BIOMARKER PHARMACEUTICALS, INC.

PRESS RELEASE

Scientists Discover Anti-Aging Effects of Diabetes Drug

Campbell, Ca., April 23, 2003 – A drug used to treat diabetes has been found to produce anti-aging effects similar to those of caloric restriction (CR), an experimental method that retards aging, prevents age-related diseases, prolongs youth, and extends life span.

Researchers at BioMarker Pharmaceuticals have discovered that metformin can mimic changes in gene expression found in calorically-restricted mice, which live longer than normally-fed mice. Metformin has also been found to extend life span in mice by 20%.

"The discovery that a clinically-used drug produces genetic effects similar to those of CR is an unprecedented breakthough," said Saul Kent of the Life Extension Foundation, a non-profit organization that educates the public about advances in health and longevity. A report on BioMarker's research can be found on LEF's web site (www.lef.org).

CR is a difficult regimen to apply in humans. BioMarker's goal is to develop therapies that mimic the effects of CR to enable people to live longer, healthier lives. Until recently, the only accepted method of evaluating therapies for their anti-aging effects was their ability to extend maximum life span. However, life span studies take a long time.

"Monkeys and humans live for such long periods of time that any attempt to determine whether a therapy can extend life span takes decades or more," said Dr. Stephen Spindler, a Professor of Biochemistry at the University of California, Riverside and Chairman of BioMarker's Scientific Advisory Board.

To combat this problem, BioMarker uses high-density DNA microarrays (gene chips) to detect gene expression quickly in thousands of genes at a time. BioMarker has found that 70% of the gene expression changes in aging mice are reversed in only 2-to-4 weeks in CR mice. By comparing gene expression in metformin-treated animals with gene expression in CR animals, BioMarker discovered that metformin might be an anti-aging drug.

For more information about BioMarker Pharmaceuticals visit www.biomarkerinc.com.

To arrange for an interview with Dr. Stephen Spindler or others at BioMarker,

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