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A revolution in hair research: targeted ultrasound stimulates hair growth – a breakthrough with 'Beam Hair' technology

What once sounded like science fiction is now becoming a reality: with its newly developed 'Beam Hair' technology, loudspeaker manufacturer Pan Acoustics presents a globally unique method for promoting hair growth – based on precisely controlled ultrasound.

At the heart of this innovation is a specially designed cap that resembles a medical EEG system. Power is supplied via several CAT cables using PoE++ (Power over Ethernet), enabling high-intensity, directional sound waves in the lower ultrasonic range to be transmitted directly to specific areas of the scalp. This so-called beam-steering technology allows for pinpoint irradiation of individual zones, which is intended to specifically stimulate blood circulation and provide long-term stimulation to the hair roots.



"Beam Hair" in action.

"Our research shows that acoustic microstimulation can cause hair follicles to enter an extended growth cycle – ideally lasting up to four times longer than usual," explains a company spokesperson. Initial internal studies also suggest that it may even stimulate new hair growth.

A surprising yet crucial component of the technology is the acoustic signal source: according to the developers, playing selected tracks from the cult musical „Hair“ and the cover version of Pink Floyd’s “Wish You Were Here” – reworked as “Wish There Were Hair” – proved particularly effective. The specific frequency responses and rhythmic structures appear to interact perfectly with the resonant properties of the scalp.



Left: Receding hairline before treatment with 'Beam Hair'; right: Initial results after three sessions.

Given the enormous market potential, Pan Acoustics has already prepared the process for patenting. The company is currently in talks with a beauty technology specialist, also based in Wolfenbüttel, regarding the further development of the 'Beam Hair' hood.

In a planned second phase of development, the technology is to be combined with microneedling. Through mechanical microperforation of the skin, the acoustic pulses could penetrate deeper tissue layers even more effectively, thereby further improving results.

Industry observers are already talking about a potential paradigm shift in non-invasive hair therapy. Whether “Beam Hair” can actually establish itself as the new standard solution remains to be seen – but interest from the research community and industry is already enormous.