

Researchers find that patients with acne have reduced expression of the protein GATA6

October 21 2020, by Bob Yirka



Credit: Pixabay/CC0 Public Domain

An international team of researchers has found that patients with acne have lower levels of expression of the protein GATA6 in their skin. In their paper published in the journal *Nature Communications*, the group

describes their study of skin biopsies taken from acne patients and what they found.

Acne is a [skin](#) condition that involves infected or inflamed sebaceous glands. It typically presents itself as facial pimples but can also be found on other parts of the body. Acne has been linked to excess sebum (oil) production, clogging of hair follicles, bacterial infections and general inflammation. It is also most prevalent during the teenage years. Acne is considered to be one of the most common skin diseases, affecting approximately 650 million people around the world. It can be treated with a variety of over-the-counter medicines, none of which are considered to be a cure-all. In this new effort, the researchers have found a connection between people whose skin produces less of the protein GATA6 and [acne](#).

GATA6 is expressed in the upper part of the skin in hair follicles and other sebaceous glands. Prior research has shown it to be a zinc finger transcription factor and it plays a role in organ tissue differentiation.

This new effort involved collecting skin biopsies from nine patients with acne and five people that did not have acne to serve as a control. In studying the skin samples, they found that those patients with acne also had reduced expression of GATA6. Taking a closer look, they found that GATA6 was involved in controlling multiple [physiological processes](#) as part of homeostasis of the pilosebaceous unit—one of which was differentiation and proliferation of epidermal cells in hair follicles. They further discovered that GATA6 was instigated by retinoic acid, which is commonly found in acne treatments. The researchers also created skin models and used them to learn more about signaling pathways and the ways that GATA6 may work to reduce clogging of pores. They say their work could be applied to research involved in developing new acne therapies.

More information: Bénédicte Oulès et al. Contribution of GATA6 to homeostasis of the human upper pilosebaceous unit and acne pathogenesis, *Nature Communications* (2020). [DOI: 10.1038/s41467-020-18784-z](https://doi.org/10.1038/s41467-020-18784-z)

© 2020 Science X Network

Citation: Researchers find that patients with acne have reduced expression of the protein GATA6 (2020, October 21) retrieved 28 April 2024 from <https://medicalxpress.com/news/2020-10-patients-acne-protein-gata6.html>

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.