Growing with Kuros

Capital Markets Day

May 13, 2025

Ticker: KURN
SIX Swiss Stock Exchange

Kuros Biosciences

Disclaimer

- This presentation is private and confidential, has been furnished to you solely for your information and may not be reproduced, redistributed or disclosed in any way, in whole or in part, directly or indirectly, in or into the United States or the United Kingdom, Canada, Australia, Japan, any Member State of the European Economic Area or any other jurisdiction where such distribution or release would be unlawful, or to any other person without the prior written consent of Kuros Biosciences AG (the "Company"). The maintenance of the absolute secrecy of the information contained in this presentation is of paramount importance to the Company, its business and financial prospects. This presentation does neither constitute an offer or invitation to buy or to subscribe to securities of the Company nor a prospectus within the meaning of the applicable Swiss law. Investors should make their decision to exercise rights, to buy or to subscribe to any securities of the Company solely based on an offering and listing prospectus which would be published in connection with an offering of securities of the Company. Investors are furthermore advised to consult their bank or financial adviser.
- This presentation may contain specific forward-looking statements, e.g., statements including terms like "believe", assume", "expect", "forecast", "project", "may", "could", "might", "will" or similar expressions. Such forward-looking statements are subject to known and unknown risks, uncertainties and other factors which may result in a substantial divergence between the actual results, financial situation, development or performance of the Company and those explicitly or implicitly presumed in these statements. Against the background of these uncertainties, readers should not rely on forward-looking statements. The Company assumes no responsibility to update forward-looking statements or to adapt them to future events or developments.
- Market data and other statistical information used throughout this presentation are based on industry publications and surveys, reports by market research firms or other published independent sources. Some data is based on the Company's internal estimates which are derived from the review of internal surveys, as well as the independent sources. The Company's estimates, in particular as they relate to market share and the Company's general expectations, involve risks and uncertainties and are subject to change based on various factors. Although the Company believes these sources are reliable, it has not independently verified the information and no representation or warranty, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or opinions expressed herein. The Company and its subsidiaries, managers, directors, officers, employees, agents or advisors shall have no liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this presentation or its contents or otherwise arising in connection with this presentation. The information and opinions contained in this presentation do not purport to be comprehensive, are provided as at the date of this presentation and are subject to change without notice.
- THIS PRESENTATION shall not be RELEASED, reproduced, redistributed or disclosed in any way, in whole or in part, directly or indirectly IN THE USA, IN THE UNITED KINGDOM, IN AUSTRALIA, CANADA, JAPAN, ANY MEMBER STATE OF THE EEA OR ANY OTHER JURISDICTION WHERE SUCH RELEASE, REPRODUCTION, REDISTRIBUTION OR DISCLOSURE WOULD BE UNLAWFUL AND SHOULD NOT BE RELEASED OR DISTRIBUTED TO U.S. PERSONS OR PUBLICATIONS WITH A GENERAL CIRCULATION IN THE UNITED STATES, THE UNITED KINGDOM, AUSTRALIA, CANADA, JAPAN, MEMBER STATES OF THE EEA OR ANY OTHER JURISDICTION WHERE SUCH PUBLICATION WOULD BE UNLAWFUL AND MUST NOT BE DISTRIBUTED OR DISSEMINATED TO ONE OF THESE COUNTRIES BY PUBLICATIONS WITH A GENERAL CIRCULATION. THIS DOCUMENT DOES NOT CONSTITUTE AN OFFER OR INVITATION TO SUBSCRIBE FOR OR PURCHASE ANY SECURITIES. THE SECURITIES OF KUROS BIOSCIENCES AG HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933 AS AMENDED AND ARE NOT BEING OFFERED IN THE UNITED STATES OR TO U.S. PERSONS.
- In relation to the United Kingdom this communication is not being made, and this presentation has not been approved, by an authorized person for the purposes of Section 21 of the Financial Services and Markets Act 2000. Accordingly, this presentation is not being distributed to, and must not be passed on to, the general public in the United Kingdom. Rather, the communication of this presentation is being made to, and is directed only at persons outside the United Kingdom. This presentation is only available to such persons outside the United Kingdom, and this presentation must not be acted on or relied upon by any other person. In relation to each Member State of the EEA which has implemented the Regulation (EU) 2017/1129 (the "Prospectus Regulation") (each a "Relevant Member State"), an offer to the public of shares of the Company may not be made in that Relevant Member State. An offer to the public of shares of the Company may in particular also not be made under the provisions of Article 3 of the Prospectus Regulation or the respective regulations of national regulations implementing the Prospectus Regulation. This presentation and the information contained herein does not constitute an "offer of securities to the public" within the meaning of the Prospectus Regulation.
- This presentation shall not constitute an offer to sell or the solicitation of an offer to buy securities of the Company, in any jurisdiction in which such offer or solicitation would be unlawful prior to registration, exemption from registration or qualification under the securities laws of any jurisdiction.

Kuros Biosciences

Meet your hosts

Chris Fair
CEO, Board Member

Joost de Bruijn, PhD
Executive Director and President, Innovation & Strategy

Daniel Geiger
Chief Financial Officer

Joe Ross
SVP, Marketing & Business Development

Greg Berlet, MD, FAOA, FRCS(C)
Orthopedic Surgeon

ORTHOPEDIC FOOT & ANKLE CENTER

Kuros Biosciences

Our goals for today

Today we'll cover:

Our breakthrough **science**

Our solid commercial **strategy & business transformation** initiatives

A **surgeon perspective** that explains why MagnetOs growth is unmatched in the industry

Kuros Biosciences

Agenda

01 The science behind the success

02 Global commercial strategy

03 Ongoing clinical research & MagnetOs differentiation

04 A surgeon's perspective

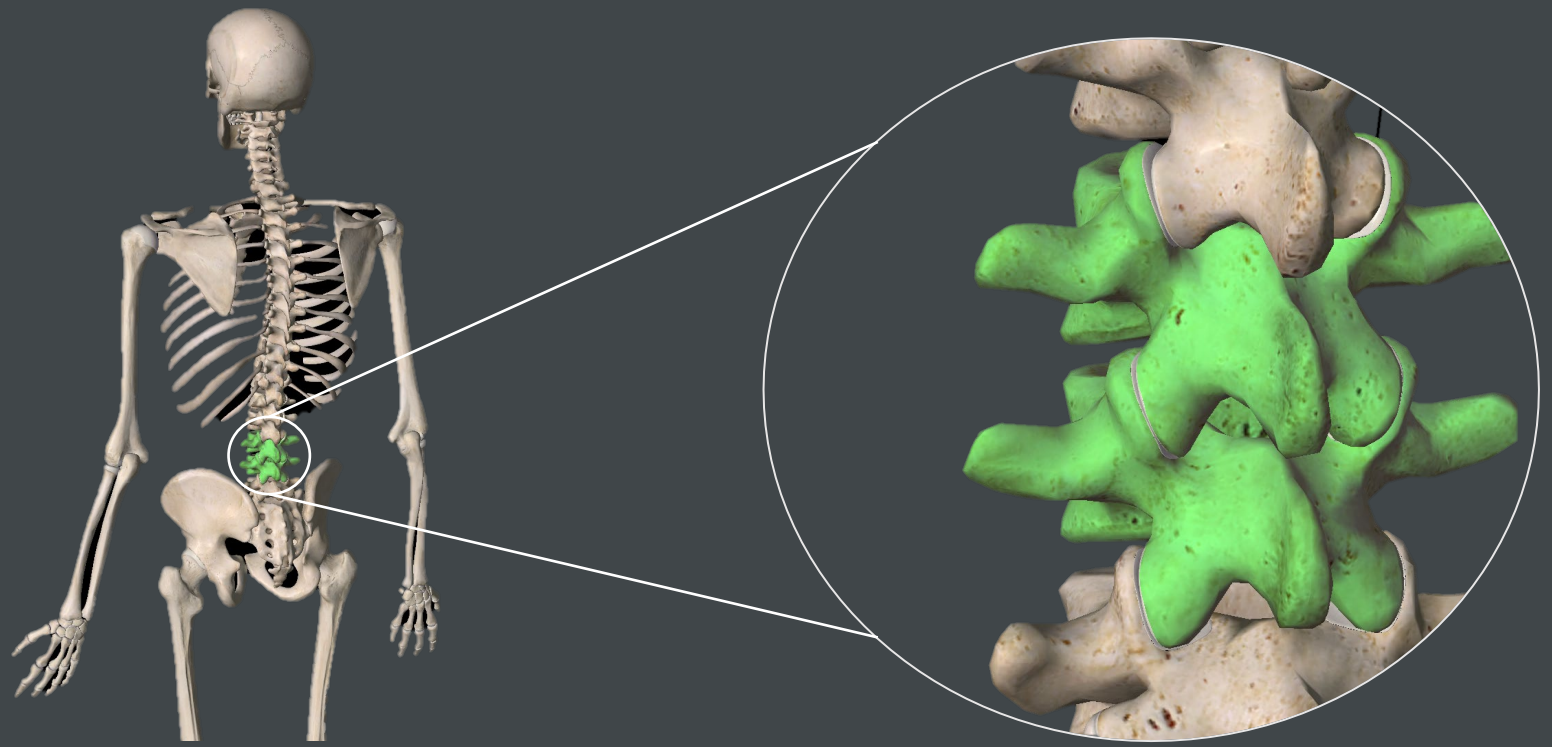
05 Business transformation

06 Q&A

Kuros Biosciences

The science behind the success

Spine-related pain: huge impact on society



Spine-related pain, particularly low back pain, stands as a significant global health concern. According to the World Health Organization, in 2020, low back pain affected 619 million people worldwide, with projections estimating an increase to 843 million by 2050, primarily due to population growth and aging [1]

#1 cause of years lived with disability (YLDs) globally; Affects hundreds of millions; linked to sedentary lifestyles and aging populations. Often overlooked in public health priorities.

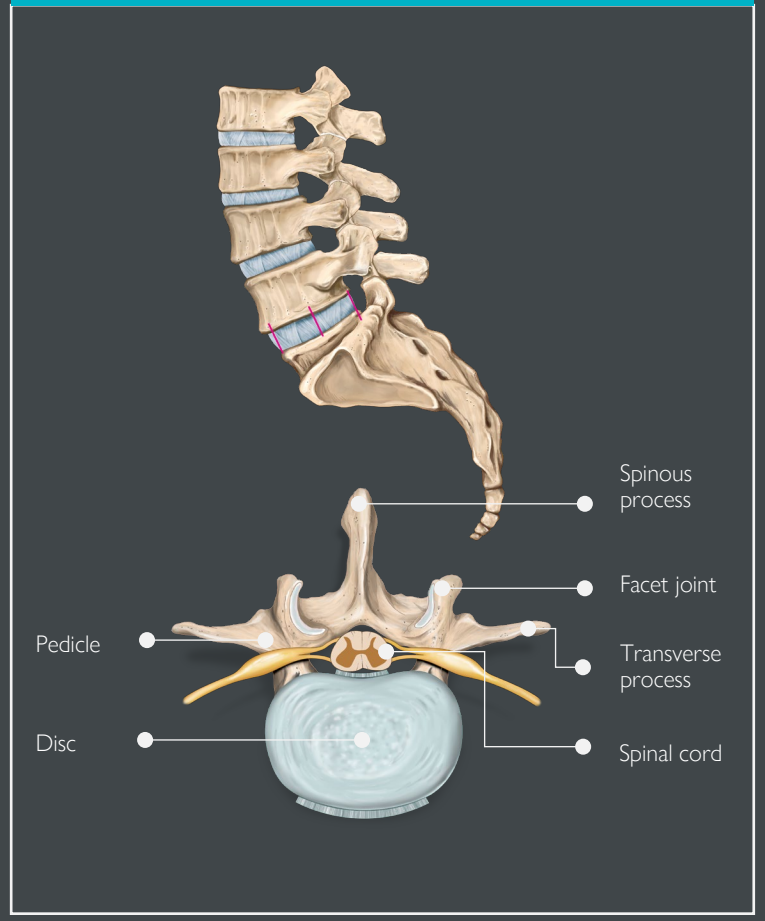
[1] *https://www.who.int/news-room/fact-sheets/detail/low-back-pain*

Kuros Biosciences

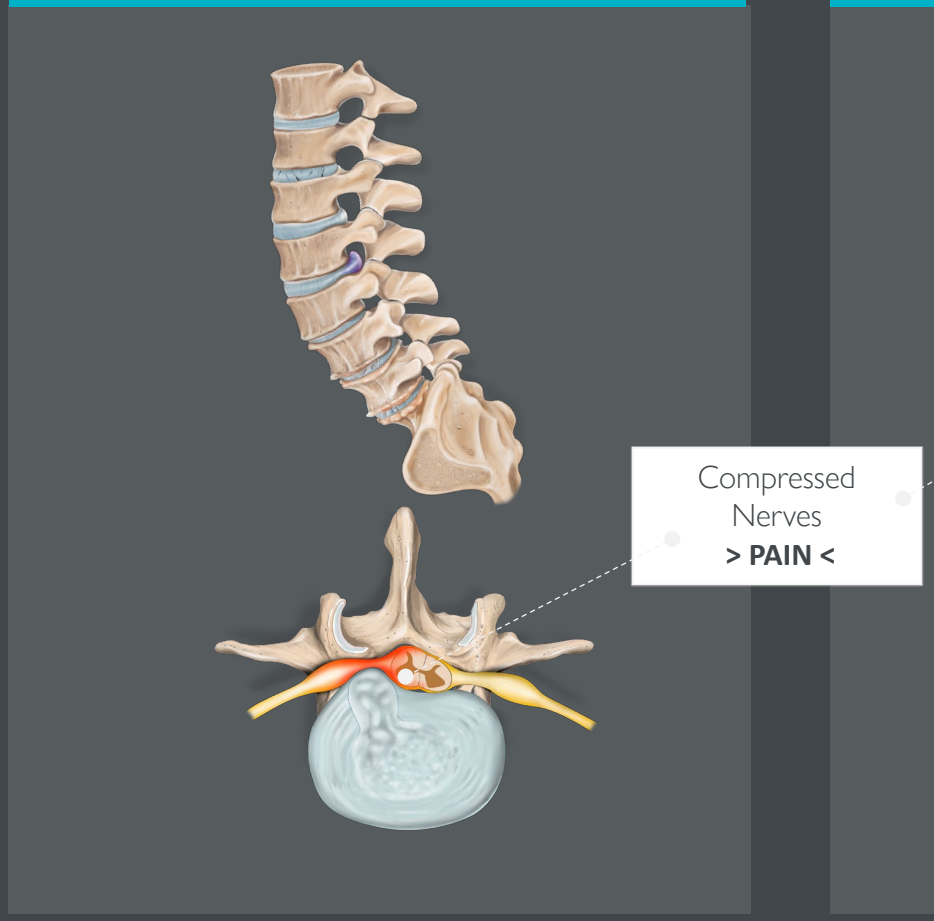
Spine-related pain

Two most common ailments (leading to pain and instability of the spinal column)

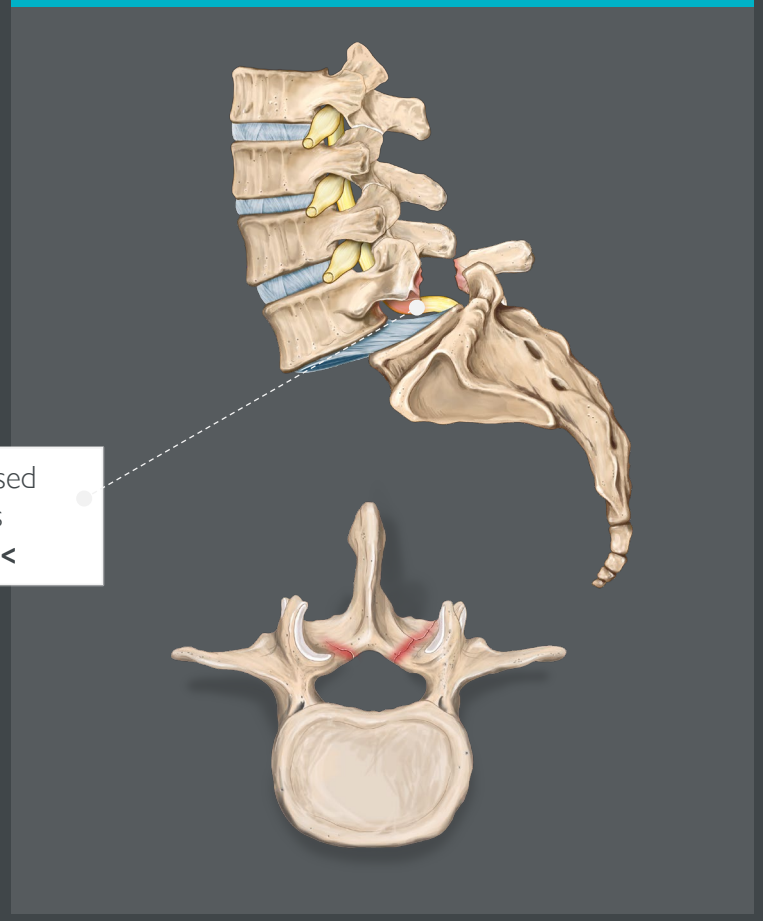
Normal spine



Herniated disc



Displaced vertebra

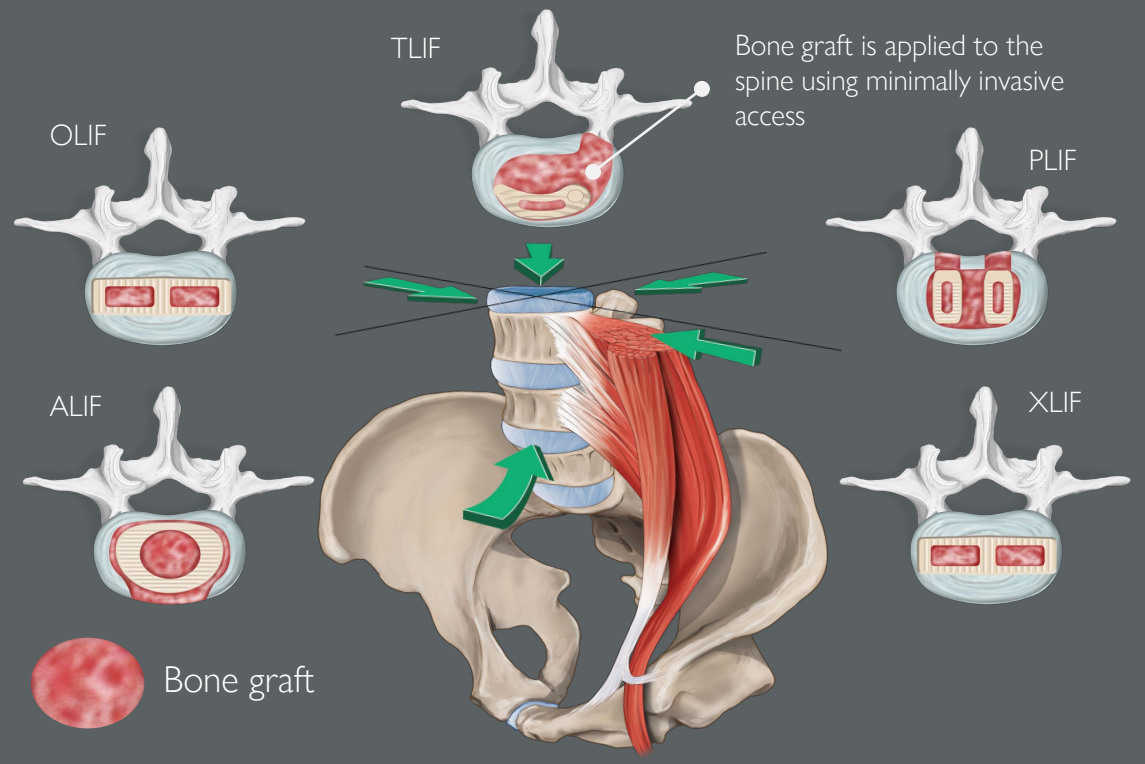


Kuros Biosciences

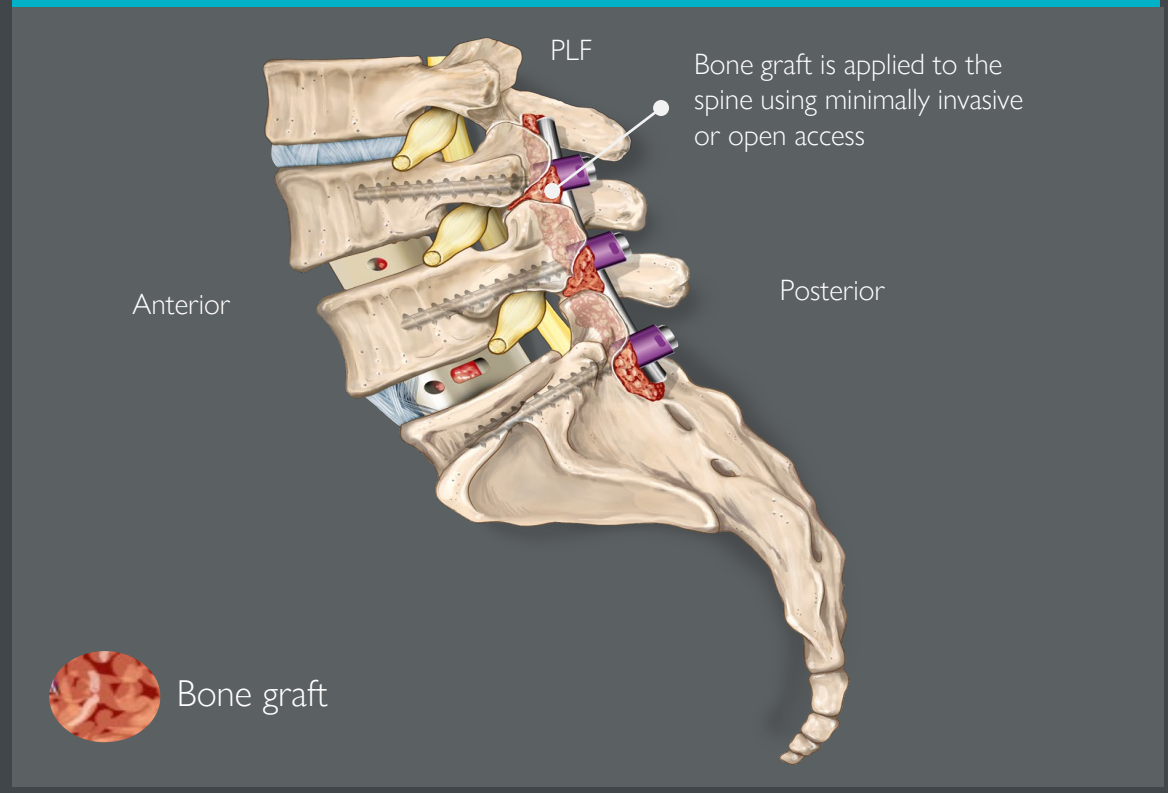
Two main types of spinal fusion surgery

Spinal fusion: joining two or more vertebrae in the spine, aiming to eliminate movement between them to provide stability and pain relief

Anterior column (interbody fusion)

