# Kuros Biosciences

## The future of spinal fusions

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.

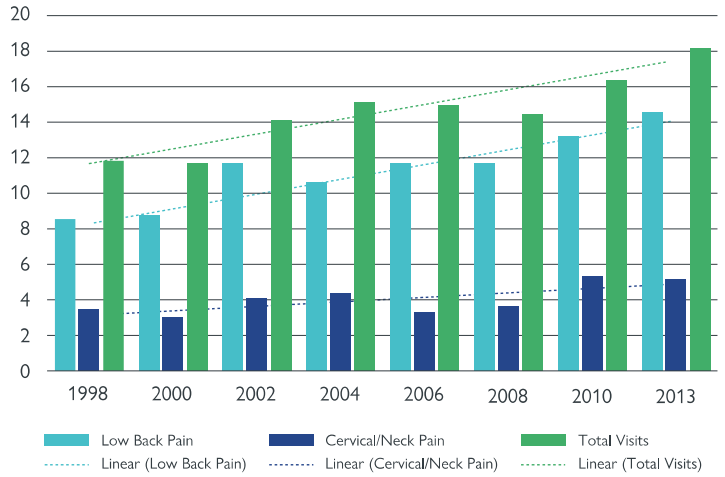
This presentation shall not constitute an offer to sell or the solicitation of an offer to buy securities of the Company, in any jurisdiction in which such offer or solicitation would be unlawful prior to registration, exemption from registration or qualification under the securities laws of any jurisdiction.

Kuros Biosciences

# **Spine-related pain is taking a huge toll on our society:**
more days in bed, more days off work, and at a greater financial cost to westernized healthcare than any other condition.

## Physician visits have doubled over 20 years.[1]

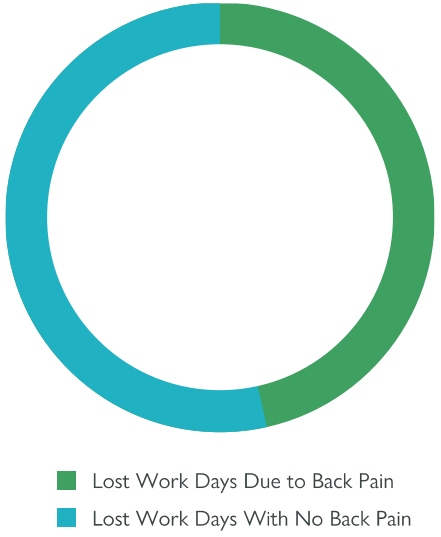
United States 1998 to 2013




Trend in physician visits back and neck pain.

## The leading cause of days off work.[2]

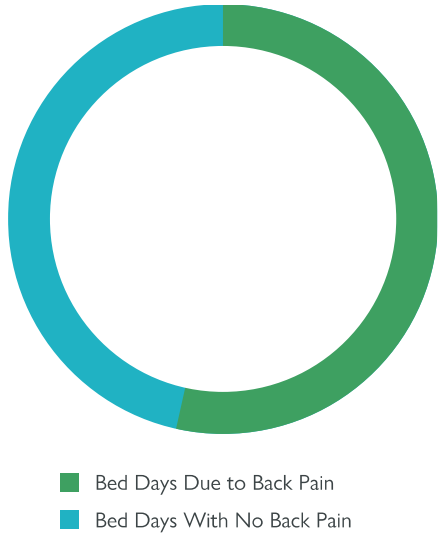
United States 2015




Share total list workdays in past 12 months with and without back pain.

## More bed days than for any other condition.[3]

United States 2015




Share total bed days in past 12 months with and without back pain.

References: 1. National ambulatory medical care survey (NAMCS). 1998-2013. https://www.cdc.gov/nchs/ahcd/ahcd_questionnaires.htm. January 14, 2016. 2. National Health Interview Survey (NHIS)_Adult sample, 2013, 2014, 2015. http://www.cdc.gov/nhis/data-questionnaires-documentation.htm. July 23, 2016. 3. National Health Interview Survey (HIS)_Adult sample, 2013, 2014, 2015. http://www.cdc.gov/nhis/data-questionnaires-documentation.htm. July 23, 2016.

Kuros Biosciences

**Kuros is on a mission** to ease the burden of spine-related pain through superior biologics for better spinal fusions.

Kuros Biosciences

# Kuros Biosciences at-a-glance

Kuros is a Swiss-headquartered biotech company, listed on the SIX Swiss Stock Exchange (Ticker: KURN) since 2016. With operations in the Netherlands and the USA, we employ a growing team of 53 people.

To deliver the ideal bone graft, you need the highest quality & quantity of scientific evidence behind it. We believe that this is a key differentiator for Kuros, given the urgent need to reduce spinal fusion failure rates. Our credentials:

A commercial & research footprint that spans 3 continents and covers more than 10 markets.

>30 biologics-related patents.

8 well-controlled Level I-III clinical trials initiated, with 3 Level I studies having been completed and meeting primary endpoints.


>150 years' combined research experience in the field of biologics for spine fusion.

>5,000 patients successfully treated worldwide with our bone graft technologies.

