

TA⁶⁵[®]

*The world's only
Telomerase Activator*



T.A. SCIENCES[®]
CELL REJUVENATION THROUGH TELOMERASE ACTIVATION

To Meet the Challenges of Aging



OUR MISSION IS YOUR MISSION:

*Our **mission** is to minimize the decline associated with aging and maximize the potential for health and longevity through Telomerase Activation*



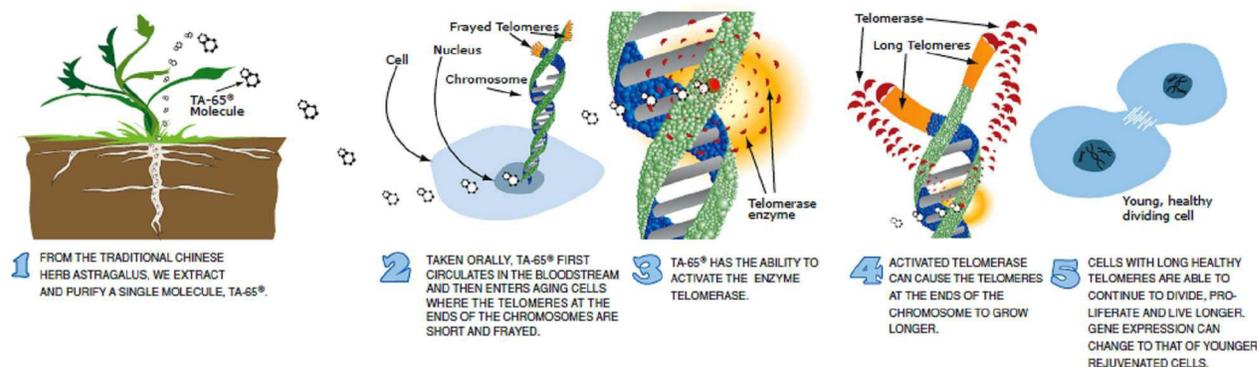
- **The only scientifically-proven Telomerase Activator in the world available to the public**
- **A highly purified and naturally occurring single molecule from the astragalus plant**
- **It activates (transiently) the telomerase enzyme which can lengthen telomeres**
- **Safe and efficacious with over 5 years of testing**
- **Only available through physicians trained and licensed by T.A. Sciences**

We are committed to the science and the promise of
Telomere Biology

"...telomere shortening could be the reason for ageing, not only in the individual cells but also in the organism as a whole... These discoveries have added a new dimension to our understanding of the cell, shed light on disease mechanisms, and stimulated the development of potential new therapies."

(Nobel Prize Committee Press Release)

The first product to emerge from this new science is TA-65, a single small molecule that is derived from the root of the Astragalus plant. TA-65® is the only proven telomerase activator, to rejuvenate telomeres in humans.



Highly respected telomere biologist, Bill Andrews says:

"Control of telomere length may be the most important step in eliminating the 125-year limit on our lifespan and taking the first crucial steps toward allowing us to live young, healthy lives."



The Nobel Prize in Physiology or Medicine 2009 was awarded jointly to Elizabeth H. Blackburn, Carol W. Greider and Jack W. Szostak, for the discovery of "how chromosomes are protected by telomeres and the enzyme telomerase". These three scientists have solved a major problem in biology: how the chromosomes can be copied in a complete way during cell divisions and how they are protected against degradation.

(Nobel Prize PRESS RELEASE 2009-10-05)

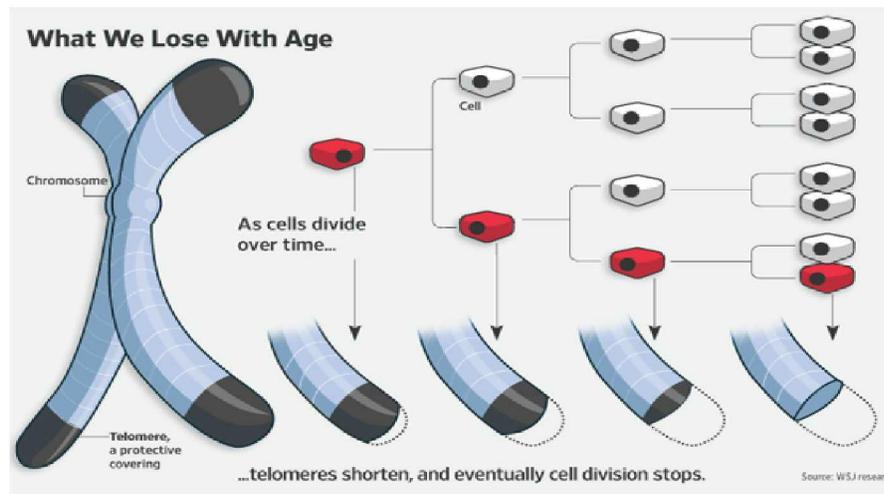
TA-65 has been shown to activate telomerase and increase telomere length in humans. This has led to improvements in immune cell function, bone density, and a number of other important age related bio-marker improvements.

