# Article information:

Dynamic regulation of Pep-induced immunity through post-translational control of defence transcript splicing - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/32690890/>

# Article summary:

1. IRR is a newly characterized protein that negatively regulates immune responses in both maize and Arabidopsis.

2. IRR associates with and promotes canonical splicing of transcripts encoding defence signalling proteins, including the key negative regulator of pattern-recognition receptor signalling complexes, CALCIUM-DEPENDENT PROTEIN KINASE 28 (CPK28).

3. On immune activation by Plant Elicitor Peptides (Peps), IRR is dephosphorylated, disrupting interaction with CPK28 transcripts and resulting in the accumulation of an alternative splice variant encoding a truncated CPK28 protein with impaired kinase activity and diminished function as a negative regulator.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Dynamic regulation of Pep-induced immunity through post-translational control of defence transcript splicing” provides an interesting insight into the role of IRR in regulating immune responses in both maize and Arabidopsis plants. The authors present evidence to support their hypothesis that IRR is dephosphorylated on immune activation by Plant Elicitor Peptides (Peps), disrupting its interaction with CPK28 transcripts and resulting in the accumulation of an alternative splice variant encoding a truncated CPK28 protein with impaired kinase activity and diminished function as a negative regulator. The article is well written, clearly structured, and provides detailed information about the experiments conducted to test their hypothesis.

The article does not appear to be biased or one-sided, as it presents both sides of the argument equally. It also does not contain any promotional content or partiality towards any particular viewpoint. Furthermore, all possible risks associated with the experiments are noted throughout the article.

However, there are some missing points of consideration which could have been explored further such as potential differences between different species or varieties when it comes to Pep-induced immunity regulation through post-translational control of defence transcript splicing. Additionally, there is no mention of any unexplored counterarguments which could have been discussed in more detail. Finally, there is no evidence provided for some of the claims made throughout the article which could have strengthened its reliability further.

# Topics for further research:

* Pep-induced immunity regulation in different species
* Post-translational control of defence transcript splicing
* Alternative splice variants of CPK28
* Potential risks associated with Pep-induced immunity
* Unexplored counterarguments to Pep-induced immunity
* Evidence for Pep-induced immunity regulation

# Report location:

<https://www.fullpicture.app/item/6043ed82da2369a88c1b87fbf916fb59>