



OssDsign Catalyst® outperforms earlier-generation bone graft as a standalone treatment in trauma study

Uppsala, June 3, 2026. OssDsign AB (publ.) today announces the publication of a new scientific article in The Journal of Bone and Mineral Research (JBMR). The preclinical study evaluated OssDsign Catalyst as a standalone bone graft in trauma, comparing it to an earlier-generation bone graft. The results show significantly more bone formation with OssDsign Catalyst at earlier timepoints, as well as clear evidence that the graft is naturally broken down and replaced by the body over time – reinforcing the superiority of fourth-generation synthetic bone grafts like OssDsign Catalyst.

In the study, published in JBMR, researchers compared the bone healing response of two synthetic bone graft materials – one with a nano-scale structure (OssDsign Catalyst) and one with a micron-sized structure typical of earlier-generation grafts. The materials were implanted into critical-sized bone defects in the knee joints of rabbits and evaluated at 4, 8, 12 and 26 weeks.

OssDsign Catalyst achieved full healing of the defect at the earliest timepoint of 4 weeks, as opposed to the earlier-generation graft which took twice as long. OssDsign Catalyst also showed continuous, progressive biological resorption and replacement with host bone throughout the study, with graft material decreasing by 60% over 26 weeks. In contrast, the earlier-generation graft showed minimal remodeling, remaining largely unchanged from week four onwards. Importantly, the coupled remodeling of OssDsign Catalyst was not only visible in histology but supported by statistically significant quantitative data — providing strong scientific evidence for one of the key advantages of fourth-generation synthetic bone grafts.

"While many earlier-generation synthetic grafts have failed to match traditional bone graft options in clinical outcomes, OssDsign Catalyst is now closing that gap. Preclinical research remains essential to deepen understanding and strengthen the scientific foundation for clinical adoption, and we are pleased to see these standalone results published in one of the leading journals in our field," comments Mark Waugh, CEO of OssDsign.

The study is published in the latest issue of The Journal of Bone and Mineral Research and is accessible here: <http://onlinelibrary.wiley.com/doi/abs/10.1002/jbm.b.70103>

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The Company's Certified Adviser is DNB Carnegie Investment Bank AB (publ)

About OssDsign

OssDsign is a developer and global provider of next generation orthobiologics products. Based on cutting edge material science, the company develops and markets products that support the body's own healing capabilities, giving patients back the life they deserve. The company has a strong presence in the U.S. market. OssDsign's share is traded on Nasdaq First North Growth Market in Stockholm, Sweden.