

ZAR Wars: Characterising new Motifs in the Atypically Ancient Immune Receptor, ZAR1



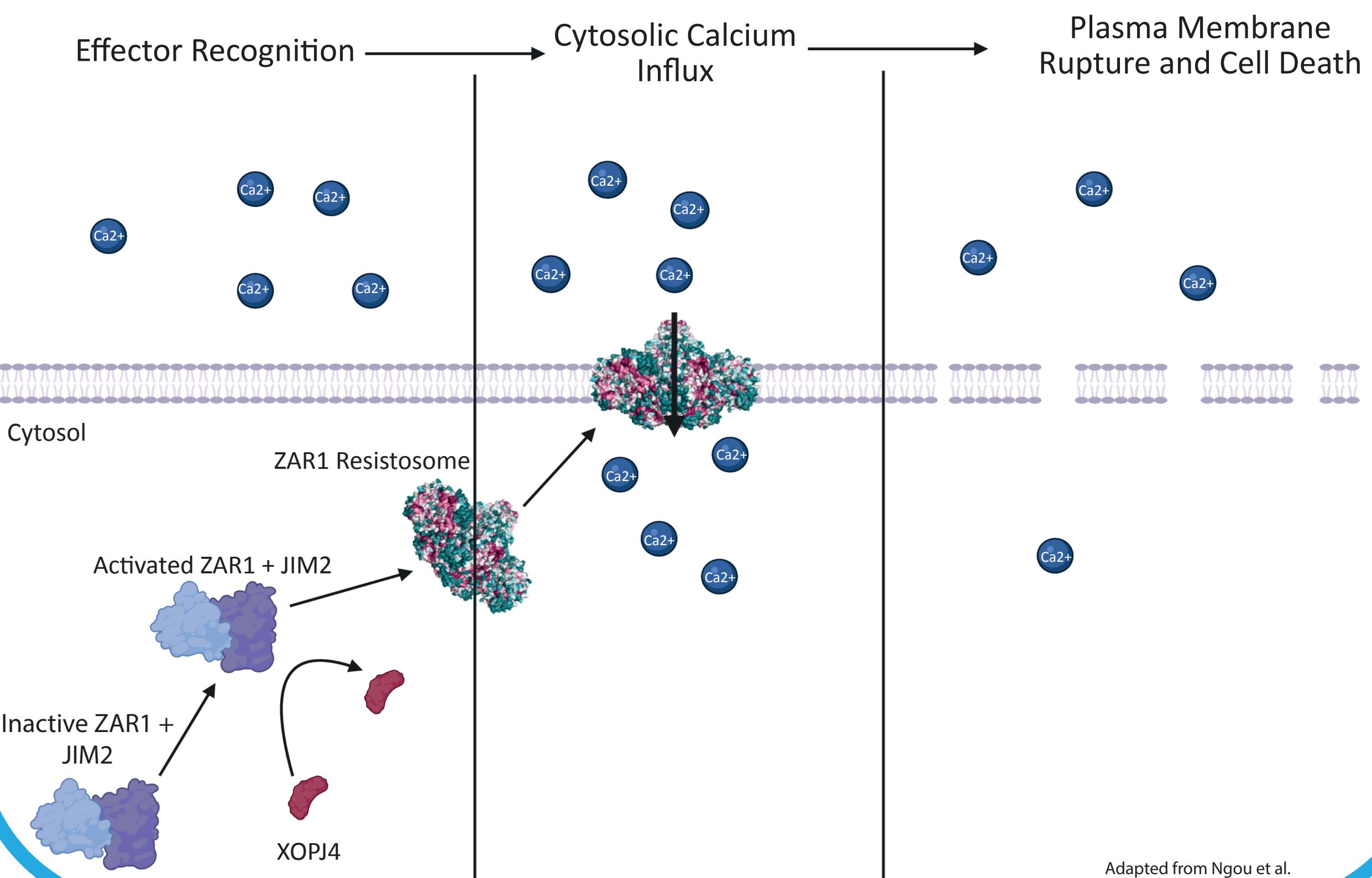
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The Sainsbury Laboratory
TS defense

