



# Establishing the new gold standard in bone regeneration

---

Targeting the US \$2billion spinal fusion market



# 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 KUROB 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.

# Executive summary

---

Experts in the science of bone regeneration (orthobiologics)

- 1 Biotech with MedTech risk profile & focus on bone healing / spinal fusion
- 2 **Large, growing market:** from USD 2.2bn in 2016 to USD 3.4bn<sup>1</sup> expected by 2030
- 3 MagnetOs: momentum of commercialisation is accelerating
- 4 Growth factor-based Fibrin-PTH: **Phase 2 Spine TLIF study** – enrolling & first patient treated
- 5 De-risked Fibrin-PTH: **Two successful Phase 2 trials in trauma**<sup>2</sup>

1: Company estimates based on MedTech 360 reports on US and EU titled 'Orthopedic Biomaterials Market Analysis 2017'  
2: Tibial Plateau Fractures (TPF), Tibial Shaft Fractures (TSF)

# Company overview

- Founded in 2000 as a spinoff of Swiss Federal Institute of Technology in Zurich
- Acquired Xpand Biotechnology in 2017 to strengthen the orthobiologics platform
- Listed on the SIX Swiss Exchange (Ticker: KURN)



1: As of December-31-2020  
 2: As of December31, 2020, cash and cash equivalents, trade receivables and other receivables  
 3: Based on the latest SIX stock exchange filings (December-31-2020)

# Executive management team



**Joost de Bruijn, PhD**  
Chief Executive Officer

- Founder & CEO of Xpand Biotechnology, Scinus Cell Expansion, RevisiOs and Progentix Orthobiology
- Head of Bone Tissue Engineering at IsoTis Orthobiologics
- Professor at Queen Mary University of London, UK
- 28+ years of experience in the field of orthobiologics research, product development and commercialisation



## Executive management

>80 years pharma, MedTech and Biotech experience



**Pascal Longlade, MD**  
Chief Medical Officer



**Alistair Irvine, PhD**  
Chief Business Officer



**Philippe Saudan, PhD**  
Chief Development Officer



**Frank-Jan van der Velden, MBA**  
Head of Business Affairs



**Michael Grau, MBA**  
Chief Financial Officer

- Senior financial executive in life sciences, including positions at Morphosys and EndoSense
- Ex-CFO of Correvio LLC, a hospital specialty pharma company with commercial operations globally



## Commercial management

≈40 years global spine industry experience



**John Griffin, MBA**  
Head of Commercial Operations



**Charlie Campion, PhD**  
Head of Global Marketing

# Product pipeline

 = **Priority asset**

## MedTech

Product	Therapeutic Areas	Preclinical	Regulatory Submission	Market Clearance
MagnetOs Granules (EU) and MagnetOs Putty (EU)	Orthopedics, Spine, Dental			
MagnetOs Granules (US) and MagnetOs Putty (US)	Granules: Spinal fusion (posterolateral) Putty: Spinal fusion, Orthopedics			

 Kuros Biosciences

Product	Therapeutic Area	Non-clinical	Pilot	Pivotal	Registration
KUR-023/Neuroseal (EU and US <sup>1</sup> )	Dural sealant				

 Kuros Biosciences

## Biotech

Product	Therapeutic Area	Preclinical	Phase 1	Phase 2	Phase 3
Fibrin-PTH KUR-113 (EU & US)	Spinal Interbody Fusion <sup>2</sup>				
KUR-111 (EU & US)	Tibial Plateau Fractures				
KUR-113 (EU & US)	Tibial Shaft Fractures				
CMP-001 (US) (out-licensed)	Melanoma				

 Kuros Biosciences

 Kuros Biosciences

 **CHECKMATE**  
PHARMACEUTICALS

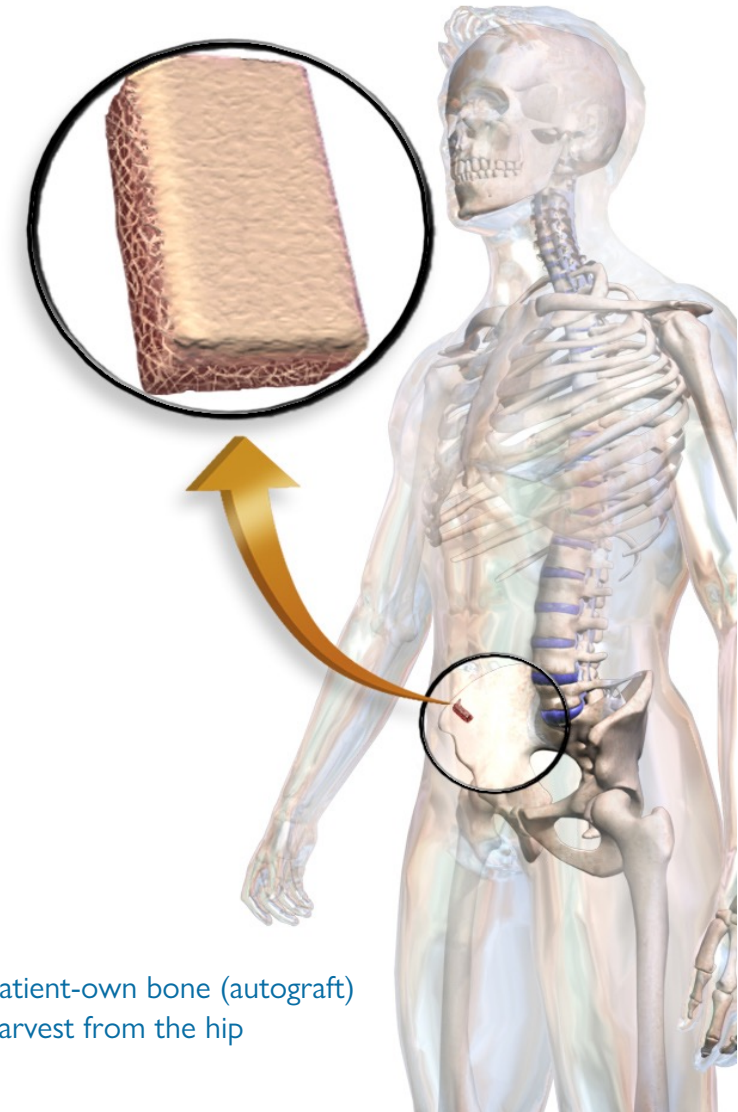
Kuros to receive up to \$56m in pre-commercial milestones and high single-digit to low-teens royalties for CMP-001 from Checkmate Pharmaceuticals

1. In the US, Neuroseal has undergone non-clinical trials and a pilot study only  
2. Anticipated phase 2 & 3 clinical study utilizing safety data from KUR-113 tibial shaft fracture trial

# Why target bone grafting indications?

---

- Bone grafting is often used to augment the body's own ability to heal bone following trauma or surgery. This ability may be compromised due to numerous patient-related factors.
- The “gold-standard” bone grafting technique (autografting), where bone is harvested directly from the patient, can lead to post-operative complications. Non-fusion rates are also problematic, potentially resulting in additional procedures and increased treatment costs.
- The Company believes that there is a significant opportunity to improve clinical outcomes and gain market share with advanced orthobiologic technologies.

