



Who wants to live forever?

Biologists have created a baker's yeast that lives to the age of 800 in yeast years without side effects. The important discovery, made through changes in diet and genetics, brings science closer to controlling the survival of the unit of all life: the cell. "We're setting the foundation for reprogramming healthy life," said one scientist.

The research group put baker's yeast on a calorie-restricted diet and knocked out two genes that promote aging in yeast. "We got a 10-fold life span extension that is, I think, the longest one that has ever been achieved in any organism," said the scientist. Normal yeast cells live for about a week.

Baker's yeast has led to the discovery of some of the most important genes that control aging and disease in mice and other mammals. One recent study reported that a mouse with a gene mutation lived 30 percent longer than normal and was also protected against heart and bone diseases without side effects.

Scientists also plan to study a human population in Ecuador. Finding drugs to extend the human life span without side

effects will not be easy, he said. "Maybe it will do nothing, but having nothing else, I think it's certainly a good thing to try," said the scientist.

In the study, scientists identified a link between the genes that control life span for yeast and mammals and those involved in life span extension due to calorie restriction. Calorie restriction, which is a type of controlled starvation, has been shown to reduce disease and extend life span in species from yeast to mice. Scientists believe that a nutrient shortage kicks organisms into a maintenance mode, enabling them to re-direct energy from growth and reproduction into anti-aging systems until the time they can feed again.

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Will we one day have a drug that can reverse aging?

