

LE Magazine December 2003

## AS WE SEE IT

### The Crumbling Walls of Medical Ignorance



A rebellion is taking place within the citadels of establishment medicine, as leading physicians and scientists come to the realization that doctors are failing to translate research discoveries into lifesaving therapies.

An article published in the *New England Journal of Medicine*<sup>1</sup> exposes how doctors overlook proven methods of preventing and treating disease. The author, Claude Lenfant, M.D., is director of the National Heart, Lung and Blood Institute. This huge government agency funds numerous clinical studies aimed at finding better ways to treat cardiovascular and pulmonary diseases. While Dr. Lenfant acknowledges that gains have been made in disease prevention and treatment, he is highly critical of doctors who fail to incorporate the latest findings in their everyday practice.

Dr. Lenfant questions whether Americans have enjoyed the maximal return on the more than \$250 billion of medical research the National Institutes of Health has funded since 1950. He points out that life expectancy in the U.S. lags behind that of 22 other countries and attributes this to doctors and their patients "not applying what we know."



William Faloon

Indeed, Dr. Lenfant notes that growing numbers of experts are becoming aware that research findings are not being translated into medical practice or lifestyle changes.

The *New England Journal of Medicine* is one of the world's most prestigious scientific publications. It is considered a bastion of the medical establishment. The fact that the *New England Journal of Medicine* published this meticulous article about the failings of conventional medicine provides further evidence that today's health care is in urgent need of reform.

#### Failure to Treat Acute Heart Attack

Sudden-death heart attack most often occurs when a coronary artery is blocked by a blood clot, or when a piece of unstable atherosclerotic plaque ruptures to obstruct coronary artery blood flow. In the 1980s, drugs became available to dissolve a coronary artery clot, but emergency room doctors were slow to catch on, and many heart attack victims needlessly died.



As reported in Life Extension's new *Disease Prevention and Treatment* book, current research reveals that emergency coronary angioplasty is more effective than clot-busting drugs in saving heart attack patients' lives. One reason for this may be that the angioplasty procedure enables coronary arteries to be re-opened whether they are blocked by a blood clot or a ruptured piece of atherosclerotic plaque. Clot-busting drugs (fibrinolytics), on the other hand, are only effective in opening coronary arteries occluded by blood clots.

In his *New England Journal of Medicine* article, Dr. Lenfant cites shocking data that in the last quarter of 2002, nearly 33% of all patients nationwide who presented with an acute heart attack at a hospital emergency room received neither angioplasty nor clot-busting therapies.<sup>2</sup> In other words, about one-third of emergency room doctors watched heart attack patients suffer and die while proven therapies available to save their lives went unused! This failure to translate research findings into clinical practice is therefore not an issue of a lack of fine-tuning medical abilities, but much more importantly a growing cause of patient morbidity and mortality. In today's world

#### Ignoring Proven Scientific Findings

To document his assertion that doctors are not keeping up with proven research findings, Dr. Lenfant points out three startling gaps between the time when medical discoveries were made and their implementation into clinical practice.

#### Landmark Advances IGNORED

These advances shown to save human lives are grossly underutilized, resulting in needless deaths.

Dr. Lenfant's first example of this time lag is the delay in recognizing the value of beta-blocker drugs. This class of drug was conclusively established to save the lives of recovering heart attack patients in 1981.<sup>3</sup> Yet by 1996, beta-blockers were being prescribed to only 62.5% of eligible patients, 15 years after their efficacy was proven.<sup>4</sup>

The Life Extension Foundation long ago cited the FDA's failure to approve beta-blockers as causing millions of needless American deaths. While Europeans were benefiting from beta-blockers in 1965, the FDA did not approve beta-blockers for the treatment of hypertension and angina until 1978.<sup>5-6</sup> In his article, Dr. Lenfant reveals that 37.5% of patients were not benefiting from beta-blocker drugs as late as 1996 (31 years after they were first approved in Europe).

1. Use of beta-blockers to prevent second heart attacks.
2. Screening for hypercholesterolemia and properly treating with cholesterol-lowering drugs after heart attack.
3. Failure to use aspirin in patients at high risk for coronary artery disease before and after heart attack.

