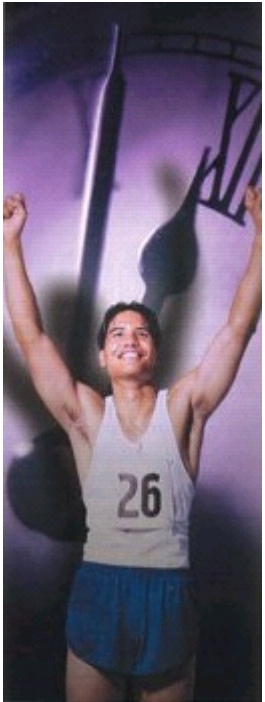


LE Magazine November 1999

## As We SEE IT

A RACE  
AGAINST TIME



In this issue of *Life Extension* magazine, we discuss a recent breakthrough in aging research by Richard Weindruch and Tomas Prolla of the University of Wisconsin in Madison. Our interview with Drs. Weindruch and Prolla (p. 52) first appeared on our web site ([www.lef.org](http://www.lef.org)) on the day (August 27) their paper was published in *Science*, Vol 285, No. 5432, p 1390 - 1393, 1999.

Dr. Weindruch (and Dr. Steve Spindler of the University of California at Riverside) are Co-Directors of The Foundation's LifeSpan Project, in which we are investigating the effects on aging and lifespan of various nutrients, drugs and hormones. Funding for the *Science* study came from other sources.

The Weindruch-Prolla breakthrough is, in essence, a new scientific method to study aging (and aging intervention), which will revolutionize the field. It involves the use of high-tech gene chips (in this case, developed by Affymetrix of Santa Clara, California) to probe changes in gene expression with advancing age in both normally-fed and calorically-restricted (CR) mice.

Caloric restriction is the only established method of slowing aging and extending maximum lifespan. Weindruch and Prolla have found that many changes in genetic expression in aging animals are prevented in CR mice. Their method will enable scientists to acquire full understanding of why and how CR slows aging, which will, in turn, enable them to develop therapies to slow aging in other ways. The Weindruch-Prolla method will also enable scientists to validate methods of measuring aging over relatively short periods of time. This means that we may soon be able to evaluate quickly (through gene expression) whether potential anti-aging therapies work or don't work in humans.

An example of how this new technology might be applied is the European drug centrophenoxine. Some scientists believe this drug may slow human aging. This is based upon at least two studies showing that centrophenoxine extended lifespan in laboratory mice, as well as evidence that it can improve mental function in aging patients. With this new measurement technology, we might be able to discover in a matter of weeks (for very little money) how and to what extent centrophenoxine affects human aging, instead of having to conduct extremely expensive large-scale clinical trials for decades! Weindruch and Prolla will be continuing their search for the secrets of aging for Mitos, a new, privately-funded biotech company. What's most exciting about their approach to aging research is that it can now be used by scientists throughout the world to accelerate progress in finding authentic anti-aging therapies.

At The Foundation, we have our own ideas about how to use gene chips and other advanced biotechnologies to hasten progress in slowing and reversing human aging. We will be pursuing an innovative plan to conquer aging through 21st Century Medicine ([www.21CM.com](http://www.21CM.com)), our biotech company in Rancho Cucamonga, California. We'll be providing you with further information about this plan in the near future.

In the past year, I've been working around-the-clock to help develop 21CM's revolutionary technologies to combat aging, disease and death. This summer, I turned 60. Because of recent advances, such as the Weindruch-Prolla breakthrough, I am more optimistic than ever that we're truly on the way to a radically-extended, healthy human lifespan. It is a race against time, however. . . A race that we simply have to win! With your continued help-in the form of membership dues donations and product purchases-we can and will win!

Saul Kent  
President  
Life Extension Foundation

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