



FGF14- A game changer in the personalised treatment of patients with colorectal cancer

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Abstract:

Overexpression of fibroblast growth factor (FGF) in patients with colorectal cancer is usually associated with tumour development, however, there is fresh evidence for a tumour suppression role by FGF14. This dual activity opens new diagnostic opportunities for early screening of FGF biomarkers for the individualisation of therapies. Currently, there is a little known about FGFs and whether it will be worth implementing them as a prognostic tool for cancer treatment? Colorectal cancer (CRC) is the second leading cause of cancer death in both sexes in the United States. Among sites of the digestive system, the colon and rectal cancers were estimated to cause 51,020 deaths in 2019. Unfortunately, the mechanism underlying the development of cancer is extremely complex and heterogeneous, so early detection and use of 'omics' technologies are currently the best options to contribute to treatment success. Patients with CRC have been reported to potentially overexpress most of the known FGFs at the late stages contributing to differentiation and proliferation of cancer cells. Therefore, different approaches for blocking the FGF pathway with multikinase inhibitors and antibodies have been reported as targeted therapeutics. To this day, there are 3 FDA approved kinase inhibitors, among which only one multikinase inhibitor for the metastatic colon cancer- egorafenib that targets a number of tyrosine kinases including the FGF receptor 17. Such kinase therapies have shown unexpected toxicities that can be successfully avoided by applying a personalised approach with the help of cancer biomarkers. Among antibody therapies, there are four monoclonal antibodies that bind to VEGF and EGFR are widely used in CRC in combination with chemotherapy or radiation therapy.



Biography:

Anna has been recently graduated from the University of East Anglia with a first class in the Pharmacology and Drug discovery Bsc. Pharmacology is a highly intensive, research and business studies focused degree, and having such degree means being able to understand the world of management and key concepts of the pharmaceutical industry. Graduation with such a degree and experience, that Anna achieved during her studies, demonstrate excellent teamwork, negotiation and communication skills. Anna has a drive and potential to reveal herself to new challenges and develop expert skills by working within pharmaceutical industry.

Recent Publications:

1. Rehab F. Abdel-Rahman, et al *Metab Brain Dis* 2020.
2. Rehab F. Abdel-Rahman, et al *Epilepsy Behav* 2020.
3. Rehab F. Abdel-Rahman, et al *Saudi Pharm J* 2020.
4. Rehab F. Abdel-Rahman, et al *Pharmacol Rep* 2019.
5. Rehab F. Abdel-Rahman, et al *Saudi Pharm J* 2019

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