# Article information:

A rice chloroplast‐localized ABC transporter ARG1 modulates cobalt and nickel homeostasis and contributes to photosynthetic capacity - Li - 2020 - New Phytologist - Wiley Online Library  
<https://nph.onlinelibrary.wiley.com/doi/10.1111/nph.16708>

# Article summary:

1. Chloroplasts require transition metals such as iron, manganese, copper and zinc for photosynthesis and metal homeostasis must be tightly regulated to prevent toxic concentrations of these metals from causing oxidative damage.

2. Cobalt and nickel are also present in chloroplasts and their correct concentrations are essential for chloroplast function and photosynthetic performance.

3. A rice albino-revertible green mutant was characterized with a mutation in the ABCI member gene ARG1 which mediates Co and Ni homeostasis by transporting Co and Ni from chloroplast, as well as influencing photosynthesis.

# 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 is generally reliable and trustworthy, providing evidence for its claims through references to previous studies on the topic. The article is well-structured, clearly outlining the research question being addressed and providing an overview of the relevant background information before delving into the details of the study itself. The authors provide a comprehensive discussion of their findings, including potential implications for future research in this area.

The article does not appear to have any major biases or one-sided reporting; it presents both sides of the argument equally without making unsupported claims or missing points of consideration. All claims made are supported by evidence from previous studies, although some counterarguments may have been unexplored or underrepresented in order to make a stronger case for the authors' hypothesis. There is no promotional content or partiality evident in the article, nor does it appear to gloss over any potential risks associated with this research.

In conclusion, this article is reliable and trustworthy overall; however, further exploration into counterarguments or alternative explanations could strengthen its credibility even further.

# Topics for further research:

* Cognitive development in children
* Long-term effects of screen time
* Digital media usage and academic performance
* Parental involvement in media use
* Impact of media on social skills
* Technology and mental health in children

# Report location:

<https://www.fullpicture.app/item/a4af527290b8dc6a6b860b49affcee2b>