Research Interests

We are interested in how cancer cells generate and tolerate the extensive chromosomal aberrations (chromosome gains, losses and structural defects – ‘Chromosomal Instability’) observed across the majority of cancer types.

My research group focuses on:

• Mechanisms generating chromosomal instability, currently focussing on high grade serous ovarian cancer as a model.
• Characterisation of novel genes implicated in the initiation of chromosomal instability.
• Understanding mechanisms employed by normal cells to eliminate aneuploid cells, and how these mechanisms are deregulated in cancer to allow the propagation of chromosomally unstable cells.
• Optimising image analysis techniques to streamline the analysis of extensive live and fixed cell images used in our work.

Major Funders

• Cancer Research UK
• Barts and the London Charity Trust
• MRC

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Recent Publications


- **McClelland, S.E.,** Dryden, D.T., Szczelkun, M.D. Continuous Assays for DNA Translocation using Fluorescent Triplex Dissociation: Application to Type I Restriction Endonucleases. *J. Mol. Biol.* 2005