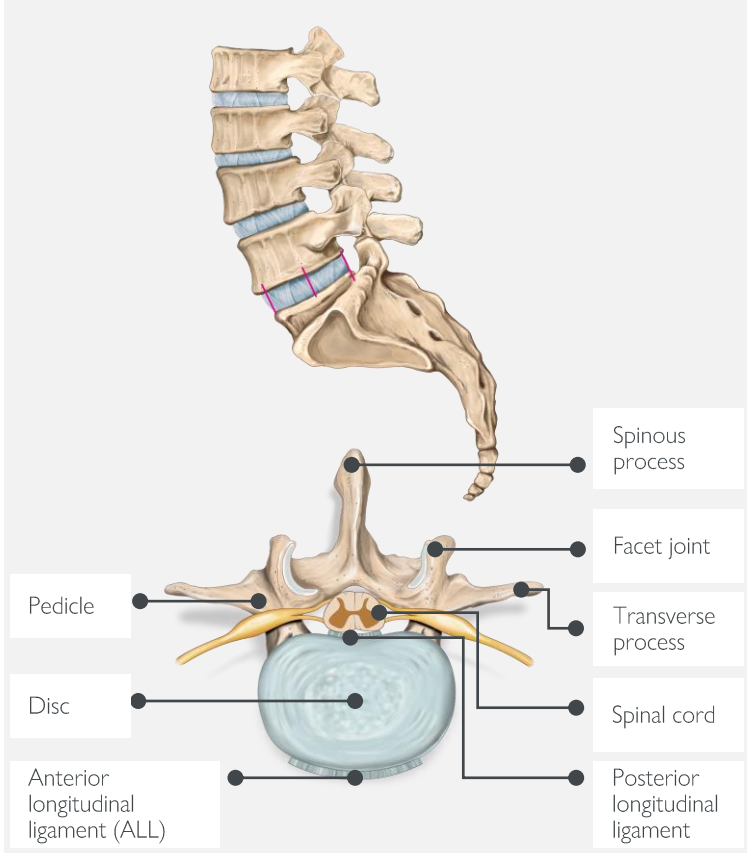
4 teams of internationally renowned clinical and scientific expert advisers, including 18 Key Opinion Leader (KOL) spine surgeons.