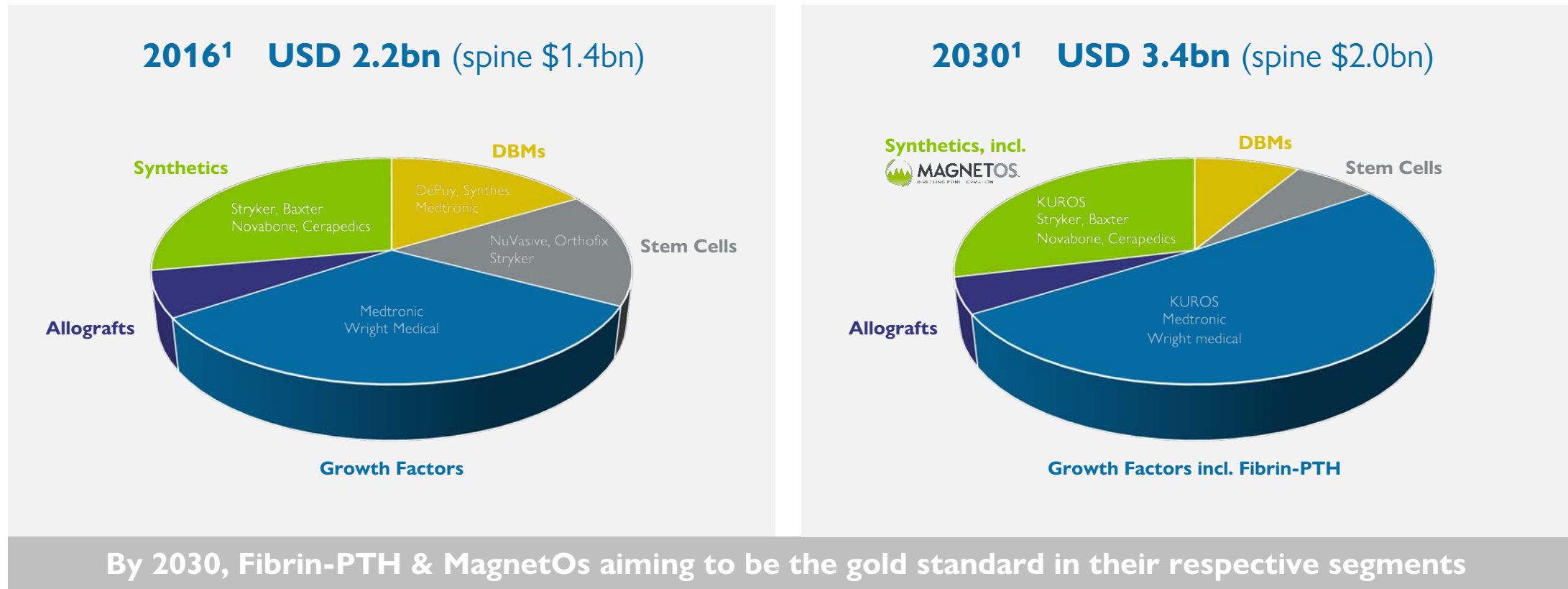


Patient-own bone (autograft)  
harvest from the hip



# A large, growing orthobiologics market

Ageing population and increased treatment rate are expected to drive market growth  
 Focusing on the spinal segment

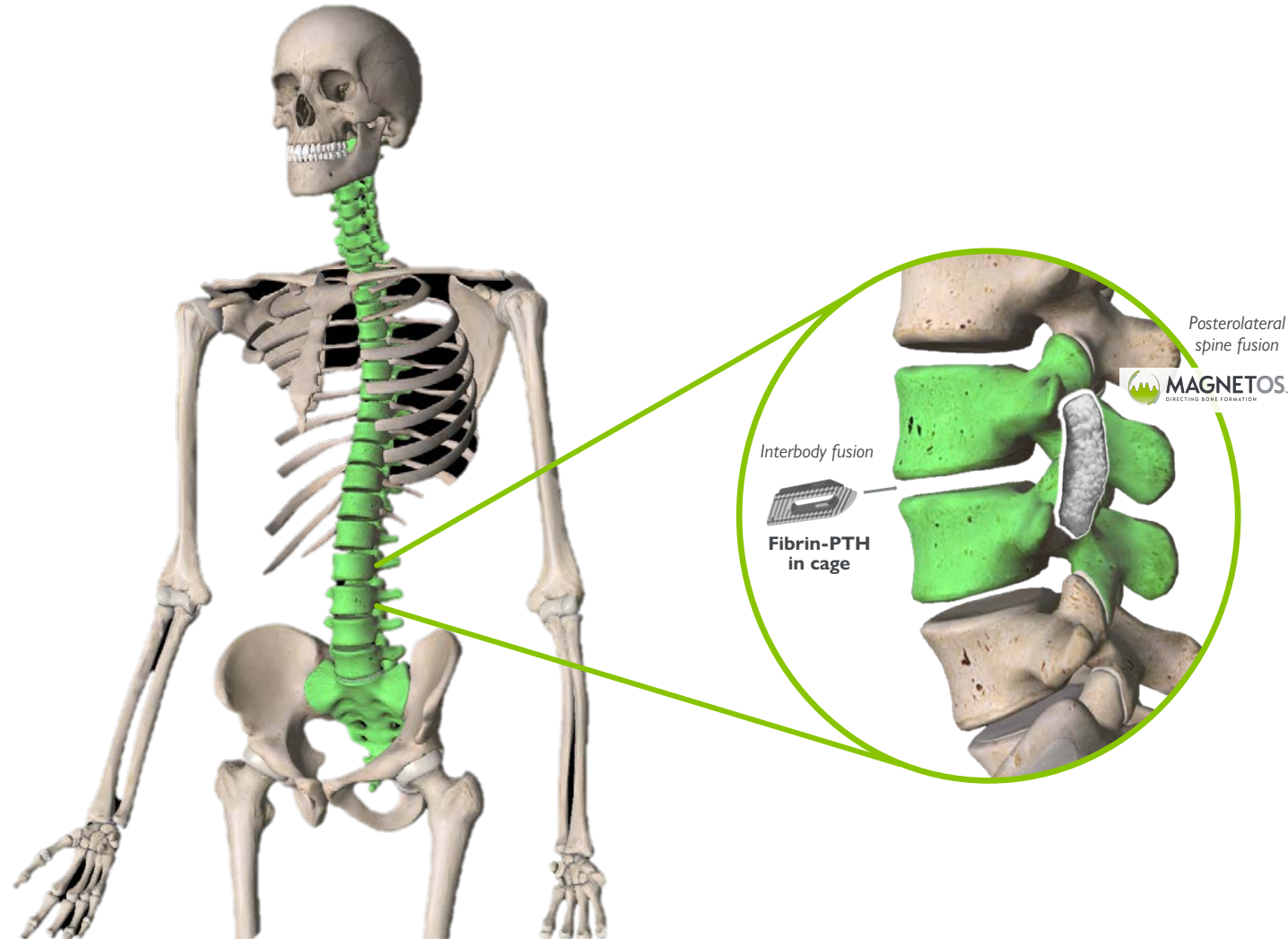


<sup>1</sup>: Company estimates based on Medtech 360 reports on US and EU titled "Orthopedic Biomaterials Market Analysis 2017"



# Spinal fusion

- A combination of Kuros products



## What is spinal fusion?

- Surgical procedure where two or more vertebrae are fused together to eliminate painful motion

What symptoms does it cure?

- Lower back pain and/or leg pain as result of e.g. degenerative disk disease, spondylolisthesis, recurrent disc herniations, etc.

Number of treatments

- By 2022, estimated annual fusions will be 876k in the USA and 470k across major EU countries<sup>1</sup>

Techniques

- Posterolateral fusion (PLF) uses rods and screws with bone graft on either side of the vertebrae to create a solid fusion mass - *MagnetOs application*
- Transforaminal lumbar interbody fusion (TLIF) uses a cage filled with bone graft placed between the vertebrae to promote fusion - *Fibrin-PTH application*

# On a mission to eliminate non-unions

A unique business model - combination of MedTech & Biotech opportunities

## MedTech



### Description

**Bone graft substitute (BGS)** with *advanced submicron surface topography* that directs the body to form bone

### Value

Equivalence to autograft and superiority to other BGS<sup>1</sup>, avoiding negative side-effects of harvesting autograft

### Status – commercially available

Commercial sales since H2 2018, initial focus on the US market and UK through a network of key opinion leader surgeons, distributors and agents (hybrid model)

## Biotech

### Fibrin-parathyroid Hormone (PTH)

### Description

**Drug-biologic combination** aimed to deliver targeted and controlled bone formation

### Value

Proven safety and efficacy in two orthopedic Phase 2 trials (~400 patients) and preclinical studies and superior handling vs competing products<sup>2</sup>





### Status – clinical development

Phase 2 clinical study - enrolment initiated, first patient treated (FPI) & several active sites

