Cite this as: Yanling GUI, Guangfu TANG, Haiqiao MAN, Jiao WANG, Jie HAN, Jiehong ZHAO. Transportation of citrinin is regulated by the *CtnC* gene in the medicinal fungus *Monascus purpureus*[J]. Journal of Zhejiang University Science B, 2023, 24(6): 543-548.
http://doi.org/10.1631/jzus.B2300023

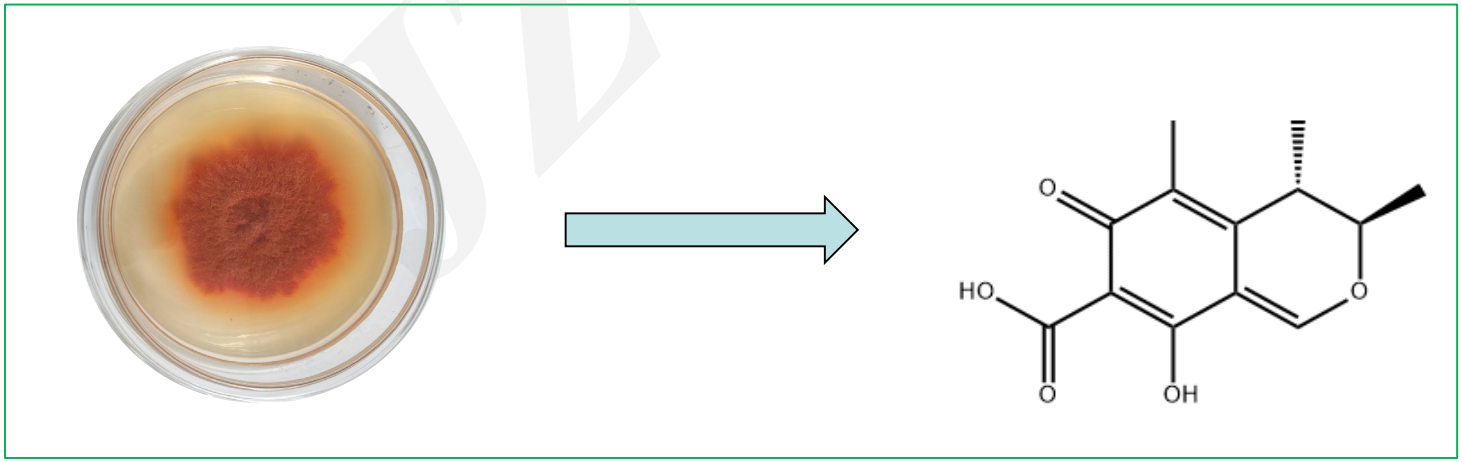
Transportation of citrinin is regulated by the *CtnC* gene in the medicinal fungus *Monascus purpureus*

Key words: Citrinin; *CtnC* gene; CRISPR/Cas9; Over-expression; Transporter; Mycotoxin

Research Summary

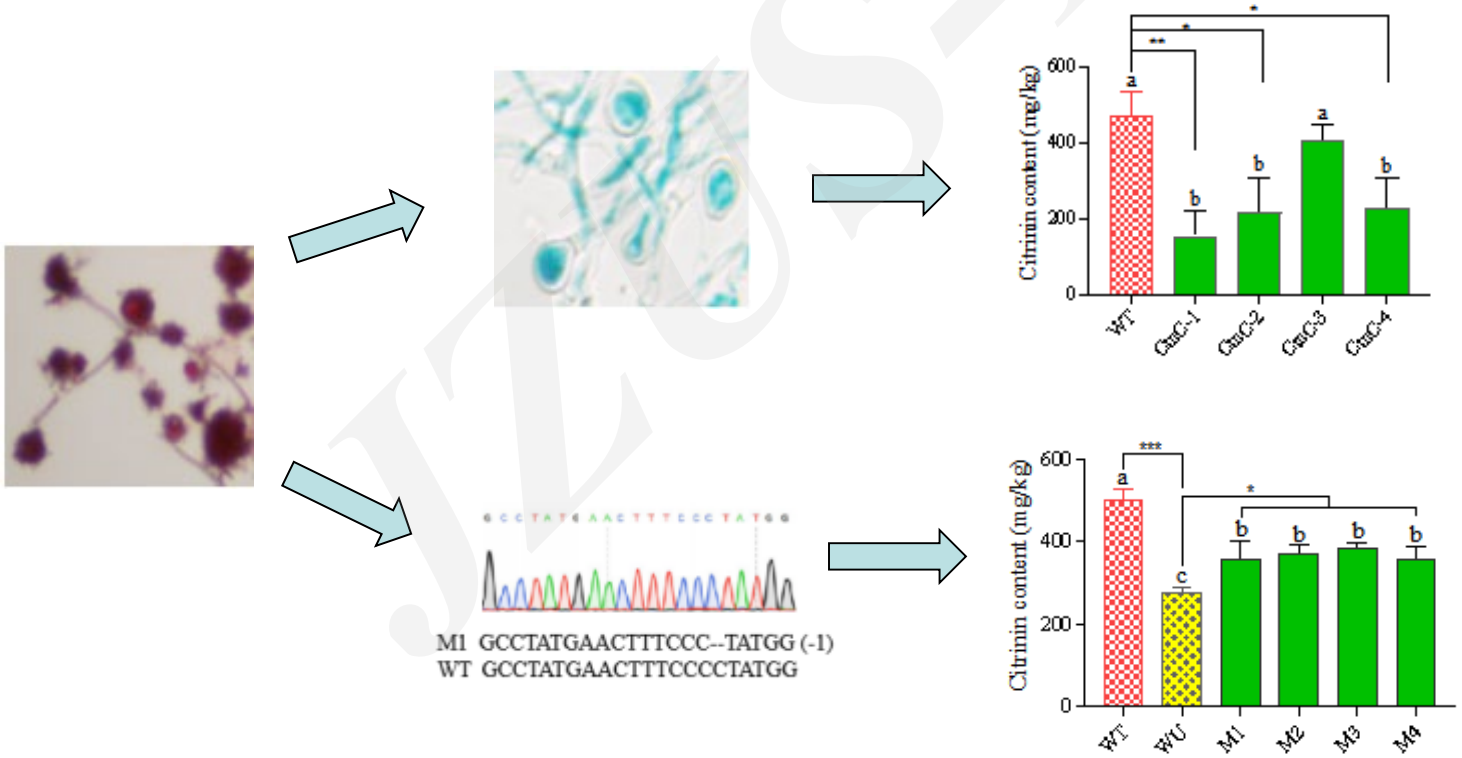
This research mainly focused on the way of citrinin transportation in *Monascus* in the following aspects.

- **A putative MFS transporter CtnC**
- **CRISPR/Cas 9 gene editing**
- **Over-expressing**
- **Citrinin-related genes expression**



Innovation points

- ***CtnC*** **is a novel citrinin transporter gene that is involved in citrinin efflux and has an inhibitory effect on citrinin accumulation in *Monascus* mycelium.**



Innovation points

- **In vitro co-transformation of sgRNAs mixture into Cas9 chassis protoplast is convenient for multi-gene editing in *Monascus*.**