

Fed: Cancer cells may hold the key to immortality

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By Janelle Miles, National Medical Correspondent

BRISBANE, March 18 AAP - Scientists believe they may be able to significantly increase people's lifespans by learning why cancer cells are immortal.

Brian Morris, a professor of molecular medical sciences at the University of Sydney, said cultures of cancer cells in laboratories across the world had been kept alive for decades.

"They never die. They'll go on forever," he said.

"Cancer cells survive at the expense of every other cell in the body.

"The cancer cells take all the nutrients and the rest of the body goes through organ failure and death."

Prof Morris said a molecule in cancer cells called telomerase which prevented the degradation of telomeres - or protective caps at the end of chromosomes - was believed responsible for keeping the cells alive.

"Some people suggest that by overexpressing telomerase in all cells in the body, maybe we could make humans ... immortal," he said.

"If it can be applied in a totally regulated, controlled manner to all cells of the body, we could massively extend the human lifespan.

"That's very simplistic. Obviously there's going to be a lot more to it than that, but it's a good theoretical start."

Prof Morris will address the three-day International Conference on Healthy Ageing and Longevity in Brisbane which began today.

He said scientists were starting to find variations in genes among people who live to 100 which may assist longevity.

For example, a variation in the microsomal triglyceride transfer protein (MTP) gene has been frequently found in centenarians.

"People with a variation ... that causes low expression of the gene seem to live longer," Prof Morris said.

He said garlic had also been shown to suppress MTP.

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