

Protein molecule may offer method for treating untreatable cancers

22 January 2014, by Mattie Bekink

The effective treatment of cancer requires the ability to destroy cancerous cells. Nearly one-third of all cancers today involve mutations of the Kras gene, which has proven resistant to existing cancer treatments. The current prognosis for patients with mutant Kras cancers is poor because there is no effective treatment. However, recent analysis by Valerie Wells of NYU London and Livio Mallucci of King's College London may present a new method to combat these untreatable cancers.

In a feature article in *Drug Discovery Today*, Wells and Mallucci discuss the current therapeutic strategies and their limitations, highlighting a new way forward using the recombinant form of a physiological protein molecule, beta-GBP, which has proven to be effective against human Kras-driven tumors in animal models.

There are several significant aspects to their discovery. First, the beta-GBP molecule they have identified kills mutant Kras and other cancer cells by activating alternative routes to destroy cancer while leaving normal cells unharmed. Second, the beta-GBP molecule is naturally occurring in the body and therefore would avoid the complexity of current combinatorial therapies and the issues of drug resistance, toxicity and all side effects experienced with chemotherapy. Finally, translation of beta-GBP to the clinic, facilitated by its physiological nature, could open a new therapeutic opportunity representing a significant step forward in the treatment of cancers resistant to all current methods.

More information: Livio Mallucci, Valerie Wells, "The end of KRAS and other cancers? A new way forward." *Drug Discovery Today*, Available online 27 November 2013, ISSN 1359-6446, dx.doi.org/10.1016/j.drudis.2013.11.018.

Provided by New York University

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