TA⁶⁵®

Short Telomeres are associated with unhealthy aging
and a shorter lifespan

"Telomeres form the ends of human chromosomes. Telomeres shorten with each round of cell division and this mechanism limits proliferation of human cells to a finite number of cell divisions by inducing replicative senescence, differentiation, or apoptosis. Telomere shortening also limits stem cell function, regeneration, and organ maintenance during ageing. Moreover, telomere shortening during aging and disease is associated with increasing cancer risk."

Telomere shortening and aging (2007)
H. Jiang, Z. Ju, K.L. Rudolph; Z Gerontol Geriatr 40:314-324



Short Telomeres have been associated with maladies in these tissues:

- Immune cells – memory and naïve
- Heart –cardiomyocytes
- Hematopoietic stem cells
- Lung alveolar cells
- Skin – dermis, epidermis, vasculature
- Vascular intima (endothelium)
- Osteoblasts, MSCs
- Liver – hepatocytes
- Retinal pigmented tissue of eye
- Chondrocytes
- Skeletal muscle
- Kidney – cortex
- Neurons

Data published by us and others have indicated that cellular aging caused by shortening telomeres, occurring in numerous tissues throughout the human body, causes or contributes to chronic degenerative diseases and conditions including bone and marrow diseases, pulmonary fibrosis, HIV/AIDS, liver disease, macular degeneration, cardiovascular diseases and impaired wound healing. **Controlled activation of telomerase in normal cells can restore telomere length or slow the rate of loss, improve functional capacity and increase the proliferative lifespan of cells".** (Geron 10K Report 26 Feb -01)



The only way to lengthen telomeres is to:

Activate Telomerase

Telomerase Impacts Aging/Disease in Mice

Telomerase Null /short telomeres



Shortening telomeres

- Gray and Thinning Hair
- Weakened Immune System
- Intestinal Atrophy
- Reduced Spleen Size
- Decreased Wound Healing
- Decreased Lifespan
- Infertility

- Healthy and Thriving

Activated Telomerase/Long telomeres

These mice are the same age!

LONG TELOMERES ARE ASSOCIATED WITH HEALTHY AGING AND LONGEVITY

"As we suspected, humans of exceptional longevity are better able to maintain the length of their telomeres," said Yousin Suh, Ph.D., associate professor of medicine and of genetics at Einstein and senior author of the paper. "And we found that they owe their longevity, at least in part, to advantageous variants of genes involved in telomere maintenance."

Yousin Suh, Ph.D.
Genetic Variation in Human Telomerase is Associated with Telomere Length in Ashkenazi Centenarians,"

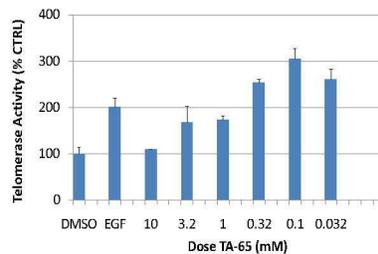
More specifically, the researchers found that participants who have lived to a very old age have inherited mutant genes that make their telomerase-making system extra active and able to maintain telomere length more effectively. For the most part, these people were spared age-related diseases such as cardiovascular disease and diabetes, which cause most deaths among elderly people.

Albert Einstein College of Medicine of Yeshiva University



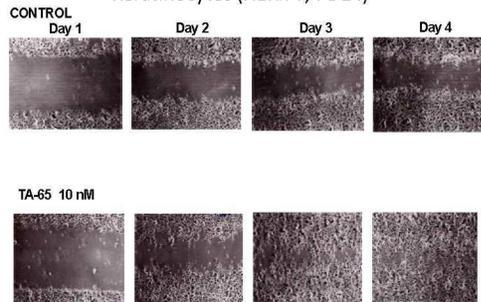
TA⁶⁵ Has Been Proven To Activate Telomerase