Dr. Lenfant's second example of doctor-ignored research is a study showing that only 50-75% of heart attack patients are screened for high cholesterol levels (hypercholesterolemia), let alone prescribed proper cholesterol-lowering medications.<sup>7</sup> We at Life Extension hear this all the time from new members who survived their first heart attack. In other words, after emergency treatment in the hospital, little effort is made to identify and correct the underlying reasons that caused the heart attack to occur in the first place.

*"Given the ever-growing sophistication of our scientific knowledge and the additional new discoveries that are likely in the future, many of us harbor an uneasy, but quite realistic suspicion that this gap between what we know about diseases and what we do to prevent and treat them will become ever wider. And it is not just recent research results that are not finding their way into clinical practice and public health behaviors; there is plenty of evidence that 'old' research outcomes have been lost in translation as well."*

—Claude Lenfant, M.D.

"Clinical Research To Clinical Practice—Lost In Translation?"  
New England Journal of Medicine, August 28, 2003

Dr. Lenfant's third example of doctor neglect is the failure to use aspirin as a cardiovascular drug. Overwhelming evidence demonstrates that aspirin is highly effective as a short-term therapy for acute heart attack and as a preventive therapy in those with cardiovascular disease.<sup>8</sup> Despite these findings, Dr. Lenfant cites two large studies showing that as late as 2000, aspirin was prescribed to only 33% of patients with coronary artery disease.<sup>9</sup>

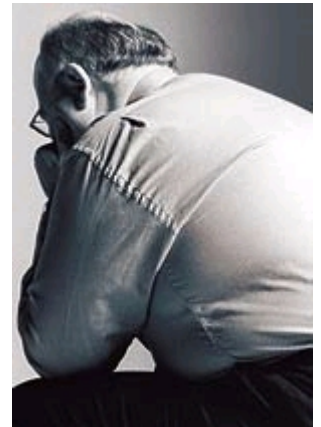
It was in 1983 that the Life Extension Foundation recommended low-dose aspirin to prevent heart attacks.<sup>10</sup> Not only did the medical profession soundly reject this recommendation, but the FDA initiated draconian actions to make sure the public was not informed about aspirin's cardiovascular benefits.

Dr. Lenfant states that these three simple examples "show that we have a problem in getting providers (doctors) to apply knowledge gained through research."

### Overlooking the Obvious

Obesity has become an epidemic that threatens to undo decades of progress in reducing coronary heart disease incidence. Despite widespread publicity, Dr. Lenfant describes a 1999 study in which only 42% of 12,835 obese adults were advised by their physicians to lose weight.<sup>11</sup>

While out-of-hospital coronary heart-disease deaths have declined in people aged 35 to 64,<sup>12-15</sup> the elderly are suffering epidemic levels of stroke<sup>16-21</sup> and heart disease.<sup>22-25</sup> The aging process and obesity inflict many pathological changes that increase the odds of suffering a cardiovascular event. Now, those over age 70 are suffering the brunt of heart and vascular-related disorders. Conventional doctors, however, are overlooking proven methods to reduce cardiovascular disease incidence in this population. Some simple ways of cutting heart attack and stroke incidence in the elderly involve testing their blood for C-reactive protein, homocysteine, fibrinogen, etc., and taking steps to reduce these levels if they are elevated.



In another example of physician neglect, a 1999 study of 9,299 people reported that only 34% had been counseled about exercise during regular visits to their physician.<sup>26</sup>

### Doctors Are Not Solely to Blame

While it is easy to point to physician shortcomings, patients who fail to assume responsibility for their health are also the cause of research findings not being optimally utilized to save lives.

Dr. Lenfant points to a study of coronary artery disease patients who were all prescribed aspirin by their doctors. A follow-up questionnaire showed that only 60% of these patients took their prescribed daily aspirin in 1995, though this number increased to 80% by 1999.<sup>27</sup>

Controlling hypertension is one of the best-proven disease- prevention strategies, yet Dr. Lenfant points to studies showing that rates of blood-pressure control in hypertensive patients are shockingly poor. One study found that 47% of patients failed to take their antihypertensive medications as prescribed.<sup>28</sup> Compounding this problem are doctors who do not prescribe the best anti-hypertensive therapies. For example, Gerald Reaven, Professor Emeritus (Active) of Medicine at Stanford University, states that it is vital that every healthy-heart program address the hypertension/SyndromeX association or little success in shielding hypertensive patients from heart attack can be expected.<sup>29</sup> The results of inappropriate prescribing and patient irresponsibility are enormous numbers of needless strokes and other hypertension-related illnesses.

