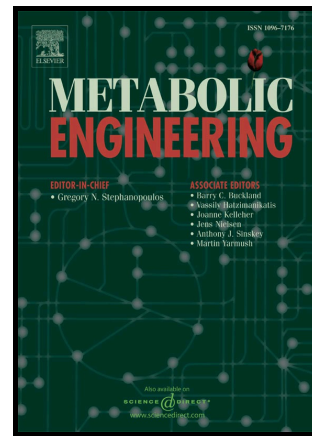


## Author's Accepted Manuscript

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[www.elsevier.com/locate/ymben](http://www.elsevier.com/locate/ymben)

PII: S1096-7176(18)30239-8  
DOI: <https://doi.org/10.1016/j.ymben.2018.09.008>  
Reference: YMBEN1469

To appear in: *Metabolic Engineering*

Received date: 11 June 2018  
Revised date: 7 September 2018  
Accepted date: 13 September 2018

Cite this article as: Chenglin Zhang, Yanjun Li, Jie Ma, Yuan Liu, Jilong He, Yingzi Li, Fuzhou Zhu, Jing Meng, Junjie Zhan, Zhixiang Li, Lei Zhao, Qian Ma, Xiaoguang Fan, Qingyang Xu, Xixian Xie and Ning Chen, High production of 4-hydroxyisoleucine in *Corynebacterium glutamicum* by multistep metabolic engineering, *Metabolic Engineering*, <https://doi.org/10.1016/j.ymben.2018.09.008>

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**High production of 4-hydroxyisoleucine in *Corynebacterium glutamicum* by  
multistep metabolic engineering**

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**Abstract**

**4-Hydroxyisoleucine (4-HIL) exhibits a unique glucose-dependent  
insulinotropic activity and is a promising candidate for the treatment of diabetes.  
Direct fermentation of 4-HIL has been recently studied; however, the expected**

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<sup>1</sup> Chenglin Zhang and Yanjun Li contributed equally to this work.

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