

Genetic aberration paves the way for new treatment of cancer disease

November 6 2013

(University of Copenhagen) Researchers from Faculty of Health and Medical Sciences, University of Copenhagen, have characterized a genetic aberration on a group of colorectal cancer patients. The discovery gives hope for a new and efficient treatment of colorectal cancer, which is a frequent and often fatal disease. The research was recently published in *Scandinavian Journal of Gastroenterology*.

12-15 years of development and millions of dollars are typically the costs, when companies develop a new anti-cancer drug. Therefore all short cuts to a [treatment](#) are welcome. Researchers at Department of Veterinary Disease Biology, University of Copenhagen, recently discovered such a potential short cut.

"Our new research shows, that we might be able to introduce a treatment faster and cheaper than usual in the development of cancer treatment, and we estimate that it will be efficient in around 10 per cent of patients with colorectal cancer," says MD and PhD student Sune Nygård, Department of Veterinary Disease Biology, University of Copenhagen.

Re-use of existing breast cancer treatment

In the new study the researchers have shown that around 10 per cent of colorectal cancer patients harbor an aberration in the gene called TOP2A in their cancer cells. These tumors could potentially benefit from treatment with a specific chemotherapeutic drug – a so-called "anti-

TOP2A treatment", which is already used in [breast cancer patients](#) with this gene aberration.

Clinical study begins

Approximately 600,000 patients die of colorectal cancer each year worldwide.

"If the first treatment doesn't cure a patient with [colorectal cancer](#), the possibilities of additional treatment are limited," says Nils Brüner, MD, professor at University of Copenhagen.

"Therefore it is very important to find a new, efficient treatment," he adds.

The research group from the Department of Veterinary Disease Biology and professor Per Pfeiffer at Odense University Hospital have received funds from The Danish Cancer Society to initiate a clinical trial. Here it will be tested, if patients with the TOP2A gene defect could benefit from the targeted anti-TOP2A treatment.

"It is unique to go from a discovery in the laboratory towards a treatment for [cancer patients](#) at this pace. This is only possible when researchers and doctors work closely together," says Nils Brüner, University of Copenhagen.

Provided by University of Copenhagen

Citation: Genetic aberration paves the way for new treatment of cancer disease (2013, November 6) retrieved 6 May 2024 from <https://medicalxpress.com/news/2013-11-genetic-aberration-paves-treatment-cancer.html>

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