

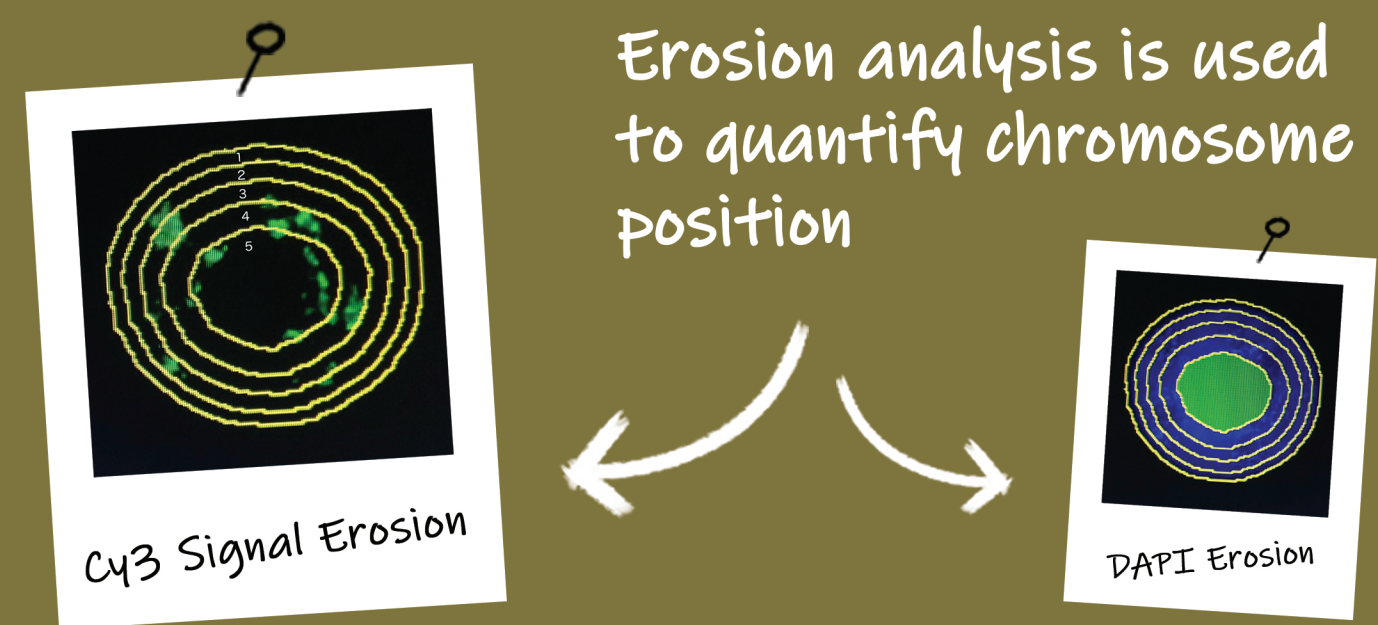
Ovarian Cancer Cytogenomics and Nuclear Motors

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11 women die from ovarian cancer
EVERY DAY

Mapping chromosomes and DNA territories using
Fluorescent in-situ Hybridisation (FISH)

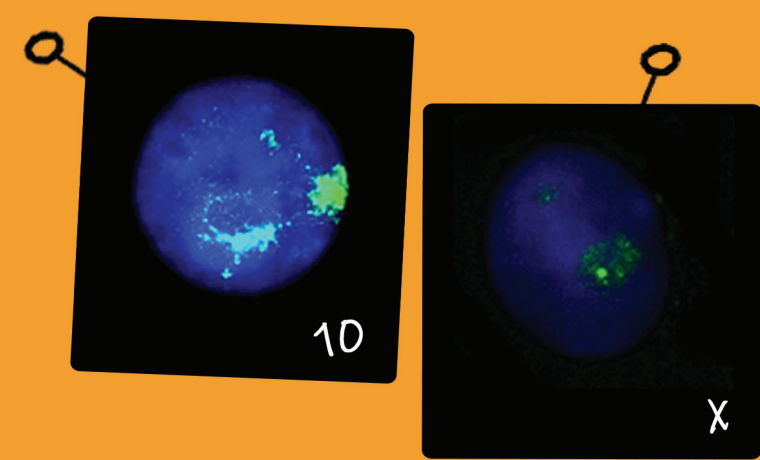


Measure **Nuclear Myosin quantities** and **patterns** using Western Blot and Immunofluorescence