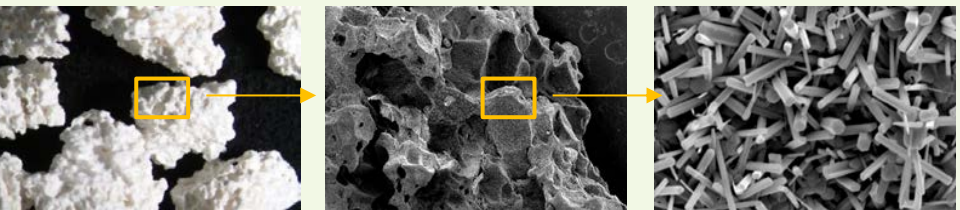
<sup>1</sup>: Shown in clinically-relevant preclinical studies  
<sup>2</sup>: Based on results of a ten-month model in sheep, US (vs. Autograft and rhBMP2)

# What is MagnetOs?

## Revolutionary bone graft with superior surface topography

			
<p><b>Properties/mechanism of action</b></p> <ul style="list-style-type: none"> <li>✓ Surface topography directs bone formation</li> <li>✓ Equivalent to autograft &amp; superior to other synthetics</li> </ul>	<p><b>Indications &amp; regulatory status (Granules &amp; Putty)</b></p> <ul style="list-style-type: none"> <li>✓ US: FDA 510k for posterolateral spine fusion, pelvis &amp; extremities</li> <li>✓ EU: CE-mark with broad indications &amp; inductive claim</li> </ul>	<p><b>Benefits &amp; positioning</b></p> <ul style="list-style-type: none"> <li>✓ Key differentiator: surface topography</li> <li>✓ Case studies &amp; randomized controlled trial / clinical data generation</li> </ul>	<p><b>Commercial rollout</b></p> <ul style="list-style-type: none"> <li>✓ Commercial in US &amp; EU since H2 2018</li> <li>✓ Direct sales targeting KOLs, to hybrid model &amp; agents distributor network</li> </ul>

**Advance submicron surface topography**



**Market opportunity est. USD 2bn by 2030<sup>1</sup>**

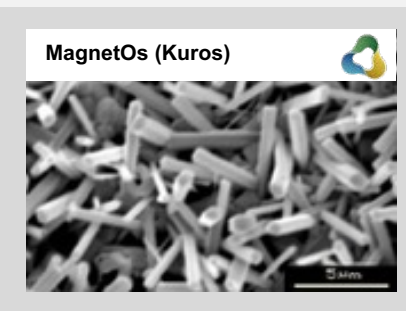
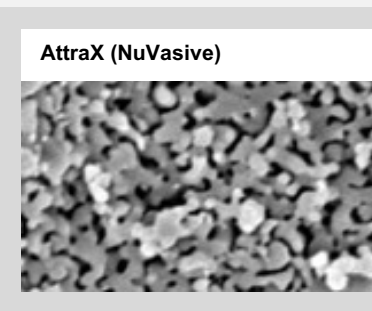
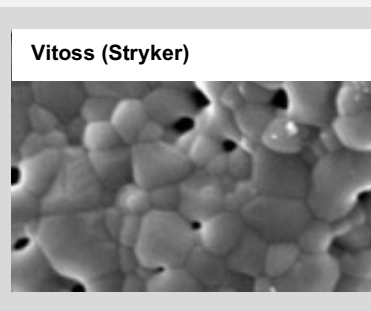
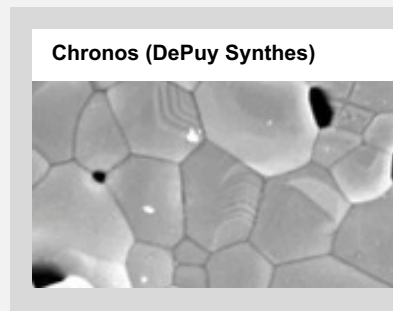
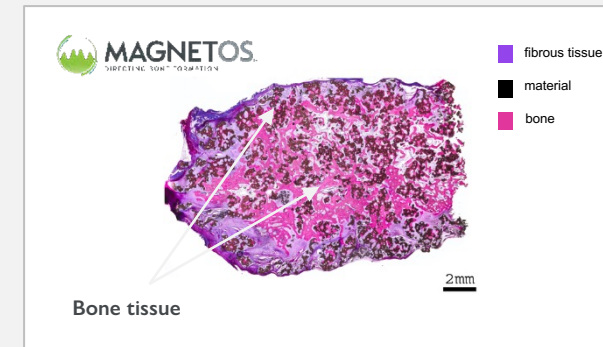
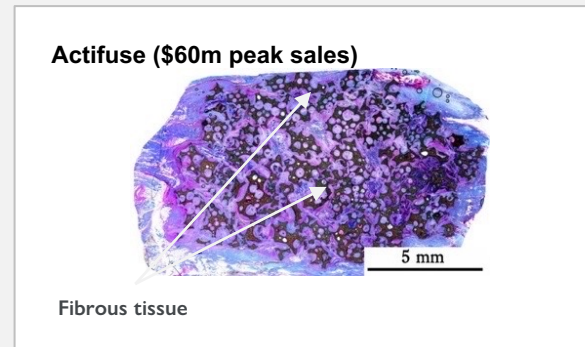
Indication	2016 - Market Size US + EU	2030 - Market Size US + EU
Spinal Fusion (Focus area)	USD 1,402m	USD 1,979m
Synthetics (in spinal fusion)	USD 350m	USD 600m
<b>Total Bone Graft Mkt Size</b>	USD 2,191m	USD 3,381m

**3D Animation:** <http://kurosbio.com/resources/magnetos-3d-animation-the-science-behind-the-surface/>

1: Company estimates based on MedTech 360 reports (US/EU) "Orthopedic Biomaterials Market Analysis 2017"

# MagnetOs' key differentiator

Superior surface structure promotes bone in soft tissues without added cells or growth factors<sup>1,\*</sup> ¥



ADVANCING TECHNOLOGY

MagnetOs preferentially directs early wound healing towards the bone-forming pathway

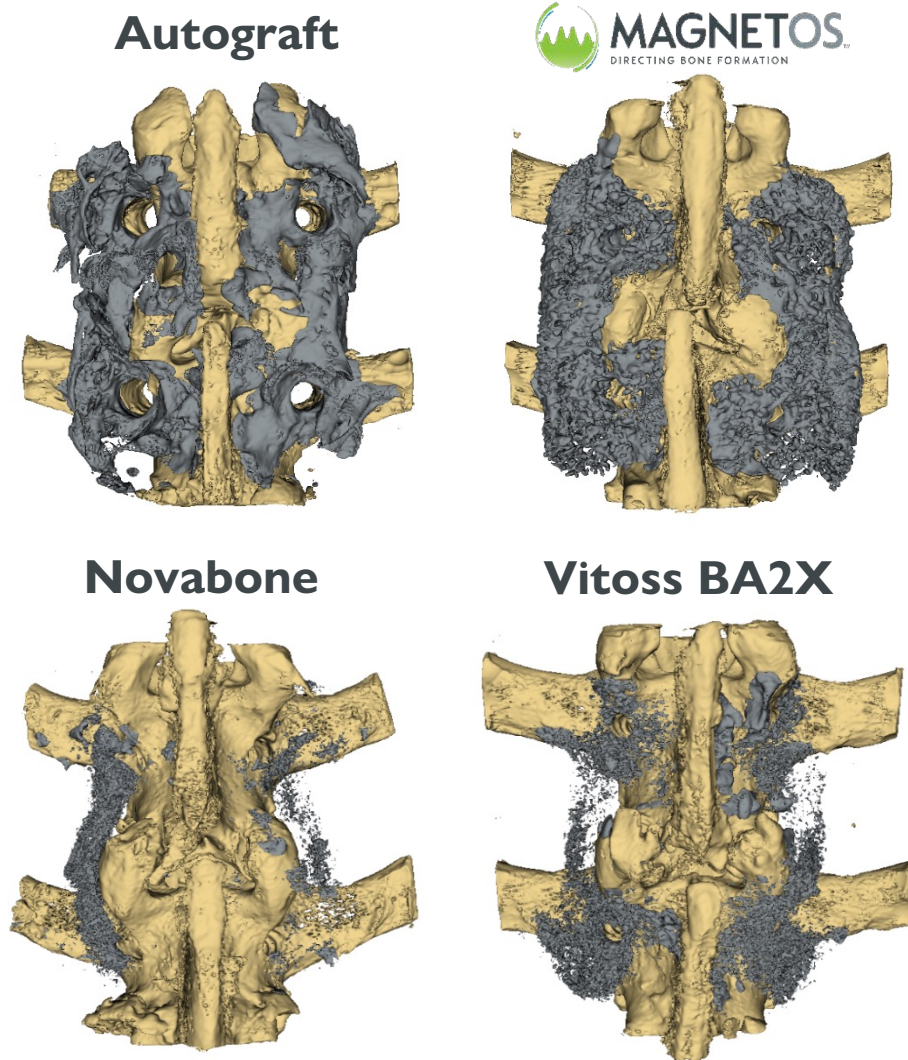
<sup>1</sup>: Duan et al., European Cells Mater 37:60-73 (2019)

