EXPERIMENTAL ANEUPLOIDY IN CANCER

Oncogene or suppressor gene mutations are well studied in cancer. Less is known about aneuploidies because they are less tractable in experimental procedures. Watson et al., in a paper in Nature Genetics (1), have tried to fill this gap. They used normal mammary and renal epithelial cells, immortalized by forcing overexpression of telomerase. They then triggered aneuploidies by disrupting mitosis using reversine.

The complex results were extensively analyzed. The general conclusion the authors propose is that “intrinsic, tissue-specific proliferative effects underlie tumor copy number patterns in cancer”.

In News&Views Guscott and McClelland (2) comment on the strengths and weaknesses of the work, and make suggestions for further experimental developments.

1. https://www.nature.com/articles/s41588-024-01665-2

2. https://www.nature.com/articles/s41588-024-01742-6