

Blood-based biomarkers for colon cancer

Value Proposition

Of cancers that affect both men and women, colorectal cancer is the second leading cancer killer in the United States. Agents that inhibit either VEGF signaling pathways or mitogenic signaling through the epidermal growth factor receptor (EGFR) pathway are among the most widely used targeted therapeutics in oncology. Bevacizumab, an antibody against vascular endothelial growth factor A (VEGF-A), and cetuximab, an antibody against the extracellular domain of EGFR, are both approved as treatments for various types of cancer. However, predictive and prognostic biomarkers are still needed to direct selection of the ideal therapeutic regimen for any individual patient.

Technology

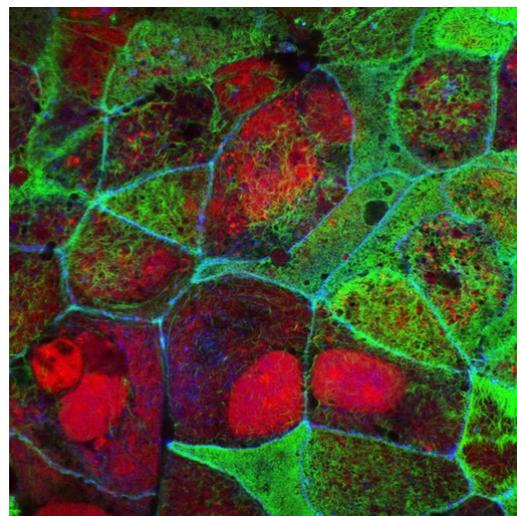
Duke researchers have reported a method for predicting the responsiveness of using a VEGF targeting agent to treat a patient with cancer, including colorectal cancer. This is intended to be used by the patient, by medical providers, by researchers, and by others interested in patient outcomes. This method uses identified markers that can be measured in a blood sample from the patient. The researchers have demonstrated that this method independently predicts the outcome for patients with metastatic colon cancer treated with chemotherapy and a VEGF inhibitor.

Other Applications

This information may potentially apply to predicting outcomes for patients with other stages of colon cancer and to other treatment regimens for colon cancer that use other cytotoxic, other anti-angiogenic, and other targeted therapies, as well as supportive care therapies. This information may also apply to other cancers and to the cytotoxic, antiangiogenic, targeted therapies, and supportive care used for their treatment.

Advantages

- Enables a personalized-medicine approach to the treatment of cancer, including colorectal cancer
- Discerns a minority population likely to respond to VEGF targeting therapy
- Allows patients who are not responsive to receive alternative treatments which may be more effective



Duke File (IDF)

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Inventor(s)

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- Owzar, Kouros
- Sibley, Alex
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Links

- [From the lab of Dr. Andrew Nixon](#)

College

School of Medicine (SOM)

For more information

Publications

- Blood-based biomarkers in patients (pts) with metastatic colorectal cancer (mCRC) treated with FOLFOX or FOLFIRI plus bevacizumab (Bev), cetuximab (Cetux), or Bev plus Cetux: Results from CALGB 80405 (Alliance) (2016)

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