1

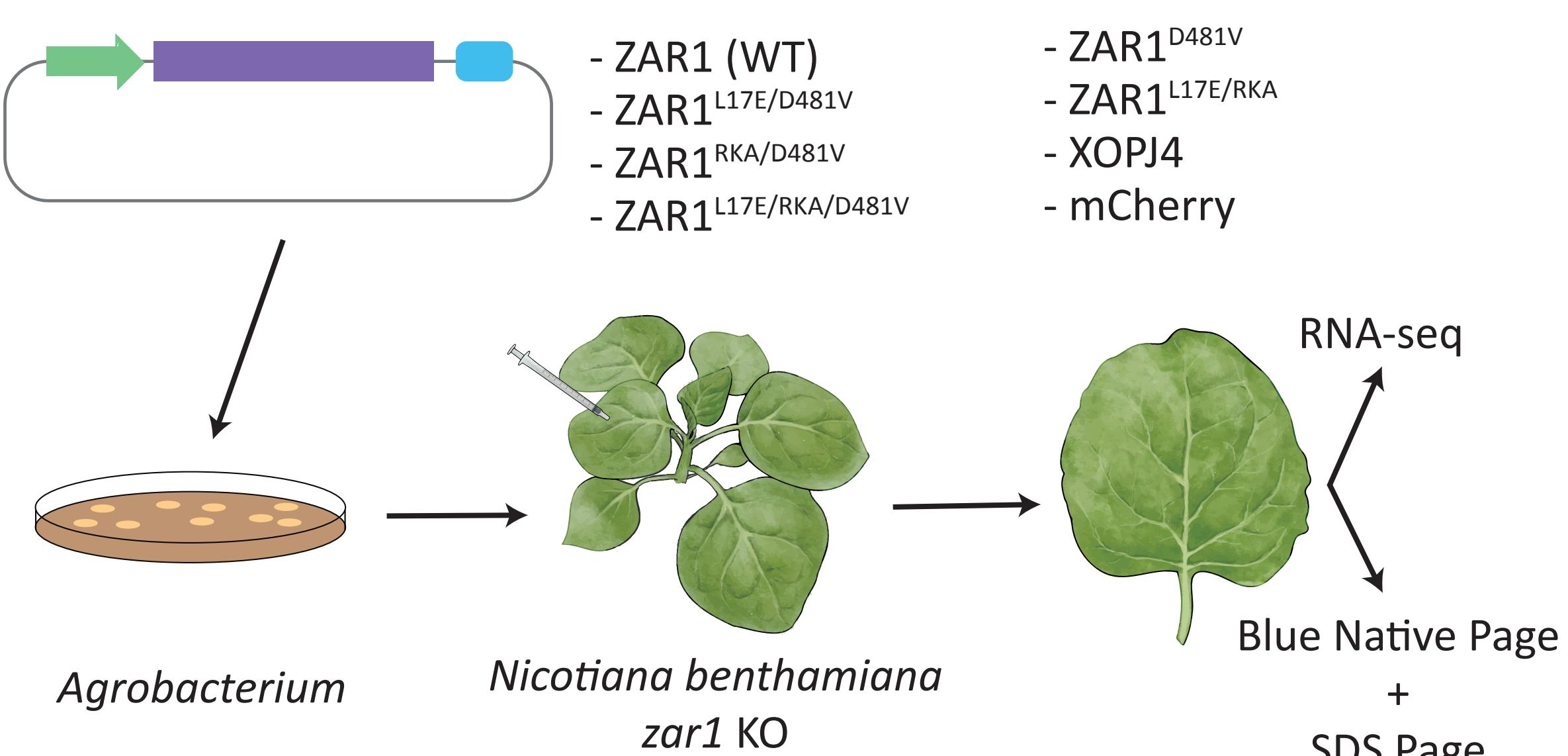
Effector Activated ZAR1 Induces Cell Death



Adapted from Ngou et al.