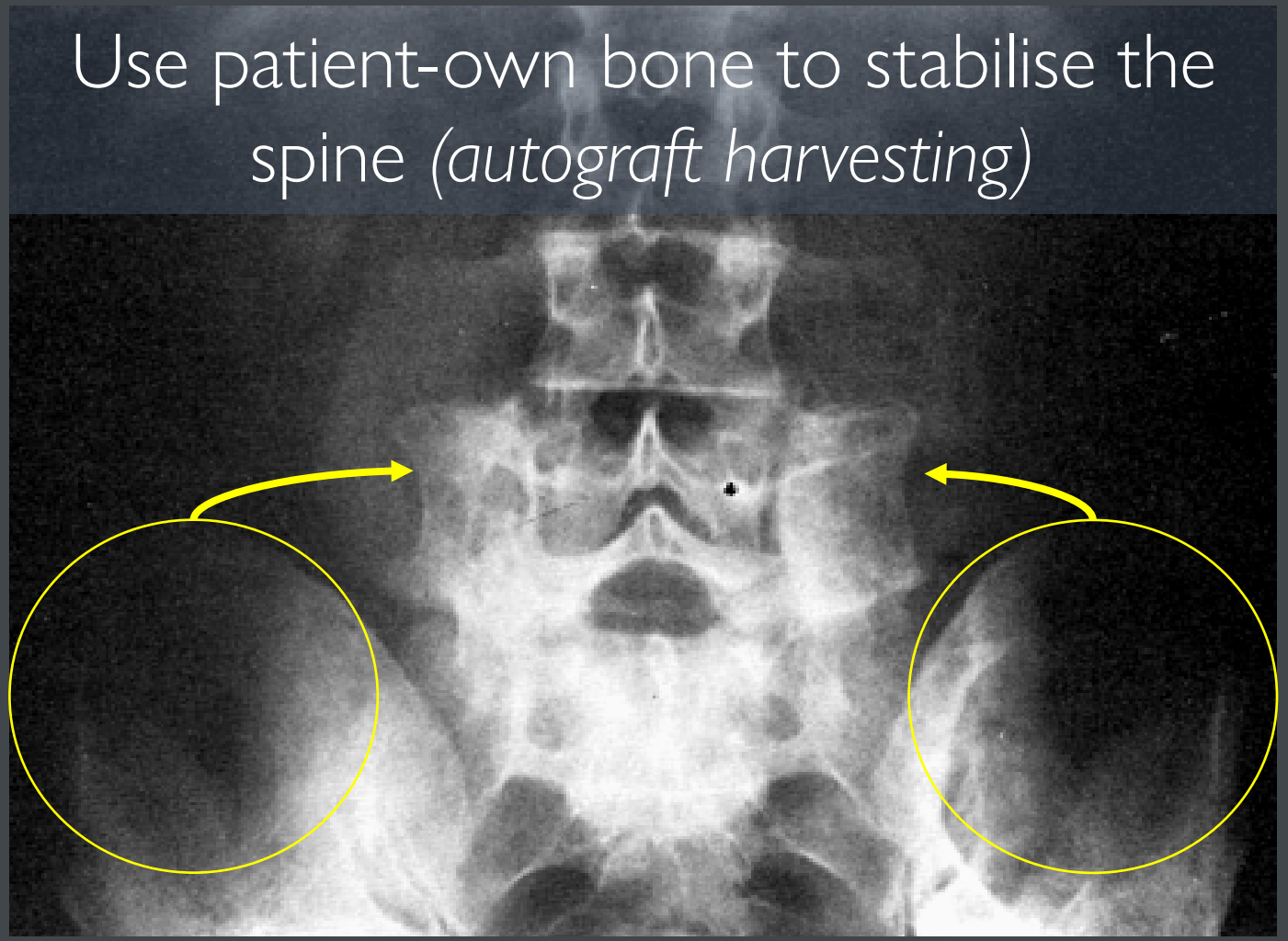


Posterior column (posterolateral spine fusion)



Kuros Biosciences

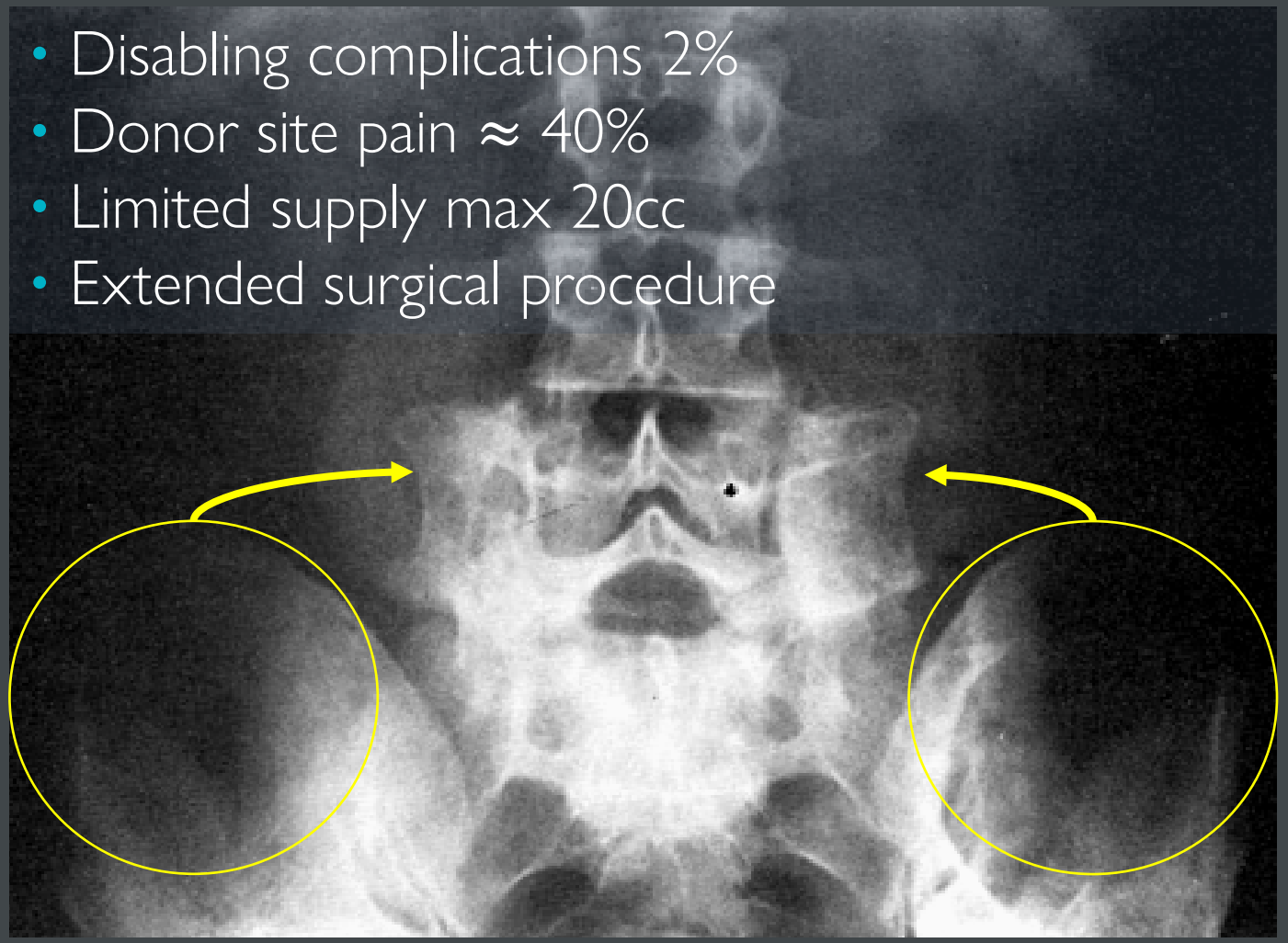
State-of-the-art



filling a defect by creating another

Kuros Biosciences

State-of-the-art



filling a defect by creating another

Kuros Biosciences

Clinical need to create a substitute for autologous bone

Why is a bone graft important & what do surgeons typically look for?

Bone grafts are used to promote and facilitate the healing process (along with hardware) where two or more bones are joined together to form a single, solid bone

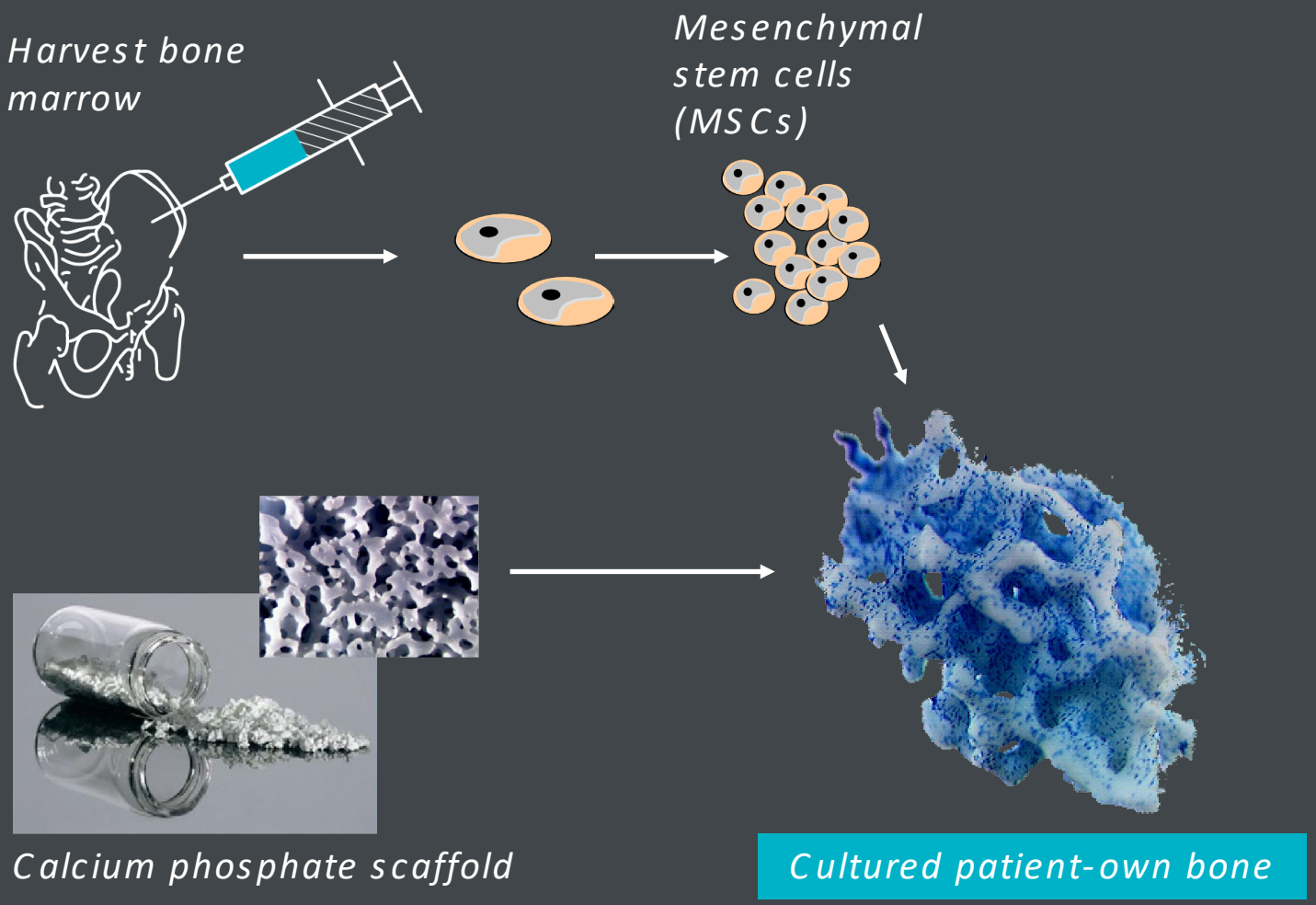
- **Osteoconductive**: a scaffold for bone growth
- **Osteogenic**: contains bone forming cells
- **Osteoinductive**: recruit and upregulate bone forming cells

MagnetOs is not cleared by the FDA or TGA as an osteoinductive bone graft

Grow patient-own bone in a culture dish?

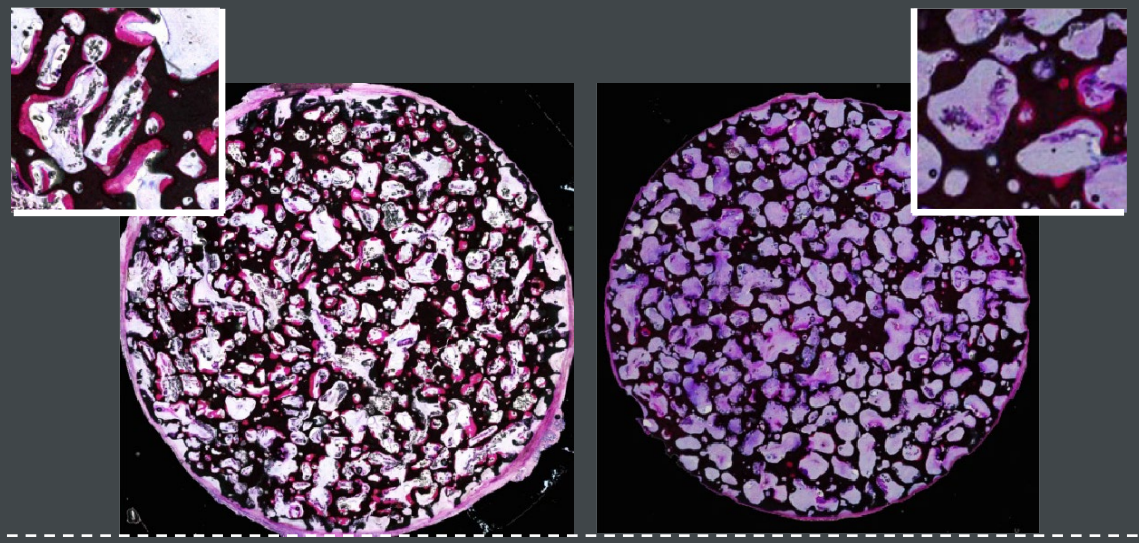
Started around 30 years ago (IsoTis)

Bone tissue engineering: culturing MSC's on biomaterial scaffold to grow bone



Discovery of osteoinductive materials

Ectopic implantation
(goat muscle pouch)



with MSCs

without MSCs

Clear effect of cells *(ectopic)*

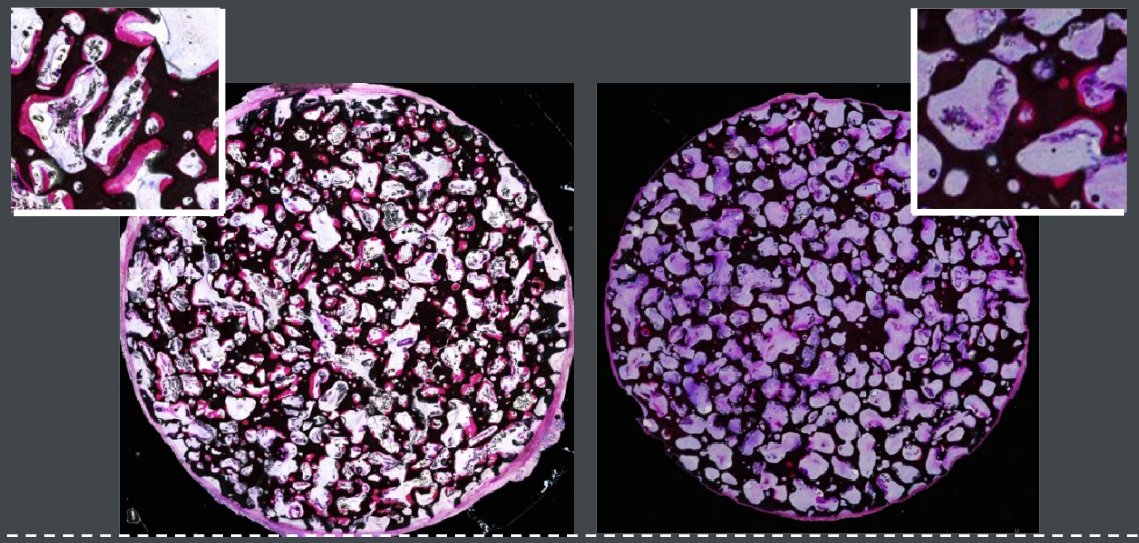
Histology: study of the microscopic structure of tissues

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans.
1.Data on file.

Kuros Biosciences

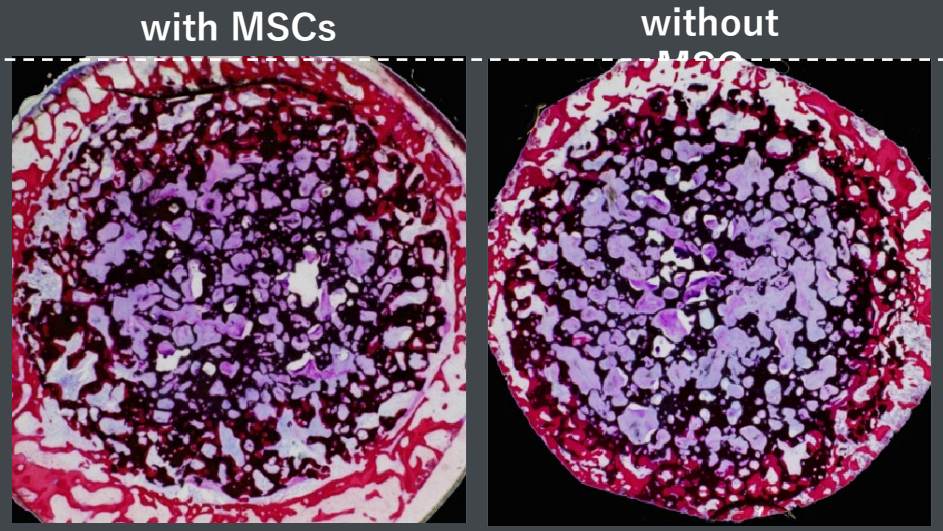
Discovery of osteoinductive materials

Ectopic implantation
(muscle)



Clear effect of cells *(ectopic)*

Orthotopic implantation
(Ø17mm bone defect, Os Ilium)



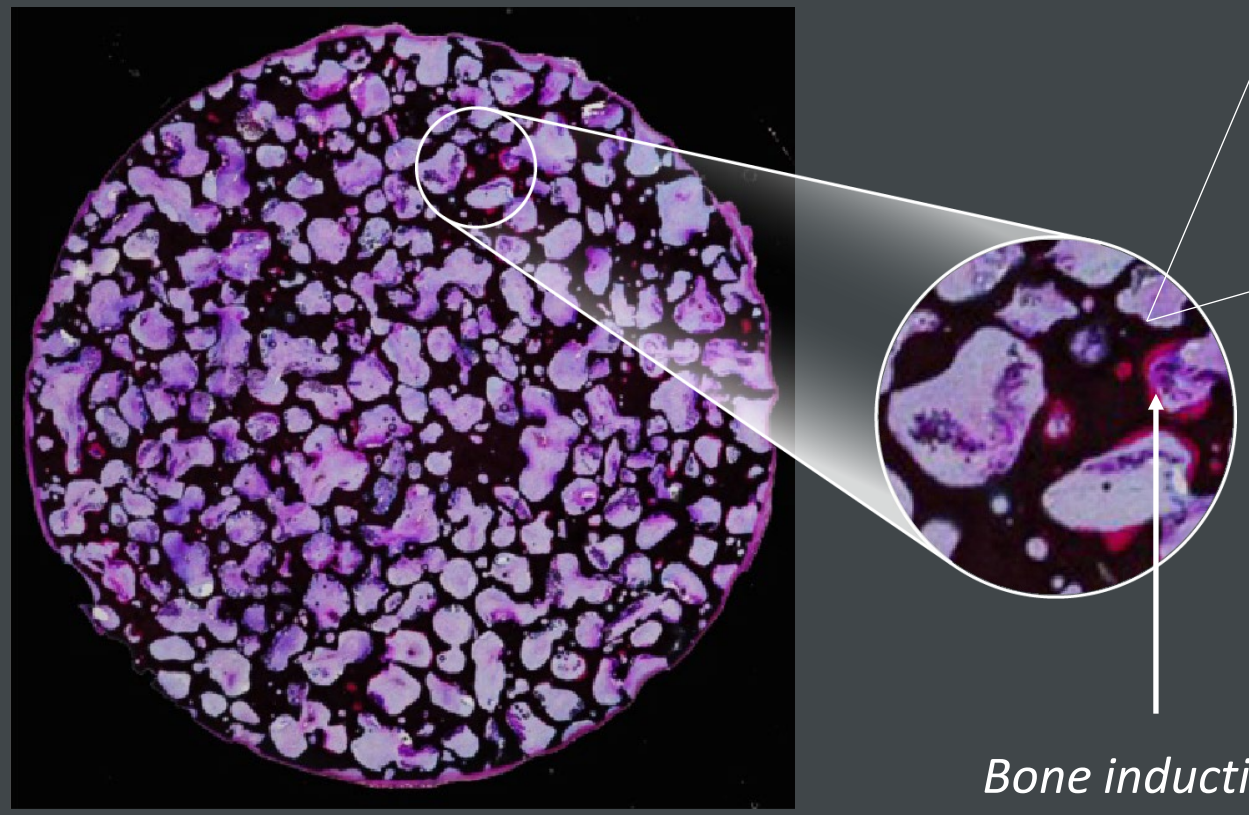
Limited effect of cells *(orthotopic)*

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans.
1.Data on file.

Kuros Biosciences

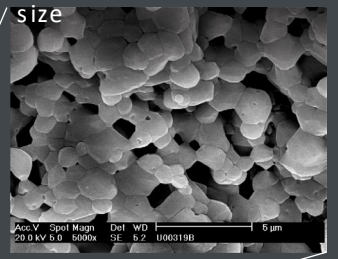
Discovery of osteoinductive materials

Muscle implantation in a goat model



Without stem cells

Micro-porous surface topography, small grain size



Bone induction?

Indication for existence of bone inducing materials?!

Incorporated Progentix Orthobiology BV

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans.
1.Data on file.

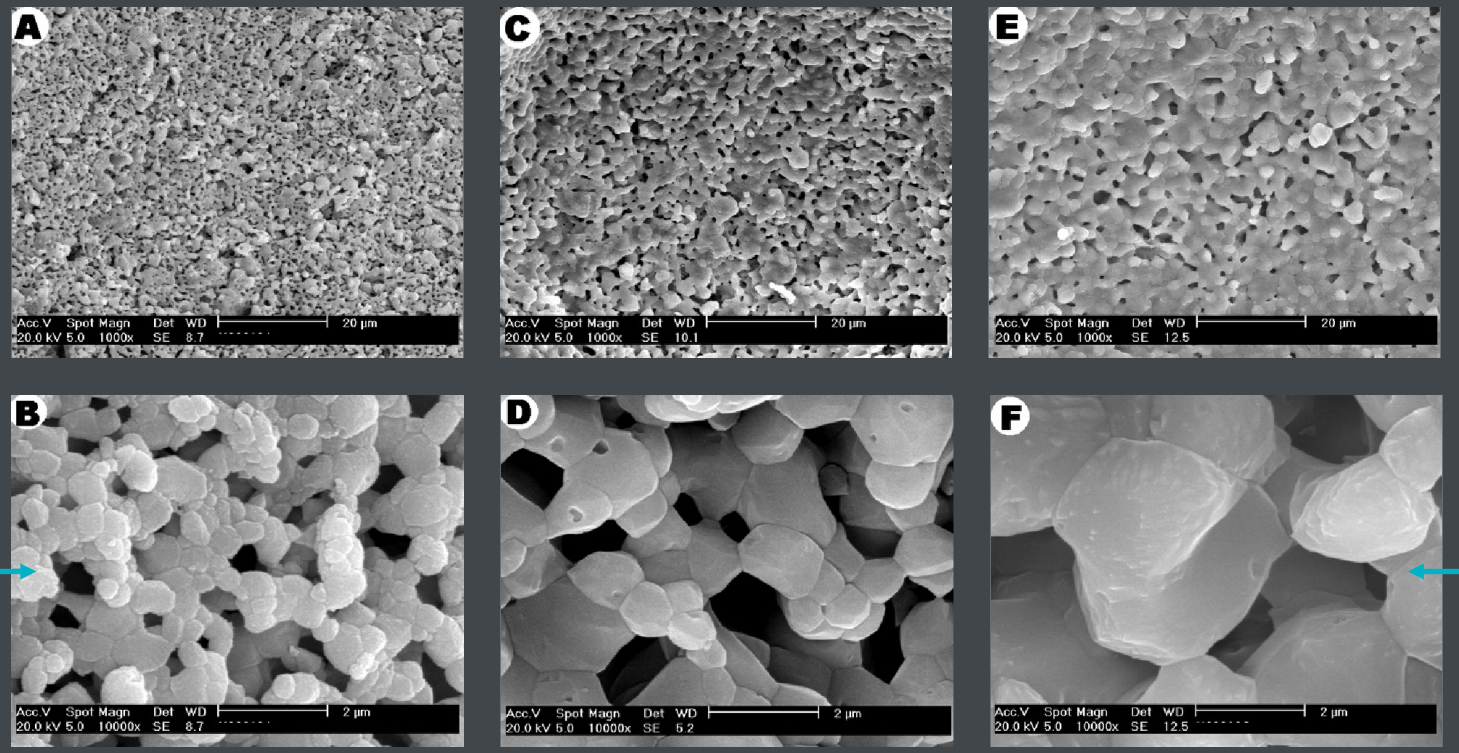
Kuros Biosciences

Calcium phosphates with different surface topographies

Sintering temperature affects microporosity & surface topography.[1,2,3]

Scanning Electron Microscope (SEM) images of different surface topographies

BCP1100 | BCP1200 | BCP1300



Experimental surface

Similar surface to commercially available CaP bone graft materials

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans

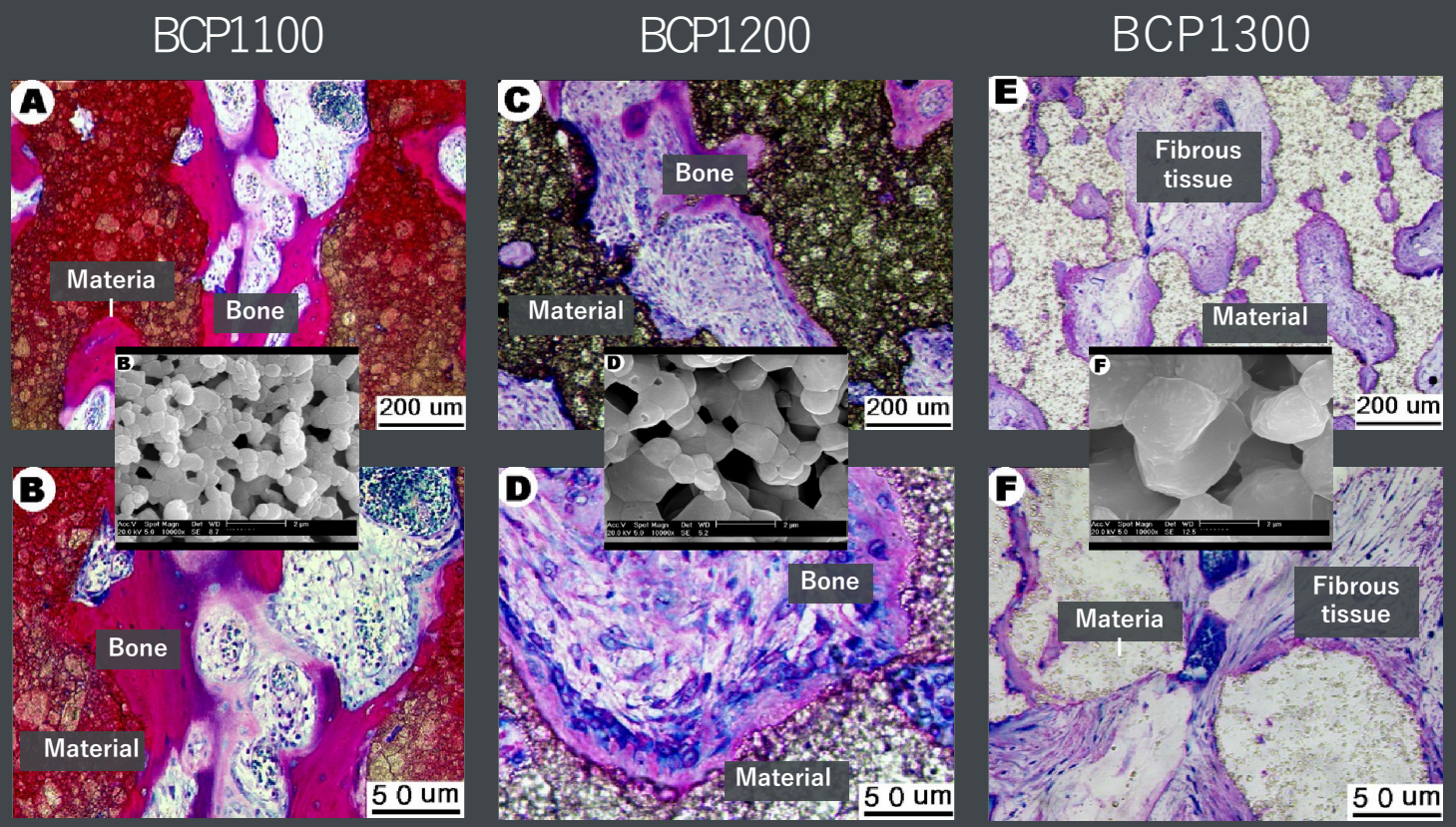
1. De Bruijn et al., *Woodhead Publishing, CRC Press*, pp 199-219 (2008). 2. Yuan et al.,*PNAS*, 107(31):13614-13619 (2010). 3.Yuan et al., *Nat Rev Rheumatol* 7, 1 (2011).