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To encourage more physician vigilance, Dr. Lenfant cites a study showing that very careful monitoring and appropriate adjustment of the treatment regimen resulted in an increase in the rate of blood-pressure control from 27% to 66% in a study group of more than 42,000 patients.<sup>30</sup> While doctors may be impressed by this study, it confirms Life Extension's long-standing position that conventional medicine is largely failing hypertensive patients. Life Extension has previously advocated the need for multi-modality approaches if blood pressure is to be brought down to optimal levels.

#### Medical Miranda Right for the Patient

You have the right to be informed in a timely fashion of the latest medical advances and to be given the proper instructions for implementing therapies that have the potential to favorably alter the course of your life.

You have the right to be informed of which research developments of proven value— based on the peer-reviewed literature— your insurance company is withholding from you due to economic reasons. Such a denial of proven therapies, in the context of human life, equates with a conflict of interests and a flagrant denial of human rights.



#### Medical Miranda Right for the Physician

You have the right to assume that your recommendations to patients, whose lives have been entrusted to you, will be faithfully followed. The failure to do so violates the contract between physician and patient, and equates with a loss of time, talent, and treasury for all parties.

You have the right to expect accountability and responsibility on the part of patients to resolve all medical issues brought to their attention, and to be actively involved in the healing process.



### What About Complicated Therapies?

Dr. Lenfant's greatest concern is whether today's physicians will translate the findings of complex scientific innovations into improved medical therapies. Dr. Lenfant points to the marvelous discoveries being made today and notes that we are "on the threshold of a new era in which gene-centered medicine will almost certainly be the star player."<sup>31</sup> The June 2003 issue of Life Extension magazine described a breakthrough in genetic research (funded by the Life Extension Foundation) that could rapidly lead to the development of therapies to slow and reverse aging.

In concluding his *New England Journal of Medicine* article, Dr. Lenfant emphasizes the need for research whose results are likely to be applied to the clinical setting and not remain confined to scientific journals:

"Enormous amounts of new knowledge are barreling down the information highway, but they are not arriving at the doorsteps of our patients...This issue of who will really benefit from research results is especially critical as we look toward applications of genomic research...Let's be realistic: If we didn't do it with aspirin, how can we expect to do it with DNA?"

Dr. Lenfant's apprehension that apathetic doctors will fail to implement lifesaving research discoveries is an issue that has long been raised in the pages of this magazine. What Dr. Lenfant did in his seven-page article was identify specific published studies proving that doctors have not applied research findings to save patient lives. This *New England Journal of Medicine* article was published on August 28, 2003.

An article published in the July 2003 edition of *Life Extension* magazine titled "Bridging the Gap Between Science and Medicine" described many of these same overlooked medical discoveries.<sup>32</sup> Dr. Lenfant's *New England Journal of Medicine* article corroborates Life Extension Foundation's long-standing position that Americans have been subjected to senseless morbidity and needless deaths.

## Too Much Knowledge, Not Enough Practical Application

When research discoveries are not delivered to patients, the inevitable result is less than optimal care. For those who suffer from a non-life-threatening condition, this absence of applied knowledge means their agony may not abate. For people suffering lethal medical conditions, the result of their physicians not taking advantage of current treatment findings often is premature death.

The rapid advances in the biomedical sciences are both frightening and encouraging. The alarming fact is that people are dying because their doctors are not keeping up with the latest treatment breakthroughs. The reassuring aspect is that patients can educate themselves to better work with their physicians to mitigate or cure lethal diseases. When a patient and physician work together as an enlightened team, lifesaving miracles can occur as opposed to needless suffering and fatality.

What surprised us about Dr. Lenfant's *New England Journal of Medicine* article is that it uses similar verbiage and contains criticisms of the medical establishment long espoused by the Life Extension Foundation. We were especially gratified to see that Dr. Lenfant independently came to the same conclusions we did about the failure of doctors to use documented scientific findings to improve patient care.

