



Universiteit
Leiden
The Netherlands

Jasmonate-responsive transcriptional regulation in *Catharanthus roseus*

Zhang, H.

Citation

Zhang, H. (2008, November 6). *Jasmonate-responsive transcriptional regulation in Catharanthus roseus*. Retrieved from <https://hdl.handle.net/1887/13223>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/13223>

Note: To cite this publication please use the final published version (if applicable).

**Jasmonate-responsive
transcriptional regulation in
*Catharanthus roseus***

Hongtao Zhang

张洪涛

Cover: Revised from figure 7 in chapter 4
ISBN/EAN: 978-90-5335-172-7
Printed by: Ridderprint, Ridderkerk, The Netherlands

Jasmonate-responsive transcriptional regulation in *Catharanthus roseus*

Proefschrift

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van de Rector Magnificus prof. mr. P. F. van
der Heijden,
volgens besluit van het College voor Promoties
te verdedigen op Donderdag 6 november 2008
klokke 15:00 uur

door

Hongtao Zhang

张洪涛

geboren te Huadian (China) in 1975

Promotiecommissie

Promotor: Prof. Dr. J. Memelink

Referent: Prof. Dr. B. St-Pierre (Université de
Tours)

Overige Leden:

Prof. Dr. J.F.Bol

Prof. Dr. P.J.J. Hooykaas

Prof. Dr. B. van Duijn

Dr. R. Offringa

This work was supported by the Dutch Research Council for Earth and Life Sciences (ALW) with financial aid from the Netherlands Organization for Scientific Research (NWO; grant # 812.06.002)

献给我的父母妻子和女儿

To my parents, wife and daughter

Contents

	Page
Chapter 1	9
Introduction	
Chapter 2	33
Characterization of a novel putative regulator of plant secondary metabolism	
Chapter 3	57
The basic helix-loop-helix transcription factor CrMYC2 controls the jasmonate-responsive expression of the <i>ORCA</i> genes regulating alkaloid biosynthesis in <i>Catharanthus roseus</i>	
Chapter 4	91
CrJAZ proteins repress CrMYC2 activity and jasmonate-responsive gene expression in <i>Catharanthus roseus</i>	
Chapter 5	125
General discussion	
Samenvatting	137
<i>Curriculum vitae</i>	143