Kuros Biosciences

Material-driven bone formation (osteoinduction)

Surface topography, grain size & micropores are crucial.[1,2,3]

Surface topography, grain size & microporosity dictate osteoinductive response



Tissue response after implantation in muscle

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans

1. De Bruijn et al., *Woodhead Publishing, CRC Press*, pp 199-219 (2008). 2. Yuan et al.,*PNAS*, 107(31):13614-13619 (2010). 3.Yuan et al., *Nat Rev Rheumatol* 7, 1 (2011).

Kuros Biosciences

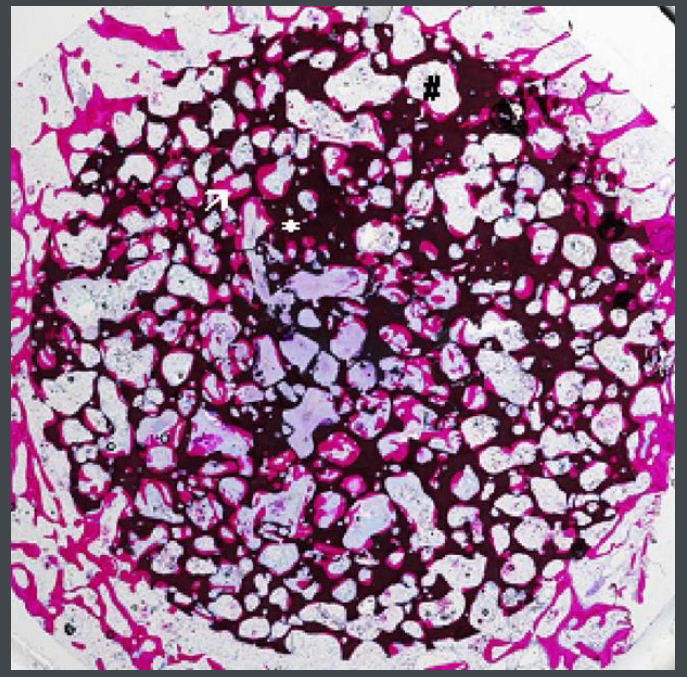
"Just by altering surface topography,
we can make a material **osteoinductive**"

Clinical significance?

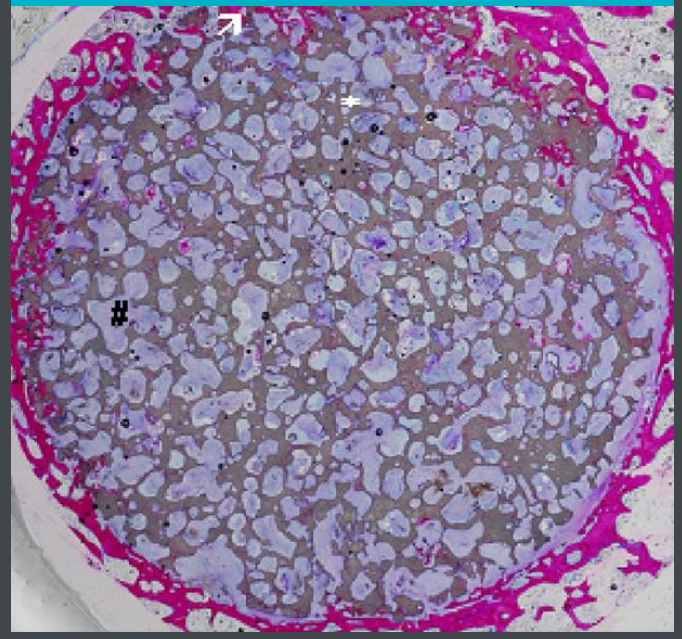
Osteoinductive Calcium Phosphate (CaP) allows full repair of large bone defects

Fuchsia staining reveals extensive bone formation with osteoinductive CaP, compared to minimal ingrowth with conventional CaP.

Osteoinductive CaP



Conventional osteoconductive CaP



12 weeks implantation in goat iliac wing (17mm diameter bone defect)

Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans.
1.Data on file

Kuros Biosciences

Sale of Progentix (AttraX®) to NuVasive in 2009

- Agreement for orthopedic field
- Calcium phosphate with high tri-calcium phosphate (TCP) content

AttraX® versus Autograft

Identical study design to recent **MagnetOs MAXA trial**

Key Points (1 year follow-up)[1]

AttraX Putty side: **55% fused**
Autograft side: **52% fused**

"After correction for multilevel fusions, non-inferiority of AttraX Putty in terms of fusion performance was demonstrated based on a margin of 15%."

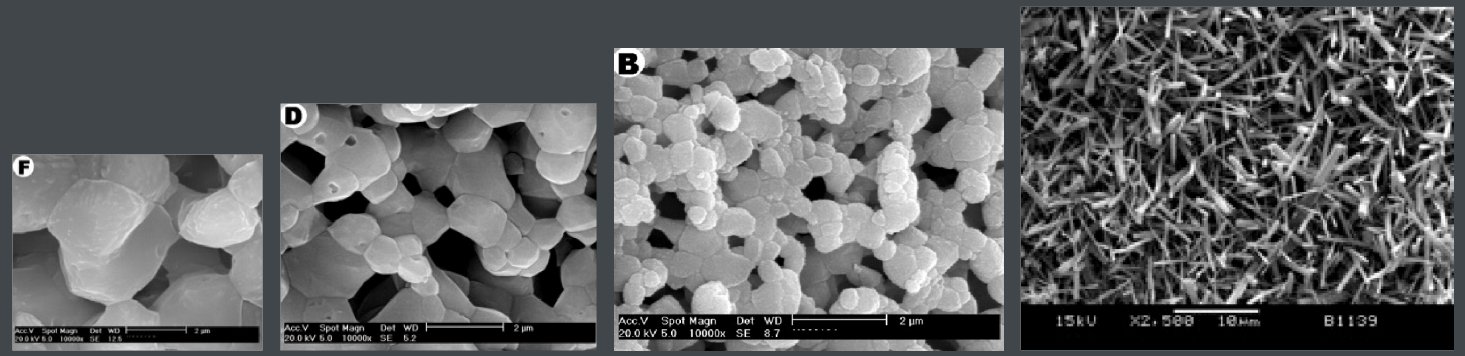
"Graft may have resorbed too fast compared to the rate of new bone formation, which will be the subject of further investigations."

1. Lehr et al., *Spine* 15;45(14):944-951 (2020).

Kuros Biosciences

We wanted to refine & improve the product

Can surface topography be refined and chemistry adjusted to get faster and more reliable bone formation?



Conventional surface structure

MagnetOs surface structure

ADVANCING TECHNOLOGY

Developed at Xpand Biotechnology BV

Kuros Biosciences

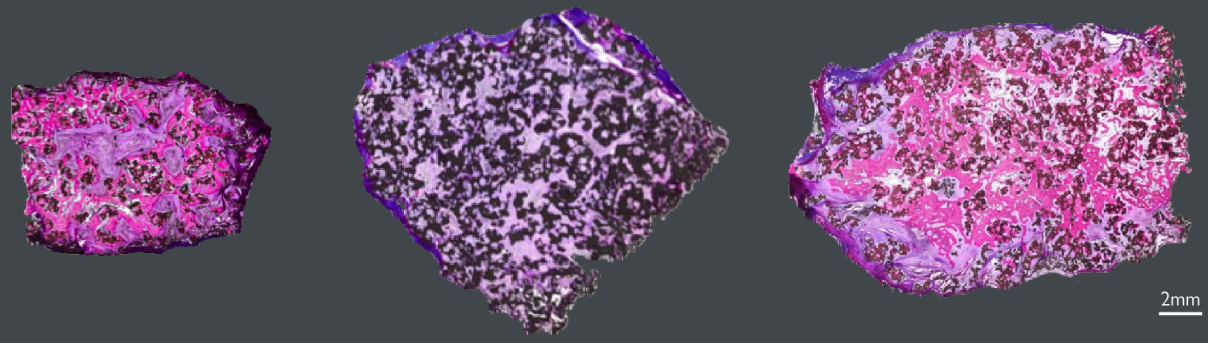
MagnetOs maintains volume and accelerates bone formation (<6 weeks)*†[1]

Histology: study of the microscopic structure of tissues

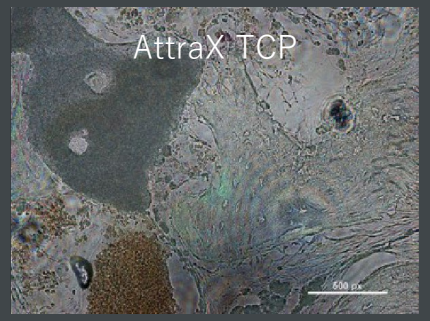
AttraX® TCP (Progentix)
8/8, 23.0 ± 10.0% Bone

(-) Control: synthetic TCP
0/8; 0% Bone

MagnetOs Granules
8/8, 22.8 ± 13.3% Bone



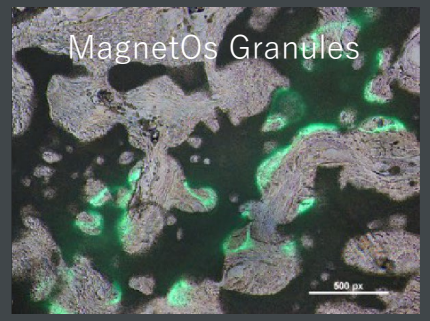
Intramuscular implantation, canine 12 weeks[1]



Calcein Green injection @ 6 weeks
number of positive spots

$\Sigma = 2$

$\Sigma = 2$
1



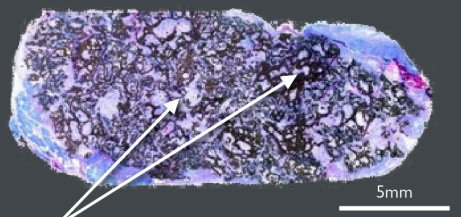
*Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com.
†MagnetOs is not cleared by FDA or TGA as an osteoinductive bone graft.
1. Duan et al., *European Cells Mater* 37:60-73 (2019).

Kuros Biosciences

MagnetOs' key differentiator

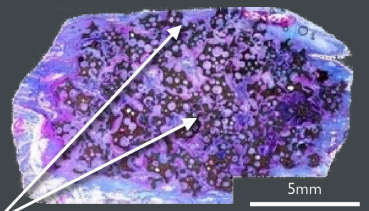
Superior surface structure promotes bone growth in soft tissues without added cells or growth factors*[1]

Vitoss®



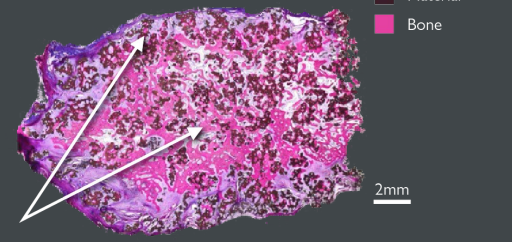
Fibrous tissue

ACTIFUSE



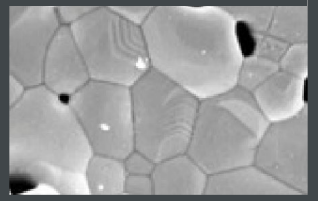
Fibrous tissue

MAGNETOS for predictable fusions

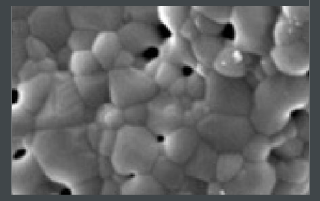


Bone tissue

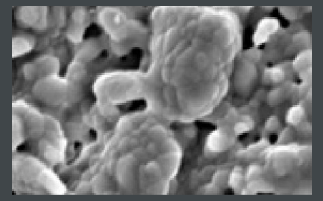
ChronOS®



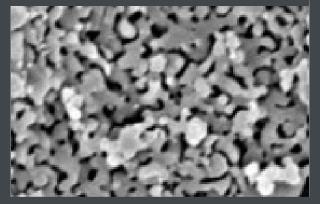
Vitoss



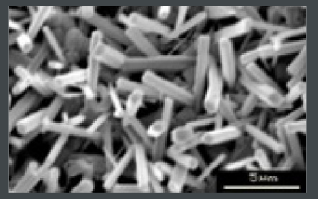
ACTIFUSE



AttraX



MagnetOs



ADVANCING TECHNOLOGY

MagnetOs preferentially directs early wound healing toward the bone-forming pathway[1]

*Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com.
†MagnetOs is not cleared by FDA or TGA as an osteoinductive bone graft.

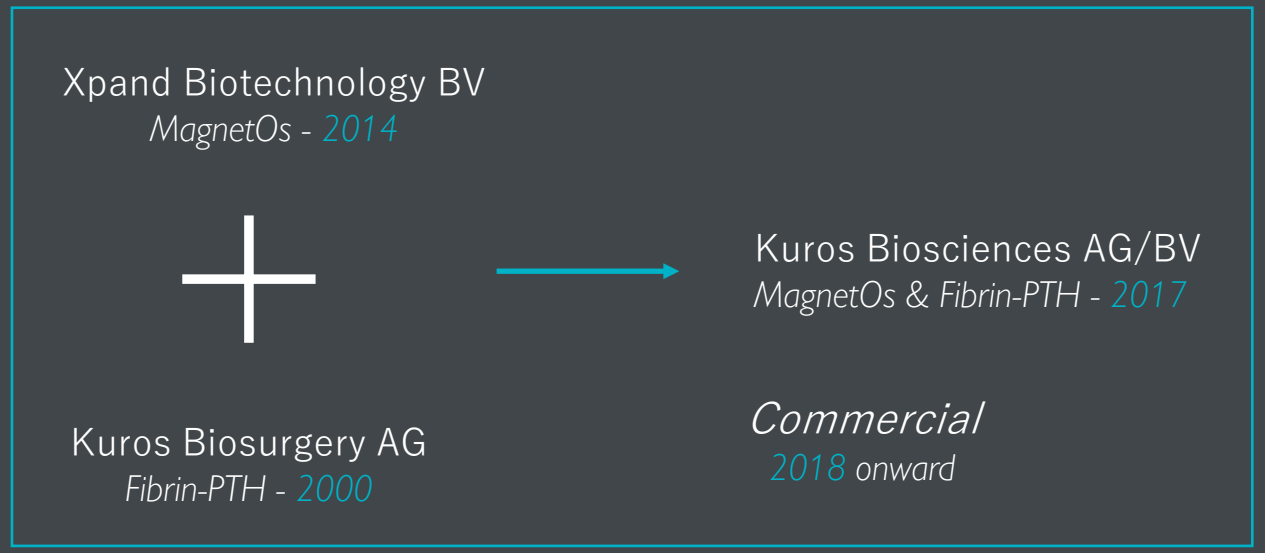
1. Duan et al., *European Cells Mater* 37:60-73 (2019).

Kuros Biosciences

Merger of Xpand Biotechnology BV (MagnetOs) with Kuros Biosciences AG

Refocus Kuros to pure-play orthobiologics company targeting spinal fusion

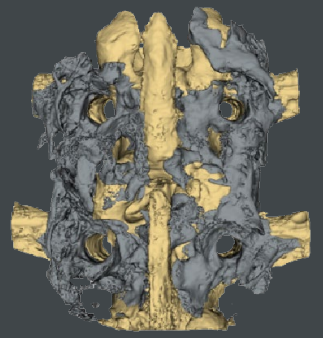
- Expand regulatory clearances of MagnetOs
- Build commercial infrastructure
- Invest in pre-clinical and prospective clinical studies to build a strong body of evidence supporting the efficacy and differentiation of MagnetOs



Kuros Biosciences

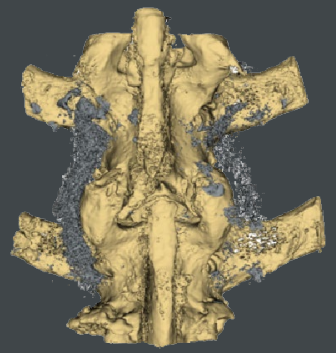
Reliable fusion: Graft volume in = bone volume out

Autograft

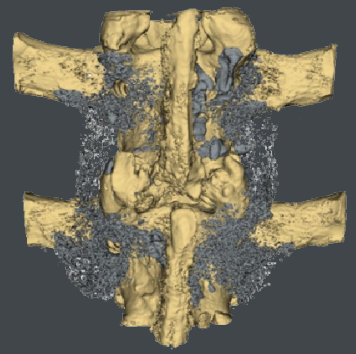


MAGNETOS for predictable fusions

Novabone Putty®

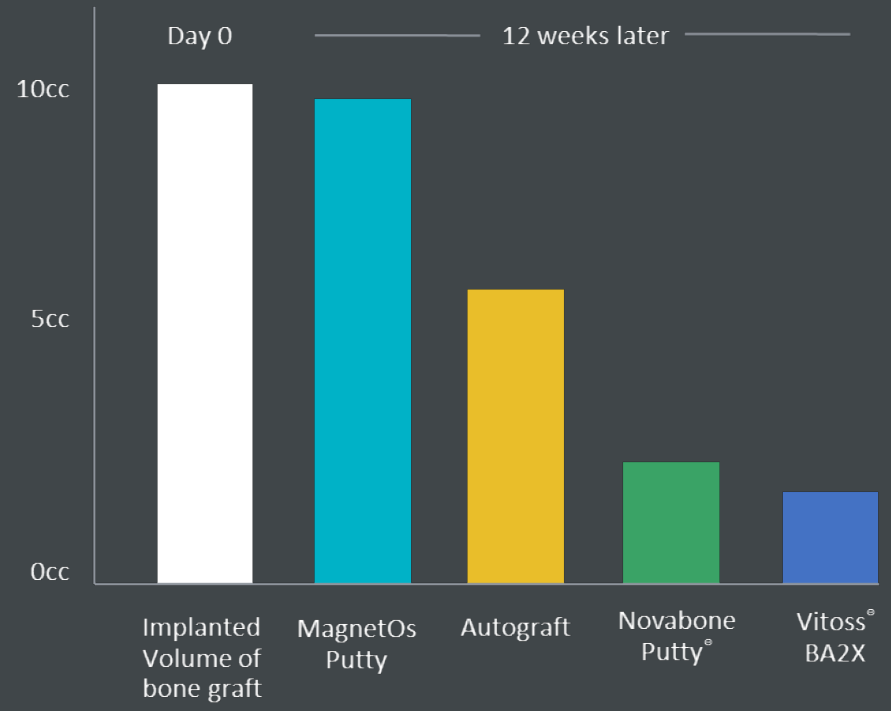


Vitoss® BA2X



Ovine instrumented posterolateral fusion
3D reconstructions after 12 weeks†‡[1]

Compared to market-leading alternatives, there is **no loss in fusion mass***

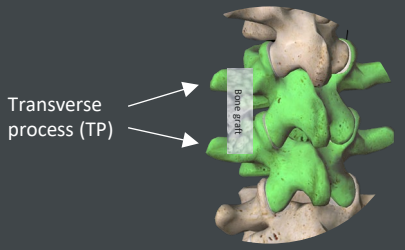


*MagnetOs has been proven to generate more predictable fusions than two commercially available alternatives in an ovine model of posterolateral fusion.
†Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans. Results from two different studies, in an ovine PLF model are shown. For important safety and intended use information please visit kurosbio.com.
‡Unilateral fusion mass volume (new bone + residual graft) determined by voxel (a 3-dimensional pixel)-based quantification on CT scans.
1. Van Dijk, et al. *Clin Spine Surg*.;33(6):E276-E287. 2020.

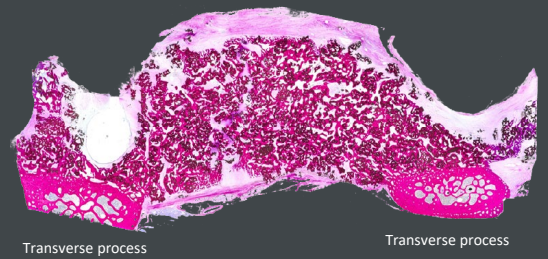
Kuros Biosciences

MagnetOs compared to other bone graft products

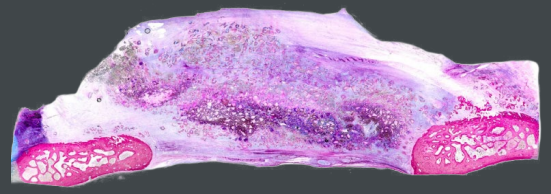
Head-to-head comparison in a 12-week ovine instrumented PLF model.[1,2]



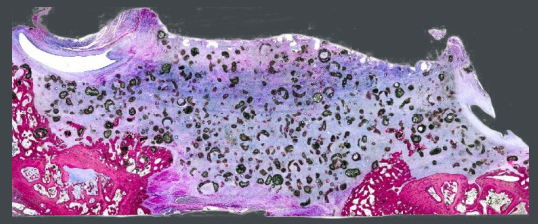
MagnetOs Putty



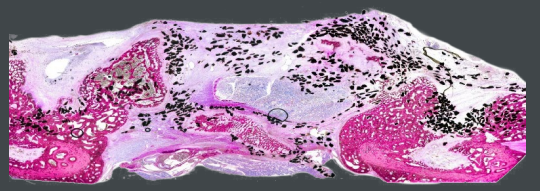
Novabone Putty®

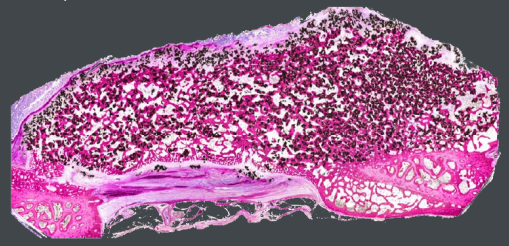


Fibergraft® BG Matrix

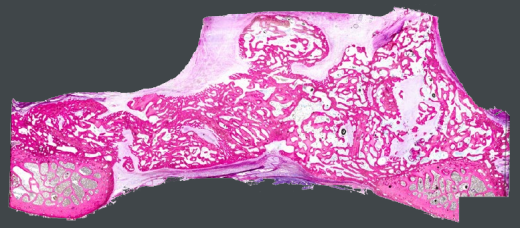


i-Factor Putty®

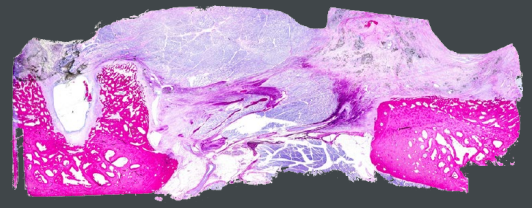




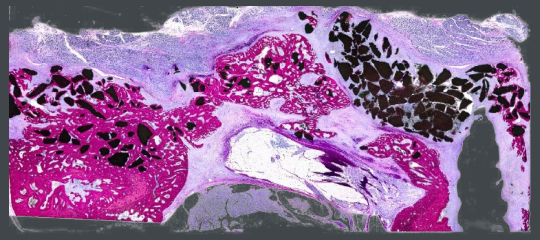
MagnetOs Flex Matrix



Autograft



Vitoss® BA2X



Catalyst Putty

MagnetOs outperforms competitor products in a 12-week ovine instrumented PLF model.[1,2]

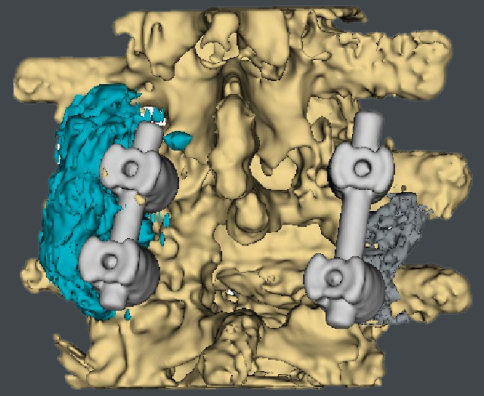
MagnetOs Putty fused 10/12 levels; MagnetOs Flex Matrix fused 6/6 levels; Autograft fused 9/12 levels; Novabone Putty® used 0/6 levels; Fibergraft® BG Matrix fused 0/6 levels; Vitoss® BA2X fused 0/6 levels; i-Factor Putty® fused 0/6 levels; Catalyst Putty fused 3/6 levels.