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

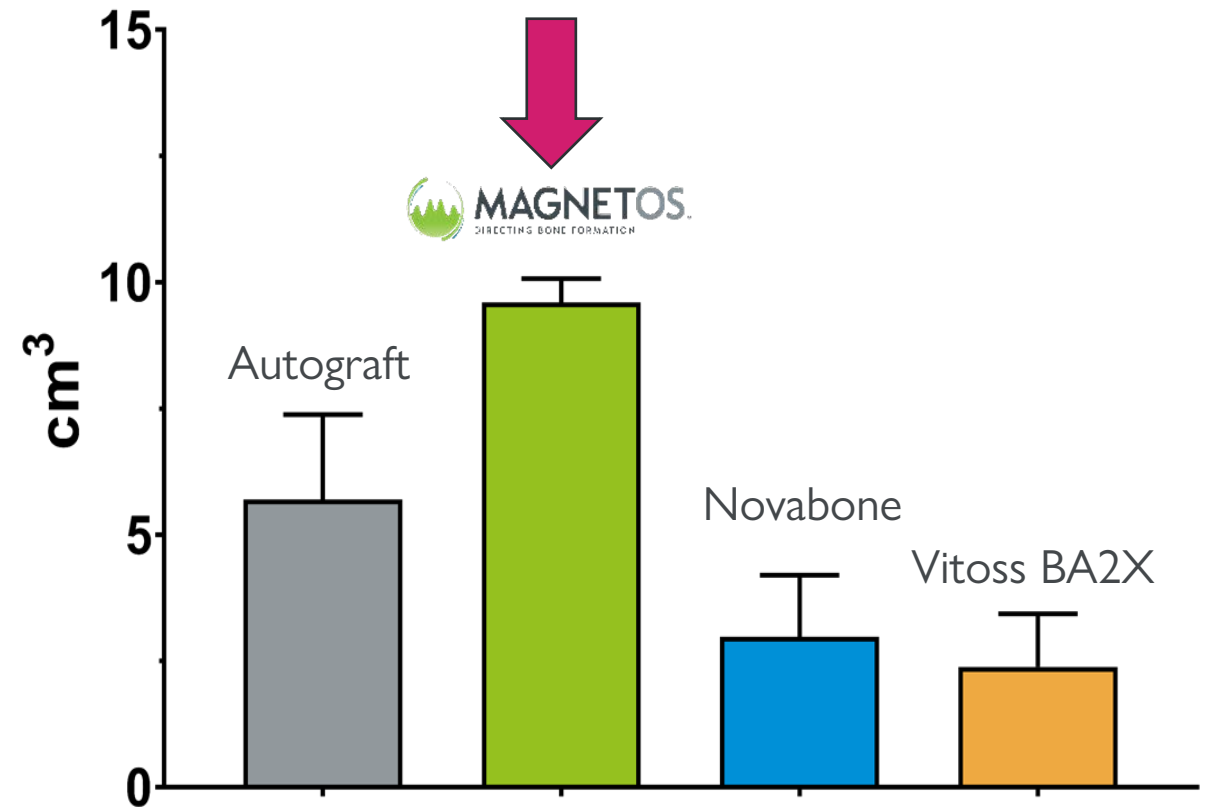
¥ Osteoinductive claim in EU; MagnetOs is not cleared by FDA as an osteoinductive graft



# MagnetOs shows no reduction in fusion mass



- MagnetOs shows no reduction in fusion mass compared to autograft and market-leading products<sup>1, \*</sup>



1: Clin Spine Surg. 2020 Jul;33(6):E276-E287

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

# Retrospective clinical study shows excellent results



**Dr. Kornelis  
Poelstra,  
MD, PhD**

The Robotic Spine Institute of  
Silicon Valley, USA

*“Our center conducted an investigator-led retrospective chart review of 25 cervical and 52 lumbar reconstruction patients, who underwent circumferential- or anterior column only interbody reconstruction surgery with MagnetOs to achieve solid spinal arthrodesis. Lumbar fusion rates were 94/97 levels (96.9%) while cervical fusion was confirmed in 75/80 (93.8%) levels. Modified Prolo scores showed Meaningful Clinically Important Differences (MCID) in 74/77 patients.*

*Our work clearly demonstrates that for patients in need of complex cervical or lumbar reconstruction surgery, MagnetOs is a viable substitute to autograft for reliable augmentation of interbody arthrodesis formation with excellent clinical outcomes.” #*

#Poelstra, K. Retrospective Evaluation of Spinal Fusion Using a Biphasic Calcium Phosphate Bone Graft with a Novel Submicron Surface Topography; submitted for publication

# Momentum of MagnetOs commercialisation is accelerating

Since start of commercialisation (H2 2018) to H1 2020 ~\$6.4m sales

*Sales growth of 58% in full year 2020 vs. full year 2019 (despite COVID-19)*

## Growth of direct sales force

Successful, rapid commercialisation of MagnetOs achieved with 6 sales reps

## Increased number of agents

Enhanced number of surgeon users  
Take-up of repeat sales

## Distribution agreements for selective European countries signed





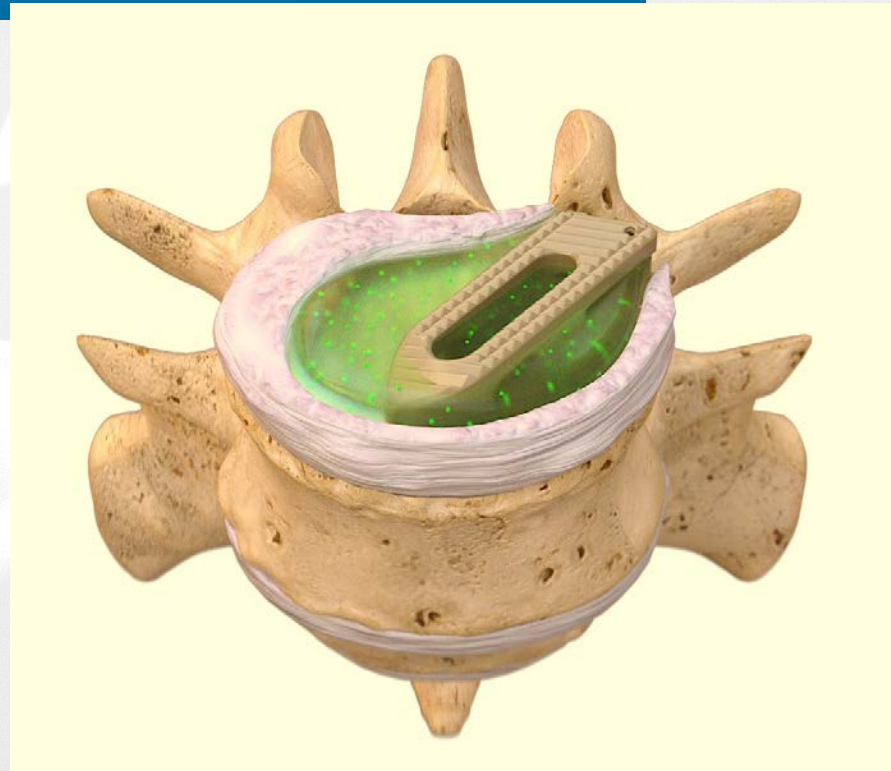
# What is Fibrin-PTH?

