

## MUTANT CLONES IN NORMAL EPITHELIUM OUTCOMPETE AND ELIMINATE EMERGING TUMOURS

In 2018 the group led by P.H. Jones reported in [Science](#)<sup>1</sup> that somatic mutant clones colonize the human esophagus with age. This result was not entirely unexpected. What was unprecedented was the presence of tumor-causing mutations in the *NOTCH1* and *TP53* genes in 12 to 80% and 2 to 37% of cells, respectively. In particular, the prevalence of *NOTCH1* mutations in the normal esophagus was several times higher than in esophageal cancers.

How could one explain these data? Jones himself found the explanation, which appeared recently in [Nature](#)<sup>2</sup>. Most epithelial mutant clones are not cancerous and their growth outcompetes and eliminates emerging tumours.

<sup>1</sup> [https://www.science.org/doi/10.1126/science.aau3879?url\\_ver=Z39.88-2003&rfr\\_id=ori:rid:crossref.org&rfr\\_dat=cr\\_pub%20%20pubmed](https://www.science.org/doi/10.1126/science.aau3879?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%20pubmed)

<sup>2</sup> <https://www.nature.com/articles/s41586-021-03965-7>