1. Van Dijk LA, et al., *JOR Spine*. Nov 28;1(4):e1039, (2018). 2. Van Dijk LA, et al., *Clin Spine Surg*. 33(6):E276-E287, (2020). 3. Nathan w. Kucko, et al., Accepted for review. Clinical Spine Surgery. (2025). These data are from two independent experimental groups but were completed with the same protocol. MagnetOs has been proven to generate more predictable fusions than two commercially available alternatives in an ovine model of posterolateral fusion. MagnetOs Flex Matrix is commercially available only in the US. Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com.

Kuros Biosciences

MagnetOs outperformance versus autograft published in *Spine*[1]

- Compared 10ccs of MagnetOs Granules (standalone, not mixed) to autograft (at least 50% bone harvested from the iliac crest) for posterolateral fusion (PLF)*
- 91-patient (128 segment), randomized, intra-patient controlled, observer-blinded, multi-center clinical trial*
- 1 in 5 patients active smokers†
- Patients requiring up to six-level instrumented posterolateral fusion (T10 – S2) were included
- Lumbar/thoracolumbar fusion was assessed by fine-cut CT-scan 12 months after surgery
- Patients were randomized to have MagnetOs implanted on one side of the spine and the gold standard autograft on the other side



PLF Level I clinical study[1]

79% MagnetOs fusion

47% Autograft fusion

3D reconstructions at one-year follow-up.[3]
Blue: MagnetOs Granules fusion mass
Gray: Autograft fusion mass;
Light Gray: Instrumentation.

74%

fusion rate in smokers‡[2]

vs. 30% for autograft
in this high-risk patient group

One Year Fusion	MagnetOs Granules	Autograft
Overall[1]	79% (101/128)	47% (60/128)
Smokers‡[2]	74% (20/27)	30% (8/27)

1 in 5 patients were active smokers
1 in 3 patients were former smokers

*MagnetOs Granules was mixed with venous blood.
†19 of 100 initial subjects were active smokers.
‡Radiographic fusion data of the smoker subgroup were not statistically analyzed as a subgroup and were not included in the per-reviewed publication of the study.[1] 128 evaluated spinal levels in 91 patients with eligible 1-year CT.
MagnetOs Granules is cleared for standalone use in the posterolateral spine. Please refer to the Instructions for Use for a full list of indications, contraindications, precautions, and warnings. For important safety and intended use of information please visit kurosbio.com.

1. Stempels, et al. *Spine*. 49(19):1323-1331, (2024). 2. Van Dijk, LA. 24th SGS Annual Meeting (Swiss Society of Spinal Surgery). Basel, Switzerland. (2024). 3. Data on file. MAXA case study.

Kuros Biosciences

MagnetOs results exceeded expectations

Study powered to demonstrate noninferiority, authors describe

“indicated superiority”[1]

1. Stempels, et al. *Spine*. 49(19):1323-1331.

Kuros Biosciences

The evolution of MagnetOs – A journey of innovation & milestones

1990s – IsoTis pursuit to grow bone on a scaffold cultured with MSCs. The effect of the cells was limited.

2007 – Founding of Progentix, development of AttraX®

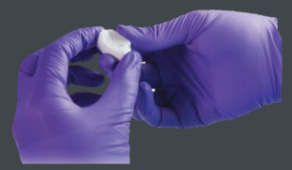
2009 – Sale of AttraX® to Nuvasive

2014 – Development of MagnetOs, proprietary superior formulation and surface technology[1,2]

2016/17 – Merger of Xpand (MagnetOs) with Kuros

2020 – Level I investigator led RCT featuring AttraX®[3]

2024 – Level I investigator led RCT featuring MagnetOs, indicated superiority vs. autograft[4]



MAGNETOS for predictable fusions

Kuros Biosciences

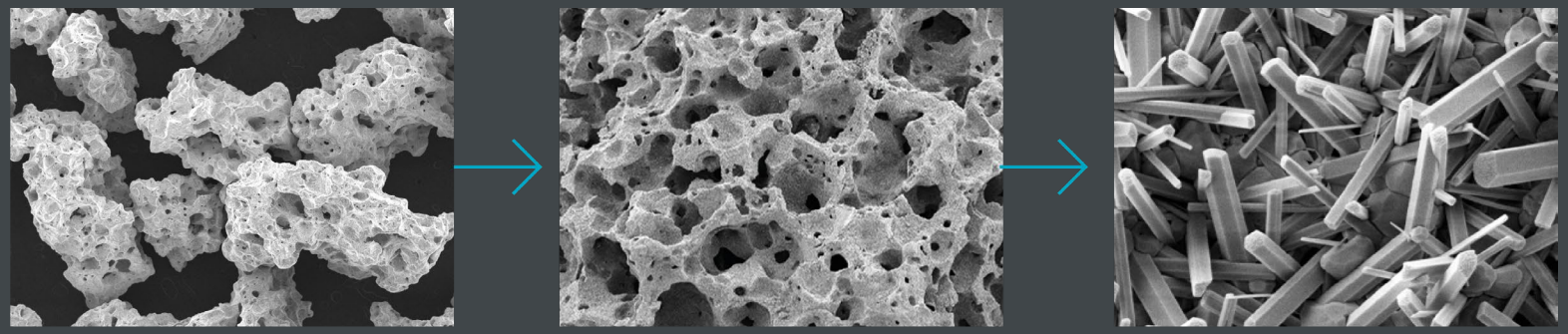
Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans.
For important safety and intended use information please visit kurosbio.com.

1. Van Dijk, et al. *eCM*. 2021;41:756-73. 2. Van Dijk, et al. *J Immunol Regen Med*. 2023;19:100070. 3. Lehr, et al. *Spine* (Phila Pa 1976). 2020;45(14):944-951. 4. Stempels, et al. *Spine*. 2024;49(19):1323-1331.

Kuros Biosciences

What is MagnetOs and how is it different?

- Giving surgeons **confidence** to deliver more **predictable fusions**[1]
- In a **Level I human clinical study published in *Spine***, MagnetOs achieved **nearly twice the fusion rate** of autograft in posterolateral fusions[1]
- Among active smokers – who comprised 1 in 5 patients – the difference was even more dramatic†[2]
- MagnetOs **grows bone on its own** thanks to **NeedleGrip™** – a proprietary submicron surface technology that harnesses the immune system to stimulate bone growth, without added cells or growth factors*‡[3,4]
- Ready-to-use, easy to mold, and reliably stays put, MagnetOs carries no intrinsic risk of human tissue related disease transmission[5-8]



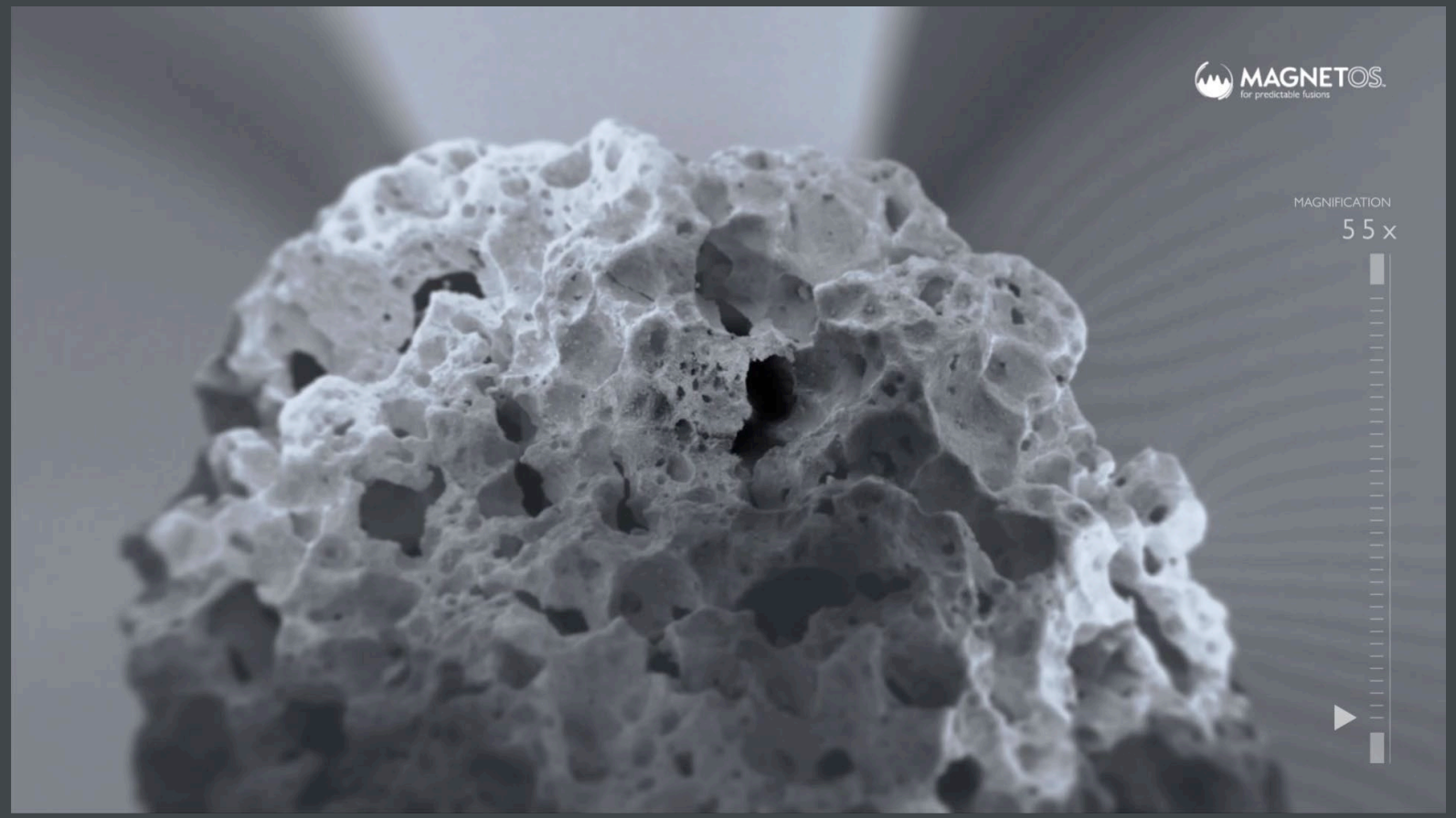
1mm; 25x magnification *500µm; 50x magnification* *2µm; 20,000x magnification*

*Results from in vitro or in vivo laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com
†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]
‡MagnetOs is not cleared by the FDA or TGA as an osteoinductive bone graft.

1.Stempels, et al. *Spine.* 2024;49(19):1323-1331. 2. Van Dijk, LA. 24th SGS Annual Meeting (SwissSociety of Spinal Surgery). Basel, Switzerland. Aug 2024. 3. Duan, et al. *eCM.* 2019;37:60-73. 4. Van Dijk, et al. *eCM.* 2021;41:756-73. 5. Instructions for Use (IFU) MagnetOs Granules (US). 6. Instructions for Use (IFU) MagnetOs Putty (US). 7. Instructions for Use (IFU) MagnetOs Easypack Putty (US). 8. Instructions for Use (IFU) MagnetOs Flex Matrix (US).

Kuros Biosciences

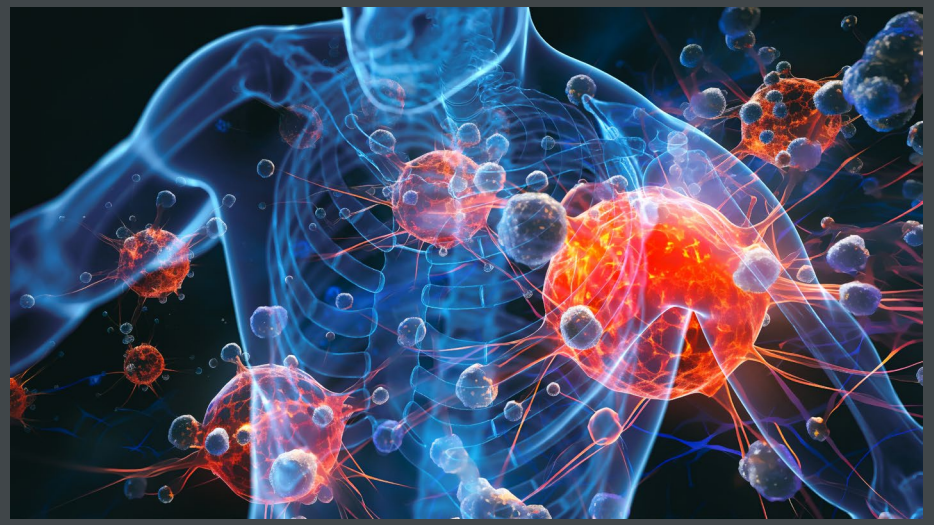
What does the surface of MagnetOs look like?



Kuros Biosciences

We have learnt that the immune system plays a big role in the healing process, and therefore in the production of bone

Because of its surface, MagnetOs harnesses the immune system to generate cell activity and stimulate bone formation*[1,2]



*Results from in vitro or in vivo laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com.

1.Van Dijk, et al. *eCM*. 2021;41:756-73. 2. Van Dijk, et al. *J Immunol Regen Med*. 2023;19:100070.

Kuros Biosciences

Why do surgeons choose MagnetOs?

Surface

MagnetOs grows bone on its own thanks to NeedleGrip – a proprietary submicron surface technology that harnesses the immune system to stimulate bone growth without added cells or growth factors.*

Superiority

MagnetOs demonstrated non-inferiority – and authors described its performance as having "indicated superiority" – vs. the "gold standard" autograft in a recent Level 1 human clinical study for posterolateral fusions (PLF).[1]

Sales

MagnetOs is supported by a unique – and growing – network of sales alliances and partnerships worldwide.

Safety

MagnetOs contains no human cells or growth factors which alleviates concerns of disease transmission.[2]

Skeleton

MagnetOs has broad indications throughout the spine, extremities, and pelvis (depending on formulation and geography).[2]

Science

This is all possible due to Kuros' total commitment to evidence-based science.

***** MagnetOs is not cleared by the FDA or TGA as an osteoinductive bone graft.

1. Stempels et al., *Spine.* 2024, 49(19): 1323–1331. **2.** Instructions for Use (IFU) MagnetOs Granules (US), IFU MagnetOs Granules (EU), IFU MagnetOs Granules (AUS), IFU MagnetOs Putty (US), IFU MagnetOs Putty (EU), IFU MagnetOs Putty (AUS), IFU MagnetOs Easypack Putty (US), IFU MagnetOs Flex Matrix (US).

Kuros Biosciences

Global commercial strategy

Kuros Biosciences

Where we are:
Numbers at-a-glance

CHF75.6 million Total Medical Device sales in 2024

>320 cumulative scientific papers, decades of research advancing bone graft innovation

125% year-over-year growth for Total Kuros Medical Device sales

>130 global employees and counting

100+ combined research years and scientific expertise in bone graft innovation

65% increase in distributors and sales agents in 2024, growing from 91 to 150

>25 orthobiologics-related patents secured

>20 commercial markets serving spine, extremities, trauma and oncology

20 well-controlled Level I–IV clinical trials initiated or completed to date

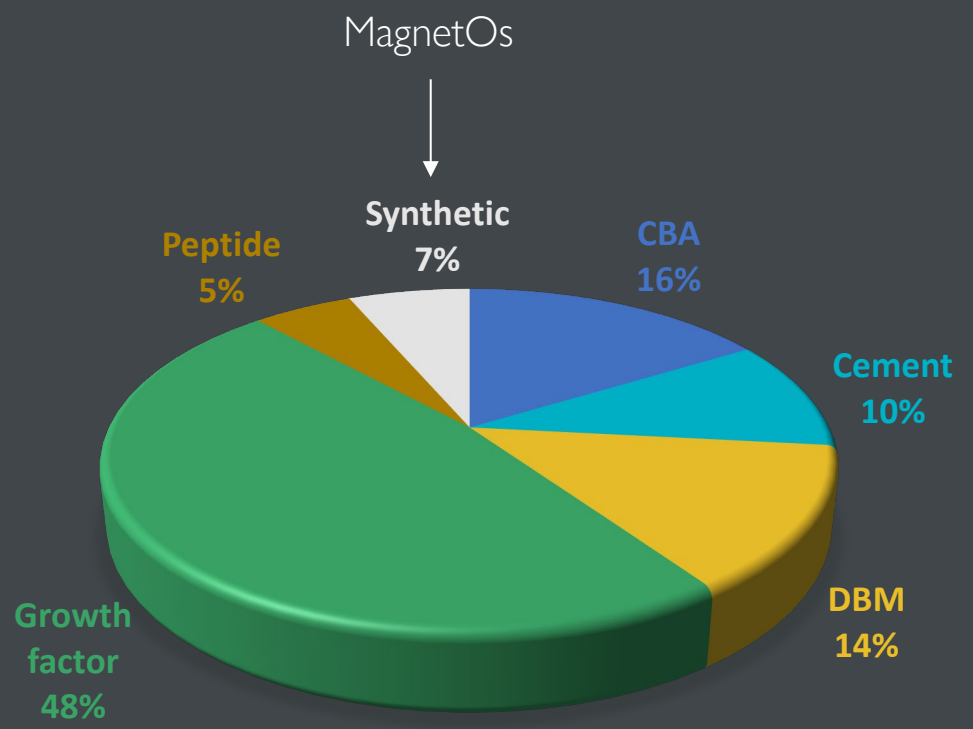
12 U.S. FDA clearances granted to date, expanding MagnetOs indications

11.9% adjusted EBITDA (first year positive EBITDA in 2024)

Kuros Biosciences

MagnetOs is ranked 9th largest brand by revenue in U.S. biologics market

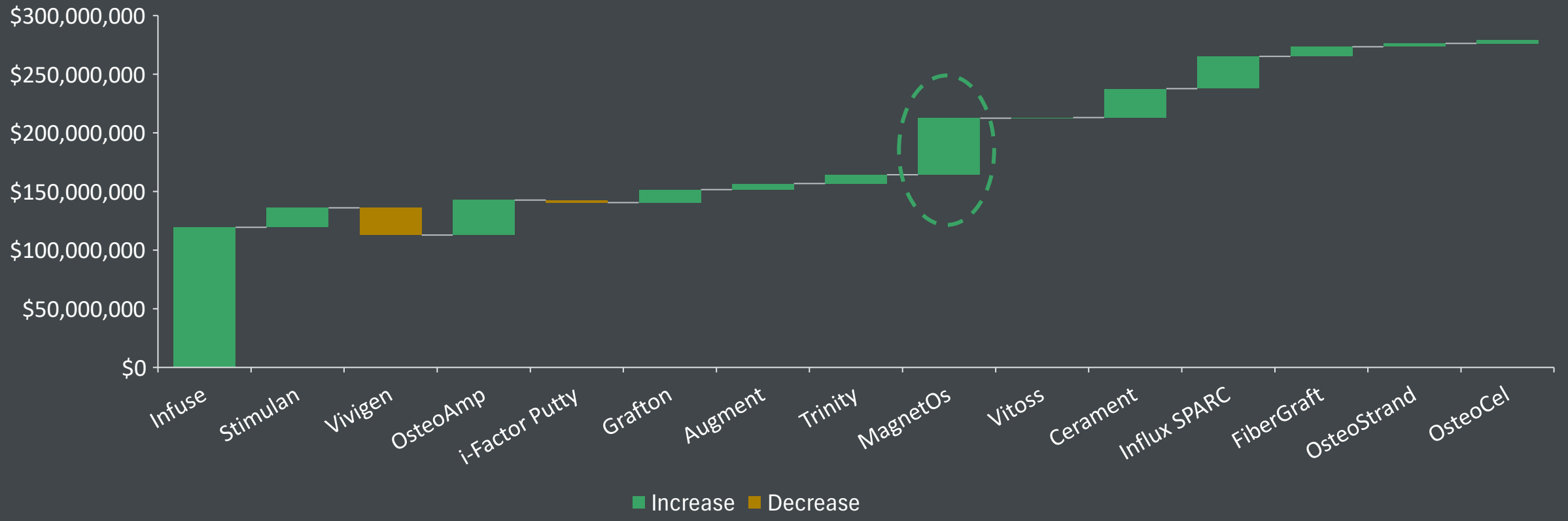
Rank	Company	Brand	Category	Estimated 2024 revenue
1	Medtronic	Infuse	Growth factor	$993M
2	Biocomposites	Stimulan*	Cement + anti-b	$172M
3	DePuy Synthes	Vivigen	CBA	$140M
4	Bioventus	OsteoAmp	DBM	$137M
5	Cerapedics	i-Factor	Peptide	$123M
6	Medtronic	Grafton	DBM	$122M
7	Stryker	Augment	Growth factor	$116M
8	Orthofix	Trinity	CBA	$114M
9	**Kuros**	**MagnetOs**	**Synthetic**	**$83M**
10	Stryker	Vitoss	Synthetic	$74M
11	BoneSupport	Cerament*	Cement	$69M
12	ISTO Biologics	Influx SPARC	CBA	$67M
13	DePuy Synthes	FiberGraft	Synthetic	$62M
14	Orthofix	OsteoStrand	DBM	$58M
15	Globus Medical	OsteoCel	CBA	$56M



*Cement/cement-like products, not competitive to MagnetOs
1. iData U.S. MedSKU May 2025