Kuros Biosciences

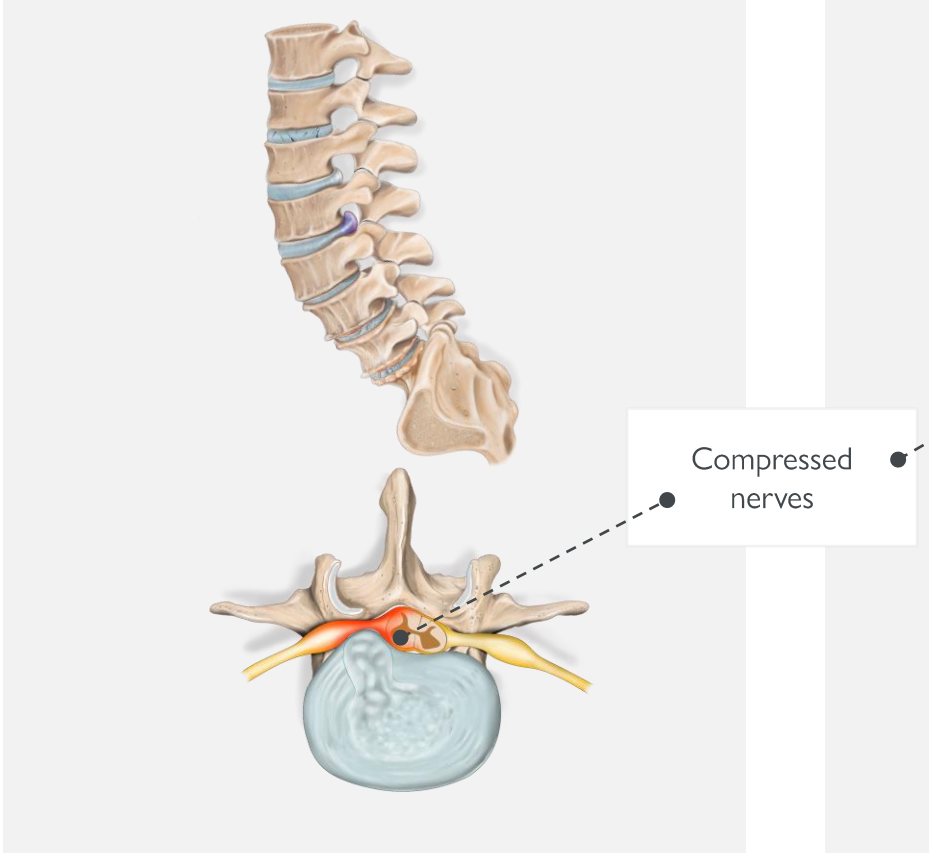
# Spine-related pain

Two most common ailments

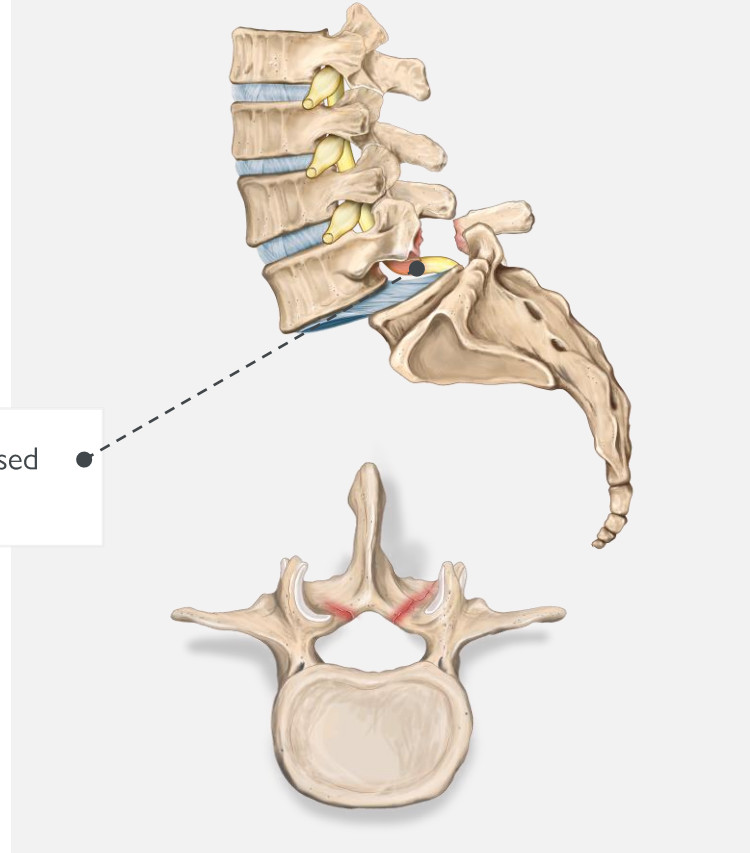
## Normal spine




## Herniated disc



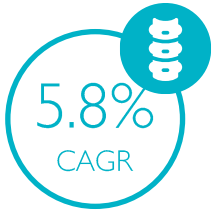

## Displaced vertebra



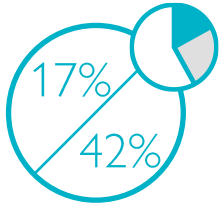
Kuros Biosciences

# Spinal fusion surgery

## The challenge & opportunity



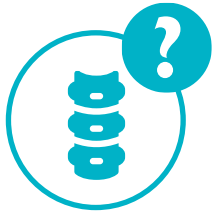

The number of spinal fusion surgeries conducted worldwide is growing.




However, the failure rate for current surgical treatment is 17% - which jumps to 42% for patients with poor health.[1-3]


In fact, the re-operation rate for spine fusions is 10%: so 1 in 10 patients need a second operation to resolve their spine-related pain.[4]


This is bad news for patients, insurers, and medical organizations – where revision surgery barely meets the threshold of cost-effectiveness at $118k/QALY.[5]



Hence, surgeons, medical organizations and insurers are becoming more discerning about the products approved for these procedures.

Already, we are seeing a reimbursement storm as insurers refuse claims for unproven and off-label products.


Bone grafts are essential to improving fusion rates: in fact, the most effective ones can improve the chance of success by up to 60%.[2,6,7]


Bone grafts supported by high-quality Level I clinical studies will ultimately become the solution of choice of surgeons, providers, and insurers.

**References: 1.** Medtech 360 report "Orthopedic Biomaterials Market Analysis 2017". **2.** Hsu, et al. *GSJ.* 2012;2:239–248. **3.** Company estimates based on Pearldiver Mariner database. **4.** Mabud, et al. *Clin Spine Surg.* 2017;30:E1376–E1381. **5.** Adogwa, et al. *J Spinal Disord Tech.* 2015;28(3):101–5. **6.** Chun, et al. *Neurosurgical Focus.* 2015;39(4):E10. **7.** Morris, et al, *ESJ.* 2018;27:1856–1867.