Our latest product candidate, Fibrin-PTH (KUR-113), aims to deliver targeted and controlled bone formation

This product candidate functions via the **well-established mechanism of action** of parathyroid hormone – or PTH – and the natural healing matrix fibrin

**Proven safety** profile of PTH (Lilly's blockbuster drug Forteo®)

Unlike rhBMP-2 (peak sales c.\$1bn)<sup>1</sup>, Fibrin-PTH only **affects cells already committed to form bone**



Fibrin-PTH has been implanted in trials with **100 patients**, reaching its primary endpoint in two human studies for bone healing

Fibrin-PTH<sup>#</sup> was demonstrated in animal studies of spinal fusion to have **comparable efficacy as rhBMP-2**

Its **excellent flowability and setting** properties make it ideal for open or minimally invasive surgical techniques

**Enrolment Phase 2 spinal fusion trial started<sup>2</sup>**

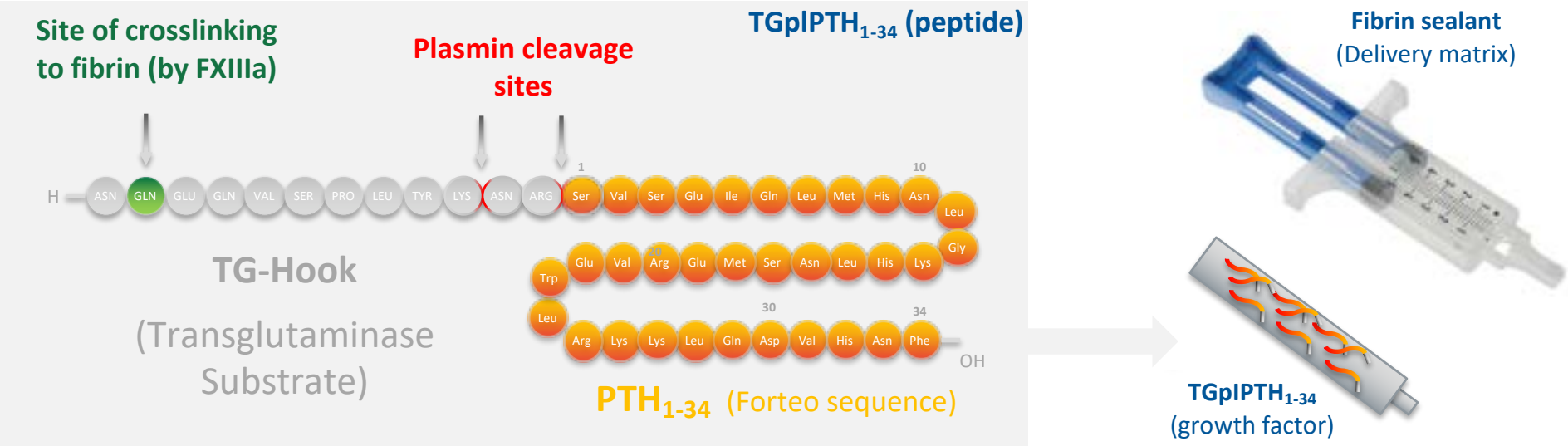
**3D Animation:** <http://kurosbio.com/resources/fibrin-ptk-kur-113-3d-animation/>

<sup>1</sup>: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5310069/#CR37>

<sup>2</sup>: <https://clinicaltrials.gov/ct2/results/cond=&term=NCT04294004&cntry=&state=&city=&dist=>

<sup>#</sup> Fibrin-PTH (KUR-113) is an investigational drug/biologic combination product candidate. Fibrin-PTH (KUR-113) has been evaluated in animals for use in lumbar interbody fusion. The safety & efficacy of Fibrin-PTH (KUR-113) has not yet been evaluated for spinal fusion in humans

# Fibrin-PTH is novel & suited to the growing field of Minimally Invasive Surgery (MIS)



**1 PREPARATION**  
 TGpPTH<sub>1-34</sub> is directionally conjugated to the fibrin matrix upon polymerization


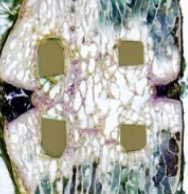

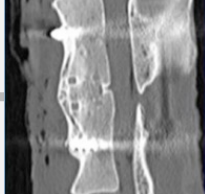
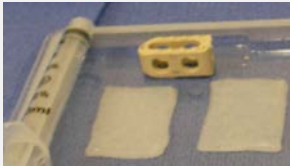


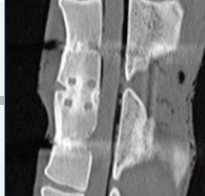



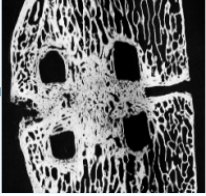
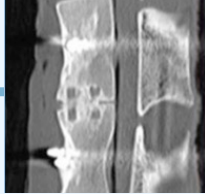
**2 APPLICATION**  
 Fibrin/TGpPTH<sub>1-34</sub> can easily be applied as a gel that solidifies in situ

**3 ACTIVATION**  
 Biologically active PTH is gradually released by enzymatic (plasmin) cleavage at the site of implantation



# Fibrin-PTH has comparable high fusion rates to InFuse and Autograft in sheep

Current Alternatives

		Histology	Micro-radiographs	CT Images		% Fusion (μCT)	% Fusion (Histology)	Bone Area in Cage (net tissue %)
Current Alternatives	<b>Autograft</b> (Gold standard) 				Intervertebral disc space	100%	100%	48% ± 8%
	<b>InFuse</b> (rhBMP2) 				Intervertebral disc space	100%	100%	43% ± 7%
	 <b>Fibrin/PTH</b> 				Intervertebral disc space	100%	100%	54% ± 7%

# Phase 2 overview and timelines

## Design

- Prospective, randomized controlled single-blind multi center study which intends to demonstrate safety and efficacy of Fibrin-PTH (KUR-113) versus local autograft\*
- 50 Patients in two stages (2 dose levels vs local autograft)

\* Study is not powered to detect non-inferiority

## Treatment

- Single-level TLIF with Fibrin-PTH or local autograft added in and around any static FDA cleared monoblock PEEK cage
- PLF (fixation plus MagnetOs Putty)

## Primary endpoint

- Radiological fusion determined by CT and assessed by IREP at 12 months

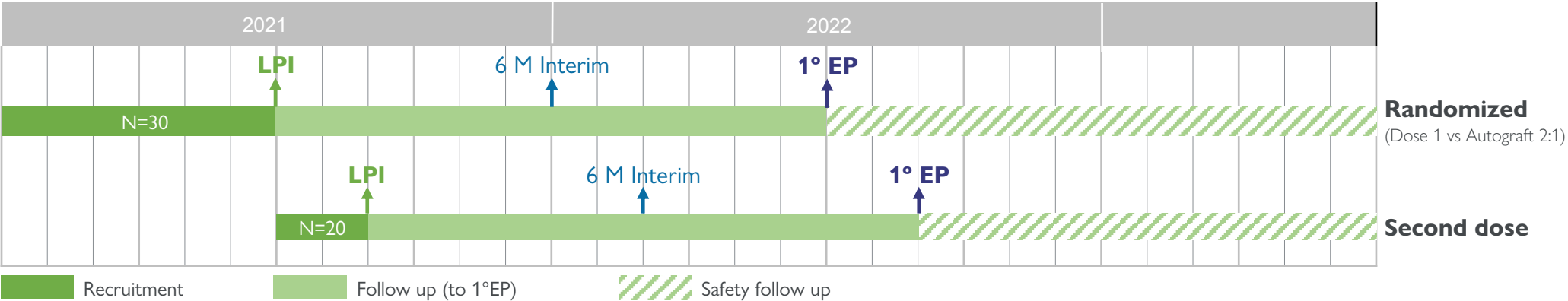
## Study Sites and PIs

- UCSD, Louisiana Spine, Allegheny, Justin Parker, **BWH (J Chi)**, HSS, U Penn, Cedars Sinai, Northwestern, Medstar Georgetown, Indiana Spine, ...



