

Short Chain Fatty Acids and Their Role in Immunomodulation

Our gut does more than just digest food—it quietly shapes how our body fights inflammation. In a recent publication from the **Department of Basic Science**, **Dr. Devlina Ghosh** and **interns Ashika Yadav, Damini Pandey** explore how tiny molecules called short-chain fatty acids (SCFAs), produced by gut bacteria, play a powerful role in regulating our immune system and maintaining oral health .

The study highlights an interesting balance: when these molecules come from the gut in the right amounts, they help control inflammation and protect tissues. However, when they build up locally in the gums, they can contribute to damage and disease. This dual role offers a new way of understanding periodontal health.

The research also points towards future possibilities—like using diet, probiotics, or targeted therapies to improve oral health through the gut.

This work opens up exciting connections between gut health and dental science, reminding us that the body functions as one integrated system. Please read the full text for more details.

Reference:

Devlina Ghosh*, Anshika Yadav, Damini Pandey. Immunomodulatory roles of gut-derived short-chain fatty acids in periodontal inflammation and homeostasis. *Explor Immunol.* 2026;6:1003238. <https://doi.org/10.37349/ei.2026.1003238>

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