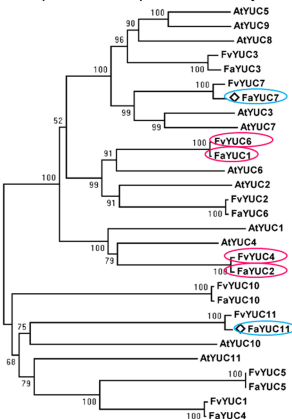


# Role of auxin biosynthesis by the flavin monooxygenases genes in developmental control and environmental responses in strawberry

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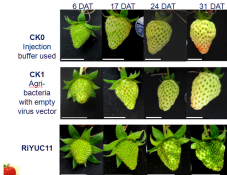
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## Phylogenetic relationship of YUCCAs in diploid and octoploid strawberry

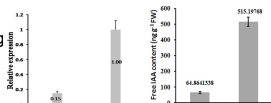


## Functionality of FaYUC11 via VIGS (virus-induced gene silencing) in *Fragaria × ananassa* cv. "Jiuxiang"

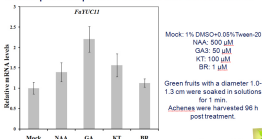
### Inhibition of fruit growth and development after virus-induced FaYUC11 silencing



Decrease of free IAA level in achenes is consistent with the suppression of FaYUC11 transcription

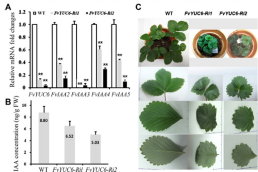


### Transcriptional responses of FaYUC11 to external hormones



## Functional study of FvYUC6 via RNA-interferencing in

### *Fragaria vesca* variet "Heiloniiana 3#"



## Conclusions:

Auxin biosynthesis is also happened in strawberry receptacle.

Auxin biosynthesis via IPyA pathway is essential for strawberry growth and development.

FaYUC11, a YUC member predominantly expressed in achenes, is a key regulator of strawberry fruit enlargement.

FvYUC6 is an essential auxin source for the formation of many postembryonic organs; Genetic redundancy between YUCs appears to be lesser in strawberry than in Arabidopsis.

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