

Stratification method for proximal colorectal cancer patients



Available to license: A method for stratifying colorectal cancer patients based on the location and biomarker profile of the tumour.

Oxford researchers have developed a process for classifying CRC tumours allowing for the administration of more targeted therapies, leading to more positive patient outcomes.

Colorectal Cancer

Colorectal cancer (CRC) is widespread in the UK with roughly 40,700 people being diagnosed with CRC in 2010. This is equivalent to more than 110 people every day. Around 1 in 20 people will develop CRC in their lifetime. Treatment of CRC generally involves a combination of surgery and chemotherapy; however, it has been found that some tumours respond poorly to widely used chemotherapeutic agents.

Personalised Medicine

In patients with CRC the location and genetic profile of the tumour drastically affects their prognosis. Accurate characterisation of these tumours through biomarker analysis allows for the administration of more personalised therapies. For this to be possible, new methods are required to differentiate these CRC subtypes.

Molecular Stratification

Oxford researchers have identified a proximal, IL22RA1^{high}, KRAS mutant molecular CRC subtype. The presence of these biomarkers dramatically worsens the prognosis for patients with proximal CRC. In KRAS mutant tumours, IL-22 promotes both chemoresistance and clonogenic outgrowth. Due to this, the group proposes an alternative CRC treatment based on anti-IL-22 monoclonal antibody therapy.

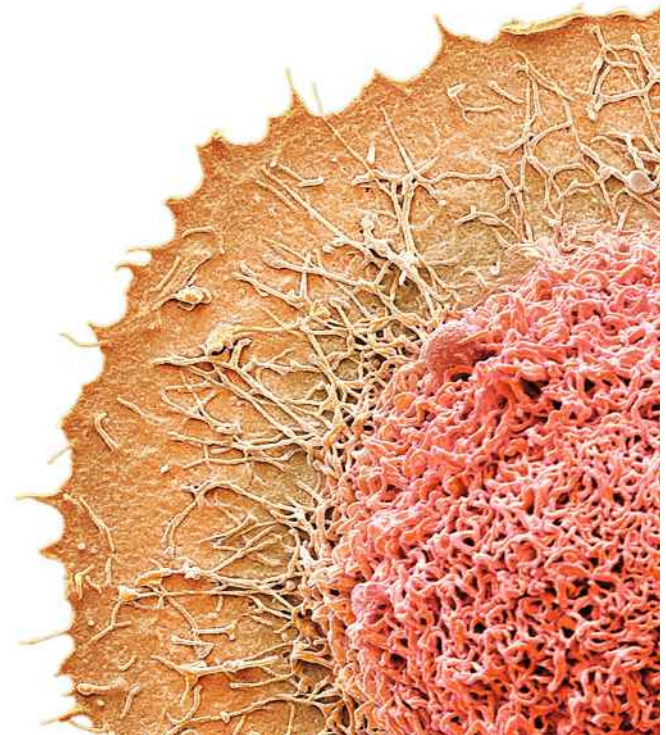
The benefits of this molecular stratification include:

- Identification of CRC subtype with poor prognosis
- Allows adaptation of the treatment administered
- New avenues for treatment of the CRC subtype

This stratification method provides insight into a subtype of CRC potentially allowing for more effective treatment for patients with proximal CRC. This approach may also be applied to other cancer types.

Commercialisation

This technology is subject to a patent application. Oxford University Innovation would like to speak to companies interested in licensing and developing this technology.



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Technology Transfer from the University of Oxford

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