

## Official Position Statement on The Truth About Human Aging

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### **Official Position Statement on The Truth About Human Aging Intervention Issued June 2002**

*by American Academy of Anti-Aging Medicine*

The American Academy of Anti-Aging Medicine (A4M, Chicago, IL USA), a non-profit educational medical organization now composed of 11,500 member physicians, health practitioners, and scientists representing 65 countries, is the undisputed leader in advancing anti-aging medicine around the world. The A4M is engaged in training, education, and advocacy initiatives to expand the availability of leading-edge preventive healthcare around the world. With the expanding acceptance of anti-aging medicine by both the public and the scientific community, however, individuals and organizations with their own agendas have sought to create synonyms in an effort to rebrand as their own a revolution in preventive healthcare that cannot be denied. These alternative phrases are simply substitutes for the original concept of "anti-aging medicine" as established by the A4M. Longevity medicine, successful aging, healthy aging, optimal aging, and aging gracefully, among other synonyms, are being substituted by conventional gerontologists for the term anti-aging. Simply put, the gerontological establishment seeks to silence the most visible independent source of innovations in aging research and education.

As scientific research on aging has progressed, discoveries being made in human aging intervention threaten the powers-that-be who exert a stranglehold control of the pursestrings that fund aging research. As a multi-billion dollar industry, aging is a big business. In the nine years since its inception, the A4M has become a prominent organization leading a campaign encouraging the appropriation of funds to clinical anti-aging research and the acceptance of anti-aging medicine as a clinical medical specialty. Both of these endeavors threaten the very core of existence of the gerontological establishment, posing a serious challenge to the well-established financial arrangements and personal reputations involved therein. To respond, the gerontological establishment has systematically engaged in the press to advance its biased position, securing high-exposure coverage for its propaganda campaign purporting that anti-aging interventions are ineffective and harmful. To each of these staged publicity efforts, the A4M has requested opportunities for equal-time coverage and/or rebuttal, only to be summarily denied without fair consideration. Turning a blind eye and deaf ear to journalistic integrity, publications have abandoned their objective commitment to excellence in scientific reporting, and kow-towed to pressure from the gerontological establishment.

Earlier this month, the biased gerontological position on aging intervention was published in Olshansky SJ, Hayflick L, Cames B, "Position Statement on Human Aging" *Scientific American*, June 2002. In response, the A4M issues its official position statement on "The Truth on Human Aging Intervention," endorsed by the medical organization representing 11,000 clinicians and scientists from 65 countries who are involved in advancing safe and efficacious anti-aging medical care. The A4M's official position statement is comprised of the following elements:

- *A4M White Paper: In March 2002, the A4M issued its White Paper titled "Validating the Facts and Science of Anti-Aging Medicine: A Report on the State of the Clinical Specialty." This work surveys the objective and independent factual evidence that substantiates the anti-aging medical movement.*
- *Feature coverage in support of anti-aging medicine, viewable at*
  - *"Aging versus Antiaging: Geriatrics is in trouble while antiaging medicine takes off," The Futurist [World Future Society], ....Sept.-Oct. 2001.*
  - *"The Benefits of Immortality," The Futurist [World Future Society], Jan.-Feb. 2002.*
  - *"Anti-Aging Medicine: Resoundingly Clear, Independent Support for Expansion of an Innovative Medical Specialty," Generations ....[American Society on Aging], Winter 2002.*
- *Gerontological Bias vs. A4M Factual Response, which we present below :*

**GERONTOLOGICAL BIAS:** "Past and anticipated advances in [aging] interventions only influence the manifestations of aging—not aging itself. The biomedical knowledge required to modify the processes of aging that lead to age-associated pathologies confronted by geriatricians does not currently exist."

**A4M FACTUAL RESPONSE:** In the April 10th issue of the *Journal of the American Medical Association*, the Alliance for Aging Research reports that "There is little research on the aging process itself: less than 1% of the entire budget of the National Institutes of Health (NIH) is devoted to studying the biology of aging." [Mitka M, "As Americans Age, Geriatricians Go Missing," *JAMA*, 287(14); April 10, 2002.] Over the next five years, the NIH's budget will be doubling: in 2003, the NIH will receive \$27.3 billion. Of this \$3.7 billion increase over fiscal year 2002, zero dollars have been earmarked for clinical anti-aging research. Moreover, the National

