



[Log in / register](#)

SCHEDULED MAINTENANCE



Maintenance work is planned from 21:00 BST on Tuesday 20th August 2024 to 21:00 BST on Wednesday 21st August 2024, and on Thursday 29th August 2024 from 11:00 to 12:00 BST.

During this time the performance of our website may be affected - searches may run slowly, some pages may be temporarily unavailable, and you may be unable to log in or to access content. If this happens, please try refreshing your web browser or try waiting two to three minutes before trying again.

We apologise for any inconvenience this might cause and thank you for your patience.

[Issue 3, 2017](#)

[Previous](#)

[Next](#)



From the journal:

Food & Function

Immunomodulatory effects of *Hericium erinaceus* derived polysaccharides are mediated by intestinal immunology



Check for updates

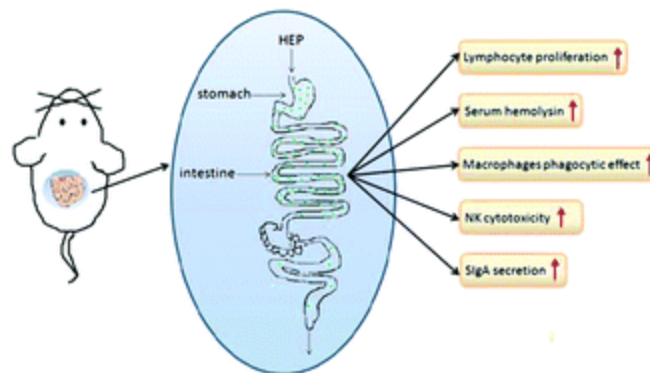
[Xiaotong Sheng](#)^a, [Jingmin Yan](#)^a, [Yue Meng](#)^a, [Yuying Kang](#)^a, [Zhen Han](#)^a, [Guihua Tai](#)^a, [Yifa Zhou](#)^a and [Hairong Cheng](#) ^{*a}

[Author affiliations](#)

Abstract

This study was aimed at investigating the immunomodulating activity of *Hericium erinaceus* polysaccharide (HEP) in mice, by assessing splenic lymphocyte proliferation (cell-mediated immunity),

serum hemolysin levels (humoral immunity), phagocytic capacity of peritoneal cavity phagocytes (macrophage phagocytosis), and NK cell activity. ELISA of immunoglobulin A (SIgA) in the lamina propria, and western blotting of small intestinal proteins were also performed to gain insight into the mechanism by which HEP affects the intestinal immune system. Here, we report that HEP improves immune function by functionally enhancing cell-mediated and humoral immunity, macrophage phagocytosis, and NK cell activity. In addition, HEP was found to upregulate the secretion of SIgA and activate the MAPK and AKT cellular signaling pathways in the intestine. In conclusion, all these results allow us to postulate that the immunomodulatory effects of HEP are most likely attributed to the effective regulation of intestinal mucosal immune activity.



About

Cited by

Related

Buy this article

£42.50*

* Exclusive of taxes

This article contains 8 page(s)

Other ways to access this content

Log in

Using your institution credentials

Sign in

With your membership or subscriber account

Article information

<https://doi.org/10.1039/C7FO00071E>

Article type

Paper

Submitted

13 Jan 2017

Accepted

21 Feb 2017

First published

24 Feb 2017

Citation

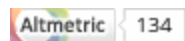
Food Funct., 2017, **8**, 1020-1027

BibTex  Go

Permissions

[Request permissions](#)

Social activity



Tweet

Share

Search articles by author

- Xiaotong Sheng
- Jingmin Yan
- Yue Meng
- Yuying Kang
- Zhen Han
- Guihua Tai

Yifa Zhou

Hairong Cheng

Go

Spotlight

Advertisements



Journals, books & databases



- Home
- About us
- Membership & professional community
- Campaigning & outreach
- Journals, books & databases
- Teaching & learning
- News & events
- Locations & contacts
- Careers
- Awards & funding
- Advertise
- Help & legal
- Privacy policy
- Terms & conditions

© Royal Society of Chemistry 2024

Registered charity number: 207890