## Timelines\*

- Study is recruiting and enrolling
- One-year data expected by H2 2022
- First-patient treated



1: <https://clinicaltrials.gov/ct2/results?cond=&term=NCT04294004&cntry=&state=&city=&dist=>  
 \*Dependent on COVID-19 & start of elective surgeries

# Financial highlights for the full year 2020 (1)

Condensed Consolidated Income Statement	December 31 2020	December 31 2019
<i>IFRS in TCHF</i>		
Product sales	4,039	2,561
<b>Total Revenue</b>	<b>4,039</b>	<b>2,561</b>
Cost of goods sold	(2,368)	(2,220)
Research & Development costs	(4,005)	(4,739)
General and administrative costs	(5,392)	(4,970)
Sales & Marketing costs	(4,263)	(2,304)
Other income	310	280
<b>Operating loss</b>	<b>(11,679)</b>	<b>(11,392)</b>
Net financial result	(415)	(431)
Loss before tax	(12,094)	(11,823)
Income taxes	574	571
<b>Net loss</b>	<b>(11,520)</b>	<b>(11,252)</b>

- Revenues have increased by 58% compared to 2019
- G&A costs increased slightly as a result of the capital increase in October 2020
- Marketing & sales costs almost doubled as a result of increasing commercial activities

# Financial highlights for the full year 2020 (2)

Consolidated balance sheet	December 31 2020	December 31 2019
<i>IFRS in TCHF</i>		
<b>Total non-current assets</b>	<b>60,396</b>	<b>64,562</b>
<b>Current Assets</b>		
Assets classified as held for sale	2,171	
Inventories	1,460	954
Prepayments and other assets	547	459
Trade receivables	1,036	759
Other receivables	366	316
Cash & cash equivalents	28,388	20,802
<b>Total Current assets</b>	<b>33,968</b>	<b>23,290</b>
<b>Total assets</b>	<b>94,364</b>	<b>87,852</b>
<b>Total shareholders equity</b>	<b>84,601</b>	<b>77,855</b>
<b>Non current liabilities</b>		
Pension liabilities	587	727
Deferred tax liabilities	3,238	3,488
Non-current lease liabilities	2,062	2,142
<b>Total non-current liabilities</b>	<b>5,887</b>	<b>6,357</b>
<b>Current liabilities</b>		
Current lease liabilities	278	246
Trade and other payables	936	1,059
Accrued expenses	2,662	2,335
<b>Total current liabilities</b>	<b>3,876</b>	<b>3,640</b>
<b>Toal shareholders` equity and liabilities</b>	<b>94,364</b>	<b>87,852</b>

- Cash and cash equivalents trade and other receivables amount to TCHF 28,388

# Reasons to invest in Kuros

## Credibility

Unparalleled depth & breadth of experience in the orthobiologics sector



- >80 years MedTech, Biotech, Pharma amongst senior management
- ~150 years collective orthobiologics research
- Several start-up successes delivered in this sector by the members of the Kuros team

## Data

Our products work by truly unique mechanisms that are expected to be backed by a high level of clinical evidence



- MagnetOs is the subject of 4 peer-reviewed research publications
- Unlike most other synthetic bone grafts, MagnetOs is expected to be supported by 10 post-market clinical studies
- Fibrin-PTH has been de-risked by two successful PhII orthopedic clinical trials

## Strategy

Our go-to-market strategy is based on extensive experience in the spine industry



- Targeting based on proprietary market research
- Low risk approach to commercialization using blended sales channel and competitive pricing
- Validated by strategic partnerships with specialist spine distributors

## Advocacy

Kuros has already secured the support of leading names in this therapy area



- 5 of the leading names in US spinal surgery have put their backing behind Kuros
- Endorsed by pre-eminent professor of orthopedic research
- Long history of use by some of the leading names in spine surgery in EU








# Backup

---



# Current treatments either lack efficacy or ease of use

	Treatment method	Avoids tissue harvesting	Targeted bone regeneration	Clinical proof focused	Low procedure complexity	Safety/patient recovery time	Properties
<b>GOLD STANDARD</b>	 <b>AUTOGRAFT</b> Create a defect to fill another	✗	✓	✓	✗	✗/✓	+ Complete histocompatibility - Second surgery often required - Donor site pain and morbidity - Limited availability
<b>GROWING ALTERNATIVES</b>	 <b>INFUSE</b> rhBMP2	✓	✗	✓	✗/✓	✗/✓	+ Induces rapid bone formation - Uncontrolled burst release - Swelling & inflammation (off-label use) - Not target-specific (uncontrolled growth)
	 <b>OTHER SUBSTITUTES</b> Synthetics, DBM, stem cells, allograft	✓	✗/✓	✗	✗/✓	✓	+ Supports bone growth - Mainly passive bone formation - Story-based, limited clinical proof - Inferior alternative to autograft
	 <b>FIBRIN-PTH (KUR-113)</b>	✓	✓	✓ <sup>1</sup>	✓	✓	+ Stimulates rapid bone formation + Targeted to (pre)osteoblasts + Controlled release + Robust safety/efficacy profile <sup>1</sup>
	 <b>MAGNETOS</b> DIRECTING BONE FORMATION	✓	✓	✓	✓	✓	+ Advanced submicron surface topography directs bone formation + Novel mechanism of action based on early wound healing + Osteoinductive (EU claim) + Ambition to strengthen clinical proof

<sup>1</sup>: Based on two successful phase 2 studies incl. ~400 patients, and proven safety of Forteo (Lilly's PTH blockbuster drug)



# MagnetOs

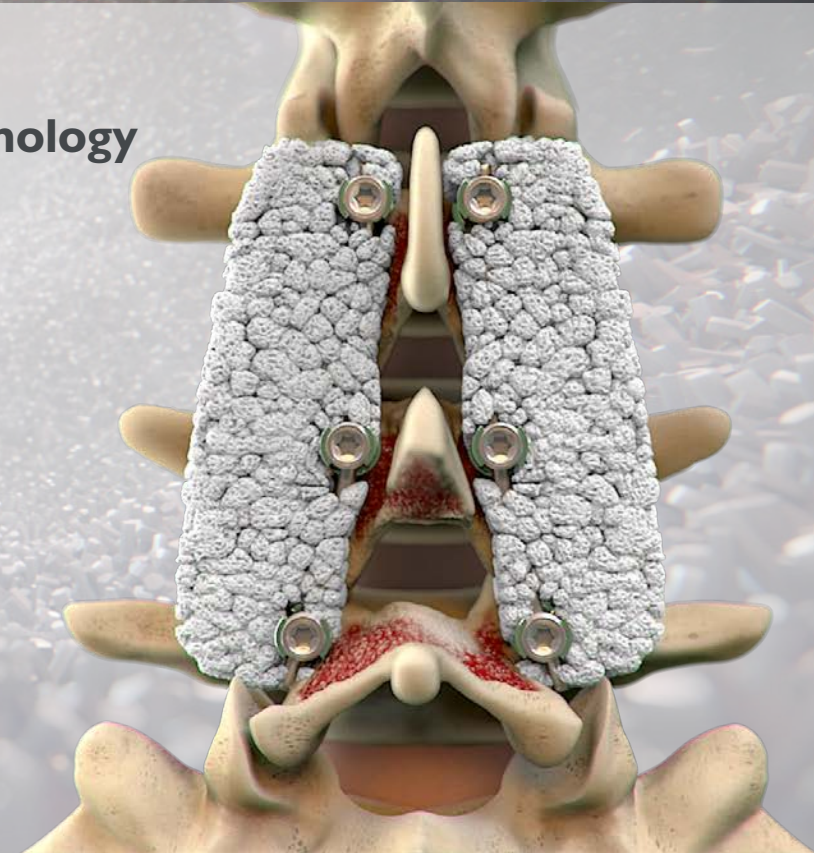
---

MagnetOs, our flagship product, is a revolutionary bone graft with success in the surface.