### **Wall Street Journal Recognizes Problem**

The September 26, 2003 issue of the Wall Street Journal featured an article titled **"Too Many Patients Never Reap the Benefits of Great Research."**

According to the article, today's doctors **"often fail to pass on to the patients the fruits of any discoveries."**

The former president of the American Heart Association, Dr. Sidney Smith, stated: "To spend \$26 billion (NIH's 2004 budget) in basic research and not get the benefits to the patients is crazy. It's a huge waste and a tragedy."

The *Wall Street Journal* article described doctors failing to provide comprehensive treatment to diabetics, not giving anti-platelet therapy to stroke victims, and neglecting to urge those with lower back pain to get out of bed. A team of researchers from the Rand Institute concluded that these lapses "pose serious threats" to the health of the public.

Today's doctors were chastised for not practicing evidence-based medicine. One infamous case was cited from the 1990s, when a federal research group published a study showing that spinal fusion surgery usually does no good. Orthopedic doctors did the equivalent of grabbing pitchforks and storming the castle. They lobbied Congress to punish the research group (Agency for Healthcare Research and Quality) and crippled for years the very idea of science-based medicine.

Sidney Smith, M.D., currently professor of medicine at the University of North Carolina stated that **"a large part of the problem is the real resistance from physicians...many of these independent-minded souls don't like being told that science knows best."**



## Translational Medicine

Since 1980, the Life Extension Foundation has provided its members with information that is routinely disregarded by the medical establishment. Our mission has been to translate diverse scientific findings into therapeutic protocols that can be understood by our members and their physicians. This concept is increasingly being referred to as "translational medicine."

Physicians learn about new discoveries at scientific conferences, from medical journals, and on the Internet. However, only a tiny fraction of these doctors translates this knowledge into enhanced treatments for their patients. In fact, physicians treating seriously ill patients often fail to use many established medical advances.

For instance, the scientific literature documents that, if a cancer or congestive heart disease patient is anemic, his or her chance of survival is greatly reduced. In their everyday practice, however, few physicians are aggressive in their evaluation and treatment of anemia, even though anemia correlates directly with increased mortality.

A conflict of interests has arisen in the context of modern-day medicine that prohibits translational medicine, as described herein, in the name of cost-effectiveness for the HMO. However, what managed care in its immediate greed has failed to see is that using measures to prevent illness and diagnosis disease earlier will translate into savings of lives and of health care dollars. It even keeps their clients alive longer so that they can keep on paying insurance premiums. In these times of increasing numbers of patients constrained by managed care, major advances in health care could be realized if someone were

to show the accountants and CEOs of HMOs how pro-active translational approaches save lives and money at the same time.

Life Extension has long emphasized the need for physicians to practice translational medicine for the benefit of their patients. The director of the National Heart, Lung and Blood Institute, Claude Lenfant, M.D., has reached the same conclusions.

Cancer patients are often shocked to learn that most conventional oncologists are not utilizing novel information contained in their own journals. The failure of oncologists to practice translational medicine helps explain why more Americans are dying of cancer than ever before, despite major advances made in the research laboratory.

A review of past medical discoveries reveals how excruciatingly slow the medical establishment is to adopt novel concepts. Even simple methods to improve medical quality often meet with fierce resistance.

Over the past three decades, Life Extension has been privileged to interact with scientific pioneers who have developed novel solutions for preventing and treating degenerative disease. Medical history documents that bureaucratic committees do not make discoveries. Instead, it is the individual with an insatiable desire for knowledge who innovates by thinking beyond prevailing dogmatic principle.

The Life Extension Foundation is a network of individuals who are passionate about ending today's epidemic of unnecessary disease and death.

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#### How to Avoid Becoming a Casualty of Medical Ignorance

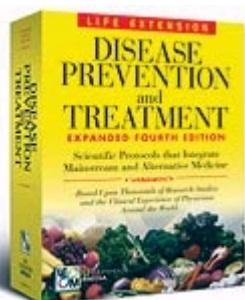
We live in a world where scientific discoveries have become routine events. Regrettably, the enormous volume of new findings has overwhelmed many practicing physicians. The media superficially reports on a few discoveries, but the majority of lifesaving breakthroughs remain buried in the millions of pages of scientific text that are published every year.

I advise all readers of this column to implement the concept of translational medicine and guard against becoming a victim of medical ignorance. Your membership in the Life Extension Foundation empowers you to achieve this goal.

Each month, we publish practical data that enable individuals to improve the quality and length of their lives. Members who have questions about the written text have toll-free phone access to knowledgeable health advisors.