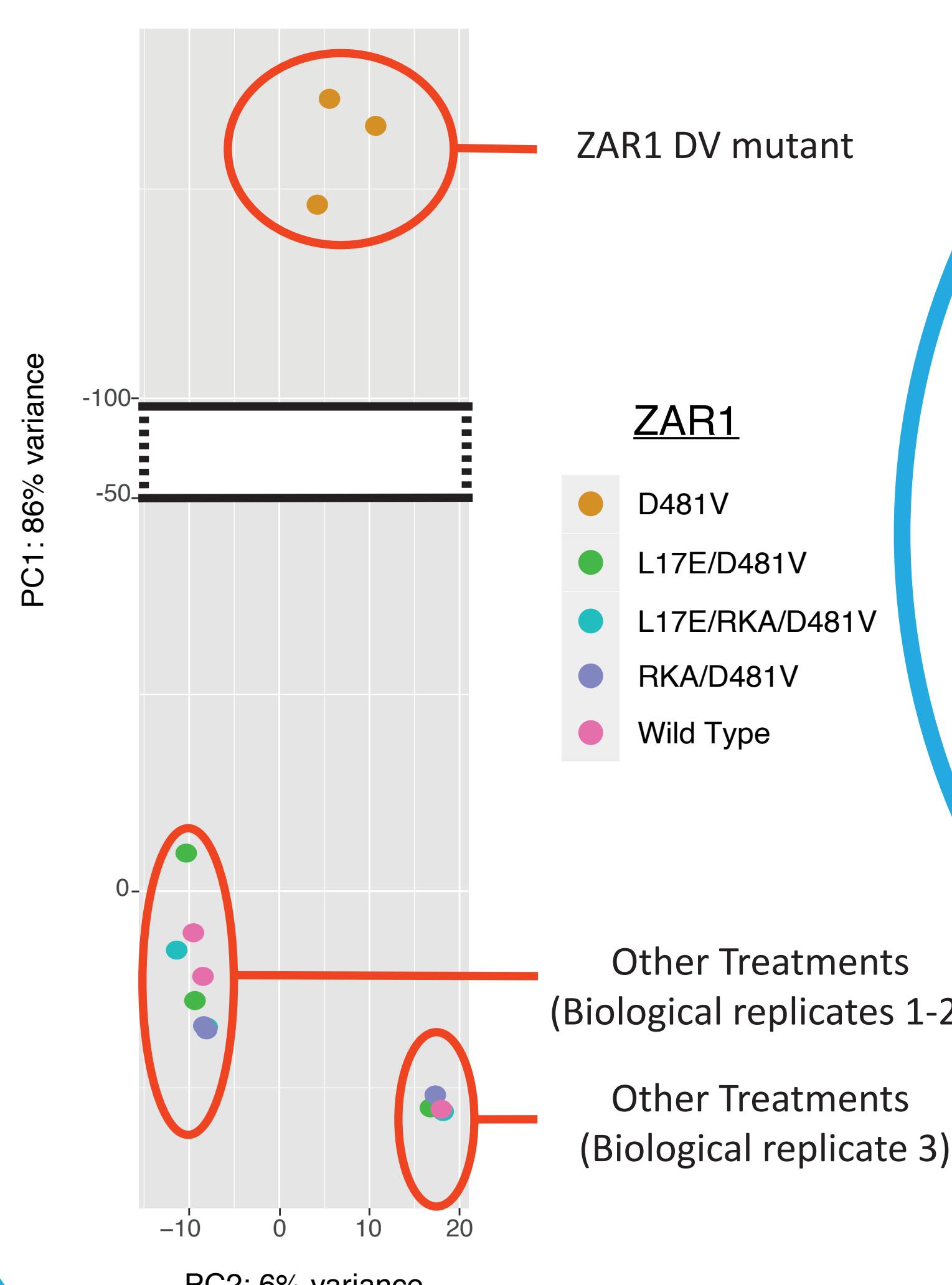
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Transient Expression of ZAR1 in *Nicotiana benthamiana* for RNA-seq and Blue Native Page



