# Article information:

Genetic and phosphoproteomic basis of LysM-mediated immune signaling in Marchantia polymorpha highlights conserved elements and new aspect of pattern-triggered immunity in land plants | bioRxiv
<https://www.biorxiv.org/content/10.1101/2022.12.28.521631v1>

# Article summary:

1. The model liverwort Marchantia polymorpha is emerging as a popular model for investigating the evolution of plant-microbe interactions.

2. This study outlines the basic framework of LysM-mediated PTI in M. polymorpha and demonstrates the utility of M. polymorpha as a plant model for discovering novel or fundamental molecular mechanisms underlying PRR-triggered immune signaling in plants.

3. Comprehensive phosphoproteomic analysis of M. polymorpha in response to chitin treatment identified regulatory proteins that potentially shape LysM-mediated PTI, including homologs of well-described PTI components in angiosperms as well as proteins whose roles in PTI are not yet determined.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is reliable and trustworthy, as it has been posted on bioRxiv, which is a preprint server for biology research papers that have not yet been formally peer reviewed but are still subject to rigorous editorial standards and quality control processes. The authors have declared no competing interests, which further adds to the credibility of the article. Furthermore, the article provides comprehensive evidence for its claims through detailed phosphoproteomic analysis and experiments conducted on Marchantia polymorpha, making it clear that the findings presented are based on solid scientific evidence rather than speculation or opinion. There does not appear to be any bias or one-sided reporting present in this article; instead, all sides of the argument are explored thoroughly and objectively with an emphasis on providing evidence for each claim made by the authors.

# Topics for further research:

* Marchantia polymorpha phosphoproteomics
* Phosphoprotein signaling pathways
* Plant hormone regulation
* Plant stress response mechanisms
* Plant cell wall biosynthesis
* Plant cell wall remodeling

# Report location:

<https://www.fullpicture.app/item/d6e2250a7eac3707e5dc4b5d028a33e1>