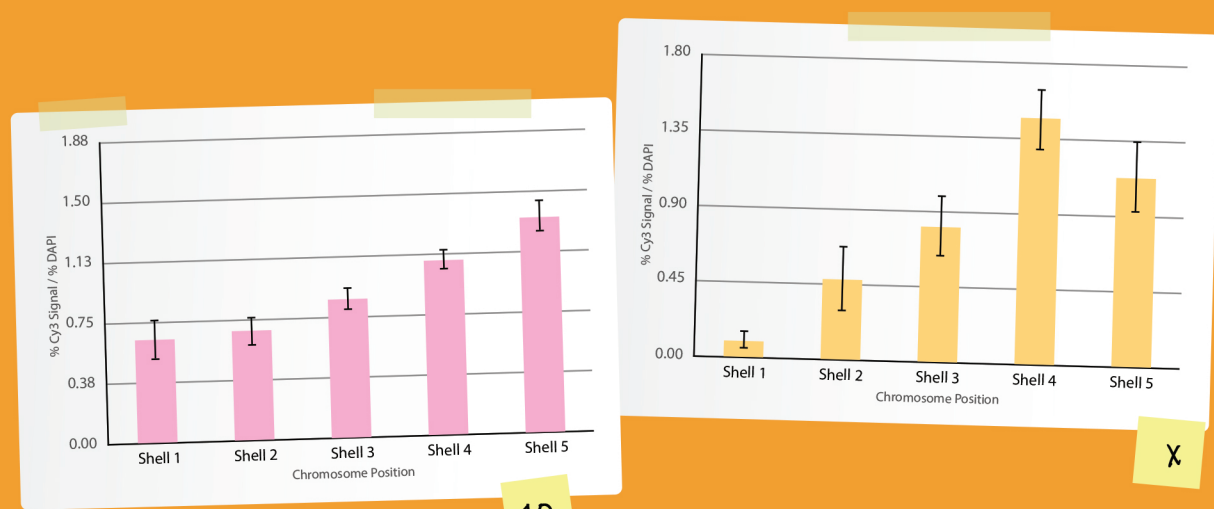
Treatment assays to investigate **combined** therapies with RNA interference and **lower drug doses**

Diagnosing ovarian cancer **earlier** whilst **combating** drug **resistance** and **toxicity** using cytogenomics

Results

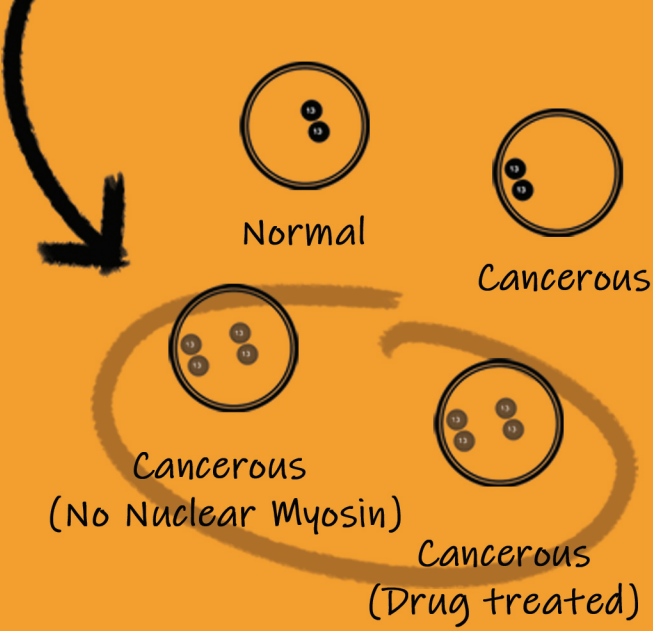


2D radial positioning of chromosome 10 and X imaged using FISH



Chromosome 10 and X occupancy from periphery to interior (1-5)

Do they return to their normal state or re-arrange further to establish resistance?



Conclusion

Genome organisation represents another level of control; an **exploitable mechanism**, in which nuclear motor myosin may play a significant **clinical role** in future diagnostics, prognostics and therapy



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