

Oral interferon may prevent and control avian influenza virus infection

July 28 2011

Avian influenza virus is a threat to the commercial chicken industry and, with its recent rapid spread across China, has also shown the ability for transmission from chickens to humans and other mammals. In an article in *Journal of Interferon & Cytokine Research*, a peer-reviewed journal published by Mary Ann Liebert, Inc., Chinese researchers report that oral chicken interferon-alpha may significantly reduce influenza virus levels when given either preventively or therapeutically.

Chickens can serve as a reservoir for epidemic avian viruses such as avian [influenza virus](#) (AIV), which can then be transmitted to [mammals](#) such as humans. AIV causes mild to severe respiratory illness in chickens. Interferon-alpha is a cytokine, a chemical produced by immune cells that has a role in inducing antiviral immunity.

Shanshan Meng and colleagues from the Chinese Academy of Sciences, Beijing, and Shandong Academy of Agricultural Sciences, Jinan, People's Republic of China, present the results of a study in which healthy chicks 7 or 33 days old were given chicken interferon-alpha either before or after exposure to AIV. The level of virus in their respiratory tracts was then measured and compared. The authors report their findings in the article "Recombinant Chicken Interferon- α Inhibits H9N2 Avian [Influenza](#) Virus Replication In Vivo by Oral Administration."

"The poultry industry is vulnerable to infection of the birds by pathogenic viruses such as avian influenza virus. This study shows that

[interferon](#) can be used for both treating the infected [chickens](#) as well as protecting the neighboring uninfected ones; moreover oral administration, which is convenient and inexpensive, is effective," says Ganes C. Sen, PhD, Chairman, Department of Molecular Genetics, Cleveland Clinic Foundation and Co-Editor in Chief of *Journal of Interferon & Cytokine Research*.

More information: www.liebertpub.com/jir

Provided by Mary Ann Liebert, Inc./Genetic Engineering News

Citation: Oral interferon may prevent and control avian influenza virus infection (2011, July 28) retrieved 10 April 2024 from

<https://medicalxpress.com/news/2011-07-oral-interferon-avian-influenza-virus.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--