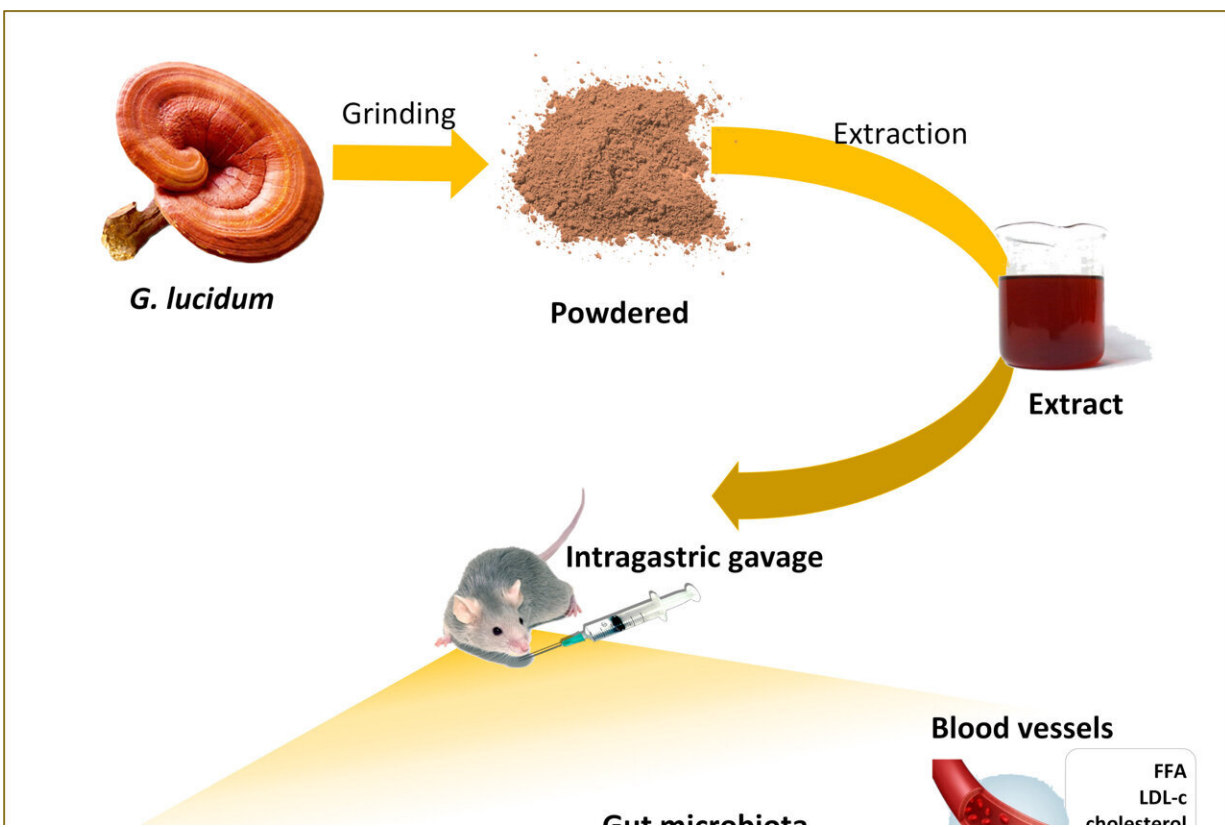


# Study highlights therapeutic importance of *Ganoderma lucidum*

February 21 2023, by Zhang Nannan



Functional merit of *G. lucidum* on the gut and associated metabolic disorders.  
Credit: Mohammed Sharif Swallah

