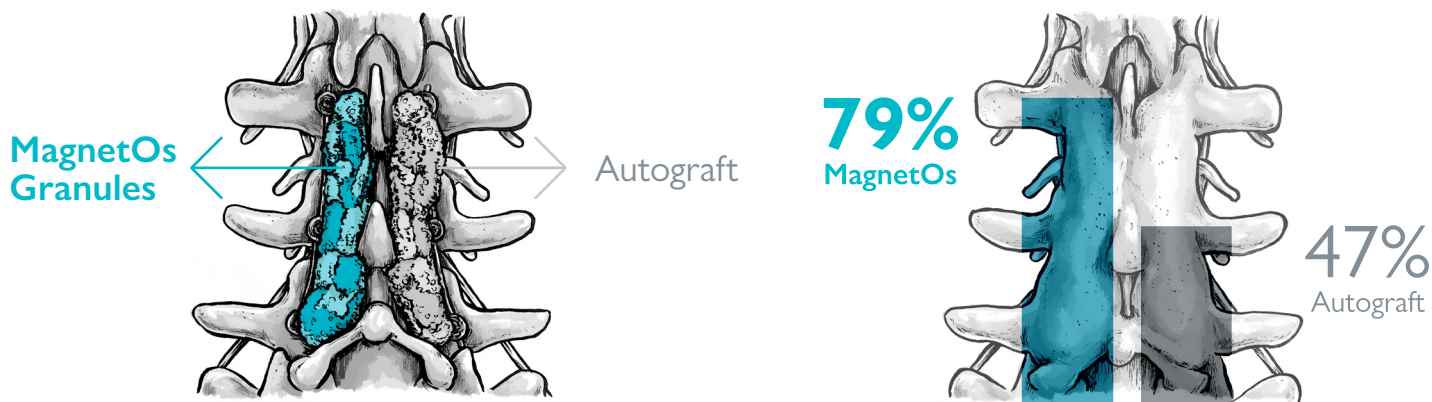


MagnetOs achieved *nearly twice* the fusion rate of autograft in a Level 1 PLF clinical trial¹

Intra-patient control design
100 patients



One-year fusion results
PLF Level 1 clinical study



Independent study

The study was investigator-initiated and funded by an unrestricted research grant from Kuros Biosciences. Kuros was not involved in the study design, implementation, or the authorship of the results.

Study design

Single-/multi-level instrumented posterolateral fusion with intra-patient comparison of MagnetOs Granules (standalone) versus autograft (at least 50% iliac crest derived).*

Demographics

- 100 patients: final fusion analysis was completed with 91 patients
- 128 levels
- Mean pre-operative ODI = 46
- 19% patients active smokers^{†1,3}

Study outcomes assessment



Surgeons performing procedures were blinded until bone graft application



Fine-cut CTs read by two independent, blinded spine surgeons



One-year follow-up: Fusion by CT, ODI, adverse events (safety)

Grow bone
with **MagnetOs**[™]

Does ‘indicated superiority’ mean it’s time to reassess the gold standard in PLF? What the investigators said...

In the investigators’ words: “Even though the primary aim of the current study was to demonstrate noninferiority, **our findings indicate superiority** of the BCPμm (MagnetOs) in terms of CT-determined PLF at one year.”¹

The McNemar’s Test, with a noninferiority margin of 15%, confirmed the noninferiority of MagnetOs with an absolute difference in paired proportions of 39.6% (95% CI = 26.8-51.2, $p < 0.001$).