## Harnessing the power of macrophage polarization and osteoimmunology

Made of biphasic calcium phosphate (BCP), MagnetOs mimics the porous, trabecular structure of cancellous bone<sup>1</sup>. It has a unique submicron surface topography that harnesses the power of macrophage polarization<sup>2</sup> and osteoimmunology, to deliver uniform, stable and reliable fusions.<sup>3\*</sup>

Head-head preclinical studies against autograft and leading competitors showed – using multiple fusion end-point analysis at the 12-week mark – MagnetOs' performance was equivalent to the 'gold standard' of autograft & superior to the current market-leading alternatives.<sup>4\*</sup>



1: MagnetOs Instructions for Use

2: Data on file, 2019

3: Van Dijk, J.A., et al. J Biomed Mater Res B Part B 2019;9999B:1–11

4: Walsh et al., NASS 2019 annual meeting, oral presentation & Clin Spine Surg. 2020 Jul;33(6):E276-E287

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

# Strategic advisory board

---

*Five opinion-leading US spine surgeons and a professor of orthopedic research who are considered experts within their field but with the focus, mentality and motivation to help shape the future of our organization.*



**Dr Patel, MD**  
Northwestern, Chicago



**Dr Sandhu, MD**  
Georgetown, DC



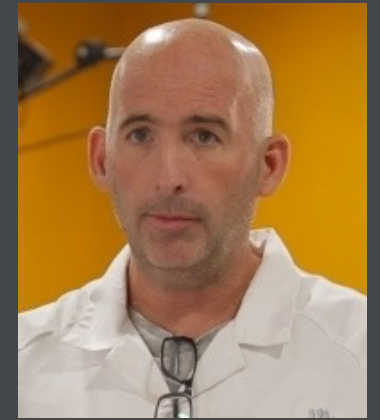
**Dr Allen, MD**  
UCSD, San Diego



**Dr Sama, MD**  
HSS, New York



**Dr Poelstra, MD**  
Ortho Northcal, CA



**Prof Walsh, PhD**  
UNSW, Australia



# Proven in real-world application – Lumbar spine



## STUDY BACKGROUND

### AIM

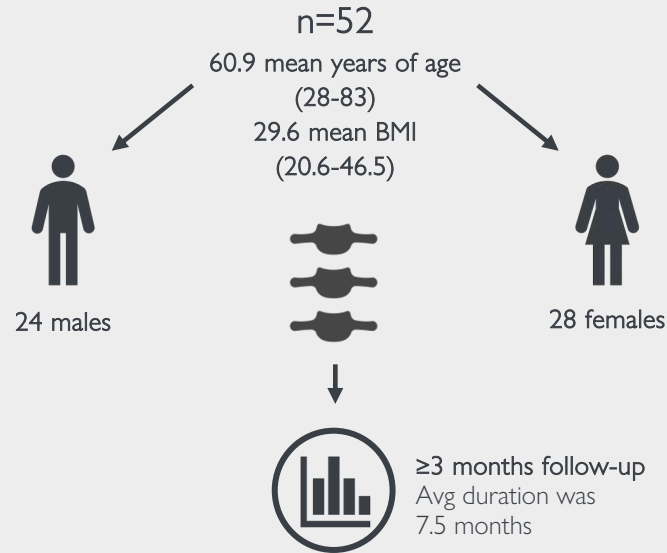
Evaluate the clinical and radiographic outcomes in patients treated over a 9-month period.

### COHORT

Reconstructions with posterior, lateral, or anterior interbody fusions with or without posterior lumbar instrumented fusions, retrospective cohort study.

Clinical outcome was assessed using a modified Prolo scale and clinical evaluation at varied timepoints.

## SINGLE / MULTILEVEL INTERBODY LUMBAR SPINE ARTHRODESIS

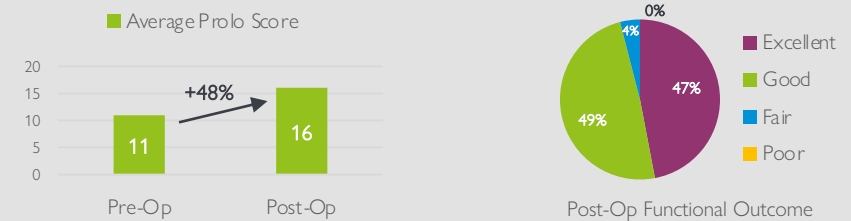


## COMPILATION OF SUCCESSFUL FUSIONS BETWEEN 3-12 MONTHS POST-OPERATIVELY

	PATIENTS (n)	LEVELS (n)
Total	52	97
Fused	49	94
Non-Fused	3	3
Fusion %	94%	97%

Pseudoarthrosis was observed in 3 out of 97 levels (3.1%).

## CLINICAL OUTCOME WAS ASSESSED USING A MODIFIED PROLO SCALE (0-20) AND CLINICAL EVALUATION



Patient reported outcomes showed a **substantial improvement** in pain and functional grade

# Proven in real-world application – Cervical spine



## STUDY BACKGROUND

### AIM

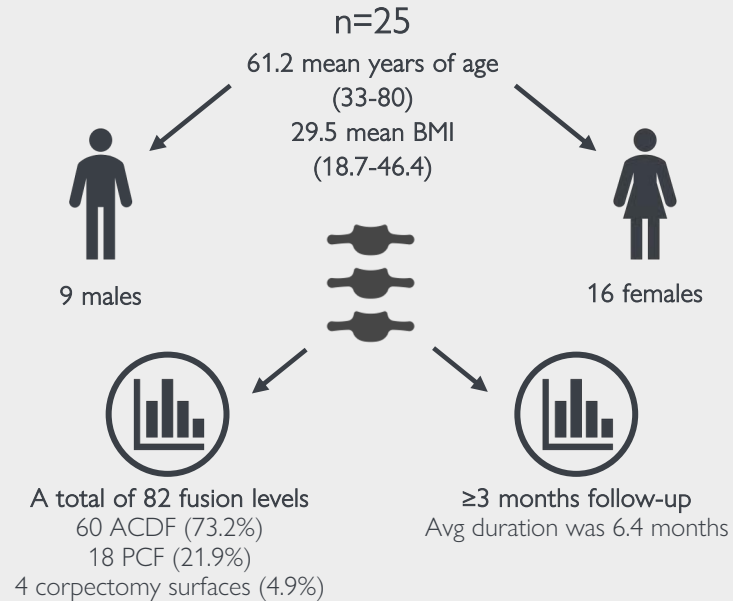
Evaluate the clinical and radiographic outcomes in patients treated over a 9-month period

### COHORT

Reconstructions with posterior and anterior cervical interbody fusions, retrospective cohort study.

Clinical outcome was assessed using a modified Prolo scale and clinical evaluation at varied timepoints.

## SINGLE / MULTILEVEL CERVICAL SPINE ARTHRODESIS



## COMPILATION OF SUCCESSFUL FUSIONS BETWEEN 3-12 MONTHS POST-OPERATIVELY

	LEVELS			
	PCF	Corpectomy Surfaces	ACDF	Total Levels
Total	18	4	60	82
Fused	18	4	55	77
Non-Fused	0	0	5	5
Fusion %	100%	100%	92%	94%

Successful fusion was achieved within 12 months in 77 out of 82 levels (94%), of which 53 out of 82 levels (65%) fused in the first 6 months. Pseudoarthrosis was observed in 5 out of 82 levels (6.1%)





## CLINICAL OUTCOME WAS ASSESSED USING A MODIFIED PROLO SCALE (0-20) AND CLINICAL EVALUATION

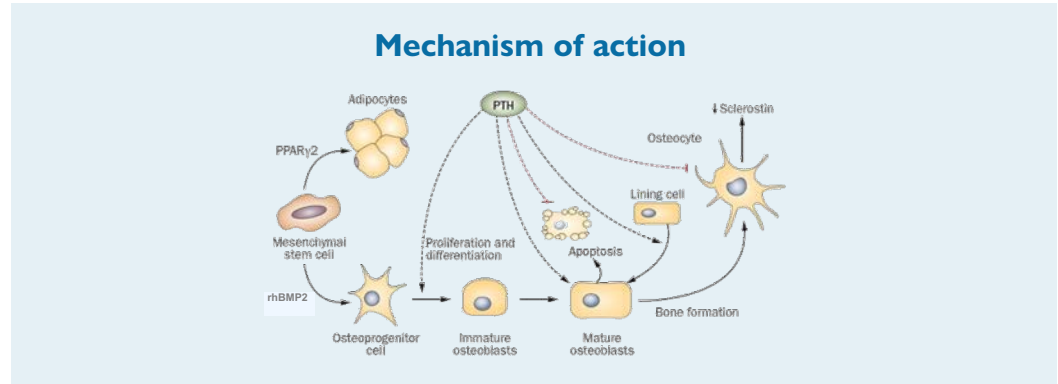


Patient reported outcomes showed a **substantial improvement** in pain and functional grade