Kuros Biosciences

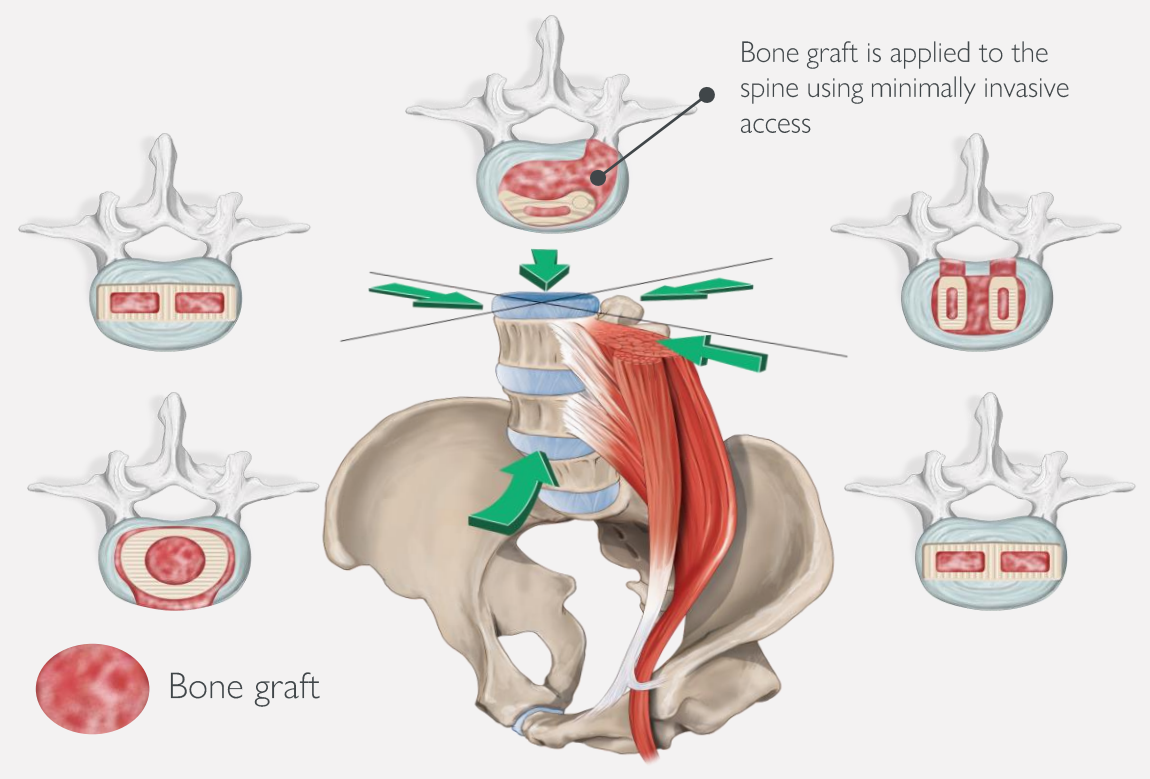
# Spinal fusion surgery

## Two main types of surgery

### Anterior column

**770k lumbar bone grafts per annum in the US[1]**

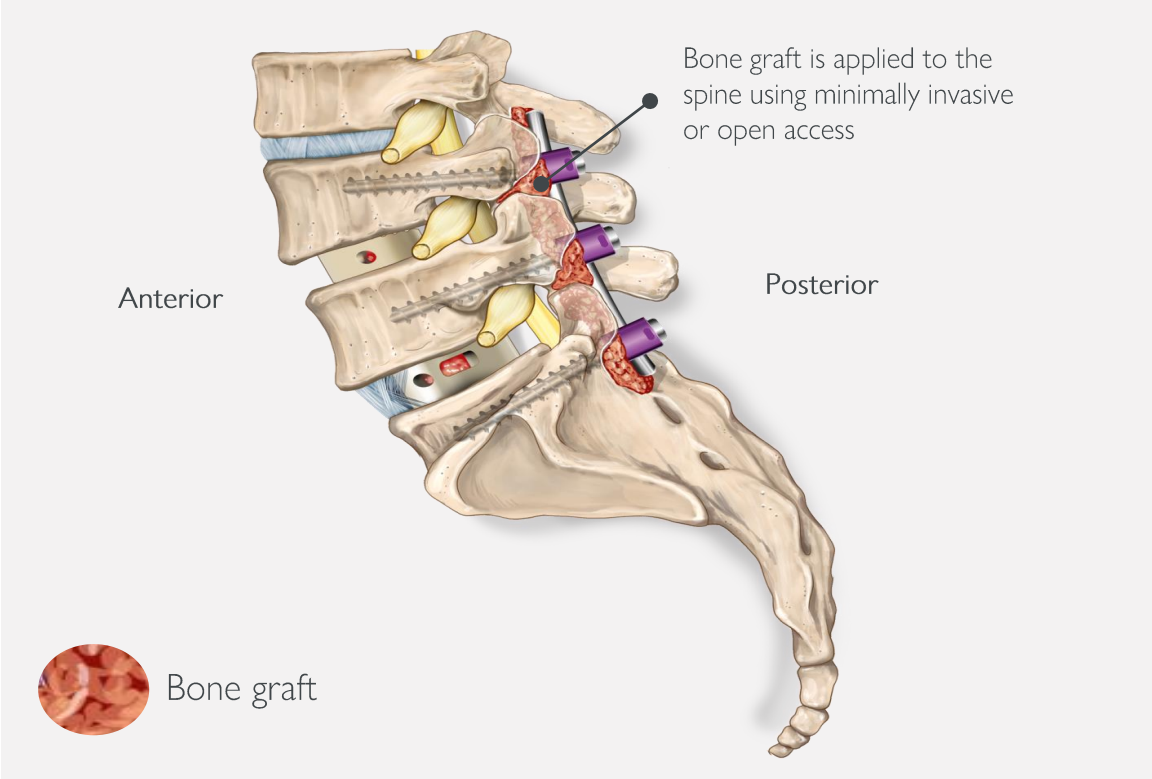
Today's competitive landscape shows solutions that deliver high safety or efficacy…but rarely both. And none that are suitable for truly non-invasive surgical approaches.




### Posterior column

**640k lumbar bone grafts per annum in the US[1]**

There is a clear market opportunity for a product that increases fusion rates, is backed by high quality clinical data, but provided at a lower price point.




**References: 1.** Company estimates based on proprietary quantitative market research study of 100 US spine surgeons

Kuros Biosciences

# Kuros solutions

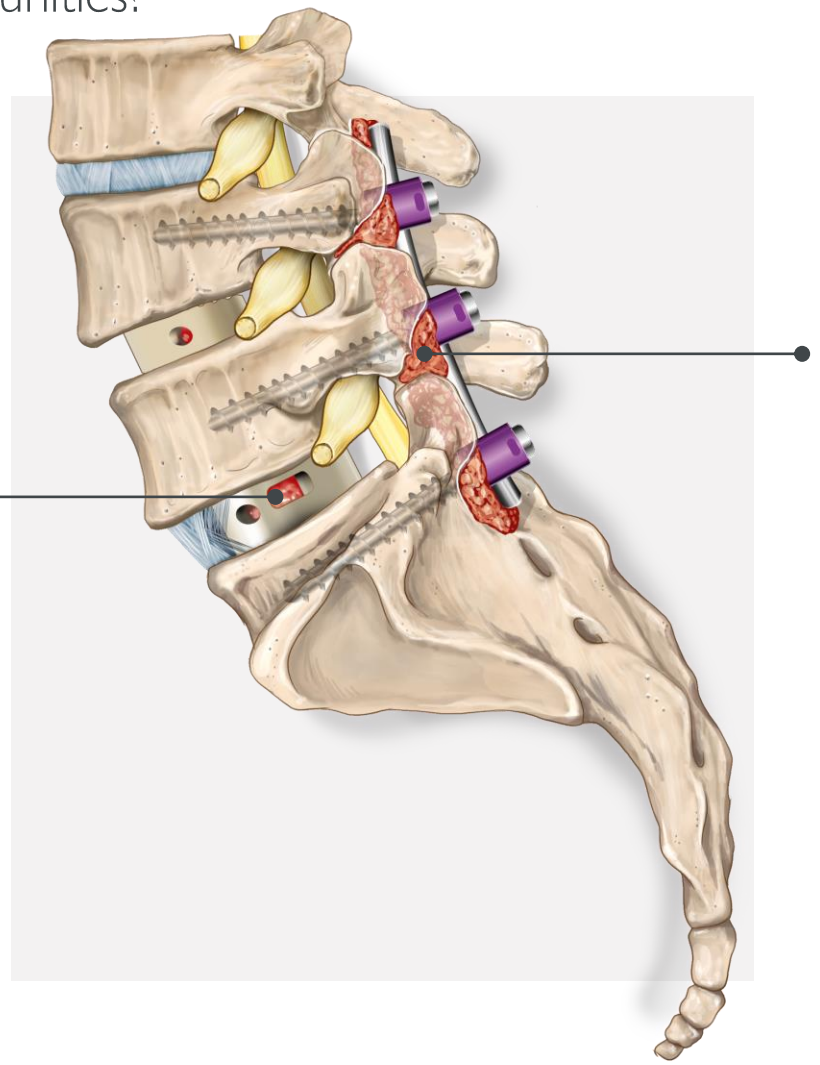
How do we address these two opportunities?