MagnetOs demonstrated *more than twice* the fusion rate in smokers compared to autograft^{†3}

Of this patient population, 19% were active smokers and 35% were former smokers; an important data point given the challenge that we know surgeons face in treating high-risk patient groups.^{†1,4}

 **19% Active Smokers**^{†1,3}

One Year Fusion (% Levels Fused)	MagnetOs Granules	Autograft
Overall ¹	79% (101/128)	47% (60/128)
Smokers ^{†3}	74% (20/27)	30% (8/27)

128 evaluated spinal levels in 91 patients with eligible 1-year CT

Fusion of the MagnetOs side was not contingent upon fusion of the autograft side

To further assess the intra-patient controlled study, researchers analyzed four spine fusion outcomes, comparing MagnetOs to autograft.¹

Fusion Combinations	MagnetOs	Autograft	Levels (n)	Percentage (%)
Both sides fused	Fused 43%	Fused 43%	55	43%
One side fused	Fused 36%	Not Fused	46	36%
One side fused	Not Fused	Fused 4%	5	4%
No sides fused	Not Fused	Not Fused	22	17%
	Overall Fusion 79%	Overall Fusion 47%	Total Levels 128	100%

MagnetOs outperforms autograft in 4-level PLF with TLIF

Patient results from Level 1 evidence published in *Spine*⁵

This case presents a 70-year-old female diagnosed with spinal deformity in the lumbar spine. The patient underwent a four-level PLF from L1-L5 with TLIF. Autograft was placed on the right side of the patient and MagnetOs Granules on the left side.

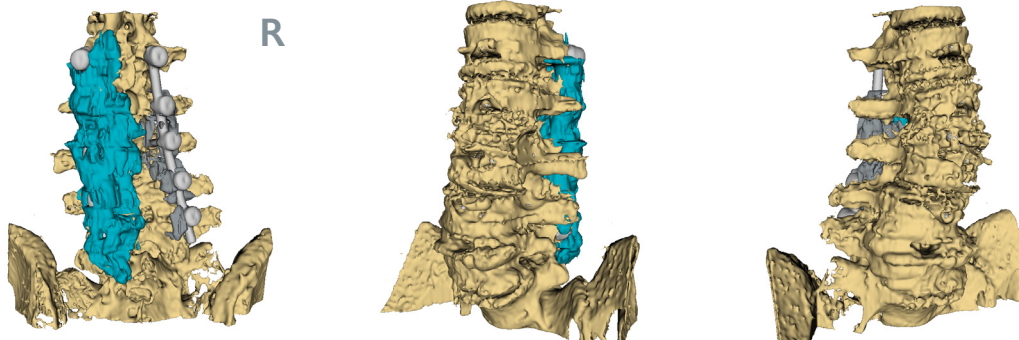
After one year, fine-cut CT scans read by two independent spine surgeons determined that the MagnetOs Granules side was fused at all four levels, whereas the autograft side was fused at two levels. The interbody was fused.

One-year CTs showing MagnetOs Granules left side of subject, autograft right side of subject



Fine-cut CT scans at one year follow up. **Left:** Coronal; **Middle:** Sagittal; **Right:** Axial.

3D imagery showing MagnetOs Granules (blue); autograft (gray); instrumentation (light gray)



3D reconstructions at one-year follow up.

Visit our Evidence Center to grow your expertise and learn what this study means for you.



*MagnetOs Granules was mixed with venous blood. †19 of initial 100 subjects were active smokers. ‡Radiographic fusion data of the smoker subgroup were not statistically analyzed as a subgroup and were not included in the peer-reviewed publication of the study.¹

References: **1.** Stempels, et al. *Spine*. 2024;49(19):1323-1331. **2.** Yadav S, et al. *Journal of Orthopaedics, Trauma and Rehabilitation*. 2020;27(2):173-178. **3.** Van Dijk, LA. 24th SGS Annual Meeting (Swiss Society of Spinal Surgery). Basel, Switzerland. Aug 2024. **4.** Berman, et al. *Int J Spine Surg*. 2017;11(4):29. **5.** Data on file. MAXA cases.

Manufactured by **Kuros Biosciences BV**

Prof Bronkhorstlaan 10, Building 48, 3723 MB Bilthoven, The Netherlands
MagnetOs and NeedleGrip are trademarks of Kuros Biosciences

kurosbio.com
cs@kurosbio.com
cs.international@kurosbio.com