Kuros Biosciences

With YoY revenue growth higher than every brand but Infuse



1. iData U.S. MedSKU May 2025

Kuros Biosciences

Kuros has many growth levers

01 **Organic market growth**

02 **Geographic expansion**

03 **New customers**

- Surgeons
- Hospitals
- Distributors/sales agents

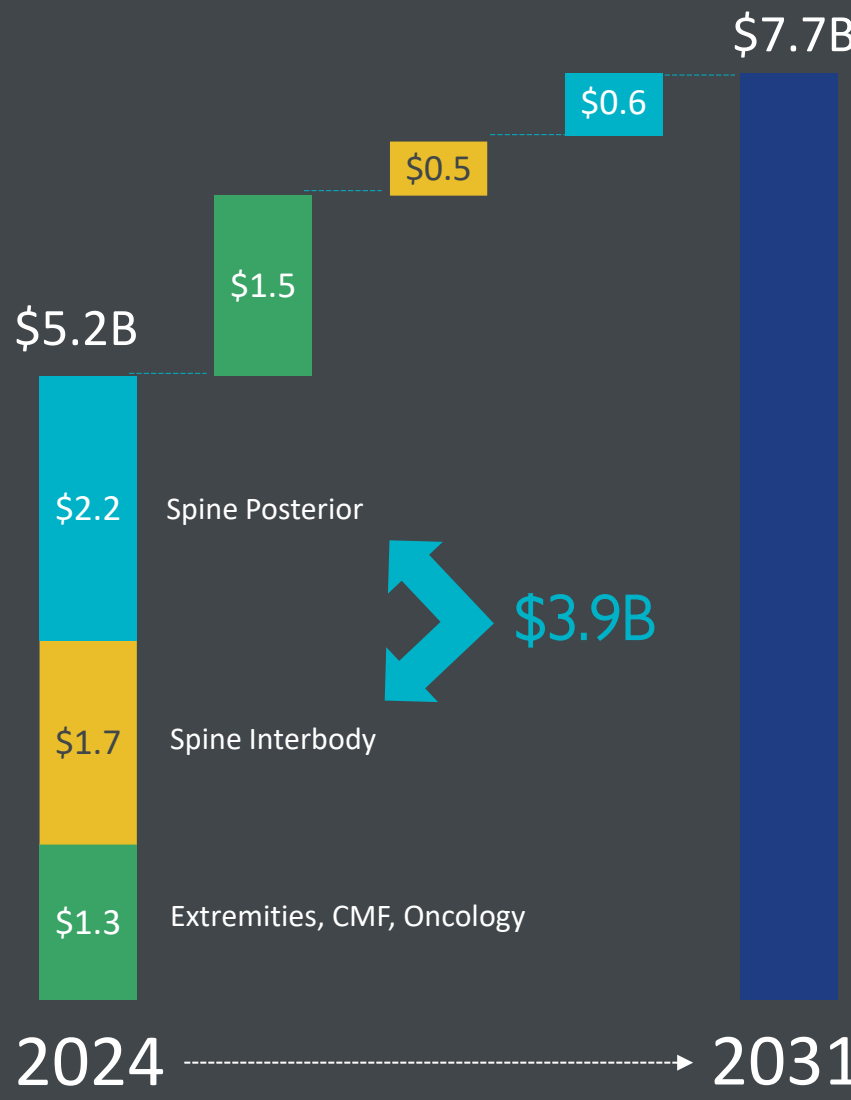
04 **New products & indications**

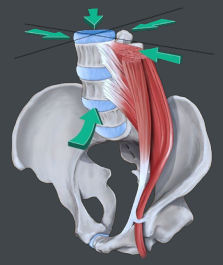
05 **New pathologies**

06 **Inorganic opportunities**

Kuros Biosciences

Spine & extremities market set to surge from $5.2B to $7.7B by 2031



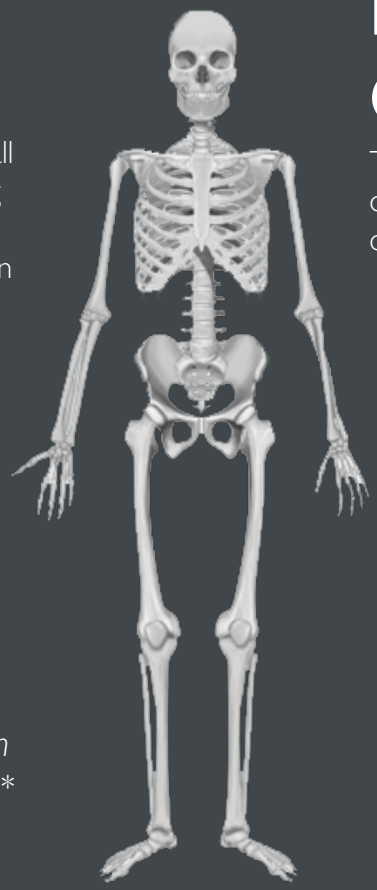


Spine
$3.9B

MagnetOs is indicated for all spinal procedures providing increased opportunity and ability to promote for use in the interbody space*

Posterior biologics market
Bone graft placed in patient's back
$2.2B

Interbody biologics market
*Bone graft placed in patient's disc space**
$1.7B



Extremities, CMF & Oncology $1.3B

Three MagnetOs formulations indicated outside of spine providing increased market opportunity

Pelvis & extremities
Upper and lower limbs including long bone trauma, and foot & ankle

Cranio-maxillofacial (CMF)
*Trauma, reconstruction, and aesthetic procedures involving the skull, face, and jaw***

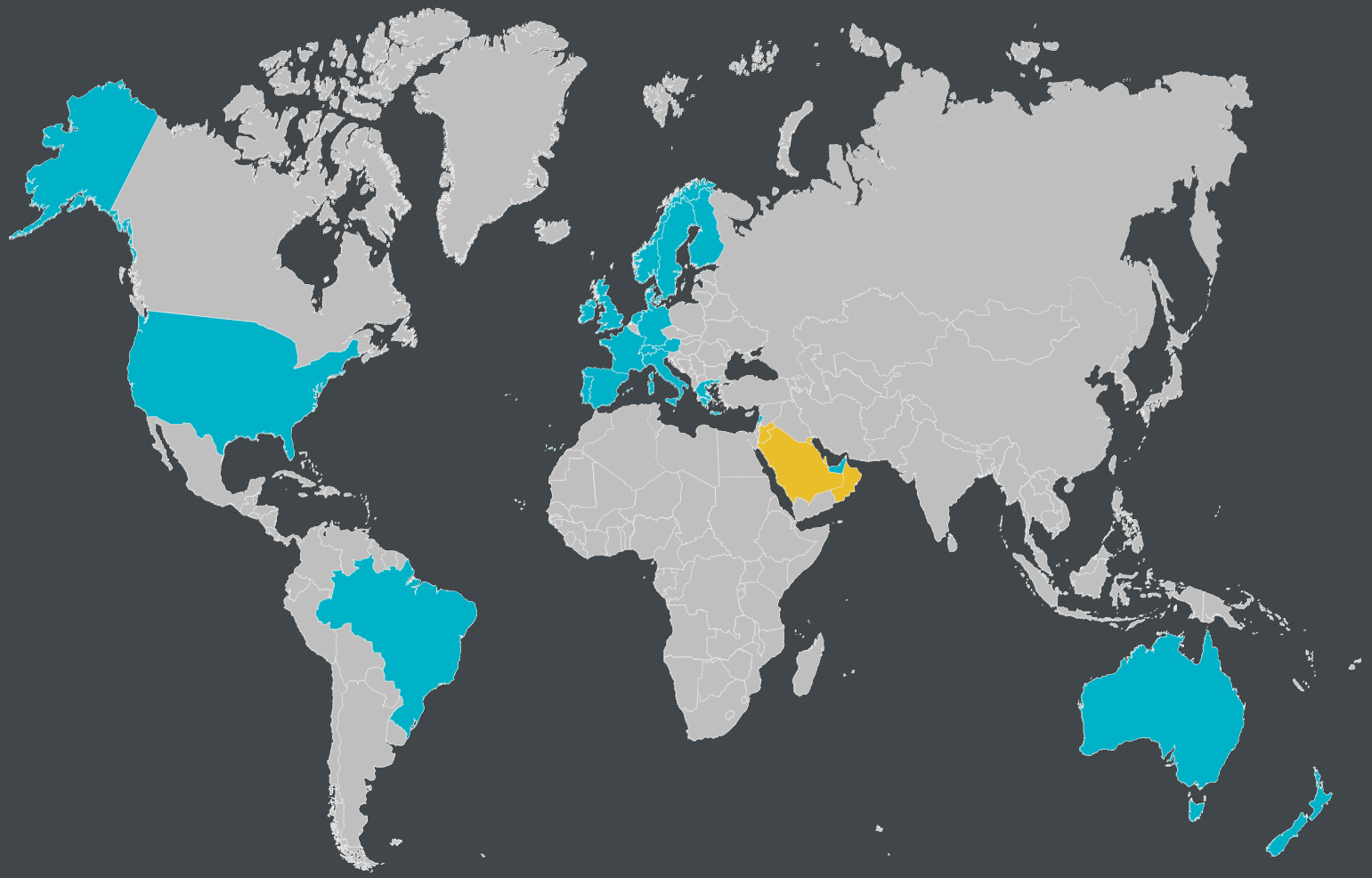
Oncology
Distinct specialized category, intersects with spine, orthopedics, and extremities

*When used in intervertebral body fusion procedures, MagnetOs Granules, MagnetOs Putty, MagnetOs Easypack Putty and MagnetOs Flex Matrix must also be used with an intervertebral body fusion device cleared by FDA for use with a bone void filler. **MagnetOs Granules and MagnetOs Putty are approved for cranio-maxillofacial use based on CE certification

1. Global Orthopedic Biomaterial Market, iData February 2025.

Kuros Biosciences

Kuros continues to expand into new markets



Regulatory registrations 2024

- New Zealand
- United Arab Emirates

Regulatory registrations 2025

- Lebanon
- Brazil*

On-going registrations 2025

- Saudi Arabia
- Jordan
- Oman
- Kuwait
- Qatar

Blue: Registration completed

Yellow: Ongoing registration process as of May 5, 2025

*Only MagnetOs Granules is approved for use in Brazil.
Global expansions refer only to MagnetOs Granules and MagnetOs Putty

Kuros Biosciences

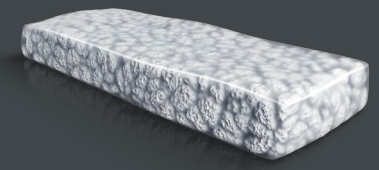
We're developing the formulations that surgeons need

MagnetOs **Easypack Putty**

- Pre-filled syringe
- Ready-to-use
- Easy-to-mold

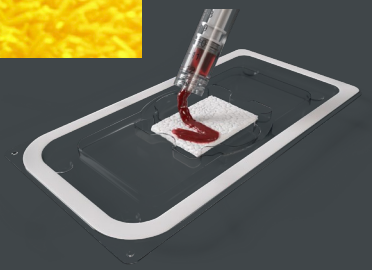
MagnetOs **Putty**

- Putty
- Ready-to-use
- Easy-to-mold



MagnetOs **Flex Matrix**

- Strips with collagen
- Flexible
- High wickability



MagnetOs **Granules**

- Granules
- Strong, proven foundation

MagnetOs Easypack Putty and MagnetOs Flex Matrix are available for use in the U.S. only

Kuros Biosciences

Because of these efforts, MagnetOs provides significantly improved flexibility & peace of mind compared to alternatives

Category (product)	Posterolateral Spine (in the U.S.)	Intervertebral disc space (in the U.S.)	Pelvis & Extremities (in the U.S.)
MagnetOs	✓	✓	✓ (MagnetOs Flex Matrix pending FDA)
BMP-2 (Infuse)	✗[1]	✓	✓
P-15 peptide (i-FACTOR)	✗	Limited[2]	✗
Cell-based allografts (CBA)	✗[3]	✗[3]	✗[3]
Demineralized Bone Matrices (DBM)	✗[3]	✗[3]	✗[3]
1st Gen Synthetic	✓	✗	✓ (some formulations)
2nd Gen Synthetic (AttraX)	✓	✓ (some formulations)	✓ (some formulations)

"I like not having to worry about where your product is on-label, any associated risk, or patient consent. I can use it everywhere!"

~ U.S. spine surgeon, KIX event

1. Infuse US spinal indications are limited to single level ALIF and OLIF with specific Medtronic cages in skeletally mature patients with degenerative disc disease at one level from L2-S1, who may also have up to Grade 1 spondylolisthesis or Grade 1 retrolisthesis at the involved level. 2. i-FACTOR is indicated for single-level ACDF in an allograft ring, or a PEEK, titanium alloy or PEEK/titanium interbody fusion device cleared by FDA for use in cervical spine and with supplemental anterior plate fixation. 3. Human cell tissue-based products (HCPT/P) do not require specific FDA approval per indication under FDA Section 361 PHS Act.

And, MagnetOs minimizes safety concerns experienced with alternatives

"After experiencing tuberculosis in two of my patients, I will never again use a product containing cells"

~ U.S. spine surgeon,
Dr. Brandon Cook,
Destin Florida

Category (product)	Safety concern	Handling concern
BMP-2 (Infuse)	Heterotopic bone formation, radiculitis, dysphagia, inflammation, potential for increased cancer[1]	Must be used with Medtronic cages and carrier/scaffold[1]
P-15 peptide (i-FACTOR)	Handling & migration concerns due to inadequate containment of water-soluble carriers[2]	
Cell-based allografts (CBA)	Cadaver bone. disease transmission, lot-to-lot variation[3,4]	Frozen[5-7]
Demineralized Bone Matrices (DBM)	Cadaver bone. disease transmission, lot-to-lot variation[8]	

1. Instructions for Use (IFU) Infuse (US). 2. Instructions for Use (IFU) i-FACTOR Putty. 3. Schwartz, et al. Lancet Infect Dis. 2022;4:S1473-3099(22)00425-X, in press. 4. Wortham, et al. MMWR Morb Mortal Wkly Rep 2024;72:1385–1389. 5. Instructions for Use (IFU) ViviGen. 6. Instructions for Use (IFU) Trinity Elite. 7. Instructions for Use (IFU) Osteocel Plus. 8. Bae, et al. *Bone Joint Surg Am.* 2010;92(2):427-435

Kuros Biosciences

Why do spine surgeons choose bone graft substitutes vs. cement?

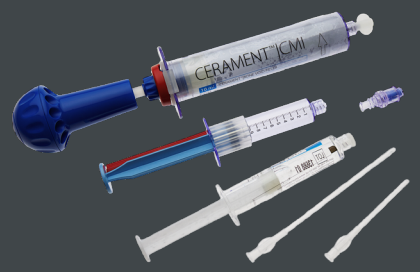
MagnetOs & cement/cement-like products are very different technologies with different clinical applications

Cement/cement-like products are used when a structural 'cement' is required, setting quickly and providing structural support

- Putty/injectable
- Settable & drillable
- Most have no data in spine beyond vertebral fractures

Example products:

- Cerament (Bone Support)
- Hydroset (Stryker)
- Refobacin (Zimmer Biomet)



Bone graft substitutes like MagnetOs are used to create fusions in long defects

- Cleared for use throughout the spine
- Not intended for structural stability
- Augmented with hardware

Common applications

Cement-like products	Bone graft substitutes
Filling voids after fracture reduction/tumor resection/infection removal, hip/knee replacements. Vertebral compression fractures	Filling interbody spaces, spine cages, or posterolateral gutters during cervical, thoracic, and lumbo-sacral spinal fusion procedures

Kuros Biosciences

What else influences surgeon choice?

Efficacy/data:

Surgeons look for products with Level I data

Handling & indications:

Surgeons want a product that is readily available, easy to use/mold, and stays put, wherever they need it

Peer Influence:

Surgeons are heavily influenced by their peers

Salespeople:

Sales agents & distributors influence surgeon choice

Kuros Biosciences

Kuros designs surgeon engagement to drive adoption & advocacy

"Thank you! I learned a great deal and plan to apply this in my OR."

"Excellent data. I'm now expanding MagnetOs to new procedures I hadn't used it for before."

"Much better understanding of the science—and I'm excited to use MagnetOs in future cases."

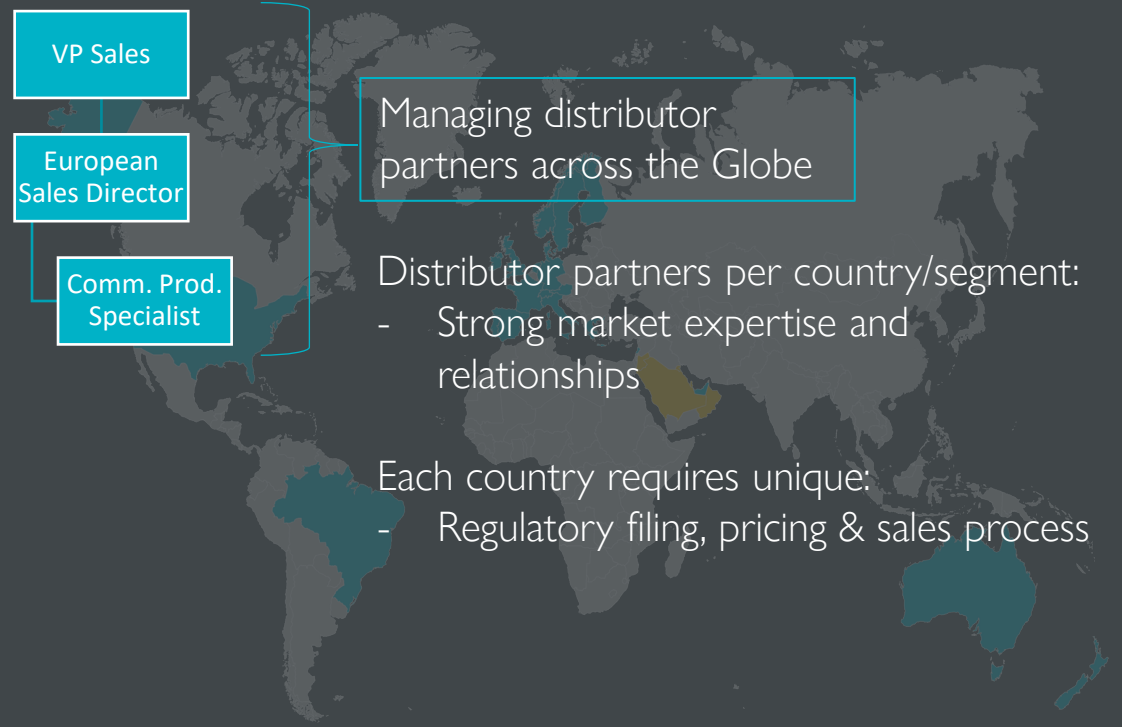
Kuros has an efficient, scalable sales model tailored to regional markets

U.S.

Each Regional Manager:
7-8 independent sales agents with surgeon/hospital relationships

Kuros recognizes revenue once sale is made to the hospital:
Kuros holds all SG&A/logistics costs

Outside of the U.S.



Managing distributor partners across the Globe

Distributor partners per country/segment:
- Strong market expertise and relationships

Each country requires unique:
- Regulatory filing, pricing & sales process

Kuros recognizes revenue when sale is made to distributor, cost + margin:
Distributor holds all SG&A/logistics costs

Kuros Biosciences

Our strategic alliance with Medtronic expands access & accelerates adoption

- Medtronic serves as exclusive sales agent for MagnetOs in select, mutually agreed spine surgery territories
- Kuros works collaboratively to sell, market and provide support services to Medtronic's sales force
- Kuros retains all revenue and hospital contracts: Medtronic acts as an extender of Kuros' commercial reach
- Kuros continues to sell directly in non-contracted territories as well as in markets outside of spine
- What began as a trial is now a formalized strategic alliance, validating MagnetOs and its market potential

Why It Matters:

- Access to more spine reps without expanding Kuros' own salesforce
- Accelerates hospital entry and product adoption
- Enhances credibility and trust through alignment with a global market leader
- Frees Kuros to focus on innovation, training, and strategic selling

Kuros is building for success in the extremities market

$440M U.S. foot & ankle segment[1]

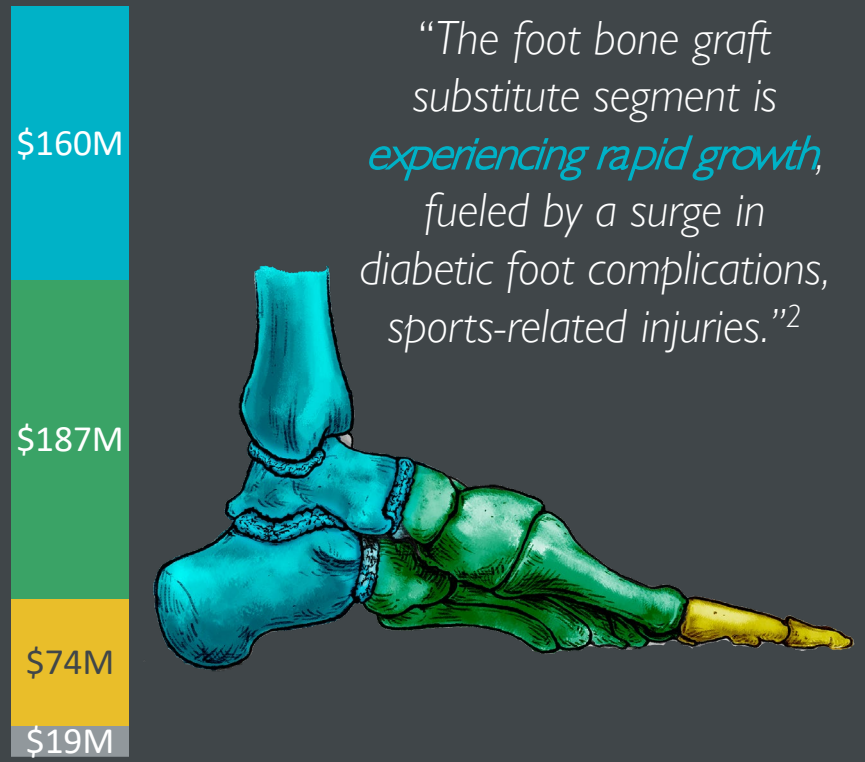
PRIMARY

$160M
Hindfoot

$187M
Midfoot

$74M
Forefoot

$19M
F&A recon. & trauma



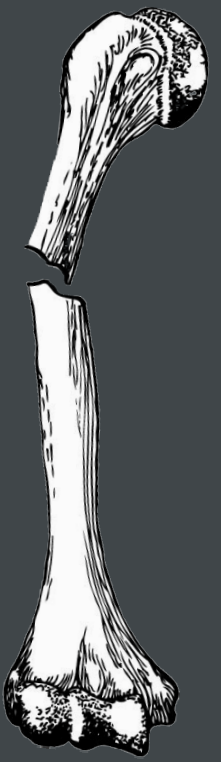
"The foot bone graft substitute segment is experiencing rapid growth, fueled by a surge in diabetic foot complications, sports-related injuries."[2]

$475M U.S. trauma market[2]

SECONDARY

$342M
Fresh fracture

$132M
Non-union



1. U.S. data based on Indication specific CPT codes, AcuityMD February 2025. 2. Global Orthopedic Biomaterial Market, iData February 2025

Kuros Biosciences

Our dedicated commercial business unit will provide surgeon focus

Kuros Biosciences

Clinical

R&D

Distribution

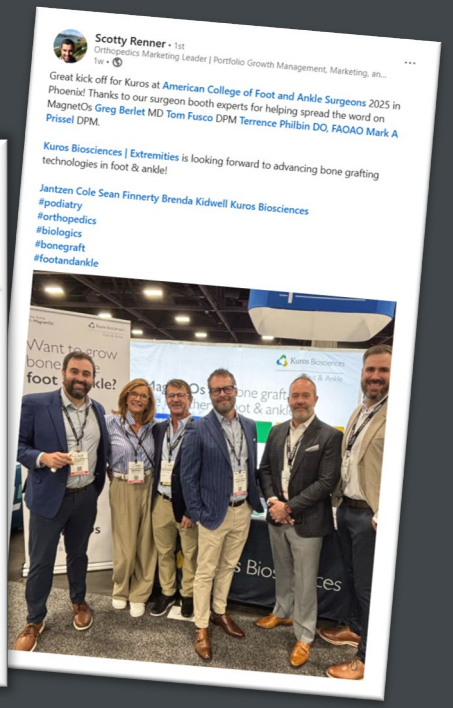
SPINE
Sales & Marketing

EXTREMITIES
Sales & Marketing

Kuros Biosciences

New extremities team is making significant progress

- Added extremity senior leadership team with significant experience & relationships
- Identified target indications: foot & ankle, trauma
- Achieved regulatory clearance for extremity indications*
- Established extremity Surgeon Advisory Board
- Already making an impact in the market



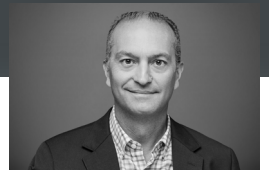
Strategic Advisory Board: Extremities

Greg Berlet, MD, FAOA, FRCS(C)
Orthopedic Surgeon, Orthopedic Foot & Ankle Center, Westerville, Ohio

ORTHOPEDIC FOOT & ANKLE CENTER

Peter Mangone, MD, FAAOS
Chief of Foot & Ankle Surgery, University of Pittsburgh Medical Center (UPMC), PA

UPMC
University of Pittsburgh Medical Center

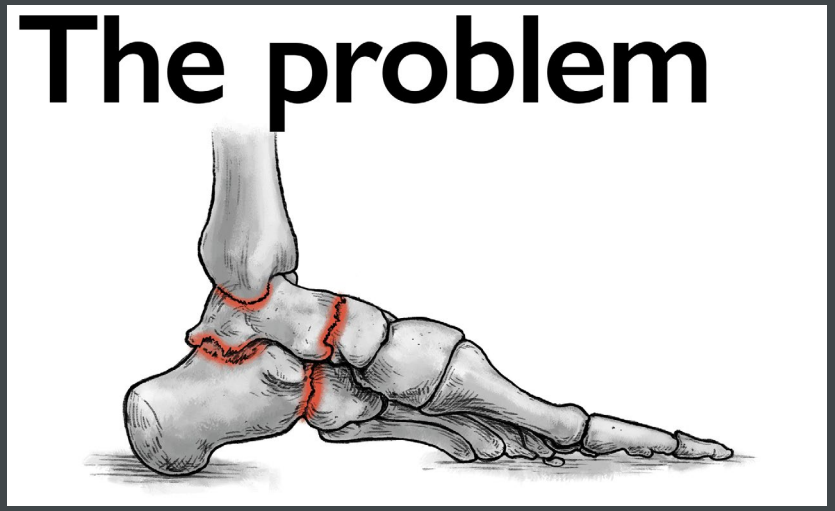


Carlos Sagebien, MD, FAAOS
Roman Clinical Assistant Professor of Orthopaedics, Robert Wood Johnson University Hospital, New Brunswick, NJ

RWJBarnabas HEALTH | Robert Wood Johnson University Hospital

Mr Andrew Goldberg OBE
Consultant Orthopedic Surgeon, Royal National Orthopaedic Hospital, London, UK

The Wellington Hospital
part of HCAHealthcare UK



Kuros Biosciences

*MagnetOs Granules, MagnetOs Putty and MagnetOs Easypack Putty are indicated for use in the pelvis and extremities

Kuros is well positioned to pursue strategic M&A opportunities

Strong financial foundation

✅ No debt – Clean balance sheet enables flexible deal structuring
✅ EBITDA positive – Profitable operations with consistent earnings
✅ Cash-flow positive – Sustainable growth without external capital

Strategic opportunity focus

🎯 Core target: Musculoskeletal applications
- Spine, orthopedics, sports medicine, trauma
- Synergistic with Kuros' expertise and market footprint

Clear exclusion criteria

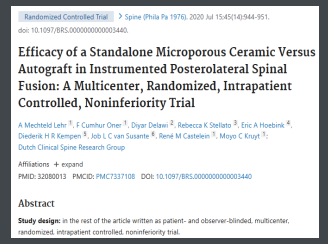
❌ No human tissue-based technologies
❌ No commoditized implants
❌ No capital equipment–dependent models

Focus on high-margin, clinically validated, and scalable technologies

Clinical evidence generation

Kuros Biosciences

There is limited published high-quality evidence to aid surgeon & hospital decisions: 6 Level I studies, 350+ bone grafts



Randomized Controlled Trial > Spine (Phila Pa 1976). 2020 Jul 15;45(14):944-951.
doi: 10.1097/BRS.0000000000003440.