## Anterior column reconstruction

### Fibrin-PTH (KUR-113): Phase II

The first ever investigational drug-biologic candidate to be evaluated for spinal fusion; and the first to be compatible with truly non-invasive surgical procedures.

- **2022** – Phase 2 enrolment complete
- **2023** – Phase 2 results
- **2023** – Phase 3 study start



## Posterior column reconstruction

### MagnetOs: Launched

A bone graft that unlocks previously untapped potential to stimulate stem cells and form new bone, even in soft tissue, throughout the graft for an efficient and predictable fusion.*†[1-4]

- **2022** – 2 new EU country launches planned
- **2022** – US launch MagnetOs Easypack Putty/Flex Matrix
- **2023** – 2x new clinical studies planned
- **2022** – 510(k) – MagnetOs Flex Matrix/Granules standalone PLF
- **2023** – EU launch MagnetOs Flex Matrix

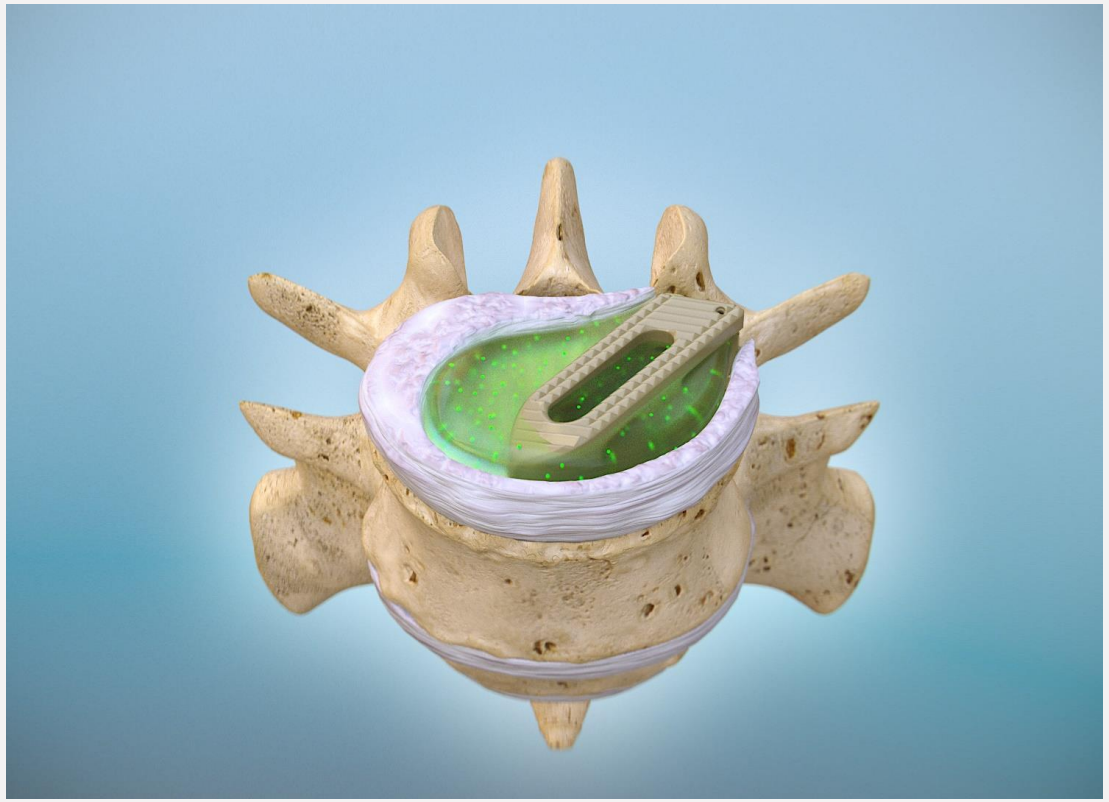
**References: 1.** Van Dijk, et al. *eCM.* 2021;41:756-73. **2.** Duan, et al. *eCM.* 2019;37:60-73. **3.** Van Dijk, et al. *JOR Spine.* 2018;e1039. **4.** Van Dijk, et al. *J Biomed Mater Res. Part B: Appl Biomater.* 2019;107(6):2080-2090. *Results from in vivo laboratory testing may not be predictive 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.

Kuros Biosciences

# Fibrin-PTH (KUR-113)

## In pursuit of the first drug-biologic combination for spinal fusion

- Fibrin-PTH combines the well-established mechanism of the bone growth factor parathyroid hormone (PTH) with the natural healing matrix known as fibrin.*
- Once implanted, Fibrin-PTH promotes spinal fusion by increasing the number and lifespan of bone-forming cells in the fusion space inside the spine.
- This is also the first drug-biologic candidate to be compatible with narrow gauge cannulas for truly non-invasive surgical procedures.
- Now undergoing a Phase 2 clinical trial in the US as part of a de-risked pre-market clinical program.
- Ultimately, this product has the potential to be a genuine game changer once commercially available.

