Why focus on Ovarian Cancer

Over 200,000 women a year develop ovarian cancer worldwide and more than half will die of the disease. There is no screening technique, and most patients (~60%) present with advanced disease because symptoms are not easy to recognise or distinguish from other, less serious conditions. This often leads to late or mis-diagnosis. Treatment involves aggressive surgery and platinum-based chemotherapy, and progress in the last 30 years has led to the overall five year survival rate doubling such that more than 40% of women now live for at least five years. However, for the majority who present with advanced disease, more than 70% will die within five years of diagnosis. Therefore, there is a great need to develop new therapies for this disease, based upon greater understanding of its biology.

What we do

• Our focus is on translational research, aimed at developing new treatments for women with ovarian cancer.
• We are investigating the links between cancer and inflammation in the tumour microenvironment of ovarian cancer and how to target them.
• We aim to create accurate models of high grade serous ovarian cancer, the most common subtype.
• Viral gene therapies are being developed.
• We are investigating the interaction of oncolytic viruses with the host immune system.
• We are exploring the relationship between cellular DNA damage repair and adenovirus biology, particularly homologous recombination.
• Novel agents are being tested in Phase I and II clinical trials.
Key Publications

- Boehm et al. Tumour-associated inflammatory cytokines are reduced following primary platinum-based chemotherapy in plasma of high-grade serous ovarian cancer patients. *Eur J Cancer*. 2013; 49, S736-S736.

Who does the research

- **Prof. Fran Balkwill**: Inflammatory cytokines and chemokines in the tumour microenvironment. Ovarian cancer models.
- **Dr. Michelle Lockley**: Adenoviral gene therapy and Inflammation.
- **Dr. Sarah McClelland**: Chromosomal instability.
- **Dr. Peter Szlosarek**: Arginine deprivation therapy.

Major Funders

- Biotechnology and Biological Sciences Research Council
- Cancer Research UK
- European Research Council