

Taking cancers apart ‘piece-by-piece’ in search for vulnerabilities that could be attacked with precision medicine

Scientists have taken cancer apart piece-by-piece to reveal its weaknesses, and come up with new ideas for treatment. A team at the Wellcome Sanger Institute disabled every genetic instruction, one at a time, inside 30 types of cancer.

It has thrown up 600 new cancer vulnerabilities and each could be the target of a drug.

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The study heralds the future of personalised cancer medicine. At the moment drugs like chemotherapy cause damage throughout the body.

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One potential target is “Werner syndrome RecQ helicase” also known more simply as WRN. The research team found it was essential for keeping some of the most genetically unstable cancers alive.

WRN plays a vital role in around 15% of colon cancers and 28% of stomach cancers, but there are no drugs that target it.

The work was a collaboration between Sanger, the European Molecular Biology Laboratory and pharmaceutical giant GSK. All the findings are publicly available.

The eventual aim of the research is to develop a “Cancer Dependency Map” of every vulnerability in every type of cancer. Then doctors would be able to test a patient’s tumour and give them a cocktail of precision drugs to kill the cancerous cells.

Read full, original post: [‘Dismantling cancer’ reveals weak spots](#)