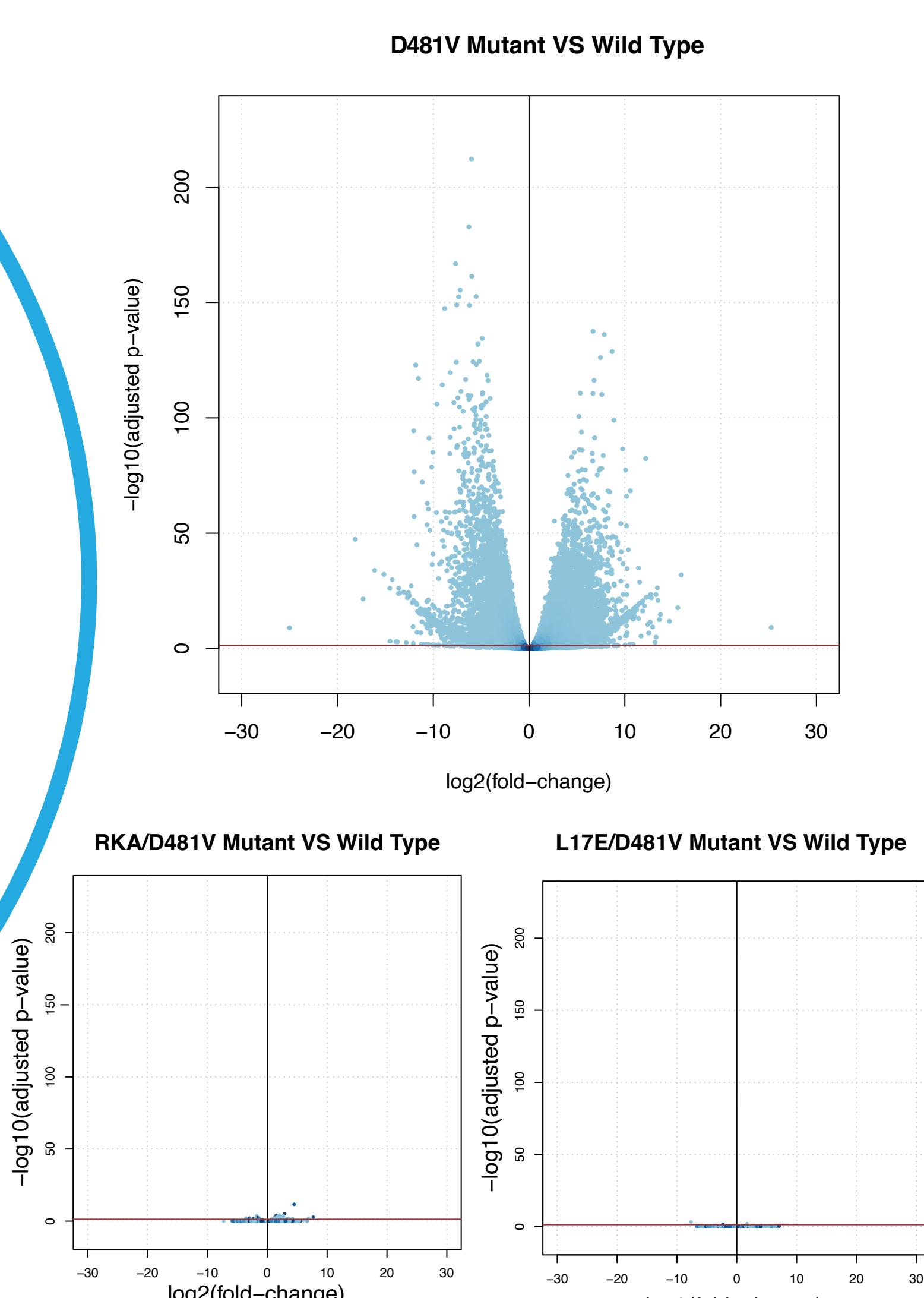
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Expression of Auto-Active ZAR1 Induces a Distinct Gene Expression Pattern



