



• CELL RESEARCH

Cancer may hold key to immortality

Scientists believe they may be able to significantly increase people's lifespan by learning why cancer cells are immortal.

University of Sydney molecular medical sciences professor Brian Morris 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 the nutrients and the body goes through organ failure and death."

Morris said a molecule in cancer cells called telomerase, which prevented the degradation of telomeres – or chromosome protective caps – 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," Morris 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 simplistic. Obviously there's going to be a lot more to it than that, but it's a good theoretical start."

Morris will address the Inter-

national 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.

For example, a variation in the microsomal triglyceride transfer protein gene is often found in centenarians.

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