



## **HUMAN STUDY SHOWS PROTANDIM® PROVIDES A FUNDAMENTALLY NEW APPROACH TO ANTIOXIDANT THERAPY**

### **New scientific data demonstrate Protandim® improves the body's natural ability to reduce oxidative stress by increasing activity of antioxidant enzymes**

**DENVER, Colo. (Jan. 17, 2006)** — Lifeline Therapeutics, Inc. (OTCBB: LFLT) announced data from a human study just published in the scientific journal, *Free Radical Biology & Medicine* (Jan. 15, 2006), demonstrated Protandim® was able to reduce oxidative stress in men and women. Oxidative stress results when the balance between oxidants and antioxidant enzymes is upset. Oxidative stress, which many authorities believe is central to the cellular aging process, increases as we age. Furthermore, there are over a thousand scientific research studies indicating that high oxidative stress is associated with various diseases.

Protandim®, a patent-pending dietary supplement product consisting of five naturally occurring plant ingredients, significantly reduced harmful oxidants by inducing the body to produce more of its own antioxidant enzymes. The study measured the levels of TBARS (thiobarbituric acid–reactive substances), harmful substances created when cells are damaged by oxidation, in 29 subjects. People taking Protandim® experienced reduced oxidative stress, as demonstrated by reducing the amount of TBARS circulating in the blood by an average of 40 percent. This reduced oxidative stress occurred as a result of significantly increasing the activity of antioxidant enzymes that naturally help regulate healthy oxidative balance.

"These results represent a whole new approach to antioxidant therapy," said senior study author Joe M. McCord, Ph.D., professor of medicine at the University of Colorado Denver Health Sciences Center. "Our review of the literature has found that studies with traditional antioxidant compounds have failed to eliminate the age-related increase in oxidative stress that we have seen in this study, suggesting that Protandim® may offer a much more efficient way to reduce oxidative stress."

### **Oxidative stress and its effects in the body**

Oxidants, which include free radicals, are toxic by-products of human cells as they produce energy to perform their specific metabolic functions. Oxidants are neutralized or detoxified by naturally occurring antioxidant enzymes within cells, including superoxide dismutase and catalase (SOD and CAT). Oxidative stress results when there is a disruption in the balance between oxidants and antioxidant enzymes.

One specific measure of oxidative stress is TBARS, harmful products of lipid (fat) oxidation found in the blood. Lower levels of TBARS are seen in healthy and younger individuals. As people age, and in certain diseases, the amount of TBARS circulating in the blood increases, indicating elevated oxidative stress levels.

### **Protandim® study results**

In this study, before starting Protandim®, study participants, who ranged in age from 20 to 78, showed a strong age-related increase in TBARS. After 30 days of taking Protandim®, a 40 percent average decrease in TBARS was seen, and the age-related increase was eliminated. By 120 days of supplementation, Protandim® also significantly increased activity of SOD and CAT antioxidant enzymes by 30 percent and 54 percent, respectively.

"These results show not only that specific harmful substances can be decreased by Protandim®, but that oxidative stress can be reduced by a natural process, increasing the body's ability to get rid of the harmful substances by increasing the activity of antioxidant enzymes," said Dr. McCord.

Much more is being learned about the relationship of oxidative stress with the cellular aging process and with certain diseases. A recent review of multiple studies concluded oxidative stress is strongly associated with the cellular aging process.<sup>1</sup> Furthermore, a recent study concluded that TBARS may be a predictor of cardiovascular events in patients with stable coronary artery disease.<sup>2</sup> "As we learn more about the effects of oxidative stress on cellular aging and certain diseases, we can begin to think about new approaches to maintaining low levels of oxidative stress for long-term health," said Rajindar Sohal, Ph.D., professor of molecular pharmacology and toxicology at the University of Southern California, and a researcher in oxidative stress.