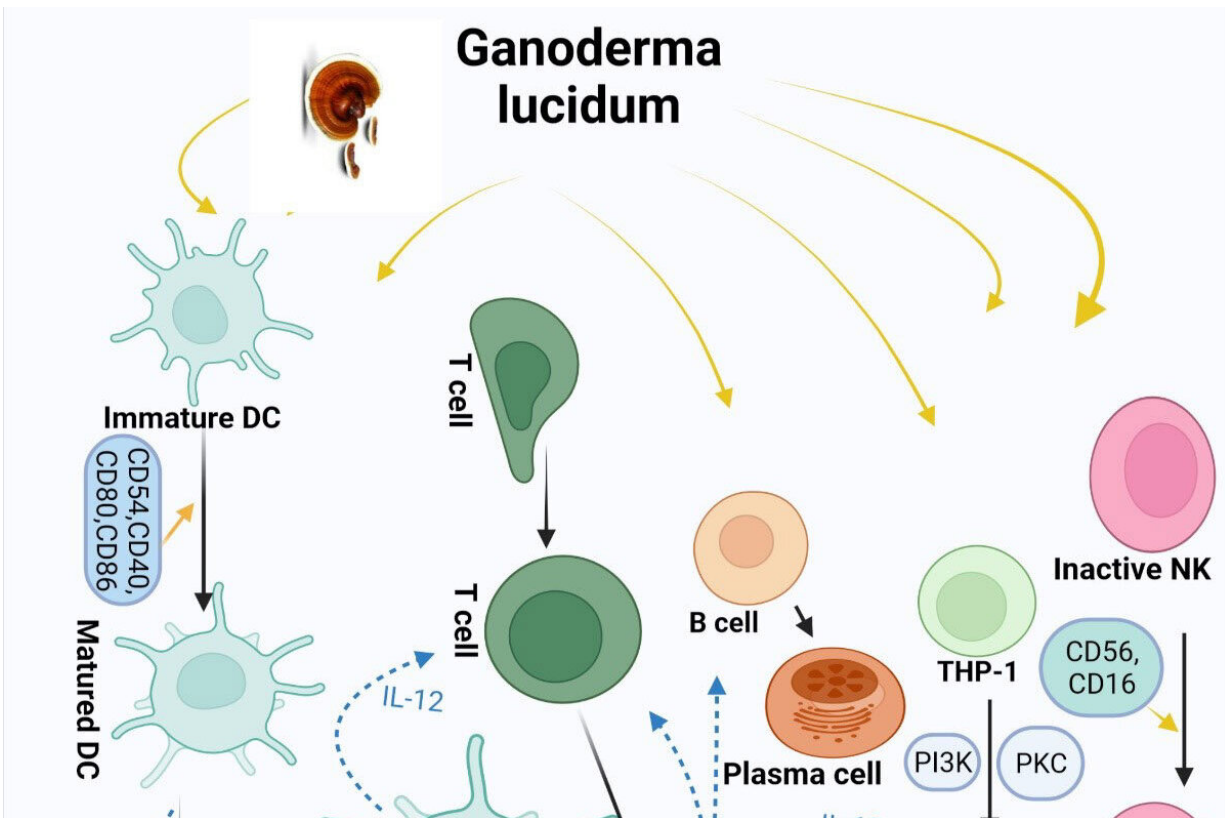
Researchers led by Prof. Huang Qing from the Hefei Institutes of Physical Science of the Chinese Academy of Sciences reported for the

first time an update and a comprehensive summary on the immunomodulatory therapies and nutritional significance of *Ganoderma lucidum* (*G. lucidum*) from 2010 to 2022, confirming that *G. lucidum* is an essential prebiotic for increasing bacterial flora and a health-promoting agent due to its components, especially its abundant source of polysaccharides, triterpenoids, and polyphenols.

The study was published in *Food & Functions*.

The researchers concluded that the adoption of standard pharmaceutical methods for the safety assessment, [quality assurance](#), and efficacy testing of *G. lucidum*-derived compounds will be the gateway to their introduction into health care facilities.

With a long history in traditional Chinese medicine, *G. lucidum* is a mushroom species suggested to improve health and prolong life, and has been shown be effective in the prevention and treatment of various metabolic disorders. Although certain bioactivities and bioactive compounds of *G. lucidum* have been recently reviewed, to date, none has critically analyzed and summarized their mechanism of action.



Immunomodulatory functions of *G. lucidum*-derived bioactives on various immune cells. Credit: Mohammed Sharif Swallah

The literature reported in this study was mainly collected from PubMed, Scopus databases, Web of Science Core Collection, and Google Scholar from 2010 to 2022, with a focus on the recent advances in the definition of its immunobiological mechanisms, prebiotic benefits for gut health and sleep, and potential application in the nutraceutical, cosmeceutical, food and [pharmaceutical industries](#), as well as the safety and efficacy of *G. lucidum* [bioactive compounds](#) (focus on polysaccharides, triterpenoids and phenolic compounds), as these are essential in the prevention and management of chronic diseases.

In addition, *G. lucidum* has been shown to promote the balance of the

gut microbiota, boosting and regulating the immune system. This activates a number of defense mechanisms that respond rapidly to invading or attacking pathogenic microbes and also play a key role in initiating and maintaining specific immunity. Hence, augmenting the body's natural immunity has a major impact on the body's overall immune function.

**More information:** Mohammed Sharif Swallah et al, Therapeutic potential and nutritional significance of *Ganoderma lucidum*—a comprehensive review from 2010 to 2022, *Food & Function* (2023). [DOI: 10.1039/D2FO01683D](https://doi.org/10.1039/D2FO01683D)

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