TA-65 Activate Telomerase in Human Neonatal Keratinocytes

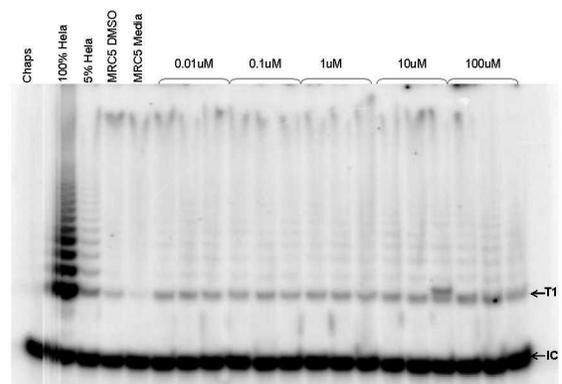


TRAP Assay Results From Harley lab, Geron Corporation

TA-65 Accelerates Wound Healing in Mid-Passage Keratinocytes (HEKn-P, PD14)



TA-65 Activates Telomerase in Fetal Lung Fibroblasts



(from Andrews Lab, Sierra Sciences)

TA-65 has been proven by two independent research laboratories to activate telomerase.

At leading biotech company Geron, Chief Researcher Calvin Harley demonstrated that TA-65 induced Telomerase Activity transiently in neonatal keratinocytes.

Bill Andrews and his lab at Sierra Sciences showed telomerase transiently activated by TA-65 in fetal lung fibroblasts.

These findings confirm the claims that TA-65 transiently activates telomerase. It is widely accepted in the scientific community that the only way to lengthen telomeres is through the activation of telomerase. It is also widely accepted that individuals with long telomeres are healthier and live longer.

"Data from tissue culture studies showed that one such lead compound significantly activates telomerase and improves replicative capacity and function, including anti-viral activity in HIV-specific CD8+ T-cells from HIV/AIDS donors. The data were published in the Journal of Immunology in 2008."

(Geron 10k Report 26-Feb-10)



What is TA⁶⁵?

TA⁶⁵ is a single small molecule derived from the Chinese herb astragalus. In laboratory studies using human cell lines including fibroblast cells which normally do not express any telomerase, TA-65 was shown to unequivocally lengthen telomeres. TA-65 is the first and only commercially available telomerase activator that is safe for human consumption.

Each batch of TA-65 starts with 3 tons of astragalus root grown in a specific region of Inner Mongolia. Through a closely guarded proprietary process, a single molecule (TA-65) is extracted from the astragalus root and purified to a very high degree. There are no other similar preparations available on the market.

The illustrations below show the above ground astragalus and the root. TA-65 is an ultra-purification of one of the 2000 bioactive compounds found in the astragalus root.

T.A. Sciences Educational Manual



Astragalus plant



Astragalus root

"Our findings suggest that telomere length and variants of telomerase genes combine to help people live very long lives, perhaps by protecting them from the diseases of old age," says Dr. Suh. "We're now trying to understand the mechanism by which these genetic variants of telomerase maintain telomere length in centenarians. Ultimately, it may be possible to develop drugs that mimic the telomerase that our centenarians have been blessed with."

Genetic Variation in Human Telomerase is Associated with Telomere Length in Ashkenazi Centenarians,"

Quoted from a study at the Albert Einstein College of Medicine of Yeshiva University