Stephen Onody, chief executive officer of Lifeline Therapeutics, makers of Protandim®, commented on Lifeline Therapeutics' corporate approach to the science of oxidative stress. "We believe today's consumers of dietary supplements are asking for

more scientific data to demonstrate the value of the products they choose. It is our goal to continue supporting research not only to help differentiate Protandim® as a unique approach to antioxidant therapy, but also further define the science behind oxidative stress."

The paper in its entirety will be posted to [www.protandim.com](http://www.protandim.com) upon availability.

## References

1Junqueira, V. B.; Barros, S. B.; Chan, S. S.; Rodrigues, L.; Giavarotti, L.; Abud, R. L.; Deucher, G. P. Aging and oxidative stress. *Mol. Aspects Med.***25**:5–16; 2004.

2 Walter, M. F.; Jacob, R. F.; Jeffers, B.; Ghadanfar, M. M.; Preston, G. M.; Buch, J.; Mason, R. P. Serum levels of thiobarbituric acid reactive substances predict cardiovascular events in patients with stable coronary artery disease: a longitudinal analysis of the PREVENT study. *J. Am. Coll. Cardiol.***44**:1996–2002; 2004.

## About Joe M. McCord, Ph.D.

Dr. McCord currently serves as professor of medicine at the University of Colorado Denver Health Sciences Center and also is director of science for Lifeline Therapeutics. In 1969, Dr. McCord, together with Irwin Fridovich, discovered superoxide dismutase (SOD), spawning an avalanche of research. For this work, he and Fridovich were awarded the Elliot Cresson Medal. In 1997, Dr. McCord received a lifetime achievement award from the Oxygen Society for outstanding contributions to the field of free radical biology and medicine. Dr. McCord is president of the International Society of Antioxidants in Nutrition and Health (ISANH), and he serves on the editorial board of the journal *Free Radical Biology & Medicine*. Dr. McCord beneficially owns 1.6 million shares of Lifeline Therapeutics common stock.

## About the *Free Radical Biology & Medicine Journal*

*Free Radical Biology & Medicine* is the official journal of the Society for Free Radical Biology and Medicine, and is an affiliate journal of the International Society for Free Radical Research. The peer-reviewed journal is one of the highest impact factor journals in the field and is listed by all the major indexing services, including *Current Contents*, *Index Medicus*, *Science Citation*, *Chemical Abstracts*, and *Current Awareness in Biological Sciences and Toxicology Abstracts*. The journal encompasses chemical, biochemical, genetic, molecular biology, cell biology, cell signaling, physiological, pharmacological, pathological, toxicological, and medical approaches to oxygen and free radical research.

## About Lifeline Therapeutics

Lifeline Therapeutics, Inc., is a publicly traded company (OTCBB: LFLT) based in Denver, Colo., that markets Protandim®, a patent-pending dietary supplement that increases the body's natural antioxidant protection. Lifeline Therapeutics is committed to helping people achieve health and wellness... for life.

Oxidative stress (cell damage caused by free radicals) occurs as a person ages or is subjected to stresses such as certain illnesses. TBARS are harmful, reactive substances that indicate the level of oxidative stress in the body. New data from a scientific study in men and women show that after 30 days of taking Protandim®, the level of circulating TBARS decreased an average of 40 percent, and the age-related increase in TBARS was eliminated. Protandim® strengthens a person's defenses against oxidative stress by increasing the body's natural activity of antioxidant enzymes.

For more information, please visit the Protandim® product Web site at [www.protandim.com](http://www.protandim.com).

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Except for historical information contained herein, this document contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and applicable common law. These statements involve known and unknown risks and uncertainties that may cause the Company's actual results or outcomes to be materially different from those anticipated and discussed herein. Further, the Company operates in industries where securities values may be volatile and may be influenced by regulatory and other factors beyond the Company's control. Other important factors that the Company believes might cause such differences include the Company's limited cash flow and the rapid development of technology, lack of liquidity for the Company's common stock, working capital shortages, the length of time for scientific advances to reach the market (if they ever reach the market), among other risks. In assessing forward-looking statements contained herein, readers are urged to carefully read all cautionary statements contained in the Company's filings with the Securities and Exchange Commission.

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