Institute on Aging (NIA), the NIH branch tasked with "understanding the nature of aging," has received over \$10.3 billion since its creation in 1974, yet NIA admits that "despite increasing funds to make awards, the Institute has experienced a decline in success rate [i.e. the payoff of research versus cost of project awards]." ["Overall Funding Policies, National Institute on Aging, [www.nia.nih.gov/funding/policies/gfunding.html](http://www.nia.nih.gov/funding/policies/gfunding.html)]. We propose that the NIA rethink its funding strategy in order to welcome eager, independent anti-aging researchers who lack the bloated-budget thinking of their gerontology counterparts. At an "average NIA grant of \$345,000 to \$370,000," A4M submits that over 2,000 anti-aging research projects -- yielding near-term, applicable results for aging intervention -- could be funded by the \$880 million appropriated to NIA for 2002.

**GERONTOLOGICAL BIAS:** "Eliminating all aging-related causes of death currently written on the death certificates of the elderly will not increase human life expectancy by more than 15 years."

**A4M FACTUAL RESPONSE:** In 1900, the leading causes of death, namely tuberculosis, pneumonia, and diarrhea/enteritis, reflected lack of sanitation and effective infection control. Life expectancy in 1900 stood at just 47.3 years. In 1997, the leading causes of death, namely heart disease, cancer, and stroke -- collectively, the "degenerative diseases of aging," Life expectancy in 1997 stood at 79 years (women) and 74 years (men). The US Department of Health and Human Services projects that life expectancy in 2050 will be 84.3 years for women and 79.7 years for men. ["Healthy People 2010," U.S. Department of Health and Human Services. Washington DC: January 2000.] A4M believes that at least another ten years can be added to life expectancy when factoring in the impact of biotechnology. This position is supported by the Global Business Network (GBN), a worldwide membership organization engaged in a collaborative exploration of the future. GBN Chairman Peter Schwartz has remarked that "Science and medicine will not only extend more people's lives to ... 120 years, but advances in biology will lengthen human life even beyond that. If we look at the current work on stem cells and phenomena like telomerase ... we find we're learning a great deal about the control mechanisms for aging. It's very likely that over the next 25 years, society will see serious and effective medical intervention in the aging process -- people undergoing such therapy will keep looking and feeling and acting younger than their calendar age. The prospect of individuals living significantly longer than the current norm will begin to open up. In fact, looking at historical trends, one finds that over the past century, we nearly doubled our lifespan, the average having gone from about 45 to 85. There's no reason to imagine that we won't do at least as much in the next century. If you double 85, you're at 170 -- so my bet is actually conservative." ["Wanna Bet?," Wired May 2002, p. 131.]

**GERONTOLOGICAL BIAS:** "Relatively little evidence from human studies that supplements ... lead to a reduction in either the risk of these conditions or the rate of aging."

**A4M FACTUAL RESPONSE:** In April 2002, Dr. Bruce Ames et al of the University of California/Berkeley reported in *The American Journal of Clinical Nutrition* that they were able to treat more than 50 genetic diseases with high doses of vitamins. The team also believes that there may be many more diseases similarly treatable -- including aging, because the process involves biochemical deficiencies that may be modulated with vitamin therapy. The researchers suggest that vitamins, which are converted to coenzymes, team up with enzymes to perform various essential metabolic functions. Saturating the body with vitamins increases coenzyme levels and provides the necessary nutrients to conduct cellular processes properly. Commenting on the findings, Dr. Ames states that "there is potentially much benefit ... in trying high-dose nutrient therapy, because of the nominal cost, ease of application, and low level of risk." Dr. Ames adds that he "suspect[s] the big impact [of dietary supplementation] is going to be in aging." [Ames BN, Elson-Schwab I, Silver I, *Am J Clinical Nutrition*, April 2002, 75: 616-658.]

**GERONTOLOGICAL BIAS:** "No product currently sold has been demonstrated to reverse aging. No hormone, has been proved to slow, stop or reverse aging. Growing younger is a phenomenon that is currently not possible."