Life Extension members also have direct access to a vast array of low-cost blood tests that can help them fine-tune a scientific-based health maintenance program. If questions arise after the blood test results come in, Foundation members can phone or email licensed medical doctors who can help explain the results or make a referral to the appropriate specialist.

Marvelous discoveries are published in prestigious medical journals today, yet little of this information is utilized to save lives. It is as though an impenetrable barrier separates scientific solutions from those in critical need of this knowledge. The Life Extension Foundation's objective is to break down the walls of ignorance and apathy that are the underlying causes of most human suffering and death.



#### Give the Gift of Longer Life

Nothing is more frustrating than having someone for whom you care become victim to a difficult-to-treat disease. The walls of medical ignorance still deny patients access to the latest medical technologies.

To help bridge the gap between scientific research findings and conventional medical practice, Life Extension published the 4th edition of the *Disease Prevention and Treatment* book in 2003. This latest edition contains over 1,500 pages of information that is too often overlooked by practicing physicians. Having this book provides members with a significant head start when confronted with a difficult-to-treat medical condition.

We are discounting the cover price of *Disease Prevention and Treatment* so that members can give the book as a gift to their loved ones this holiday season. The cover price of this massive reference book is \$49.95. If a member orders by December 24, 2003, the price is discounted to **\$24.98—a 50% savings**. If a member wants to share this information with several people, four or more books cost only \$22 per copy.

*Disease Prevention and Treatment* translates novel scientific findings into practical lifestyle and medical guidelines. This latest edition reveals startling information about therapies that are not being used routinely in the clinical setting.

For 23 consecutive years, the Life Extension Foundation has been educating its members about validated methods of preventing and treating disease. Our track record demonstrates that we have consistently been ahead of conventional and alternative medicine. The latest edition of *Disease Prevention and Treatment* provides the greatest volume of novel information ever compiled into a medical textbook. It is our firm belief that this book will save the lives of millions of human beings who would otherwise succumb to medical ignorance.

View detailed information about giving the gift of longer life at special holiday prices.

For longer life,

A handwritten signature in black ink, appearing to read "William Faloon".

William Faloon.

1. Lenfant C. Shattuck lecture—clinical research to clinical practice—lost in translation? *N Engl J Med.* 2003 Aug 28;349(9):868-74.
2. National Registry of Myocardial Infarction. NMRI 4 quarterly data report 2002. South San Francisco, Calif.: Genentech, 2002.
3. [No authors listed] The beta-blocker heart attack trial. beta-Blocker Heart Attack Study Group. *JAMA.* 1981 Nov 6;246(18):2073-4.
4. The state of managed care quality. Washington, D.C.: National Committee for Quality Assurance, 1997.
5. Kazman, S. 1990. Deadly Overcaution. *Journal of Regulation and Social Costs* 1, no. 1: 35–54.
6. Gieringer, D. H. 1984. Consumer Choice and FDA Drug Regulation. Ph.D. diss., Department of Engineering-Economic Systems, Stanford University.
7. The state of managed care quality. Washington, D.C.: National Committee for Quality Assurance, 1999.
8. Awtry EH, Loscalzo J. Aspirin. *Circulation.* 2000 Mar 14;101(10):1206-18.
9. Stafford RS, Radley DC. The underutilization of cardiac medications of proven benefit, 1990 to 2002. *J Am Coll Cardiol.* 2003 Jan 1;41(1):56-61.
10. Prevention of atherosclerosis and heart disease. *Anti-Aging News Spet.* 1983:101-103
11. Galuska DA, Will JC, Serdula MK, Ford ES. Are health care professionals advising obese patients to lose weight? *JAMA* 1999;282(16):1576-1578.
12. Salomaa V, Ketonen M, Koukkunen H, et al. Decline in out-of-hospital coronary heart disease deaths has contributed the main part to the overall decline in coronary heart disease mortality rates among persons 35 to 64 years of age in Finland: the FINAMI study. *Circulation.* 2003 Aug 12;108(6):691-6. Epub 2003 Jul 28.
13. McGovern PG, Jacobs DR Jr, Shahar E, et al. Trends in acute coronary heart disease mortality, morbidity, and medical care from 1985 through 1997: the Minnesota heart survey. *Circulation.* 2001 Jul 3;104(1):19-24.
14. Rosamond WD, Chambless LE, Folsom AR, et al. Trends in the incidence of myocardial infarction and in mortality due to coronary heart disease, 1987 to 1994. *N Engl J Med.* 1998 Sep 24;339(13):861-7.
15. Trends in ischemic heart disease deaths — United States, 1990-1994. *MMWR Morb Mortal Wkly Rep* 1997;46:146-150. [Medline]
16. Gaddi A, Cicero AF, Nascetti S, Poli A, Inzitari D. Cerebrovascular disease in Italy and Europe: it is necessary to prevent a 'pandemia'. *Gerontology.* 2003 Mar- Apr;49(2):69-79.
17. Gaddi A, Cicero AF, Poli A, Nascetti S, Inzitari D. Cerebrovascular disease in Italy and Europe: it is necessary to prevent a 'pandemia'. *J Cardiovasc Risk.* 2002 Jun;9(3):143-5.
18. Mazza A, Pessina AC, Pavei A, Scarpa R, Tikhonoff V, Casiglia E. Predictors of stroke mortality in elderly people from the general population. The Cardiovascular Study in the Elderly. *Eur J Epidemiol.* 2001;17(12):1097-104.
19. Dalal PM. Strokes in the elderly: prevalence, risk factors & the strategies for prevention. *Indian J Med Res.* 1997 Oct;106:325-32.
20. La Rosa F, Celani MG, Duca E, Righetti E, Saltalamacchia G, Ricci S. Stroke care in the next decades: a projection derived from a community-based study in Umbria, Italy. *Eur J Epidemiol.* 1993 Mar;9(2):151-4.
21. Raso AM, Bello Silva MA, Viora T, et al. The clinical and socioeconomic aspects of cerebrovascular diseases in Europe (a study in Turin on patients during 12 years of hospitalization). *Angiologia.* 1992 May- Jun;44(3):113-21.