Efficacy of a Standalone Microporous Ceramic Versus Autograft in Instrumented Posterolateral Spinal Fusion: A Multicenter, Randomized, Intrapatient Controlled, Noninferiority Trial

A Mechteld Lehr [1], F Cumhur Oner [1], Diyar Delawi [2], Rebecca K Stellato [3], Eric A Hoebink [4], Diederik H R Kempen [3], Job L C van Susante [4], René M Castelein [3], Moyo C Kruyt [1]; Dutch Clinical Spine Research Group

Affiliations + expand
PMID: 32080013 PMCID: PMC7337108 DOI: 10.1097/BRS.0000000000003440

Abstract

Study design: in the rest of the article written as patient- and observer-blinded, multicenter, randomized, intrapatient controlled, noninferiority trial.

B-TCP vs autograft

Posterolateral fusion (PLF) study[1]

Randomized Controlled Trial > Neurosurgery. 2023 Apr 1;92(4):725-733.
doi: 10.1227/neu.0000000000002290. Epub 2022 Dec 23.

Six-Year Follow-up of a Randomized Controlled Trial of i-FACTOR Peptide-Enhanced Bone Graft Versus Local Autograft in Single-Level Anterior Cervical Discectomy and Fusion

Paul M Arnold [1], Alexander R Vaccaro [2], Rick C Sasso [3], Benoit Goulet [4], Michael G Fehlings [5], Robert F Heary [6], Michael E Janssen [7], Branko Kopjar [8]

Affiliations + expand
PMID: 36700705 DOI: 10.1227/neu.0000000000002290

Abstract

Background: Previous analyses of the US Food and Drug Administration (FDA) Investigational Device Exemption study demonstrated the superiority of i-FACTOR compared with local autograft bone in single-level anterior cervical discectomy and fusion (ACDF) at 12 and 24 months postoperatively in a composite end point of overall success.

Peptide vs autograft

Single level Anterior Cervical Discectomy and Fusion (ACDF) study[2]

Randomized Controlled Trial > Spine (Phila Pa 1976). 2012 May 20;37(12):1083-91.
doi: 10.1097/BRS.0b013e31823ed817.

Grafton and local bone have comparable outcomes to iliac crest bone in instrumented single-level lumbar fusions

James Kang [1], Howard An, Alan Hilibrand, S Tim Yoon, Eoin Kavanagh, Scott Boden

Affiliations + expand
PMID: 22076647 DOI: 10.1097/BRS.0b013e31823ed817

Abstract

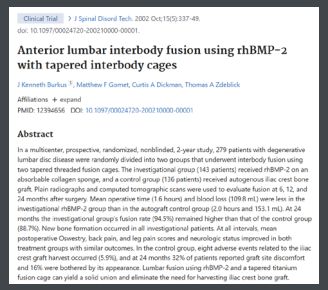
Study design: Prospective multicenter randomized clinical trail.

Objective: The goal of our 2-year prospective study was to perform a randomized clinical trial comparing the outcomes of Grafton demineralized bone matrix (DBM) Matrix with local bone with that of iliac crest bone graft (ICBG) in a single-level instrumented posterior lumbar fusion.

Summary of background data: There has been extensive research and development in identifying a suitable substitute to replace autologous ICBG that is associated with known morbidities. DBMs are a class of commercially available grafting agents that are prepared from allograft bone. Many such products have been commercially available for clinical use; however, their efficacy for spine fusion has been mostly based on anecdotal evidence rather than randomized controlled clinical trials.

DBM vs autograft

Single level PLF study[3]



Clinical Trial > J Spinal Disord Tech. 2002 Oct;15(5):337-49.
doi: 10.1097/00024720-200210000-00001.

Anterior lumbar interbody fusion using rhBMP-2 with tapered interbody cages

J Kenneth Burkus [1], Matthew F Gornet, Curtis A Dickman, Thomas A Zdeblick

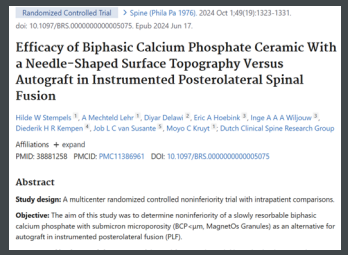
Affiliations + expand
PMID: 12394656 DOI: 10.1097/00024720-200210000-00001

Abstract

In a multicenter, prospective, randomized, nonblinded, 2-year study, 279 patients with degenerative lumbar disc disease were randomly divided into two groups that underwent interbody fusion using two tapered threaded fusion cages. The investigational group (143 patients) received rhBMP-2 on an absorbable collagen sponge, and a control group (136 patients) received autogenous iliac crest bone graft. Plain radiographs and computed tomographic scans were used to evaluate fusion at 6, 12, and 24 months after surgery. Mean operative time (1.6 hours) and blood loss (109.8 mL) were less in the investigational rhBMP-2 group than in the autograft control group (2.0 hours and 153.1 mL). At 24 months the investigational group's fusion rate (94.5%) remained higher than that of the control group (88.7%). New bone formation occurred in all investigational patients. At all intervals, mean postoperative Oswestry, back pain, and leg pain scores and neurologic status improved in both treatment groups with similar outcomes. In the control group, eight adverse events related to the iliac crest graft harvest occurred (5.9%), and at 24 months 32% of patients reported graft site discomfort and 16% were bothered by its appearance. Lumbar fusion using rhBMP-2 and a tapered titanium fusion cage can yield a solid union and eliminate the need for harvesting iliac crest bone graft.

BMP-2 vs autograft

Anterior lumbar interbody fusion (ALIF) study[4]



Randomized Controlled Trial > Spine (Phila Pa 1976). 2024 Oct 1;49(19):1323-1331.
doi: 10.1097/BRS.0000000000005075. Epub 2024 Jun 17.

Efficacy of Biphasic Calcium Phosphate Ceramic With a Needle-Shaped Surface Topography Versus Autograft in Instrumented Posterolateral Spinal Fusion

Hilde W Stempels [1], A Mechteld Lehr [1], Diyar Delawi [2], Eric A Hoebink [3], Inge A A A Wiljouw [3], Diederik H R Kempen [4], Job L C van Susante [5], Moyo C Kruyt [1]; Dutch Clinical Spine Research Group

Affiliations + expand
PMID: 38881258 PMCID: PMC11386961 DOI: 10.1097/BRS.0000000000005075

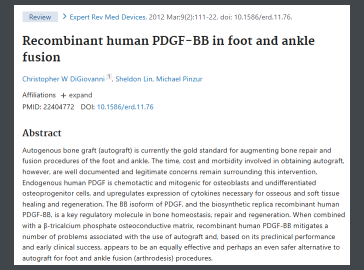
Abstract

Study design: A multicenter randomized controlled noninferiority trial with intrapatient comparisons.

Objective: The aim of this study was to determine noninferiority of a slowly resorbable biphasic calcium phosphate with submicron microporosity (BCP-µm, MagnetOs Granules) as an alternative for autograft in instrumented posterolateral fusion (PLF).

BCP vs autograft

PLF study[5]



Review > Expert Rev Med Devices. 2012 Mar;9(2):111-22. doi: 10.1586/erd.11.76.

Recombinant human PDGF-BB in foot and ankle fusion

Christopher W DiGiovanni [1], Sheldon Lin, Michael Pinzur

Affiliations + expand
PMID: 22404772 DOI: 10.1586/erd.11.76

Abstract

Autogenous bone graft (autograft) is currently the gold standard for augmenting bone repair and fusion procedures of the foot and ankle. The time, cost and morbidity involved in obtaining autograft, however, are well documented and legitimate concerns remain surrounding this intervention. Endogenous human PDGF is chemotactic and mitogenic for osteoblasts and undifferentiated osteoprogenitor cells, and upregulates expression of cytokines necessary for osseous and soft tissue healing and regeneration. The BB isoform of PDGF, and the biosynthetic replica recombinant human PDGF-BB, is a key regulatory molecule in bone homeostasis, repair and regeneration. When combined with a β-tricalcium phosphate osteoconductive matrix, recombinant human PDGF-BB mitigates a number of problems associated with the use of autograft and, based on its preclinical performance and early clinical success, appears to be an equally effective and perhaps an even safer alternative to autograft for foot and ankle fusion (arthrodesis) procedures.

PDGF-BB vs autograft

Arthrodesis study[6]

1. Lehr, et al. *Spine* (Phila Pa 1976). 2020;45(14):944-951. 2. Arnold, et al. *Neurosurgery.* 2023;92(4):725-733. 3. Kang, et al. *Spine* (Phila Pa 1976). 2012;37(12):1083-91.
4. Burkus, et al. *J Spinal Disord Tech.* 2002;15(5):337-49. 5. Stempels, et al. *Spine.* 2024;49(19):1323-1331. 6. DiGiovanni C, et al,. *JBJS.* 2013;9(2):111-22.

Kuros Biosciences

Kuros is going above and beyond to prove efficacy

			Examples
Class III	Description	Investigational Device Exemption (IDE)[1] Pre-market approval (PMA) required	• BMP-2 (Infuse®) • P-15 Peptide (i-FACTOR®)
	Evidence Required	Robust Human Clinical Study	
Class II	Description	510(k) pathway[2] required to prove substantial equivalence to predicate device	• 1st gen. synthetics • 2nd and 3rd gen. synthetics • DBMs with carriers
	Evidence Required	Pre-clinical evidence – FDA guidance suggests using a non-instrumented rabbit PLF model for spine	
HCT/P	Description	HCT/P pathway[3]; No FDA pre-market data review for safety or efficacy	• CBAs • DBMs • Allografts
	Evidence Required	No animal or human testing required	

1. US Food and Drug Administration Investigational Device Exemption (IDE). Accessed 27 March 2025. **2.** The 510(k) Program: Evaluating Substantial Equivalence in Premarket Notifications [510(k)]. Accessed 27 March 2025. **3.** Regulation of Human Cells, Tissues, and Cellular and Tissue-Based Products, fda.gov/media/70689/download. Accessed 27 March, 2025.

Developing the data that surgeons and hospitals demand

MagnetOs is researched in 7 Level I human clinical trials

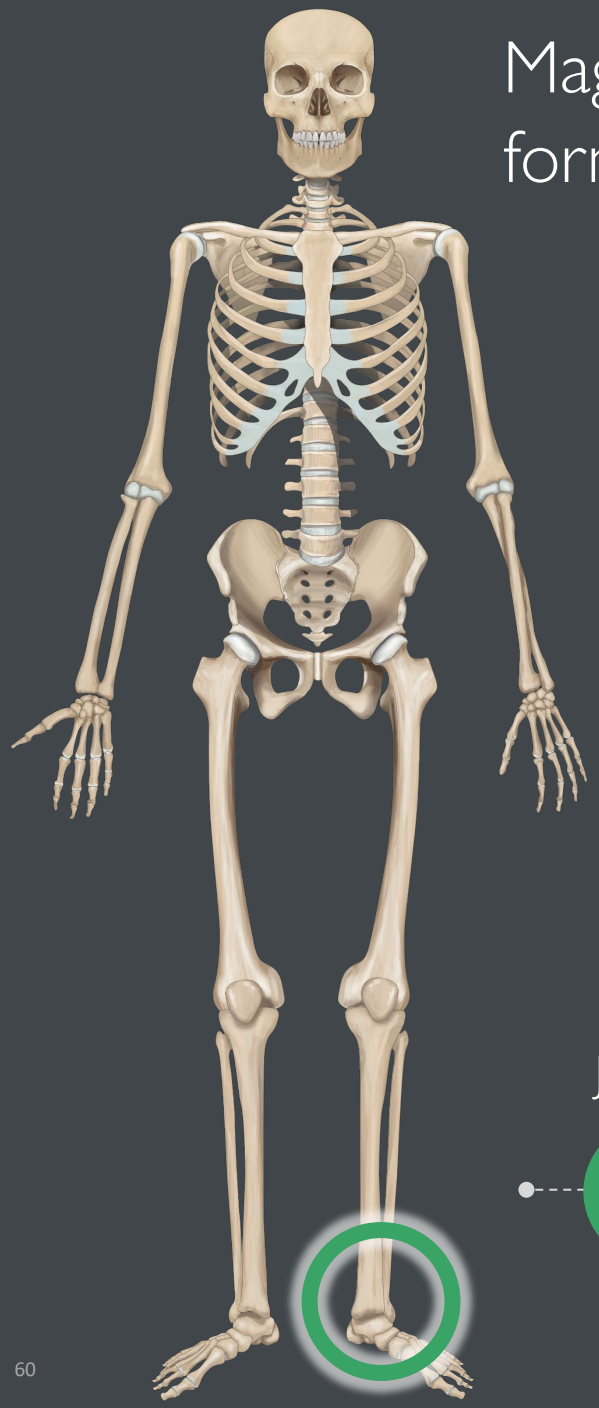
Level I
- 2 Kuros initiated spine clinical trials
  - PRECISE (MagnetOs vs. CBA) ongoing clinical trial
  - PROOF (MagnetOs vs. DBM or fibers) ongoing clinical trial
- 1 Kuros initiated foot and ankle clinical trial
- 4 investigator initiated clinical trials including MAXA

Level II
- 3 investigator initiated clinical trials

Level III-IV
- 1 Level III Kuros initiated spine oncology clinical trial
- >10 Level III investigator initiated clinical trials

Additional studies
- >5 Level IV case series
- 1 single – center registry review
- 2 economic case studies
- 7 pre-clinical studies
- 3 scientific studies

Kuros Biosciences



MagnetOs delivers consistent clinical results – Across various formulations, surgeons, indications and patient populations

Clinical, Radiographic, and Histologic Outcomes of Ankle Arthrodesis in a Diabetic Patient using a Biphasic Calcium Phosphate Bone Graft with a Novel Submicron Needle-shaped Surface Topography[1]


Juniper Online Journal of Case Studies

Clinical, Radiographic, and Histologic Outcomes of Ankle Arthrodesis in a Diabetic Patient using a Biphasic Calcium Phosphate Bone Graft with a Novel Submicron Needle-shaped Surface Topography

Dr. Thomas Fusco
Fort Walton Beach, FL

MagnetOs Putty
Ankle Arthrodesis

- Diabetic patient revision surgery
- 12-weeks post-op
- Histology confirmed mature lamellar bone
- Continued resorption of the bone graft

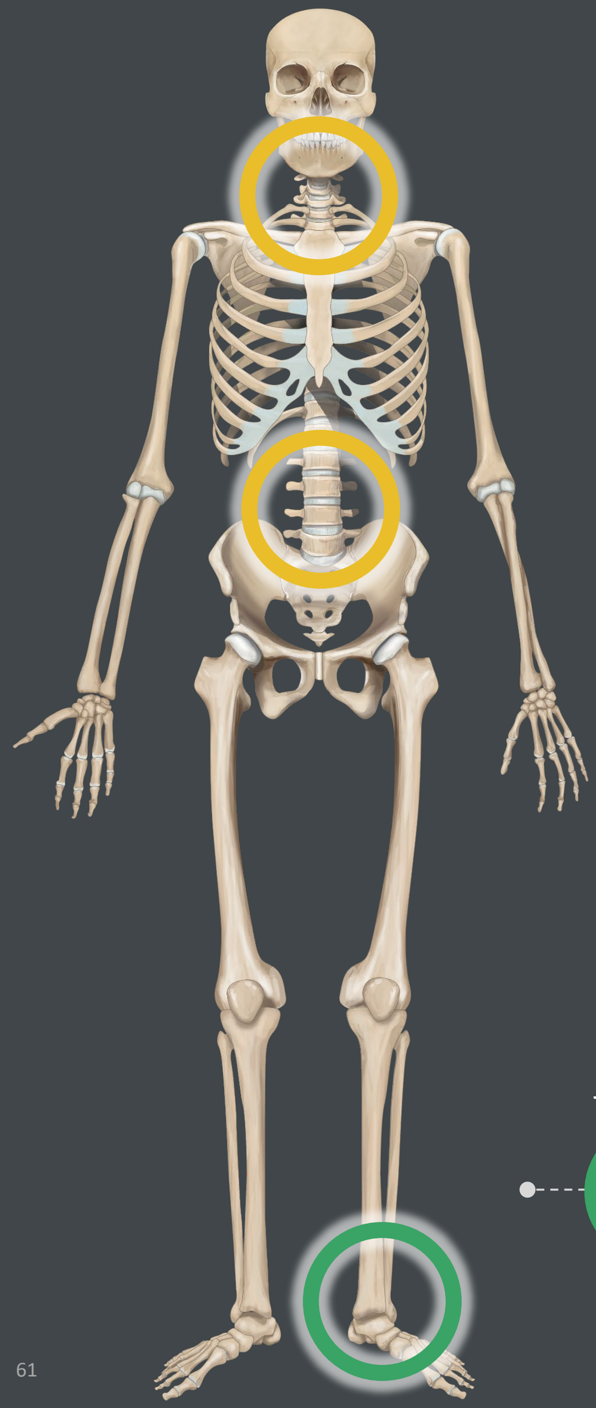
Juniper

2022

For important safety and intended use information please visit kurosbio.com.

1. Fusco, et al. *Juniper,* 2022

Kuros Biosciences



Early Radiographic and Clinical Outcomes of Five Patients Undergoing Open Instrumented Posterolateral Fusion Surgery with MagnetOs™ Flex Matrix[1]

Dr. Ryan Goodmanson
Port Huron, MI

MagnetOs Flex Matrix
Lumbar or Cervical PLF

- 5 patients with comorbidities
- Post-operative imaging
- Consistent bone remodeling & graft resorption
- Trabecular bone formation
- Loss of granular graft appearance
  - As early as 6 weeks

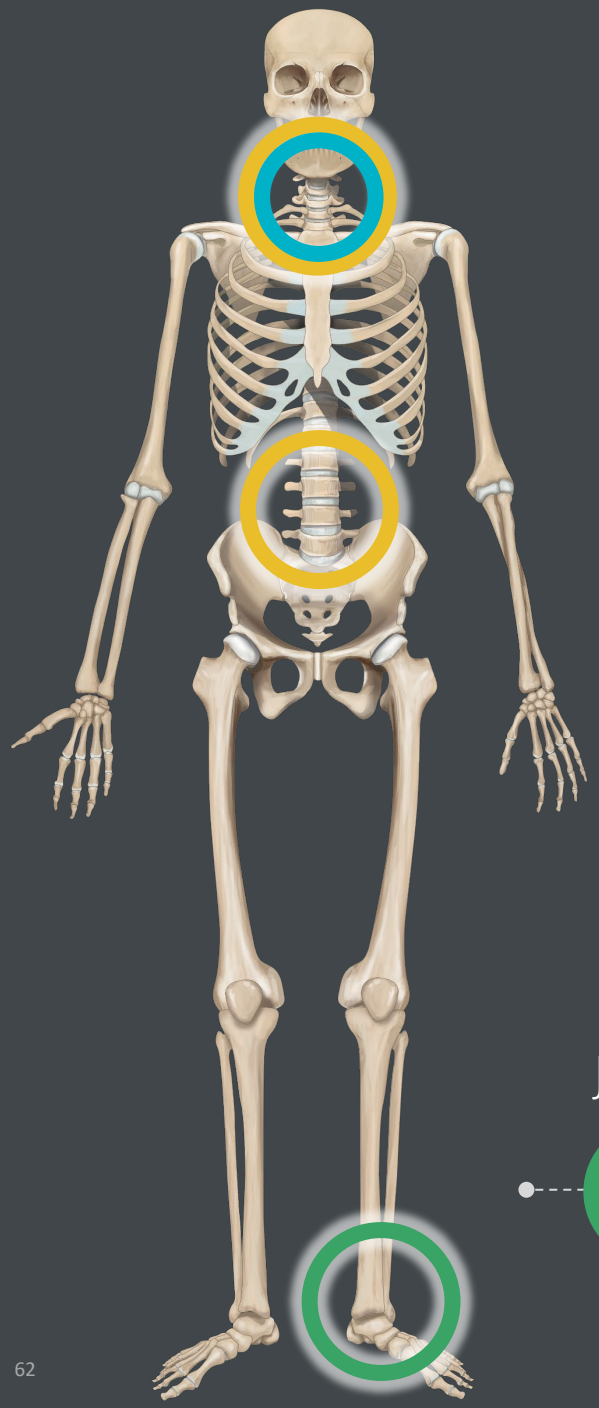
Juniper — 2022

Juniper — 2023

For important safety and intended use information please visit kurosbio.com.

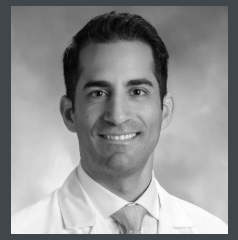
1. Goodmanson, et al. *Juniper.* 2024.

Kuros Biosciences



Early Radiographic and Clinical Outcomes of Three Patients Undergoing Open Instrumented Posterolateral Fusion Surgery with MagnetOs™ Easypack Putty[1]


Early Radiographic and Clinical Outcomes of Three Patients Undergoing Open Instrumented Posterolateral Fusion Surgery with MagnetOs™ Easypack Putty



Dr. Christopher Elia
Royal Oak, MI

MagnetOs Easypack Putty Cervical PLF

- 3 patients with multiple comorbidities
- Radiographic fusion
- Favorable outcomes

Juniper 2022

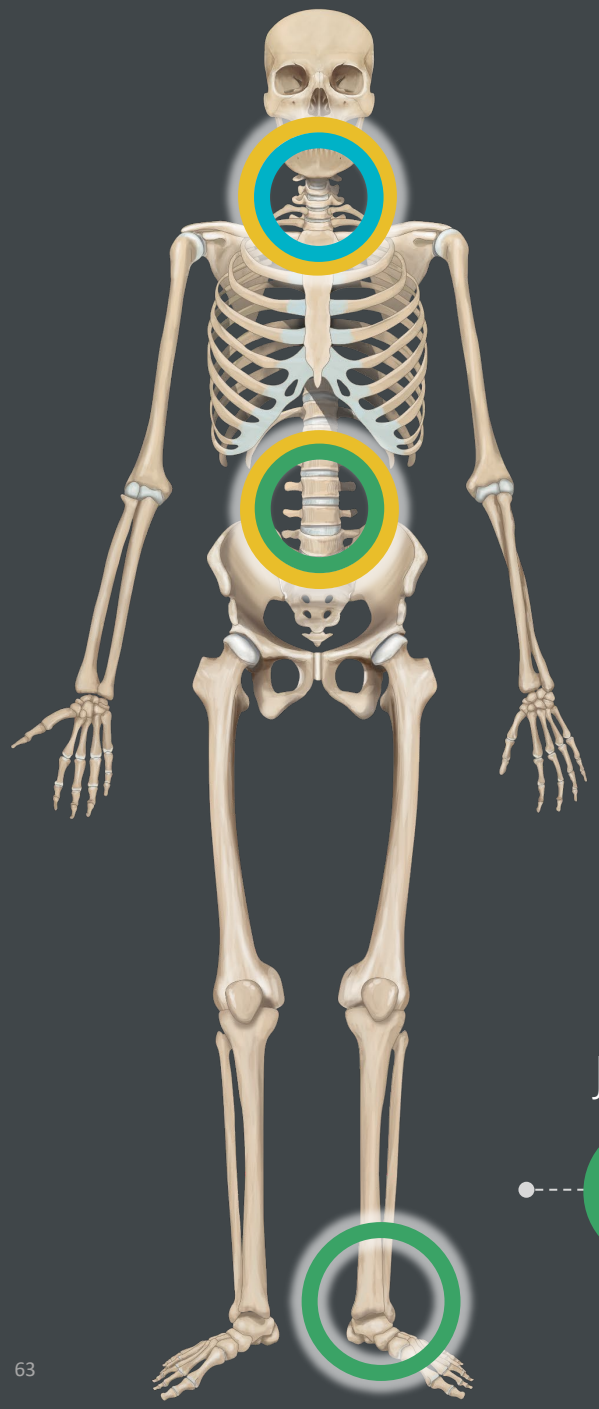
Juniper 2023

Juniper 2024

For important safety and intended use information please visit kurosbio.com.