**A4M FACTUAL RESPONSE:** We reference the 1990 landmark study on growth hormone by Daniel Rudman et al, in which the researchers state "the effects of six months of human growth hormone on lean body mass and adipose-tissue mass were equivalent in magnitude to the changes incurred during 10 to 20 years of aging." [Rudman D, Feller AG, Nagraj HS, Lalitha PY, Goldberg AF, Schlenker RA, Cohn L, Rudman W, Mattson DE, "Effects of human growth hormone in men over 60 years old," *N Engl J Med* 1990 Jul 5; 323(1): 1-6]. More recently, in April of this year, scientists from the US National Institute of Neurological Disorders and Stroke, a division of the National Institutes of Health, reported earlier this year in the *Proceedings of the National Academy of Sciences* that feeding fruit flies throughout adulthood with the drug 4-phenylbutyrate (PBA) can significantly increase lifespan, without diminution of mobility, stress resistance, or reproductive ability. Moreover, treatment for a limited period, either early or late in adult life, was also found to be effective. PBA extended the maximum lifespan of fruit flies by over 50% and their average lifespan by one-third. [Kang HL, Benzer S, Min KT, "Life extension in *Drosophila* by feeding a drug," *Proc Natl Acad Sci U S A*. 2002 Jan 22; 99(2): 838-43]

**GERONTOLOGICAL BIAS:** "It is unlikely that scientists will be able to influence aging directly through genetic engineering because ... there are no genes directly responsible for the processes of aging."

**A4M FACTUAL RESPONSE:** In February 2002, belandic biotechnologists announced that they had

isolated the Methuselah gene, a stretch of DNA that offers a protective defense against old age. The researchers located the gene after comparing the records of 1,200 people who lived for 90 years or longer with that of a similar number of people with average lifespans. Results showed that those who lived longest were more closely related than those who lived for an average lifetime, and that a single gene appeared to be responsible for protecting the nonagenarians from the ravages of old age. Kari Stefansson, the Chief Executive of DeCode Genetics, the company behind the discovery, believes that the discovery will help scientists to develop life-lengthening drugs, saying: "There is no reason why we cannot do this. We know the location of this gene. Soon we will study its exact DNA sequence and work out how it works in the body. You can then think of making drugs that could replicate its action."

This discovery follows new data released by the Harvard Centenarian Study, which recently found that 100% of the centenarians they studied had Methuselah-type genes, which appeared to protect them from age-related conditions such as cancer, dementia and heart disease. Many had also inherited a gene dubbed the longevity gene. The researchers also found that the children of centenarians were likely to live 10 to 15 years longer than the norm, and their siblings were four times more likely than average to live to see their 90th birthday.

**GERONTOLOGICAL BIAS:** "Suggestions have been made that the complete replacement of all body parts with more youthful components could increase longevity. Though possible in theory, it is highly improbable that this would ever become a practical strategy to extend length of life."

**A4M FACTUAL RESPONSE:** Replacement parts for worn out or damaged human organs are presently helping people to extend both total and healthy lifespan. In the not-so-distant future, refinement of today's organ replacement technologies will extend total lifespan even farther. The A4M is not the only medical organization putting forth this position. At its annual meeting in 2000, the American College of Cardiology predicted: "It is the year 2024. You are 75 years old, and you discover that a man next to you on an airplane has a pig heart, and his arteries are swarming with "smart dust" that sends continuous reports on his condition to his doctor's computer. That's not so strange, because you have a pig heart, too. And by 2049, when you are 100, many of your organs will be replaced. Plus you'll feel better than you did at 50 because "nanolabs" in your blood can manufacture and supply drugs whenever they are needed." [Raeburn R, "Oh, so you have a pig's heart too," Business Week, March 27, 2000].

**GERONTOLOGICAL BIAS:** "Optimum lifestyles, including exercise and a balanced diet along with other proven methods for maintaining good health, contribute to increases in life expectancy by delaying or preventing the occurrence of age-related diseases. There is no scientific evidence, however, to support the claim that these practices increase longevity by modifying the processes of aging."

**A4M FACTUAL RESPONSE:** In an important study of 6,200 men by researchers from the Veterans Affairs Palo Alto Health Care System/Stanford University published in 2002, physical fitness was determined to be more important a factor in longevity than high blood pressure, sky-high cholesterol levels, or bad habits such as smoking. In fact, the researchers found that men with the lowest exercise capacity were roughly four times more likely to die during the study than the fittest participants. Altogether, physical fitness was shown to have a bigger impact on the risk of death than all of the well-publicized heart disease risk factors. [New England Journal of Medicine 2002; 346:793-801, 852-853.]

The net result of risk factor intervention or biotechnological applications from genetic engineering to stem cell research is the same: a prolonged disease-free lifespan. Anti-aging medicine is a medical specialty founded on the application of advanced scientific and medical technologies for the early detection, prevention, treatment, and reversal of age-related dysfunction, disorders, and diseases. Thus, anti-aging medicine considers the disabilities associated with normal aging to be caused by physiological dysfunction which in many cases are amenable to medical treatment. Whether it is by delaying or preventing the occurrence of age-related diseases, or modifying the processes of aging, the net result of anti-aging medicine is to increase the healthy human lifespan.