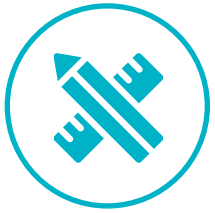


>> https://kurosbio.com/fibrin-pth/

*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.

Kuros Biosciences

# STRUCTURE Fibrin-PTH Phase II:
First drug-biologic candidate in trials for spinal fusion



## 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).

## 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

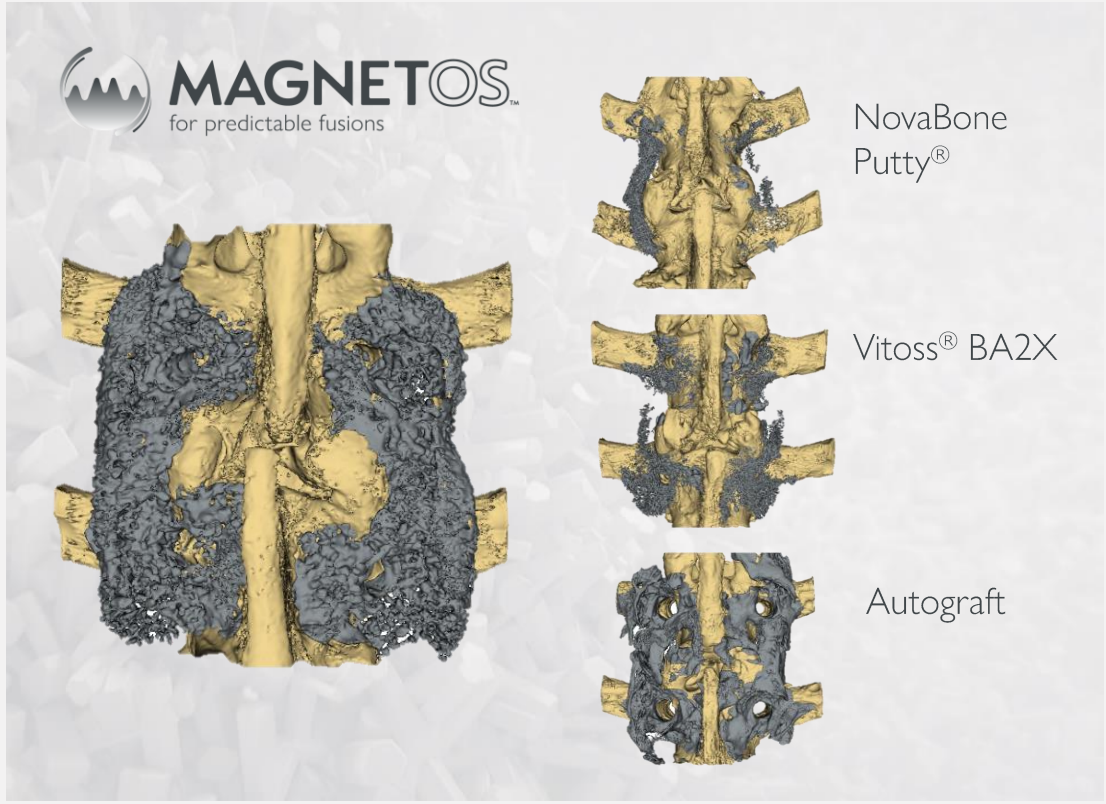
- Radiological fusion determined by CT-scans and assessed by IREP at 12 months.

## Study sites and PIs

- 14 study sites.
- Includes strategic research centers such as UCSD, BWH, HSS, UPenn, Cedars Sinai, Northwestern, Medstar.

Kuros Biosciences

# MagnetOs




>> https://kurosbio.com/magnetos/

## NeedleGrip™: Getting a grip on non-unions

- MagnetOs isn't like other bone grafts. It grows bone even in soft tissue thanks to our unique NeedleGrip surface technology which provides traction for our body's vitally important 'pro-healing' immune cells (M2 macrophages).*†[1,2]
- This in turn, unlocks previously untapped potential to stimulate stem cells - and form new bone throughout the graft.*[3-5]
- The growing body of science behind NeedleGrip is called *osteoimmunology*. But for surgeons and their patients it means one thing: a more efficient and predictable fusion.*‡[5]
- MagnetOs has already been successfully used in over 5,000 surgeries worldwide.
- New product developments provide a more complete portfolio of peri-operative solutions to surgeons wanting to have access to the therapeutic benefits of MagnetOs bone graft and its NeedleGrip surface technology.

**References: 1**. Duan, et al. *eCM*. 2019;37:60-73. **2.** Van Dijk, et al. *eCM*. 2021;41:756-73. **3.** Van Dijk, et al. *JOR Spine*. 2018;e1039. **4.** Van Dijk, et al. *J Biomed Mater Res. Part B: Appl Biomater*. 2019;107(6):2080-2090. *Results from in vivo 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. ‡MagnetOs has been proven to generate more predictable fusions than two commercially available alternatives in an ovine model of posterolateral fusion. Vitoss is a registered trademark of Stryker Corp. Novabone Putty is a registered trademark of Novabone Products LLC.

Kuros Biosciences

# **Expand the depth and breadth of our commercial footprint,**

by doubling our US sales team and expanding new territories

### United States

- Direct sales team that spans 50 states.
- Supported by growing network of independent agents & distributors.
- Sales in all major metropolitan areas.
- Accounts include prestigious names across the country such as: HSS (NY), Northwestern (Chicago), Medstar (DC), UCSD (CA).

