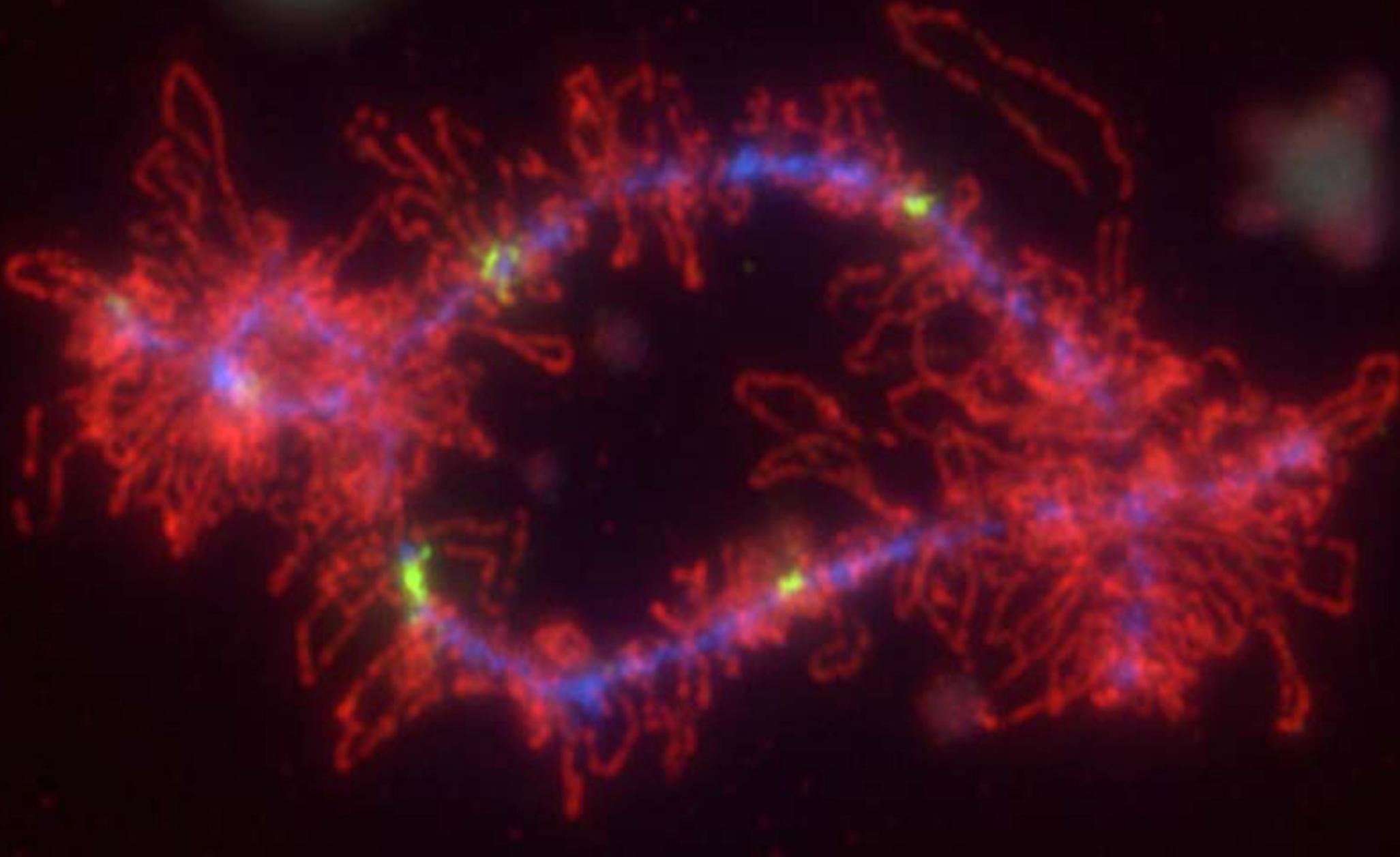


## Different classes of genes can be visualised in lampbrush chromosomes



An antibody that detects RNA polymerase II reveals the intense activity of genes contained in the extended loops of lampbrush chromosomes (coloured red in this image). A different type of chromosome region is identified by antibodies (fluorescing green here) that detect RNA polymerase III, which specialises in the expression of a class of genes making only small RNA products. These genes usually appear as patch-like areas of less extended chromatin, reminiscent of the transcription factories of somatic cells. The majority of the DNA in a lampbrush chromosome, detected here by the DNA-binding stain, DAPI (shown in blue), is found in the condensed chromosome axes and is transcriptionally inactive. The chromosome is from a preparation made from an oocyte of a frog, *Xenopus laevis*, and is about 50  $\mu\text{m}$  in length.