

# Avant Technologies and Austrianova Advancing Î±-Klotho Cell Therapy as Mayo Clinic Study Links Low Î±-Klotho Levels to Poor Cardiovascular Survival

LAS VEGAS, Dec. 9, 2025 /PRNewswire/ -- Avant Technologies, Inc. (OTCQB: AVAI) ("Avant" or the "Company"), an emerging biotechnology company focused on developing cell-based therapies for diabetes and age-related disorders, today announced a newly published study from the Mayo Clinic reinforces the critical role of the "longevity protein" Î±-Klotho in vascular health and aging. The research, appearing in the Journal of the American Heart Association, demonstrates a strong association between declining Î±-Klotho levels and arterial stiffness, endothelial dysfunction, vascular calcification, and significantly reduced patient survival.

The 148-patient study explained:

Low Î±-Klotho levels are associated with vascular calcification not only in patients with chronic kidney disease but also in the general population without CKD, highlighting its role in vascular aging.

Low Î±-Klotho levels are independently associated with increased mortality, regardless of age, sex, and comorbidities, suggesting that Klotho could serve as a prognostic biomarker for long-term survival.

And the study's authors concluded, "Further research is needed to unravel the mechanisms through which Î±-Klotho influences vascular calcification and aging, in order to identify targeted treatments that could prevent or reverse these processes."

Klothonova, a joint venture company established between Austrianova and Avant, is developing a cutting-edge cell-based therapy designed to address this need by sustainably restoring circulating Î±-Klotho levels in patients.

The therapy utilizes genetically modified human cells that continuously produce and secrete Î±-Klotho. These cells are encapsulated using Austrianova's clinically validated Cell-in-a-Box® technology, which protects the implanted cells from immune rejection while allowing long-term protein delivery.

Dr. Brian Salmons, CEO of Austrianova, said of the study, "This landmark publication by Prof. Amir Lerman's team at Mayo Clinic provides compelling clinical

evidence linking lower  $\text{Î±}$ -Klotho levels to cardiovascular disease progression and mortality. By encapsulating  $\text{Î±}$ -Klotho-producing cells with our proven Cell-in-a-Box® platform“already demonstrated as safe and effective in human cancer trials“we believe we can meaningfully elevate systemic  $\text{Î±}$ -Klotho levels and positively impact cardiovascular disease and other age-related conditions associated with Klotho deficiency."

Chris Winter, CEO of Avant Technologies, added, "An ever-growing body of scientific literature, including this new Mayo Clinic study, confirms  $\text{Î±}$ -Klotho as a master regulator of aging and longevity. The age-related decline in  $\text{Î±}$ -Klotho is implicated in a wide range of chronic diseases that appear reversible when Klotho levels are restored. Our encapsulated cell therapy approach has the potential to be a true game-changer“not only for cardiovascular health but for healthy longevity in general."

The study's authors also expressed that low Klotho levels are linked to diabetes, peripheral arterial disease, and other age-related conditions. These conditions often precede more severe cardiovascular diseases, highlighting the importance of Klotho in maintaining vascular integrity and function. Furthermore, Klotho is recognized for its antiaging properties.

Reference: <https://www.ahajournals.org/doi/10.1161/JAHA.125.043654>

### **About Avant Technologies**

Avant Technologies, Inc. is an emerging biotechnology company focused on identifying genetically modified cells lines, and through joint venture and licensing agreements developing innovative cell-based therapies.

### **About Klothonova**

Klothonova is a 50/50 joint venture between Avant Technologies and Austrianova, focused on developing novel cell-based therapies utilizing the Klotho protein for age-related conditions. Headquartered in Las Vegas, Nevada, Klothonova combines expertise in genetic engineering, cell encapsulation, and therapeutic delivery to pioneer sustainable, long-acting treatments.

### **About Austrianova**

Austrianova, based in Singapore, is a leading biotechnology company specializing in clinically proven cell encapsulation, GMP-grade cell products, and cell line development, backed by over 50 peer-reviewed publications and partnerships with global biotech companies.

More information about Avant can be found at <https://avanttechnologies.com>

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### **Forward-Looking Statements**

Certain statements contained in this press release may constitute "forward-looking statements." Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Actual results may differ materially from those indicated by such forward-looking statements because of various important factors as disclosed in our filings with the Securities and Exchange Commission located at their website (<https://www.sec.gov>). In addition to these factors, actual future performance, outcomes, and results may differ materially because of more general factors including (without limitation) general industry and market conditions and growth rates, economic conditions, governmental and public policy changes, the Company's ability to raise capital on acceptable terms, if at all, the Company's successful development of its products and the integration into its existing products and the commercial acceptance of the Company's products. The forward-looking statements included in this press release represent the Company's views as of the

date of this press release and these views could change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date after the date of the press release.

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