### International

- Launched MagnetOs in 11 new EU countries and 1 APAC country within the space of 12 months.
- EU distributors in Switzerland, The Netherlands, UK, France, Italy, Spain, Austria, Denmark, Norway, Sweden, Finland, and Greece.
- Portugal expected to close in H1, 22.
- Augmented pricing granted and product launched in Australia.

Kuros Biosciences

# Management overview

## Executive Management

Joost de Bruijn
*Chief Executive Officer*

Michael Grau
*Chief Finance Officer*

## Extended Leadership Team

John Griffin
*SVP & President US Sales*

Charlie Campion
*SVP Marketing & International Sales*

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

Philippe Saudan
*Chief Development Officer*

Pascal Longlade
*Chief Medical Officer*

Alistair Irvine
*Chief Business Officer*

Florence de Groot
*Head of Development*

Marcel Borger
*Head of Quality & Regulatory Affairs*

Kuros Biosciences

# Company overview

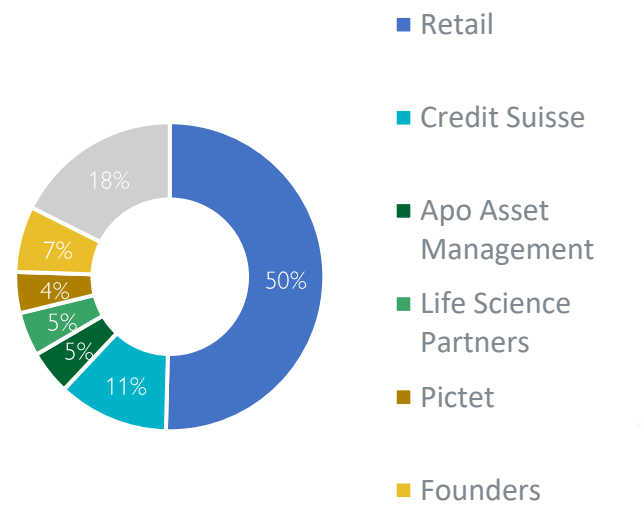
## Locations

**Boston (US)**
- Sales & Marketing
- Medical Education
- Clinical development

**Bilthoven (NL)**
- MagnetOs manufacturing hub
- Clinical development & R&D
- Marketing & International sales
- Regulatory affairs
- Quality management
- Logistics

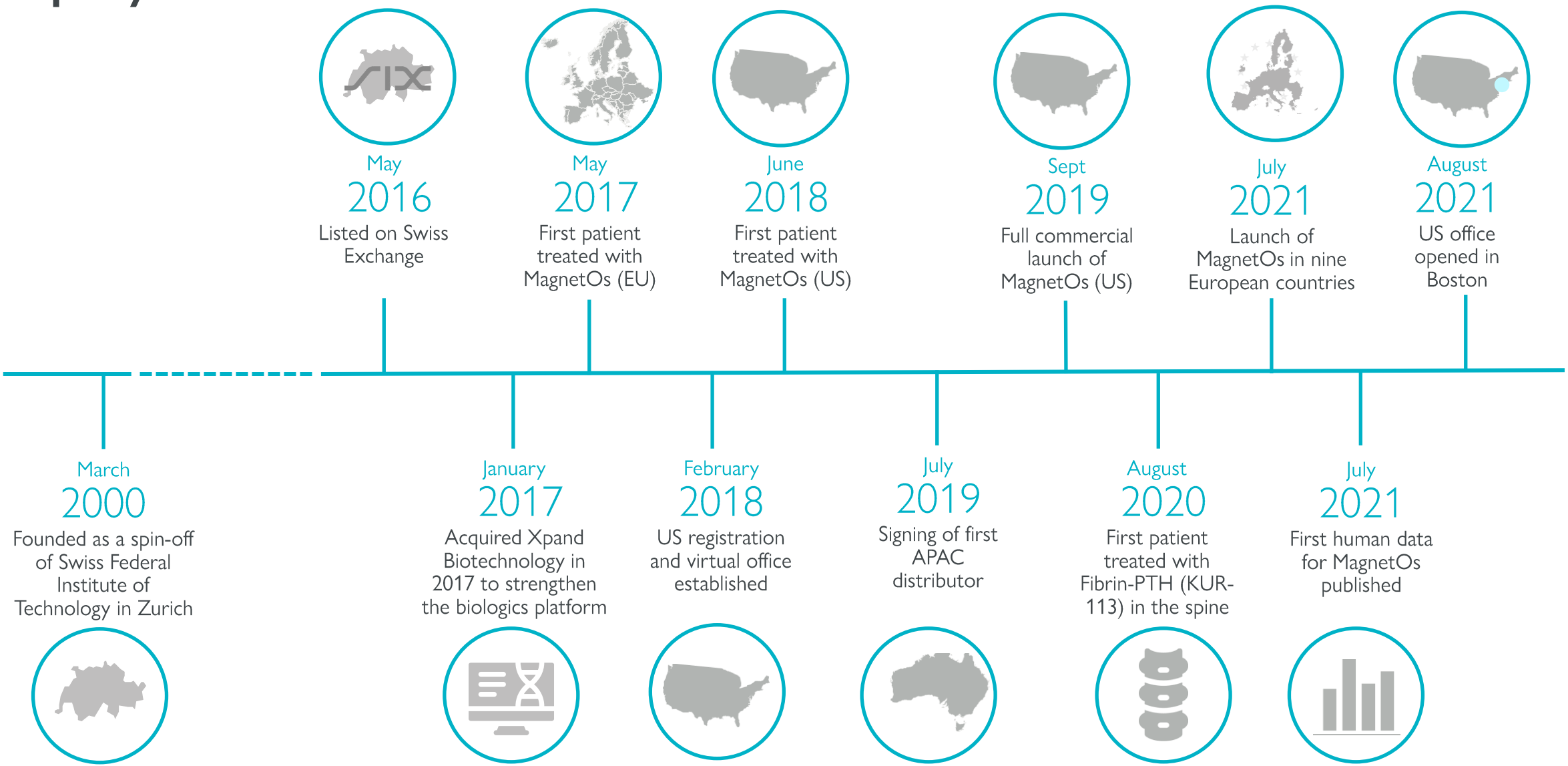
**Schlieren (CH)**
- Financial head office
- Fibrin-PTH development hub
- Business Development