1. Elia, et al. *Juniper*. 2024.

Kuros Biosciences



Biphasic Calcium Phosphate Bone Graft With a Unique Surface Topography: A Single-Center Ambispective Study for Degenerative Disease of the Lumbar Spine[1]

Dr. Pierce Nunley
Shreveport, LA

MagnetOs Putty
Lumbar Interbody

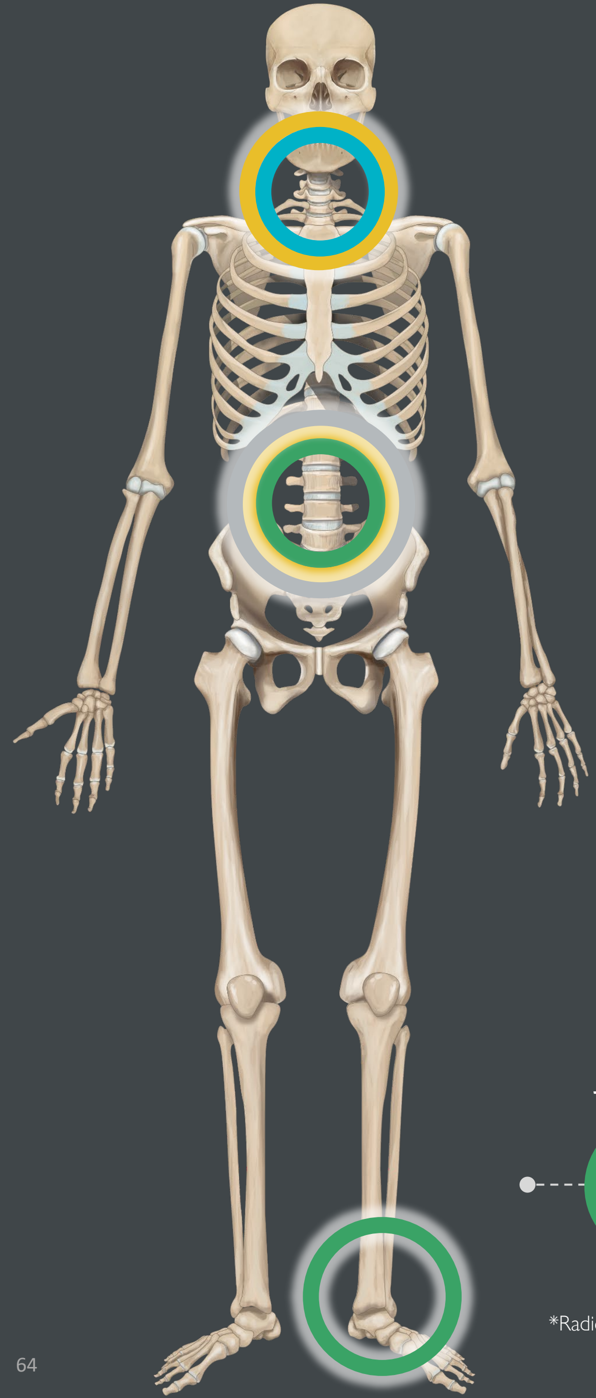
- 63 patients, 101 levels treated
- 31 patients had 3 or more comorbidities
- 90% fusion rate at 1 year

Juniper 2022 — Juniper 2023 — Juniper 2024 — Cureus 2024

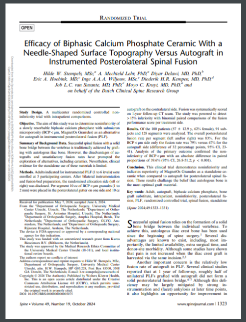
For important safety and intended use information please visit kurosbio.com.

1. Nunley, et al. *Cureus.* 2024.

Kuros Biosciences



Efficacy of Biphasic Calcium Phosphate Ceramic With a Needle-shaped Surface Topography Versus Autograft in Instrumented PLF[1]


RANDOMIZED TRIAL
OPEN
Efficacy of Biphasic Calcium Phosphate Ceramic With a Needle-Shaped Surface Topography Versus Autograft in Instrumented Posterolateral Spinal Fusion

Dr. Moyo Kruyt
Utrecht, Netherlands

MagnetOs Granules

PLF

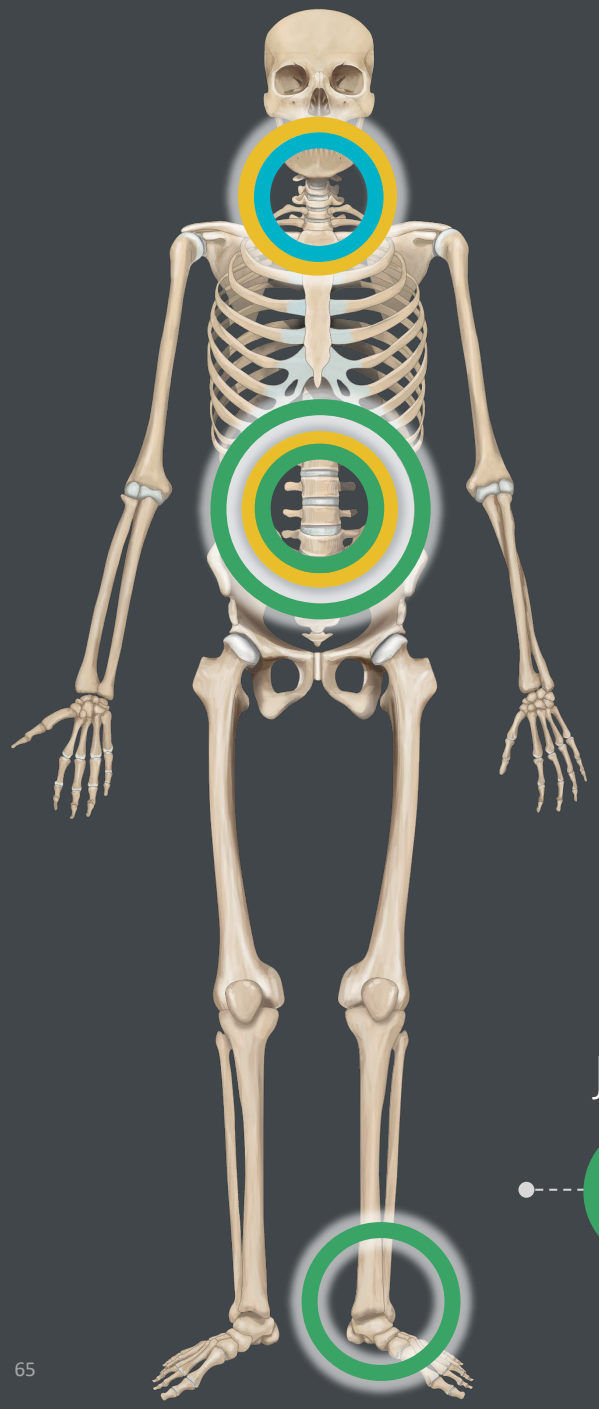
- 91 patients, 1 in 5 patients were active smokers*
- 1 year fusion results by thin-cut CT
- 79% MagnetOs fusion rate vs. 47% autograft
- 74% MagnetOs vs. 30% autograft in smokers[2]

Juniper	Juniper	Juniper	Cureus	Spine
2022	2023	2024	2024	2024

*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]
For important safety and intended use information please visit kurosbio.com.

1. Stempels, et al. *Spine.* 2024;49(19):1323-1331. 2. Van Dijk, LA. 24th SGS Annual Meeting (SwissSociety of Spinal Surgery). Basel, Switzerland. Aug 2024.

Kuros Biosciences



Fusion Rate of Biphasic Calcium Phosphate Bone Graft with Needle-Shaped Submicron Topography in Interbody Lumbar Fusion for Degenerative Disc Disease: A Single-Center Retrospective Review[1]

Dr. Faheem Sandhu
Washington, DC

MagnetOs Putty
Lumbar Interbody

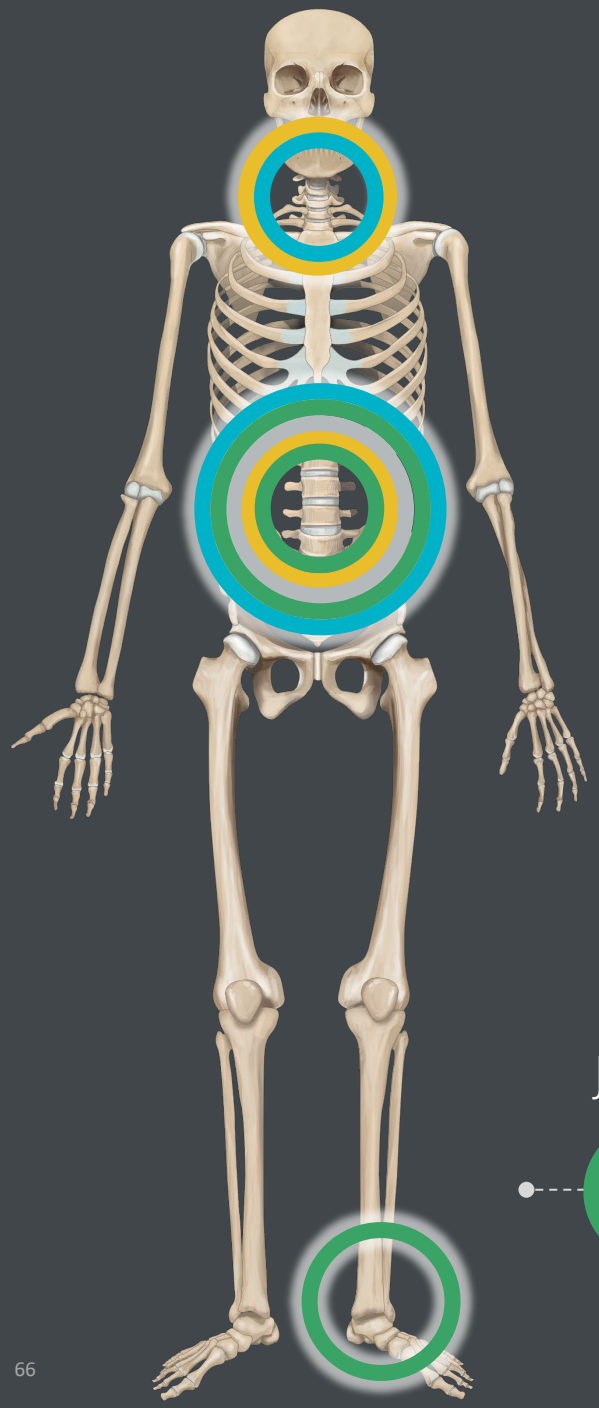
- 55 patients
- Patients averaged 3 comorbidities
- 95.7% fusion rate at 1 year

Juniper	Juniper	Juniper	Cureus	Spine	World Neurosurgery
2022	2023	2024	2024	2024	2025

For important safety and intended use information please visit kurosbio.com.

1. Wakelin. et al. *World Neurosurgery.*

Kuros Biosciences



A Retrospective Review of MagnetOs™ Easypack Putty Bone Graft Used Standalone in Transforaminal Lumbar Interbody Fusion[1]


Juniper Online Journal of Case Studies
ISSN: 2474-7378

Clinical, Radiographic, and Histologic Outcomes of Ankle Arthrodesis in a Diabetic Patient using a Biphasic Calcium Phosphate Bone Graft with a Novel Submicron Needle-shaped Surface Topography

Dr. Justin Davis
Kansas City, KS

MagnetOs Easypack Putty TLIF

- 20 patients, 36 levels
- 94.4% fusion rate at 1 year
- 65% obese
- 35% diabetic
- 30% previous lumbar surgery

Juniper	Juniper	Juniper	Cureus	Spine	World Neurosurgery	Orthopedic Reviews
2022	2023	2024	2024	2024	2025	2025

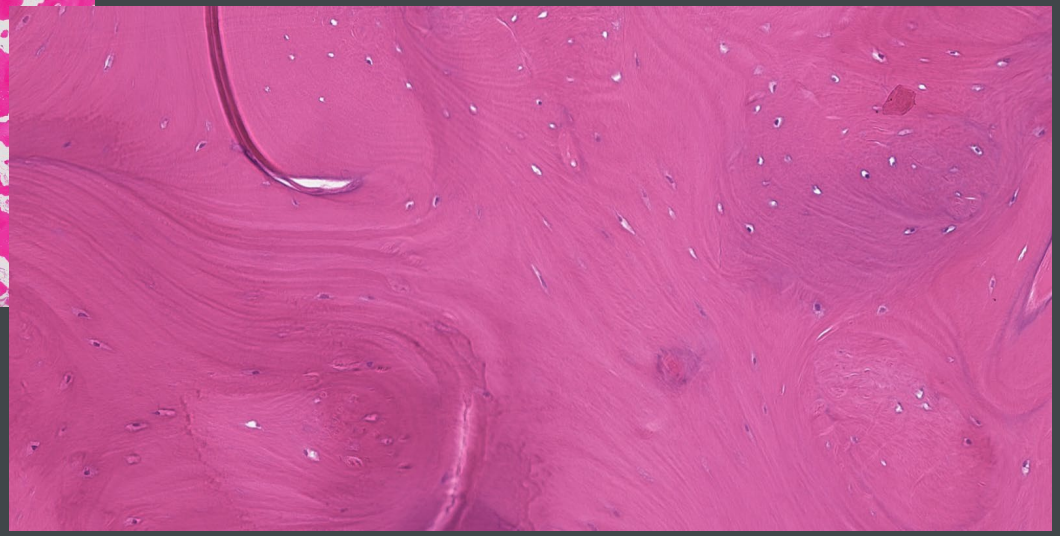
For important safety and intended use information please visit kurosbio.com.

1. Davis, J. et al. *Orthopedic Review*. 2025.

Kuros Biosciences

MagnetOs in action

Histology shows some remnant MagnetOs granules (white) surrounded by mature bone two-years post-operatively[1]



Histology shows well organized and mature mineralized bone with numerous osteocyte lacunae[1]

1. Data on file

Kuros Biosciences

Kuros' scientific focus sets us apart from the competition

Educating and driving brand awareness

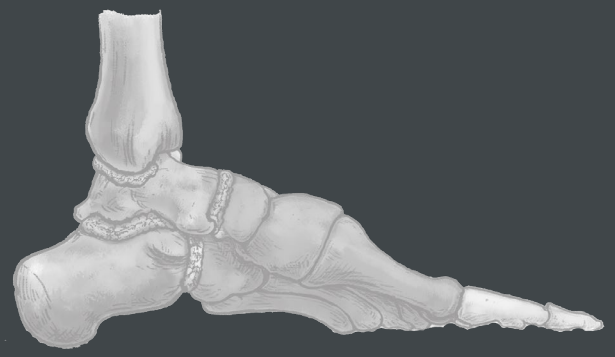
>600 surgeons engaged at scientific events in the last 6 months:

- Conference podiums
- Kuros hosted Journal Clubs & Scientific Symposia
- 'Meet the Expert' virtual meetings & dinners

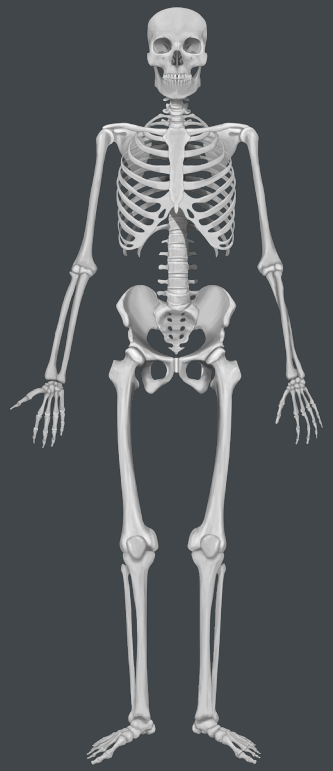
Kuros Biosciences

There are clear opportunities for collection of additional evidence

Foot & Ankle



Oncology



Trauma

Kuros Biosciences

MagnetOs™ : Patient Impact from a Surgeon's Perspective

Greg Berlet, MD, FRCS(C), FAOA
Orthopedic Foot & Ankle Surgeon

Capital Markets Day
May 13, 2025

Ticker: KURN
SIX Swiss Stock Exchange

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Trust Is Earned | Data, Innovation, & Focus

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Mother to 3 Adult Children | Middle School Secretary | Bookkeeper for Husband's Business | 52 Yrs Old

History of Injuries

Motor vehicle accident @ age 32

1st Surgical Intervention: Repair calcaneal fracture and lisfranc injury

Near-term Outcome: Successful

Late-term Outcome: Post-traumatic arthritis @ age 50

2nd Surgical Intervention: Fusion of subtalar joint and midfoot

Near-term Outcome:

(1) Midfoot healed properly

(2) Subtalar Joint **did not fuse** → Non-Union

MagnetOs: A Surgeon's Perspective

My Patient | Mother to 3 Adult Children | Middle School Secretary | Bookkeeper for Husband's Business | 52 Yrs Old

Non-Unions

Devastating for Patient, Surgeon and Healthcare System

Patient: Loss of Income

Loss of Employment Risk

Compromise of Family Role

Surgeon: Seeds Doubt of Practice In Community

Challenges Self-Worth

Why Didn't I Heal?

Is This My (Or My Team's) Fault ?

What Could Have Been Done To Heal In A More Predictable Manner ?

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Mother to 3 Adult Children | Middle School Secretary | Bookkeeper for Husband's Business | 52 Yrs Old

Non-Unions

78.7% Union Rate in F&A[1]

- Smokers 5.81x Risk of Non-Union[2]
- Diabetics 3.3x Risk of Non-Union[3]

TTC Fusion 11.8% Amputation Rate[4]

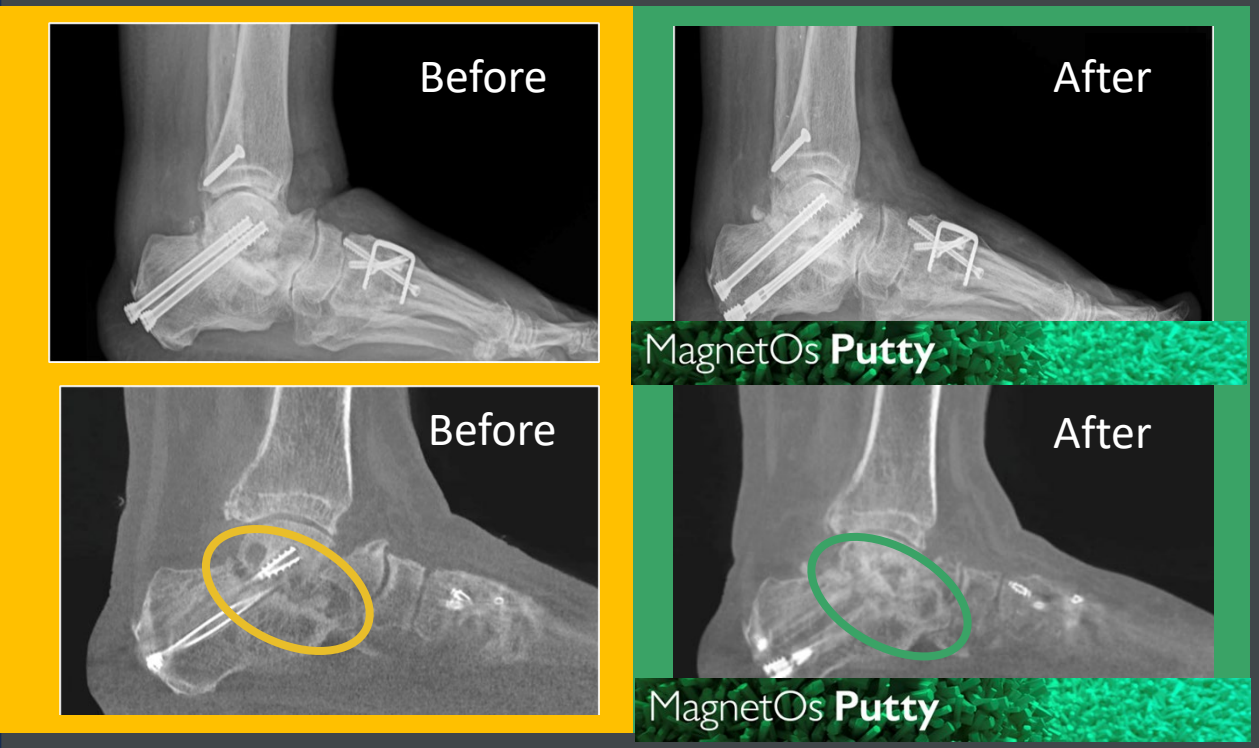
- 6.2x Higher for Patients Undergoing Revision[4]
- 60.6% 5yr Mortality Rate Following Lower Limb Amputation[5]

1. Leslie et al. *Foot Ankle Int.* 2023 May 25;44(7):665-674. 2. Allport et al. *Foot Ankle Int.* 2021 May;42(50:582-588.
3. Lavery et al. *J Foot Ankle Surg.* 202 Jul-Aug;59(4):653-656, 4. DeVries et al. *Foot Ankle Int.* 2013 Jun;34(6):846-50.
5. Beeson et al. *Plast Reconstr Surg Glob Open.* 2023 Jan 11;11(1):e4727.

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Mother to 3 Adult Children | Middle School Secretary | Bookkeeper for Husband's Business | 52 Yrs Old



…3rd Surgical Intervention

Revision Subtalar Joint Arthrodesis w/ MagnetOs™

Near-term Outcome: 50% Healing @ 12 wks

SUCCESS!

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient

There are

210,000[1]

foot & ankle bone fusions annually in the US alone.

1. AcuityMD Procedure Data on File

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Trust Is Earned | Data, Innovation, & Focus

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Patient **Trust Is Earned**

Have Never Been Higher

Expectations Of Surgical Success

Medical Expenses

Economic Impact of Fusion Failures

Patients need to be able
to trust that we are doing
everything we can
to **intervene once**,
do it **effectively**,
and get them their life back.

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Patient **Trust is Earned**

My Commitment?

Investment In Knowledge and Innovation To Best Serve My Patients

- What Is The Current State Of Bone Biologics?
- What Can I Do To Help Patients Heal?

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Patient Trust Is Earned | Current State of Extremity Bone Healing?

Lack of:
Data,
Innovation,
& Focus

Lack of Extremity BG Innovation In Last Decade

Extremities Has Focused Innovation on:

- Metal Devices (Nails, Screws, Plates)
- Advanced Materials for Devices (ex. Ossio, MiRus)

And yet…78.7% Union Rate in F&A[1]

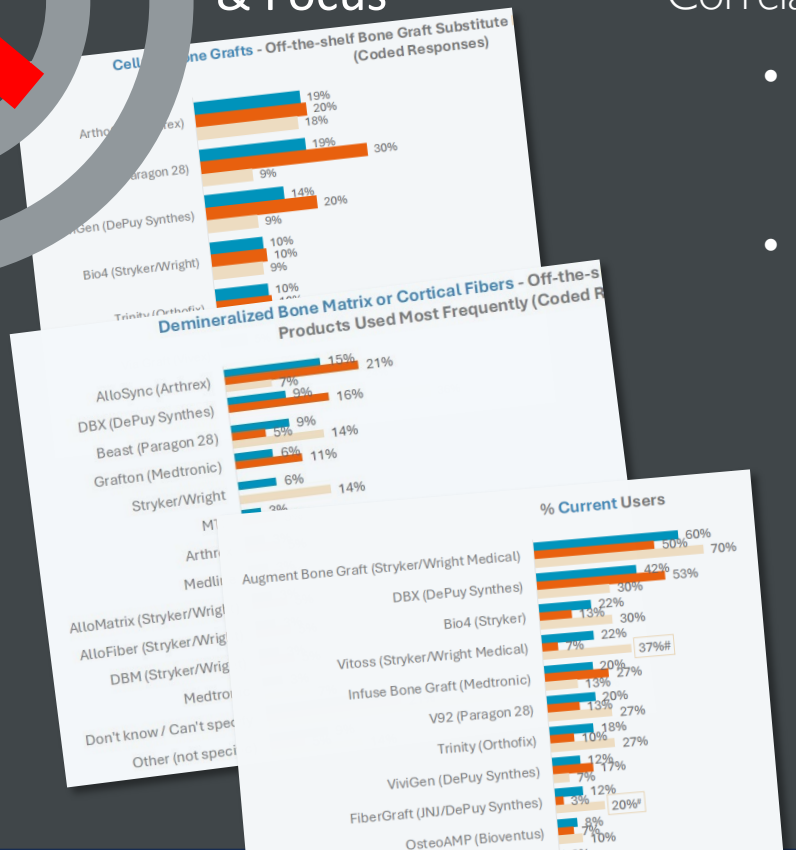
- Smokers 5.81x Risk of Non-Union[2]
- Diabetics 3.3x Risk of Non-Union[3]

1. Leslie et al. *Foot Ankle Int.* 2023 May 25;44(7):665-674. 2. Allport et al. *Foot Ankle Int.* 2021 May;42(50:582-588.
3. Lavery et al. *J Foot Ankle Surg.* 202 Jul-Aug;59(4):653-656,):e4727.

