



Cancer could hold key to immortality

By JANELLE MILES

SCIENTISTS believe they may be able to significantly increase people's life spans 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 life span.

"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 an International Conference on Healthy Ageing and Longevity in Brisbane which began yesterday.

He said variations in genes were found in people who live to 100. For example, a variation in the microsomal triglyceride transfer protein gene often had been found in centenarians.