

TCS/22/02 - The Use Of JAK Inhibitors As A Novel Treatment For Colon Cancer.

Bowel cancer is the 3rd most diagnosed cancer and there are around 42,000 new cases per year in the UK. The overall 5-year survival rate of bowel cancer is ~60%, however this drops profoundly to 10% in patients with late-stage disease. The primary treatment option for bowel cancer is surgery, however, more advanced disease can also be treated with chemotherapy.

Chemotherapy is broad in nature and does not target the tumour in a patient specific manner. New, targeted therapies are therefore needed to improve patient outcome. We have previously observed that bowel cancer patients with high levels of a protein called STAT3 within their tumour cells have worst prognosis. Targeting the STAT3 pathway using repurposed, clinically approved drugs may offer a new therapeutic approach for treating bowel cancer. The aim of the current proposal is to assess the therapeutic potential of treating patients with drugs that target this pathway in combination with chemotherapy, using clinically relevant models. In addition, biomarkers studies will be performed in patient specimens to ensure appropriate patient selection, increasing patient benefit while decreasing unnecessary toxicity.