Pivotal Human Trials of 2005

Immune System Improvement Summary

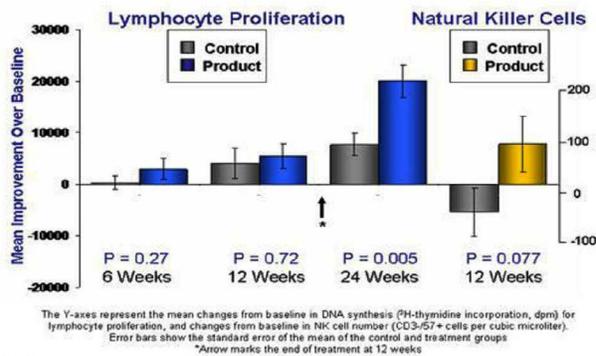


Figure 1

Vision Improvement Summary

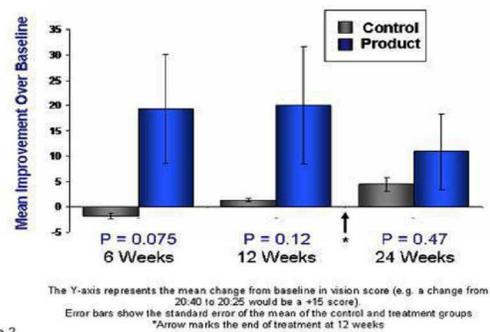


Figure 2

Skin Improvement Summary

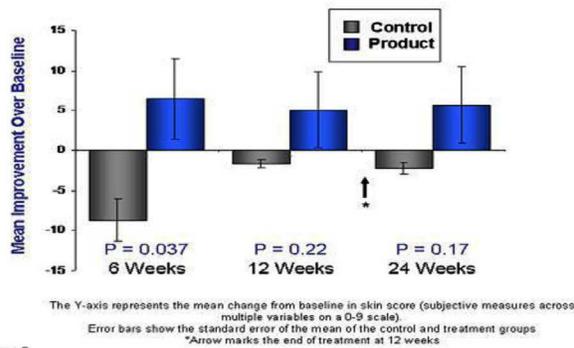


Figure 3

Sex Improvement Summary

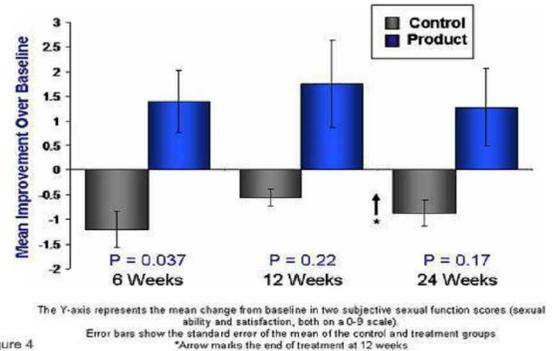


Figure 4

People currently taking TA-65 have seen the following results:*

- Lengthening of the **Shortest Telomeres**. (These are the ones that really matter; it only takes one short telomere out of the 92 in every cell to send a cell into crisis.)
- **Improved Immune system**: In particular, the % and absolute number of senescent CD8+/28- cells has significantly decreased. This is a reversal of what normally happens with age.
- **Improved bone density**
- **Improved cardiovascular and hormonal biomarkers** that normally show decline with age.
- There are also anecdotal results, such as **improved energy and athletic performance**, but these effects are not universal and vary among individuals.

*Human trial results substantiating these claims to be published soon in a peer-reviewed scientific journal

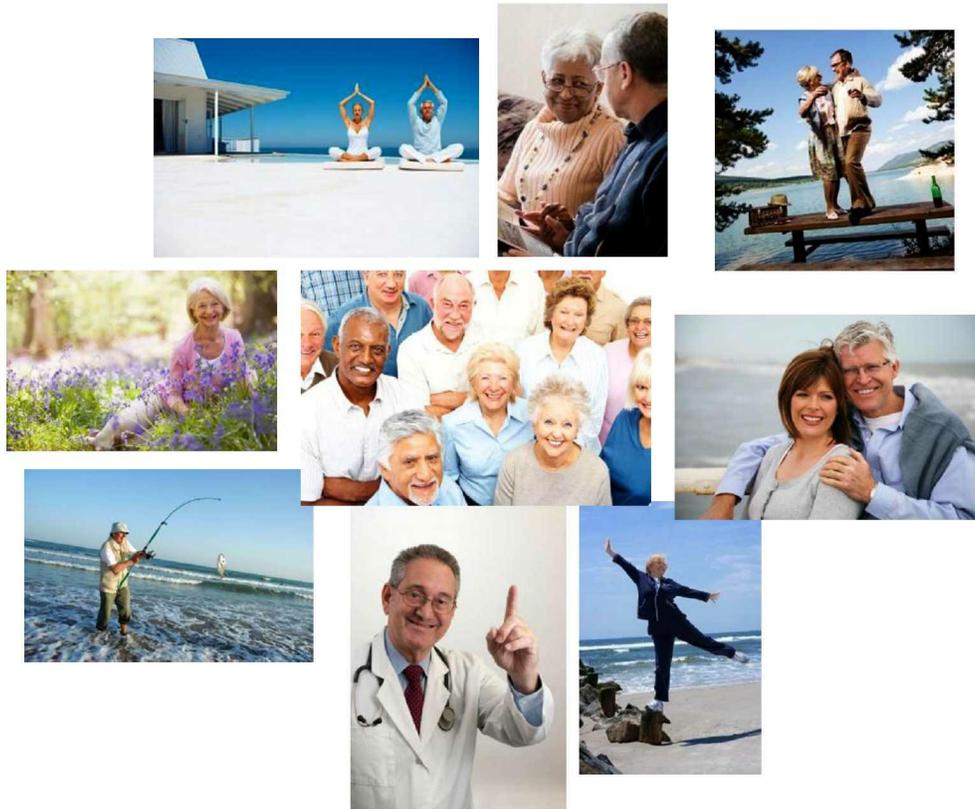


Who takes **TA⁶⁵**?

- Knowledgeable professionals capable of determining risk/reward ratios
- About half of our clients are MD's or PHD's
- Several are well known Telomere Biologists

Who should take **TA⁶⁵**?