4

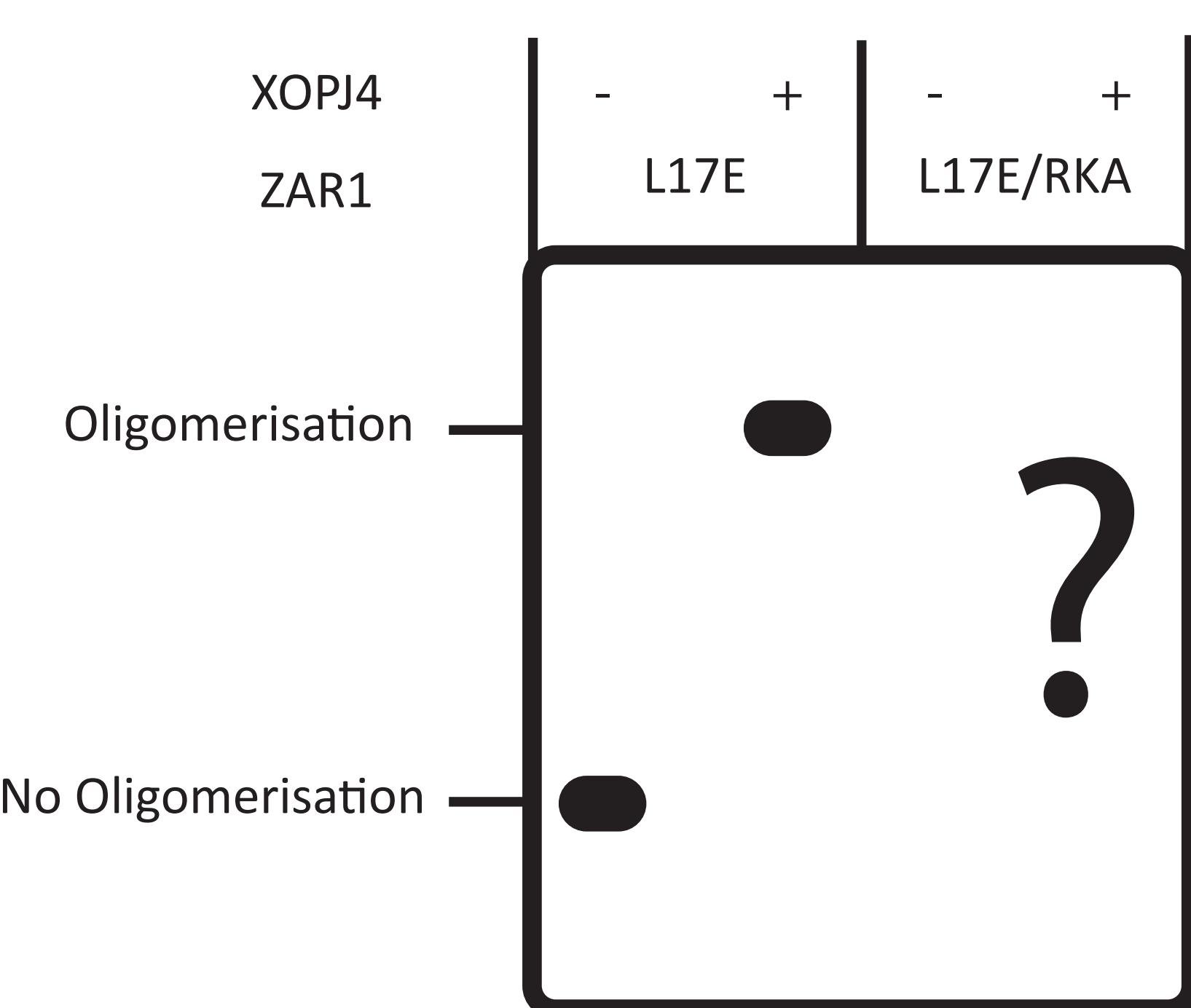
The Transcriptional Response is Abolished in RKA and L17E mutants



5

Does the Underside Region Contribute to ZAR1 Resistosome Formation?

Future blue native page to study ZAR1 oligomerisation in vivo, comparing inactive and activated ZAR1, looking at the impact of the RKA mutation.



6

Take Home Messages

- Transient expression of auto-active ZAR1 leads to a transcriptional response.
- This transcriptional response is largely blocked by either L17E or RKA mutation.
- So how do these mutations abolish ZAR1 signalling and cell death?