**GERONTOLOGICAL BIAS:** "Despite intensive study, scientists have not been able to discover reliable measures of the processes that contribute to aging. For these reasons, any claim that a person's biological or "real age" can currently be measured, let alone modified, by any means must be regarded as entertainment, not science."

**A4M FACTUAL RESPONSE:** With a major mission objective to "support and conduct high-quality research on aging processes and age-related diseases," is it not requisite that NIA elucidates the markers of biological age? In 1999, the A4M launched the LEXCORE research study ([www.lexcorelink.net](http://www.lexcorelink.net)). LEXCORE is an independently-funded longitudinal study of aging that employs a large-scale, cross-population data acquisition strategy in order to obtain a depth and breadth of data collection harvesting key indicators of health. Sixty-five sites around the world are participating in this research effort. A4M anticipates that LEXCORE will yield clear definitions for the parameters of biological age within a very short period once critical mass of data is achieved. Once these markers are established, correlations to efficacious interventions for aging may readily be established.

**GERONTOLOGICAL BIAS:** "Dramatic claims made by those who advocate antiaging medicine ... are ... not supported by scientific evidence, and it is difficult to avoid the conclusion that these claims are intentionally

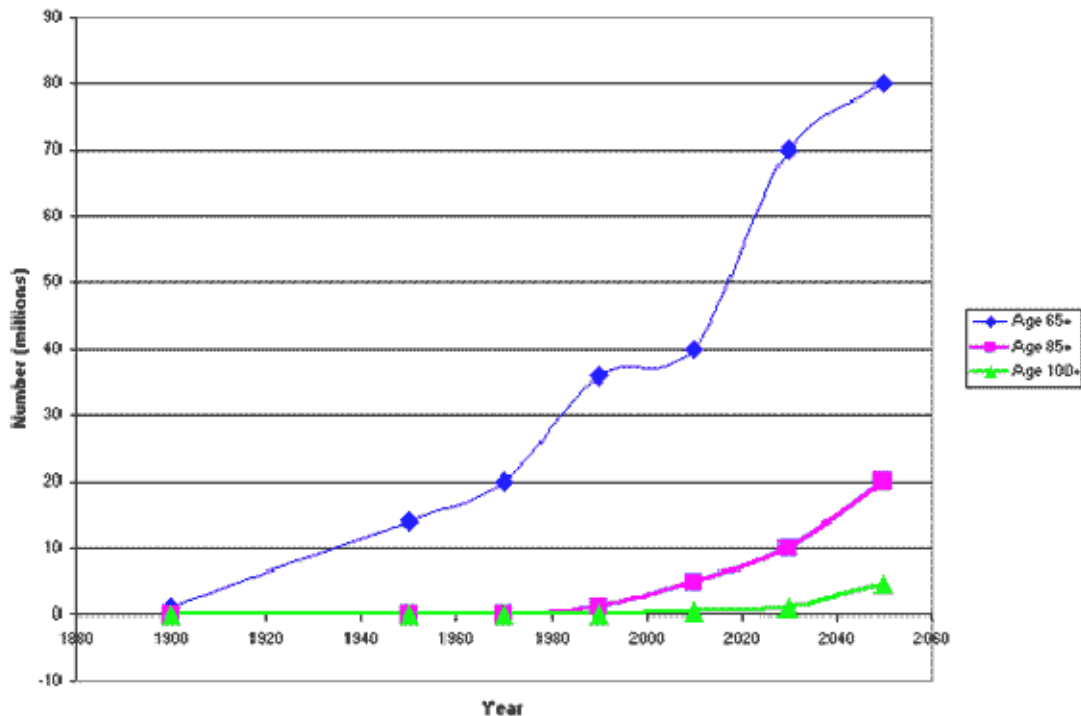
false, misleading or exaggerated for commercial reasons."