# What is Fibrin-PTH?

## Drug-biologic combination - Parathyroid hormone (PTH) and fibrin

			
<p><b>Mechanism of action</b></p> <ul style="list-style-type: none"> <li>✓ PTH promotes bone formation</li> <li>✓ Controlled &amp; targeted release of PTH</li> </ul>	<p><b>Indications</b></p> <ul style="list-style-type: none"> <li>✓ Interbody lumbar spinal fusion (focus area)</li> <li>✓ Use with FDA cleared cages<sup>1</sup>, incl. Kuros TLIF cage</li> </ul>	<p><b>Benefits &amp; positioning</b></p> <ul style="list-style-type: none"> <li>✓ Effective with superior safety and handling vs Infuse<sup>2</sup></li> <li>✓ Proven safety profile of PTH (Lilly's blockbuster drug Forteo<sup>®</sup>)</li> <li>✓ Excellent flowability &amp; setting: ideal for open or minimally invasive surgery</li> </ul>	<p><b>Development stage</b></p> <ul style="list-style-type: none"> <li>✓ De-risked: safe &amp; effective in trauma p2 trials (~400 patients)</li> <li>✓ Phase 2 spinal fusion trial enrollment initiated<sup>#</sup></li> </ul> <p><b>Next value inflection</b></p> <ul style="list-style-type: none"> <li>✓ Phase 2 read-out end 2021/early 2022*</li> </ul>



**Market opportunity est. USD 2bn by 2030<sup>3</sup>**

Indication	2016 - Market Size US + EU	2030 - Market Size US + EU
<b>Spinal Fusion (Focus area)</b>	USD 1,402m	USD 1,979m
<b>Growth factors (in spinal fusion)</b>	USD 500m	USD 1b
<b>Total Bone Graft Mkt Size</b>	USD 2,191m	USD 3,381m

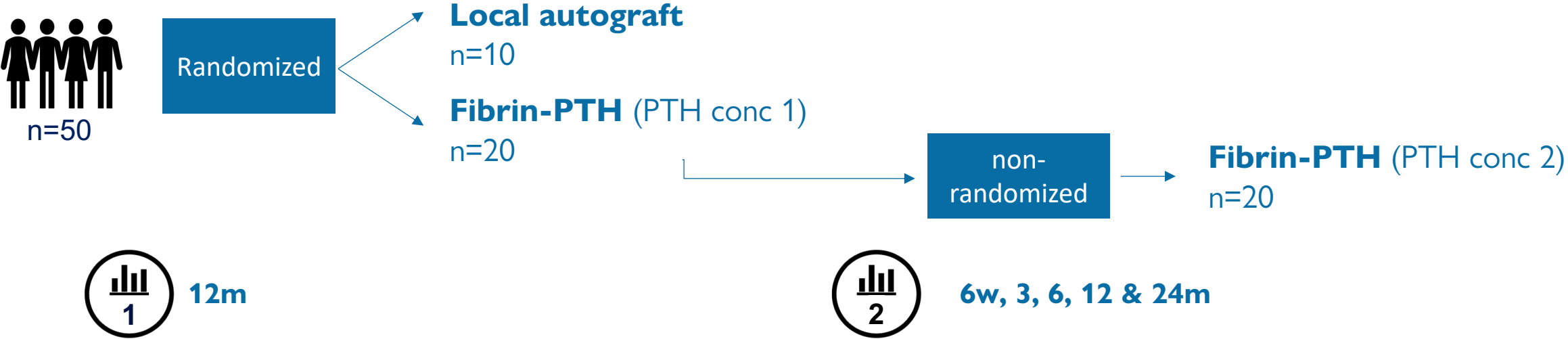
**3D Animation:** <http://kurosbio.com/resources/fibrin-pth-kur-113-3d-animation/>

1: Dependent on FDA feedback  
 2: Off-label product use  
 3: Company estimates based on Medtech 360 reports (US/EU) "Orthopedic Biomaterials Market Analysis 2017"  
<sup>#</sup> Fibrin-PTH (KUR-113) is an investigational drug/biologic combination product candidate. Fibrin-PTH (KUR-113) has been evaluated in animals for use in lumbar interbody fusion. The safety & efficacy of Fibrin-PTH (KUR-113) has not yet been evaluated for spinal fusion in humans  
 \*Dependent on COVID-19 & start of elective surgeries



# Fibrin-PTH for Spinal Fusion

## Phase 2 – Single level TLIF (L2-S1) in patients with DDD with up to Grade 1 spondylolisthesis



### Primary

Radiographic interbody fusion using CT-scans, as defined by an independent radiology expert panel (IREP)



### Secondary

Composite (interbody fusion, ODI, no SSI's) on CT's (6m & 12m)  
Posterolateral fusion on CT's at 6 and 12m (IREP)  
Clinical assessment  
Safety and PK  
Secondary interventions

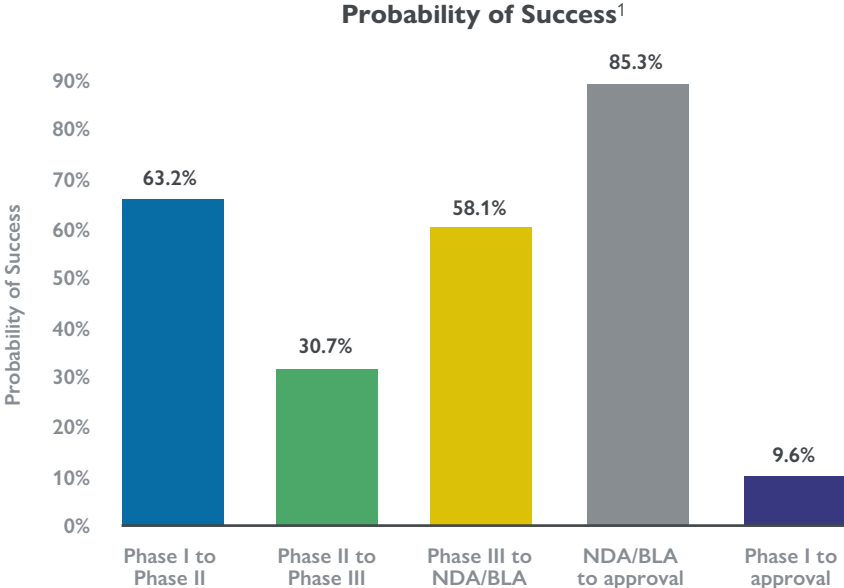
# Fibrin-PTH is significantly de-risked

Phase transition success & likelihood of approval (LoA)

## Fibrin-PTH is significantly de-risked:

- Successful completion of two Phase 2 studies (safety/efficacy in nearly 400 patients) related to bone repair in the trauma field (Tibial Plateau Fractures/Tibial Shaft Fractures phase 2b)
- Safety profile of PTH (Forteo, Lilly’s \$1.7b blockbuster drug)

	All diseases, all modalities <sup>1</sup>	Fibrin-PTH (Spine) <sup>2</sup>
Phase I to II	63,2%	
Phase II to III	30,7%	90,0%
Phase III to NDA/BLA	58,1%	75,0%
NDA/BLA to approval	85,3%	90,0%
LOA from Phase I	9,6%	
LOA from Phase II	15,2%	<b>60,8%</b>



1: BIO Industry Analysis, Biotechnology Innovation Organization, "Clinical Development Success Rates 2006-2015"  
 2: Based on company estimates

# Kuros Biosciences – patent portfolio

*Extensive patent portfolio to protect its products*

---

- Kuros has a broad patent portfolio with >100 granted patents and a number of additional patent applications
- Patents are focused in the main markets of US and Europe but also include other markets such as China, Australia and Canada
- Current granted patents have valid claims until 2036 with patent applications which, if granted, would give coverage until 2039

Patent families related to:	Approx. expiry of granted patents	Approx. expiry of pending if granted
Fibrin-PTH	2031	2039
MagnetOs	2036	2036



Kuros Biosciences

Kuros Biosciences AG is a limited liability company registered in Switzerland. Registered address: Wagistrasse 25, 8952 Schlieren, Switzerland.  
Register of commerce number CHE-104.785.642