

Breakthrough laser therapy targets heart disease, the world's top cause of death

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EINPresswire.com/ -- A revolutionary laser technology developed by <u>Terra Quantum</u>, a global leader in quantum technology solutions, could transform how doctors treat cardiovascular disease, saving millions of lives and reducing one of the world's heaviest healthcare burdens.



This is a defining moment for the convergence of deep tech and healthcare. By bridging quantum innovation with medical technology, we're opening pathways to a trillion-dollar transformation."

Markus Pflitsch, CEO and Founder of Terra Quantum

Cardiovascular disease remains the leading cause of death worldwide, often triggered by hardened, calcified arteries that restrict blood flow and cause heart attacks or strokes. Today's treatments, drugs, stents, or surgery, often only buy time, while many patients, particularly the elderly, face limited options.

A safer, more effective alternative Terra Quantum's new feedback-controlled laser system is designed to restore the natural flexibility of arteries by gently modifying calcified plaques. Instead of cutting or destroying tissue, the system

remodels arteries from within:

- Restores blood flow safely and effectively
- Stabilizes plaques to prevent dangerous detachment
- Offers a minimally invasive alternative for patients who cannot tolerate surgery

In proof-of-concept studies, the technology demonstrated up to a 28% increase in arterial lumen area and a 2.4x improvement in arterial elasticity, results that could translate into longer, healthier lives for millions of patients.

"This is a defining moment for the convergence of deep tech and healthcare," said Markus Pflitsch, Founder & CEO of Terra Quantum. "By bridging quantum innovation with medical technology, we're opening pathways to a trillion-dollar transformation that directly improves lives worldwide."

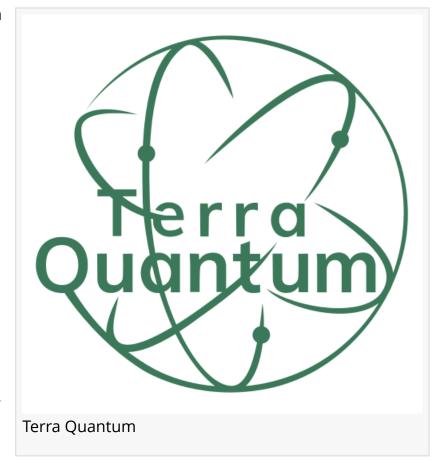
Scientific validation and next steps

The breakthrough findings are published in Frontiers in Cardiovascular Medicine. Together with

<u>Baylor College of Medicine</u>, Texas, Terra Quantum will now build a clinical prototype, optimize treatment settings, and launch FDA-guided clinical trials.

A turning point in global healthcare If successful, this innovation could not only save millions of lives but also significantly reduce the economic toll on healthcare systems worldwide. One in 3 US adults received care for a cardiovascular risk factor or condition in 2020. Annual health care costs of cardiovascular risk factors are projected to triple between 2020 and 2050, from \$400 billion to \$1344 billion. Cardiovascular disease costs the European Union an estimated €282 billion annually.

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