**A4M FACTUAL RESPONSE:** A4M is a non-profit organization, and does not promote or endorse any specific treatment nor does it sell or endorse any commercial product. A4M agrees that there are a few less-than-reputable vendors involved in the anti-aging industry. To-date, A4M has launched three important initiatives to combat this problem:

- *In 1999, the A4M created the Consumer Education & Research Council, which seeks to expose anti-aging product marketing practices that may be misleading or deceptive and educate consumers about what they should expect from anti-aging healthcare products.*
- *In an ongoing effort to warn the public of dubious marketing efforts of fraudulent and unscrupulous vendors, the A4M regularly issues advisories at our website ([www.worldhealth.net](http://www.worldhealth.net)). In July 2001, A4M issued an alert titled "Beware Bait-and-Switch Nutritionals Marketing that Misrepresents Scientific Growth Hormone Research," to warn the public of misleading claims being made by nutritional HGH manufacturers and vendors attempting to confuse research documenting injectable HGH replacement therapy as validating nutritional products.*
- *In 2002, the A4M established the Panel to Establish Guidelines for Anti-Aging Product Marketing, a committee of medical ethicists, physicians, scientists, and business leaders who will promulgate ethical guidelines for self-regulation of the anti-aging marketplace.*

**GERONTOLOGICAL BIAS:** "There are no lifestyle changes, surgical procedures, vitamins, antioxidants, hormones or techniques of genetic engineering available today that have been demonstrated to influence the processes of aging."

**A4M FACTUAL RESPONSE:** If we are to believe the gerontological propaganda that nothing whatsoever has influenced the processes of aging, how can the following trends in the growth of the population brackets age 65+, 85+, and 100+ be explained:



Created from data from Federal Interagency Forum on Aging-Related Statistics, "Older Americans 2000: Key Indicators of Well-Being," at [www.agingstats.gov/chartbook2000](http://www.agingstats.gov/chartbook2000); Centenarians in the United States -- Current Population Reports 1990: Special Studies, Publication P23-199RV, U.S. Department of Health and Human Services, July 1999

Moreover, the United Nations Second World Assembly on Ageing that took place in April 2002 predicts that:

- *One out of every ten persons is now 60 years or older; by 2050, one out of every three persons will be age 60+.*

- *The oldest old (age 80 and over) is the fastest growing segment of the older population. Currently making up 100% of the 60+ age group, this segment will grow to 19% by 2050.*
- *The number of centenarians (aged 100 years or more) is projected to increase fifteen-fold, from approximately 145,000 in 1999 to 2.2 million by 2050.*

[UN Press Release, April 9, 2002, at [www.ima.com](http://www.ima.com)]

If -- as the gerontological establishment purports -- nothing whatsoever influences the processes of aging, how are millions of people around the world living longer and healthier extended lifespans, and why would the United Nations make these predictions for fifty years from now?

CONCLUDING REMARKS:

Simply put, the death cult of gerontology desperately labors to sustain an arcane, outmoded stance that aging is natural and inevitable. The gerontological establishment stifles any and all suggestions that today's research discoveries on aging intervention will become transformed into practical clinical interventions of tomorrow. This is especially incongruous in light of fantastic recent developments across all facets of biotechnology and new drug development. Perhaps the most significant achievement of A4M has been the global adoption of the notion that "aging is not inevitable." National societies of physicians and scientists endorsing anti-aging technologies now exist in Japan, Singapore, Germany, Spain, Brazil, and Australia, and are presently being formed in at least a dozen more countries. This is powerful testament to A4M's hopeful vision for a future absent of the debilitation, disability, and dependence that has long characterized human aging.

History is replete with examples of medical pioneers whose innovations and foresight were trivialized, ignored, challenged, or violently opposed by the establishment, only to ultimately become accepted by society at-large. Leopold Augenbrugger was ridiculed for percussing and auscultating his patients' chests; Ignaz Semmelweis' recommendation for doctors to wash their hands before each patient landed him in a mental asylum; and more recently, cardiologists denied Nathan Pritikin's program for dietary modification to modulate cardiovascular risk until after his death. Given time and objective, undeniable evidence, scientific truths are ultimately borne out. In the words of Dr. Augenbrugger, "It has always been the fate of those who have illustrated the arts and sciences by their discoveries to be beset by envy, malice, hatred, destruction, and calumny." Today, the gerontological bias on aging intervention is dense with mistruths and fiction at best, and outright lies and deliberate deception at worst. Anti-aging medicine, as the fastest-growing medical specialty in modern medicine, now takes its turn as the target of the slings and arrows of its rivals. Ultimately, the truth on aging intervention will prevail, but this truth will be scarred from the well-funded propaganda campaign of the power elite who depend on an uninterrupted status quo in the concept of aging in order to maintain its unilateral control over the funding of today's research in aging.