22. Baker DW, Einstadter D, Thomas C, Cebul RD. Mortality trends for 23,505 Medicare patients hospitalized with heart failure in Northeast Ohio, 1991 to 1997. *Am Heart J.* 2003 Aug;146(2):258-64.

23. Ng TP, Niti M. Trends and ethnic differences in hospital admissions and mortality for congestive heart failure in the elderly in Singapore, 1991 to 1998. *Heart.* 2003 Aug;89(8):865-70.

24. Johansen H, Strauss B, Arnold JM, Moe G, Liu P. On the rise: The current and projected future burden of congestive heart failure hospitalization in Canada. *Can J Cardiol.* 2003 Mar 31;19(4):430-5.

25. Stewart S, MacIntyre K, Capewell S, McMurray JJ. Heart failure and the aging population: an increasing burden in the 21st century? *Heart.* 2003 Jan;89(1):49-53.

26. Wee CC, McCarthy EP, David RB, Phillips RS. Physician counseling about exercise. *JAMA* 1999;282:1583-1588.

27. Califf RM, DeLong ER, Ostbye T, et al. Underuse of aspirin in a referral population with documented coronary artery disease. *Am J Cardiol* 2002;89:653-661.

28. Lee JY, Kusek JW, Greene PG, et al. Assessing medication adherence by pill count and electronic monitoring in the African American Study of Kidney Disease and Hypertension (AASK) Pilot Study. *Am J Hypertens* 1996;9:719-725.

29. Reaven Gerald, Strom Terry, Fox Barry: Syndrome X: Overcoming The Silent Killer That Can give You A heart Attack. New York, New York. Simon & Schuster.2000.

30. Cushman WC, Ford CE, Cutler JA, et al. Success and predictors of blood pressure control in diverse North American settings: the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *J Clin Hypertens (Greenwich)* 2002;4:393-405.

31. Kent Saul. BioMarker Pharmaceuticals Develops Anti-Aging Therapy. *Life Extension magazine* June 2003. [http://www.lef.org/magazine/mag2003/2003\\_preprint\\_bio\\_01.html](http://www.lef.org/magazine/mag2003/2003_preprint_bio_01.html).

32. Bridging the Gap Between Science & Medicine. *Life Extension magazine* July 2003. [http://www.lef.org/magazine/mag2003/jul2003\\_cover\\_book\\_01.html](http://www.lef.org/magazine/mag2003/jul2003_cover_book_01.html).

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