- Anyone over 40 who wants to intervene in age related decline
- Those who have measured their telomeres and have found them to be short



Is **TA⁶⁵** Safe?

- 5 years of development and safety testing before introducing **TA⁶⁵**
- There are currently hundreds of clients taking **TA⁶⁵**: Some for as long as 3 years
- **Not a single adverse reaction** reported by our licensed physicians
- Not a single diagnosis of new cancer
- Not a single report of increased cancer load for clients who already had cancer

TA⁶⁵

The Patton Protocol

The Patton Protocol was named after Noel Thomas Patton in honor of his contributing to the science of staying young. Mr. Patton is the founder of T.A. Sciences and the first person on the planet to take purified TA-65[®] long term.

The Patton Protocol has gone through several iterations as a result of Mr. Patton's experience and the information garnered from testing and data from clients since T.A. Sciences[®] obtained the exclusive license from Geron in 2002.

Recommended daily dose for TA-65[®]: Generally people take half their daily dose in the morning and the other half in the evening. Out of personal preference, some clients take the entire dose in the morning and others take it all in the evening. We do not have evidence as to which routine is best, but we do recommend that people taking resveratrol, curcumin, or the other possible inhibitors, take the full dose in the morning/evening and the potential "inhibitors" 12 hours later.

What clients are saying

After 9 months of taking TA-65, I am very pleased: Not one bad day and incredible feeling of well-being, darker and thicker hair, smoother and younger looking skin. I just feel younger and more energetic.

At 69 I am passing for 55 or below.

Bob W. 69, Seattle, WA

I'm more active physically than any time I can remember. At age 80 I feel like the "poster boy" for TA Sciences.

Ralph A. 80, Los Angeles, CA

As a practicing MD, I am surprised at the improvement in my immune system after only 6 months.

Dr. Fred Vagnini, 70, New York, NY

My eye doctor says he's never seen the accumulative reserve increase in someone my age. It only goes down with time.

Bill Turon, 64, Berkley Hts, NJ

I was already a competitive athlete when I began the Patton Protocol. My regular 30-mile bike ride with a 4000 foot climb –took me 2 hours and 20 minutes. After 3 months on TA-65 it went down to 2 hours...

Shelby Blackburn, 45, Redwood City, CA

For the first time in more than almost five years I can smell again. ...I can smell dinner cooking and I can tell whether it's chicken or fish. ...It probably doesn't mean much, but it sure pleases me!

Ralph A. 82, Calabasas, CA

"Going on TA-65 is the best 50th birthday gift I could have given myself. I just spent the weekend skiing and I did more than 20 runs in one day. A year ago that would have been unheard of. My knees didn't bother me and I had plenty of energy. I can't wait for my parents to get on the program..."

Steve P., 50, New York, NY



Reasons why you should offer **TA⁶⁵** to your patients

1. There is a growing body of evidence associating most age-related maladies with short telomeres.
2. This same body of evidence also clearly establishes that people with long telomeres age healthier and look younger.
3. As we age our telomeres shorten.
4. Exercising and healthy habits over an extended period of time can slow the attrition of telomeres, but telomere length continually declines as we age.
5. People who have not led a healthy lifestyle have accelerated the decline of their telomere lengths, and most likely will suffer premature aging and associated maladies.
6. The only way to lengthen telomeres is through the activation of an enzyme called telomerase.
7. Currently the only commercially available way to activate telomerase is by taking **TA⁶⁵**.

How to become a T.A. Sciences licensee?

1. The physician must sign the Licensee Agreement.
2. There is a one time \$1,000 Administrative Fee that covers licensee set-up, marketing support and operations support.
3. The physician must study the Doctor's Manual and pass the Telomere, Telomerase and **TA⁶⁵** basic knowledge exam.
 - Your practice will then have the ability to purchase the products - **TA⁶⁵** and Support Packs, along with Telomere Length and Specialized Immunology tests at licensee discount rates.
 - **TA⁶⁵** profit for the doctor is \$2000 per client per year.
 - Cash Flow positive for the licensee: No investment in **TA⁶⁵** inventory is required. Patients pay for **TA⁶⁵** before you have to pay TA Sciences.
 - Set your practice apart by offering the only scientifically proven Telomerase Activator in the world to your patients, **TA⁶⁵**.

Want More Information?

Call Dean Miller at (631) 697-3241 or (212) 588-8805
Email- dean@tasciences.com



What are some of the most important things you can do for your patients?

- Teach them the importance of diet, exercise, and stress reduction.
- Encourage them to take action before they have symptoms and be proactive about disease prevention.
- Recommend activating telomerase by taking:



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