

SOMATIC MOSAICISM

It was once believed that our genome was identical across all cells. However, cytogenetics revealed that certain chromosomes can be lost, particularly with aging. The most commonly affected are the Y chromosome in males and the X chromosome in females.

With advancements in technology, especially single-cell characterization, it has become evident that mosaicism—variability in genetic content across cells—is not rare in normal tissues.

Recently, two studies have explored this phenomenon: one examines the brain of individuals with schizophrenia (1), and the other investigates mosaicism in the placenta (2). A third study (3) offers a comprehensive review titled “*Mosaic variegated aneuploidy in development, aging, and cancer.*”

1. <https://www.science.org/doi/10.1126/science.adq1456>
2. <https://obgyn.onlinelibrary.wiley.com/doi/10.1002/pd.6680>
3. <https://www.nature.com/articles/s41576-024-00762-6>