

THE ANTIAGING PROPERTIES OF EMBRYONIC PLANTS EXTRACTS (EPEs)

by

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In the Buds of Trees Are Found the World's Very Best Antiaging Agents

Autophagy is an evolutionarily-conserved mechanism of lysosomal machinery, proteolysis in eukaryotes in response to nutrient deprivation. Outside of providing starving cells with energy from degraded self-components, as part of cellular housekeeping, autophagy removes harmful proteins and damaged mitochondria. Therefore, autophagy is not only essential, but central to cellular homeostasis. Autophagy efficiency declines as part of aging, and in the pathogenesis of age-related chronic diseases, leads to an increase of reactive oxygen species (ROS) production that increases oxidative stress and damage, causing inflammation and neuronal cells apoptosis, potentially resulting in neurodegenerative diseases, osteoarthritis, cancer, incompetent immune response, development of diabetes type 2, and an accelerated aging process.

The inverse is also true: increased autophagy leads to increased longevity, as shown by caloric-restriction, which can be mediated through downregulating of the mechanistic target of rapamycin (mTOR), a key central autophagy regulator, *via* regulating multiple upstream molecules, including sirtuin 1 (SIRT1) protein, and phosphatidylinositide 3-kinases (PI3K)-protein kinase B (PKB aka AKT). SIRT1 deficiency results in an increase of mTOR signaling, and activation of SIRT1 by the polyamine **spermidine** and other phytochemicals inhibits mTOR activity. Sirtuins protein influences are involved in several cellular processes, including: aging, alertness, apoptosis, energy efficiency, inflammation, stress resistance, and transcription, as well as in the control of circadian rhythms and mitochondrial biogenesis. Sirtuin activation has been proposed as a therapeutic target for diabetes type 2, cardiovascular diseases, neurodegenerative diseases, in the repair of DNA breaks, and regulates genes that undergo altered expression with aging. Sirtuin activators increase lifespan by 15% (Barger et al., 2008; Kanfi et al., 2012; Milne et al., 2007; Preyat & Leo, 2013; Oberdoerffer et al., 2008; Satoh et al., 2010; Uhl et al., 2010; Vazquez et al., 2017; Wade, 2008, 2011).

What makes **spermidine of such Polycrest importance** is the fact that it **not only induced, but also modulated, all four pathways of autophagy** – and without any adverse side effects, which is contrary to what is reported from synthetic inducers of autophagy. **Antiaging medicine is not to target autophagy only**, but to address all other hormones and chemical imbalances and to detoxify the body burden.

The 4 Pathways of Autophagy

- 1) Macroautophagy: the major pathway of autophagy primarily used to eradicate damaged cell organelles or unused proteins. Part of cellular housekeeping.
- 2) Microautophagy: involves the direct engulfment of cytoplasmic material into the lysosome machinery. Part of cellular housekeeping.

- 3) Chaperone-mediated autophagy (CMA): a very complex and specific pathway that involves recognition by the heat-shock protein 70 (Hsp70)-containing complex. It contributes to the maintenance of cellular homeostasis by facilitating the recycling of amino acids of protein's degradation.
- 4) Mitophagy: the selective degradation of mitochondria by autophagy. It prevents the accumulation of dysfunctional mitochondria, but is not limited only to damaged organelles – it also involves undamaged mitochondria preventing degeneration.

My own research and the research of others on antiaging medicine and aging intervention found that it requires at least one year of continued **cellular nutrition** to achieve a certain level of antiaging, which most likely must be continued indefinitely at a reduced dose for maintenance. However, further research is required to fully establish maintenance posology and answer many other still-unanswered questions.

Self-destructive behaviors by cells are also potentially corrected by specific embryonic plant extracts (EPEs). Such results are not attributed to only one compound, but rather to the sum of each plant's total chemical composition. Adult plant extracts do not possess this modulatory role in the aging process. This is in part attributed to the unique composition of EPEs: an exclusive source of juvenile phytohormones, embryonic plant stem cells, and other novel compounds that are only found in embryonic plant's tissues. Some compounds induce while others inhibit and this how it modulates autophagy – optimal function.

These findings suggest that targeting autophagy homeostasis does indeed delay the aging process and increase lifespan. It was demonstrated that epicatechin, epigallocatechin gallate (EGCG), all kaempferols (direct activity), some quercetin glycosides, resveratrol (indirect activity), and especially the polyamine spermidine, juvenile phytohormones, and plant stem cells all contribute to the induction of autophagy. This is in addition to the increased longevity provided by abscisic acid (a phytohormone that was proven to increase somatic cell fitness), the infamous brassinosteroids phytohormone (shown to regulate human steroidal hormone dysfunction), and other phytohormones known for their antiinflammatory effects via modulating pro-inflammatory cytokines, attenuating advanced glycation (AGEs), and inhibiting lipofuscin.

Furthermore, EPEs play an expert role in chelating selective toxic metals while leaving essential minerals unscathed, and have an unsurpassed capacity for the detoxification of xenobiotics and xenoestrogens, resulting in improved glandular and organ functions. EPEs are indispensable for the comprehensive pharmacological properties they provide in the clinical intervention of antiaging medicine. Of course, all of this is in addition to the fact that EPEs contain Plant Stem Cells (PSC®), the rejuvenators of dying cells and responsible for tissue regeneration, preventing necrosis.

No other therapy, single compound, or isolated synthetic drug can possibly address all the various mechanisms of the aging process. EPEs not only increase lifespan, but more importantly, improve quality of life. EPEs are indispensable biological agents for the advancement of clinical antiaging medicine, and I challenge anyone to prove the contrary. In my 40 years of research, I have never witnessed from any other therapy the remarkable physiological transformation of a person: a more youthful appearance after only a few months of medicinal embryonic phytotherapy, which kept improving after one year. Not

only were there obvious external improvements, but also reported was increased energy and better endurance, increased cognitive function, digestive problem corrections, restored elimination, modulated hormonal imbalances, and increased immune system competence and resistance. In fact, continued use achieved a high degree of success in the reversal of some conditions and diseases that were previously deemed irreversible, chronic, or even terminal. This includes successful fertilization in 44 unique cases of diagnosed infertility!

However, none of this will be possible unless **YOU** are willing to **Adopt** and **Commit to** a **“Long-Life-Healthy-Dietary-Lifestyle.”** If you give your body the fuel it needs, you can absolutely achieve good health, feel well, and slow down the aging process. Of course, this also requires some form of exercise or sport, in moderation, and the ability to keep your daily stress to a minimum (I personally recommend daily meditation and an active sex life). But YOU must assume some of the responsibilities regarding the success of any therapy, as opposed to delegating and dumping it all on your physician. Be proactive in the decisions and successful outcomes of your health; be accountable when your choices cause negative side effects. Live your life well and take good care of your body – you WILL be rewarded.

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