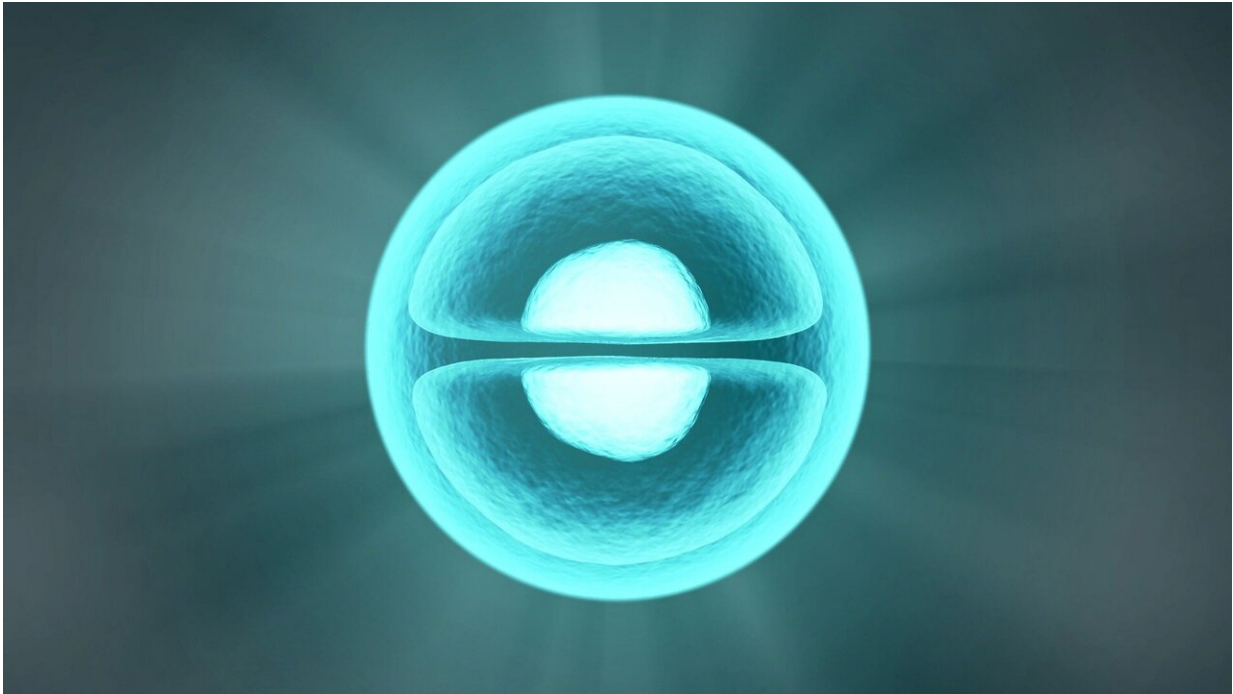


# Intestinal immune cell interactions

August 1 2019, by Leigh Macmillan

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Multiple types of immune cells are interspersed among the epithelial cells lining the intestines and are considered to be a first line of defense against pathogens. The survival and interaction of these intraepithelial lymphocytes and their roles in intestinal inflammation are not well understood.

Ali Nazmi, Ph.D., Danyvid Olivares-Villagómez, Ph.D., and colleagues

have examined the effect of one type of intraepithelial lymphocyte (iCD8alpha) on another (ILC1-like). Using mice with reduced numbers of iCD8alpha cells, they found that these cells play a critical role in the survival of ILC1-like cells, and that this effect is partly mediated by the factor osteopontin.

In a mouse model of intestinal inflammation that involves ILC1-like cells, reduced iCD8alpha cell numbers resulted in milder inflammation and treatment with osteopontin increased disease severity.

The findings, reported in *PLOS ONE*, implicate iCD8alpha cells in ILC1-like [cell survival](#) and [intestinal inflammation](#) and add to the growing roles of osteopontin in various biological processes.

**More information:** Ali Nazmi et al. Innate CD8 $\alpha\alpha$ + cells promote ILC1-like intraepithelial lymphocyte homeostasis and intestinal inflammation, *PLOS ONE* (2019). [DOI: 10.1371/journal.pone.0215883](https://doi.org/10.1371/journal.pone.0215883)

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