MagnetOs: A Surgeon's Perspective

Patient Trust Is Earned | Current State of Extremity Bone Healing?

Lack of:
Data,
Innovation,
& Focus



Reasons for Product Use?

Correlated with Available Data &/or Marketing

- Segment Leader Augment (Stryker) – Level I Evidence is Primary Driver[1]
  - Level I Data Is Over A Decade Old
- Cell Based Allografts – Marketing of Proposed MOA is Primary Driver[1]
  - Even Distribution of In-Category Cellular Bone Grafts and DBM's
    - Indicates Lack of Clinical Differentiation Amongst Products[1]
    - Superiority Has Not Been Demonstrated Scientifically or Commercially[1]

1. Internal Market Data on File

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Patient Trust Is Earned | What Can I Do To Help Patients Heal?

Every Fusion Needs a Bone Graft Strategy

Multiple Contributors:

Dissection
Bone Preparation
Fit & Fill Bone Graft Placement
Fixation/Compression Device
Wound Care

50% Coverage of Cross-Sectional Bone

- Associated with Improved Fusion Rates[1]
- 16.4x More Likely to Achieve Fusion[1]

Fit & Fill Effectiveness Means…

- More than a Growth Factor/Protein is Needed
  - Biomechanical Stimulation?
  - Biochemical Stimulation?
  - **Yes & Yes**

1. DiGiovanni et al. *J Bone Joint Surg Am.* 2016 Aug 3;98(15):1260-7.

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Trust Is Earned | Data, Innovation, & Focus

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Data, Innovation, & Focus | MagnetOs

MAGNETOS™
for predictable fusions

Has Data
Has Novel Innovation
Has Focus

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Data, Innovation, & Focus | Commitment to Clinical Data – Project Fusion

Project Fusion

MagnetOs™
Global Research

Level-I
- 2 Kuros initiatied spine clinical trials
  - PRECISE (MagnetOs vs. CBA) ongoing spine clinical trial
  - PROOF (MagnetOs vs. DBM or fibers) ongoing spine clinical trial
- 1 Kuros initiatied foot and ankle human clinical trial
- 4 investigator initiatied clinical trials

Level II
- 3 investigator initiated clinical trials

Level III-IV
- 1 Level III Kuros initiated spine oncology clinical trial
- >10 Level III investigator initiated clinical trials

Additional studies
- >5 Level IV case series
- 1 single – center registry review
- 2 economic case studies
- 7 pre-clinical studies
- 3 scientific studies

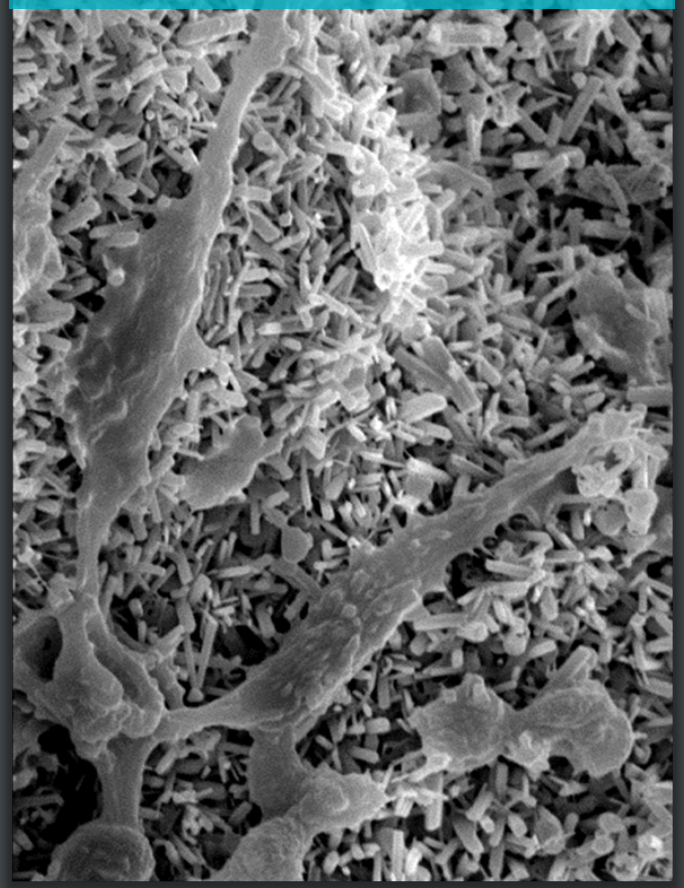
Kuros Biosciences

MagnetOs: A Surgeon's Perspective

Data, Innovation, & Focus | Novel & Defined Mode of Action | Surface-Driven Cell Engagement

NeedleGrip™ Surface

Elongated pro-healing M2 macrophages on the NeedleGrip surface.[1]



Scanning electron microscopy of CD14+ monocytes isolated from buffy coats from 5 human donors. Cells seeded on bone grafts at 250k/cm^2. Medium: RMPI 1640 + 10% FBS + 10 ng/ml MCSF. Cultured for 72h.

- Differentiated by How it Works & MOA Evidence.
- Scientifically Published MOA*†[1-6] & In-Line with Independent Research[7-9]

*Results from in vivo or in vitro laboratory testing may not be predictive of clinical experience in humans. For important safety and intended use information please visit kurosbio.com

†MagnetOs is not cleared by the FDA or TGA as an osteoinductive bone graft.

1. Van Dijk, et al. *J Immunol Regen Med.* 2023;19:100070. 2. Duan, et al. *eCM.* 2019;37:60-73. 3. Van Dijk, et al. *eCM.* 2021;41:756-73. 4. Van Dijk, et al. *JOR Spine.* 2018;e1039. 5. Van Dijk, et al. *J Biomed Mater Res.* Part B: Appl Biomater. 2019;107(6):2080-2090. 6. Van Dijk, et al. *Clin Spine Surg.* 2019;33(6):E276-E287. 7. Hao J, et al. *BME Front.* 2025;6:0089. 8. Song J, et al. *PLoS One.* 2025;20(1):e0314150. 9. Cheng Y, et al. *Mater Today Bio.* 2024;30:101385.

Kuros Biosciences

MagnetOs: A Surgeon's Perspective

My Patient | Trust Is Earned | Data, Innovation, & Focus

Takeaways

Kuros Biosciences

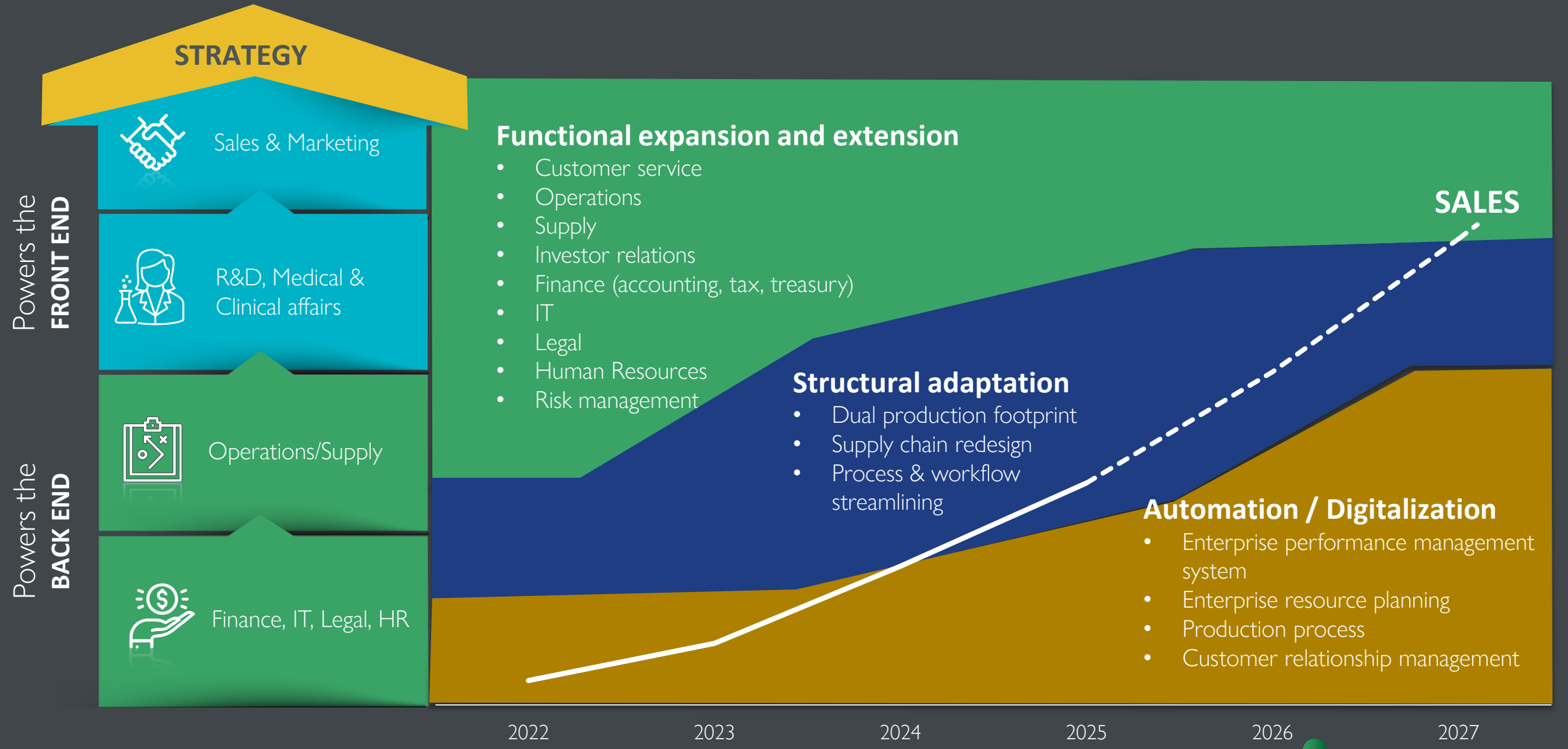
MagnetOs: A Surgeon's Perspective

- Non-Unions are Clinical and Economic Problems in Foot & Ankle
- Industry Has Focused Innovation & Research Elsewhere
- Lack of Extremities Focus By Biologics Brands
- Kuros Clinical Data and Future Extremity Focus Has It Positioned To Achieve Success In This Segment

Business transformation

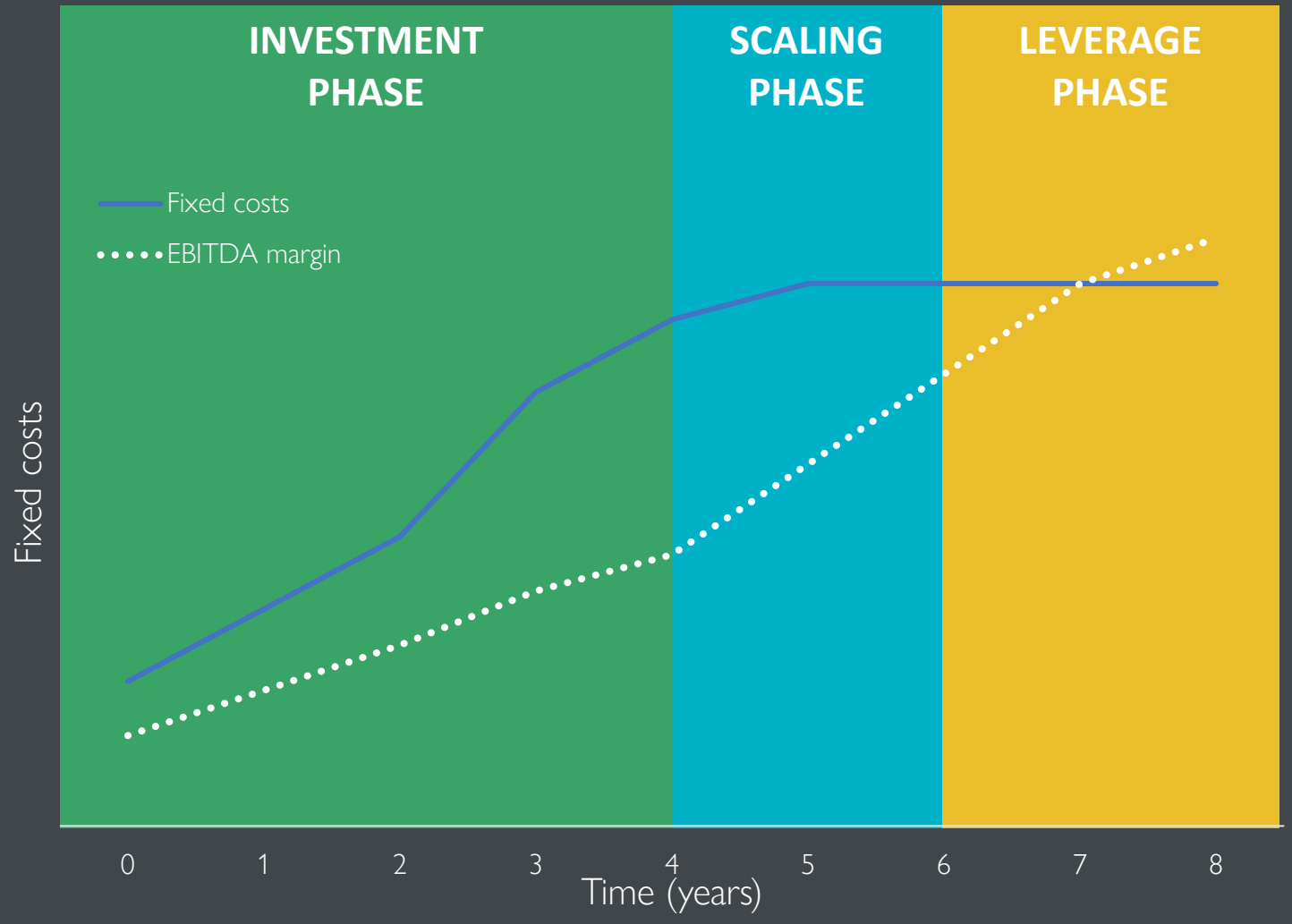
Kuros Biosciences

Transforming the structure to drive economies of scale and operational leverage



Kuros Biosciences

Illustration of operational leverage over time and respective levers

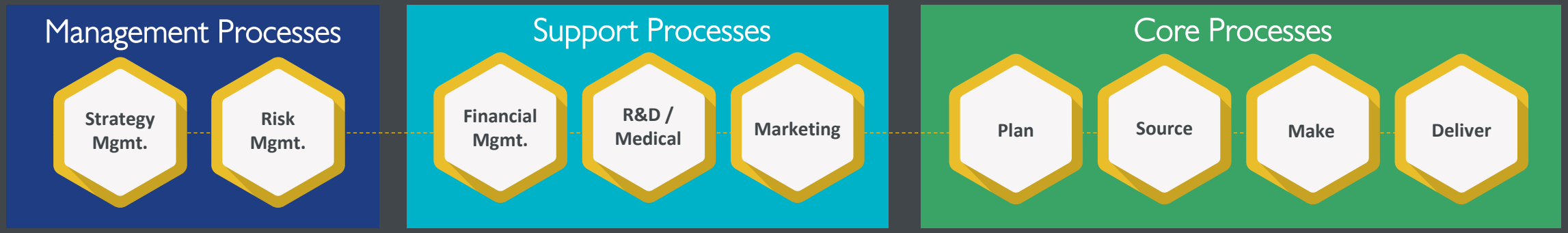


Expected future operational leverage in

Revenues	→	Business intelligence
Marketing	→	Business intelligence
Logistics	→	Digitization
		Workflow automation
		Economies of scale
Production	→	Digitization
		Workflow automation
		Economies of scale
Sourcing	→	Economies of scale
Business Support	→	Digitization
		Workflow automation
Business Development	→	Business intelligence
Strategy Management	→	Business intelligence

Kuros Biosciences

Digitizing the value chain level to gain the benefits



Benefits after digitalization

Enhanced financial management & control

- Real-time financial visibility for better-informed decision
- In-system approval workflows for controlled transactions

Improved inventory management

- Real-time inventory visibility
- Optimized stock levels
- Lower carrying costs
- Improved order fulfilment

Enhanced data accuracy

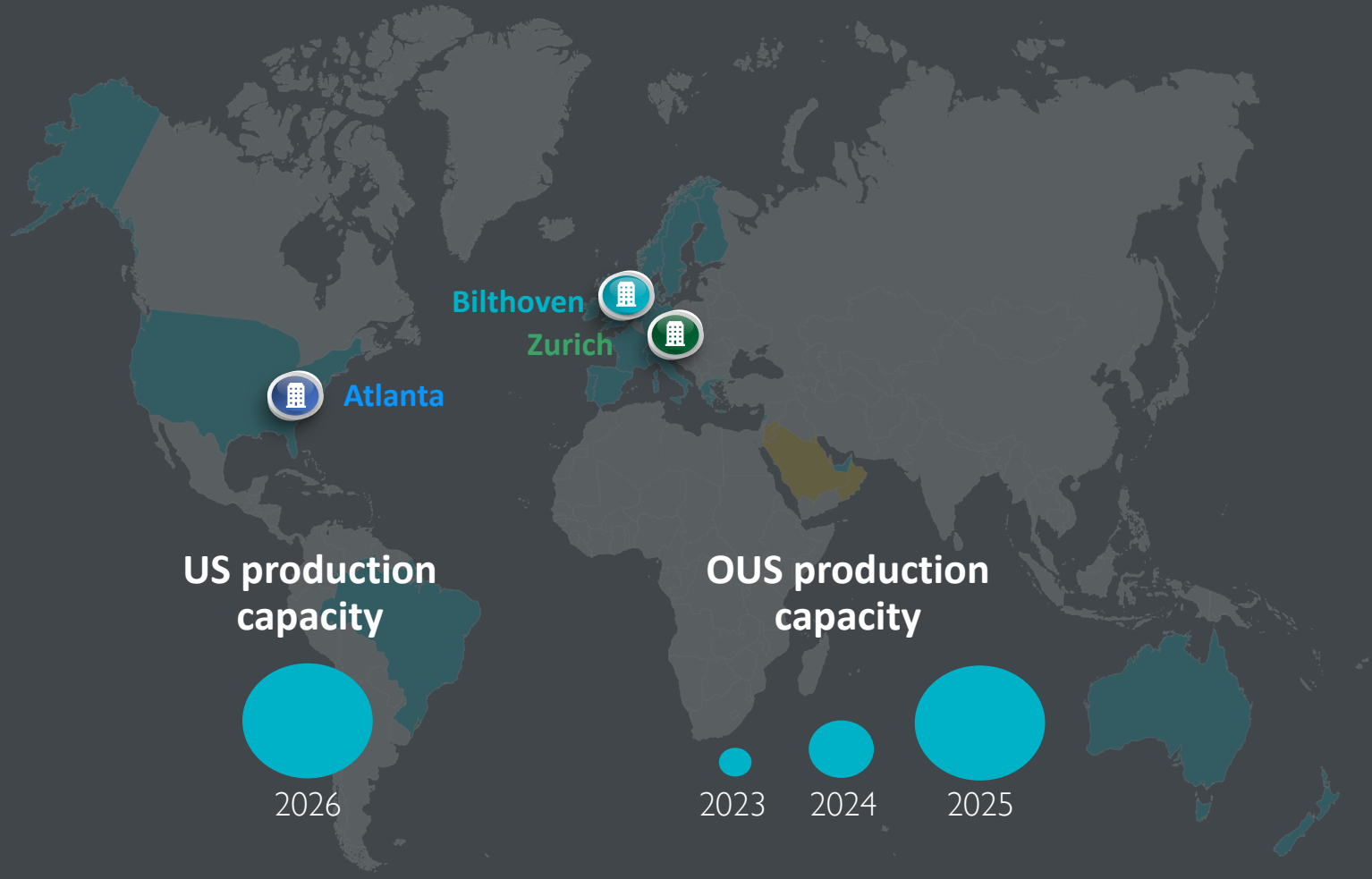
- Centralized, single-source database
- Shared, up-to-date info across departments
- Fewer manual errors
- Use of barcode scanners & master data defaults

Improved efficiency

- End-to-end digital production workflow
- Integrated planning: Plan, Source, Make, Deliver
- MRP-driven POs, BoMs, routing, customers, pricing
- Integrated functions: AR, AP, Inv Mgmt., GL

Kuros Biosciences

Geographic expansion, diversification & redesign of supply chain to de-risk the business and optimize tariffs & tax



Diversify, de-risk & prepare for further organic growth

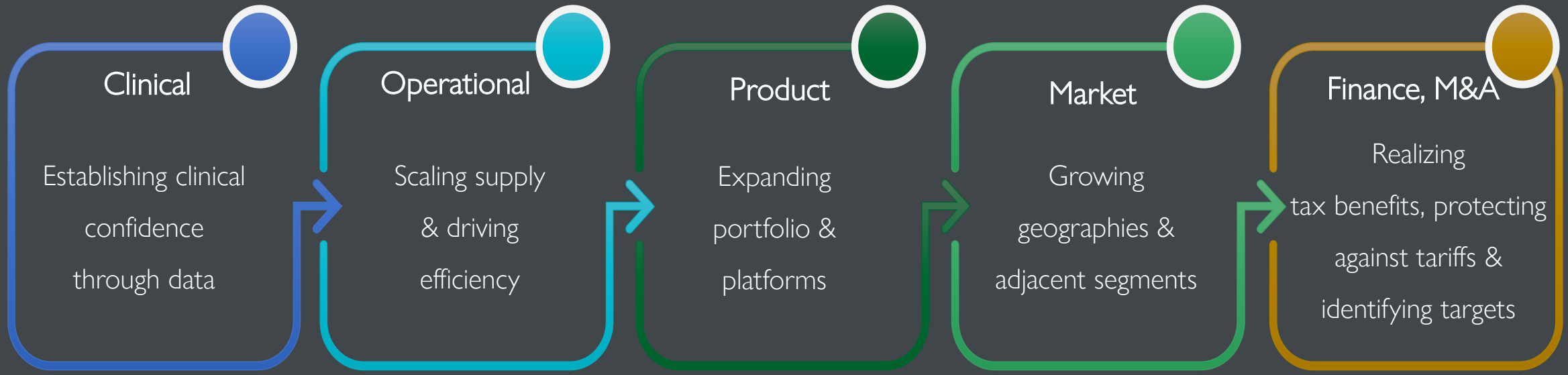
- ✓ Doubling capacity in NL, again
- ✓ New production facility in U.S.

Levers to modify processes & maintain profitability

- ✓ Adaptation to the supply chain
- ✓ Utilization of tax loss carryforwards
- ✓ Implementation of tariff mechanism

Kuros Biosciences

Growing, scaling, innovating & increasing resilience in 2025



Continue data generation:
- 7 Level I clinical trials
- 3 Level II investigator-initiated trials
- 1 Level III spine oncology trial
- >10 Level III investigator initiated clinical trials
- And more..

– Double capacity (already doubled in Aug 2024) to support growth
– Diversify supply chain by sourcing local to reduce costs
– Implement digitalization & analytics to drive operational efficiency and increase productivity

– Develop devices & formulations for new applications, including minimally invasive surgery launch expected H2 2025*
– Explore osteopromotive platforms, including surface technologies for implantable devices

– Enter new countries in Middle East, APAC, South America
– Leverage spine success to build extremities momentum

– Utilize global tax losses by structural tax adaptation
– Implement a first sale method and diversify supply chain
– Build a target list to follow inorganic growth path

*Pending U.S. FDA 510(k) clearance

Q&A

Chris Fair
CEO, Board Member

Joost de Bruijn, PhD
Executive Director and President, Innovation & Strategy

Daniel Geiger
Chief Financial Officer

Joe Ross
SVP, Marketing & Business Development

Greg Berlet, MD, FAOA, FRCS(C)
Orthopedic Surgeon

ORTHOPEDIC FOOT & ANKLE CENTER

Kuros Biosciences

Thank you

Kuros Biosciences