- Listed on the SIX Swiss Stock Exchange (Ticker: KURN)
- HQ in Switzerland, operational base in the Netherlands, Sales office in USA
- 53 Employees



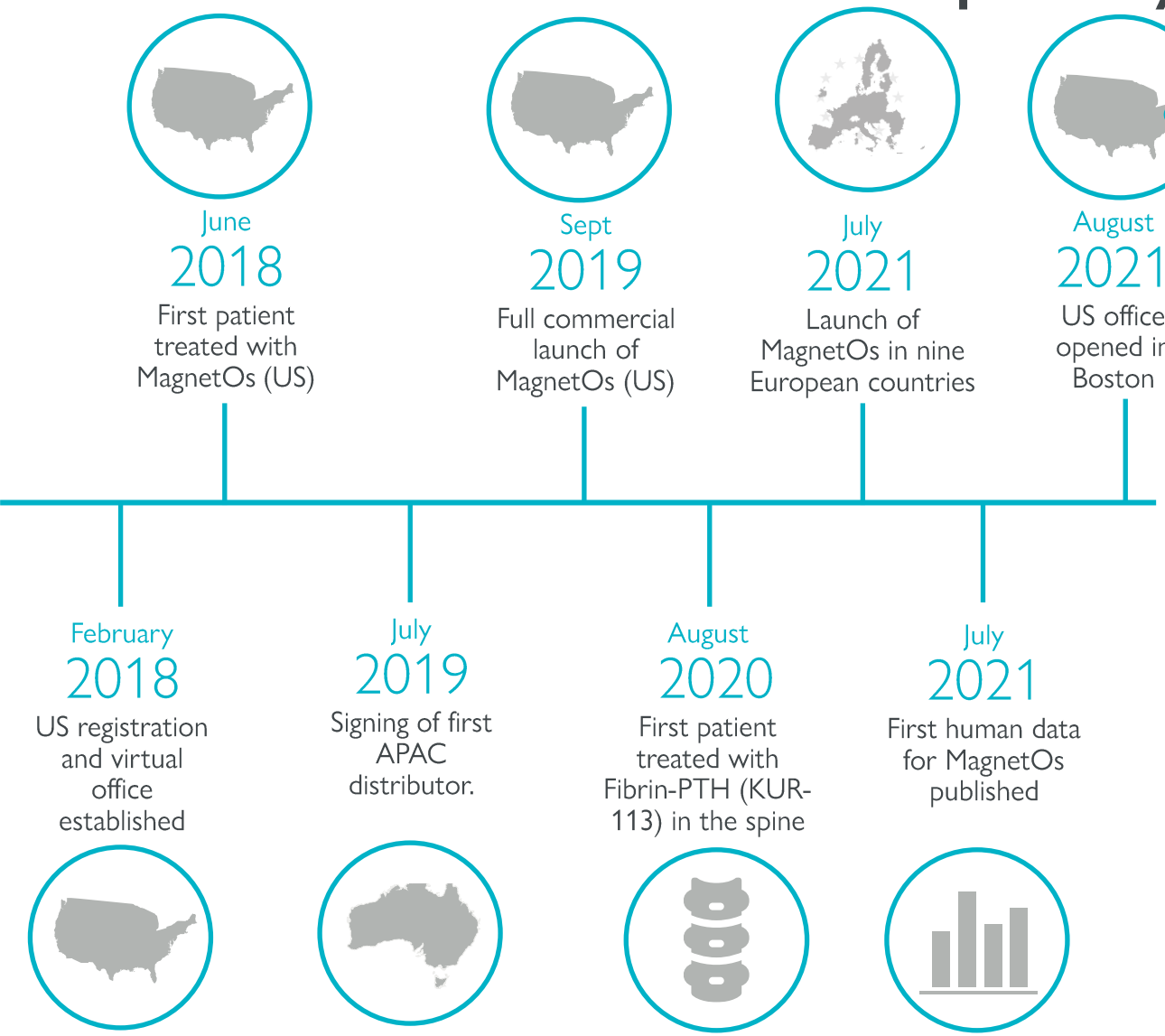

Kuros Biosciences

# Company timeline




Kuros Biosciences

# Our transformation over the past 3 years




- Transitioned from research/B2B to science-focused commercial organization.
- Strategically focused on a high-value market segment.
- Defocused non-core workstreams and products.
- Established a physical presence in our core market of the USA.

Kuros Biosciences

# Strategic plan for growth:

## 4 key value drivers

01 **Expand depth and breadth of our commercial footprint** by doubling our US sales team and expanding new territories.

02 **Phase II clinical trial for Fibrin-PTH** (STRUCTURE study): the first drug-biologic candidate to be approved for an open IND by FDA for spinal fusion.

03 **Make the unpredictable…predictable,** through an unprecedented quality and quantity of clinical research (*Project FUSION*).

04 **Maximize the efficiency of clinical programs** and feeding our NPD strategy (*Project ENGAGE*).

| | 2022 | 2023 | 2024 |
|---|---|---|---|
| Regulatory | • 510(k) – MagnetOs Flex Matrix<br>• 510(k) – MagnetOs Granules indication expansion | • CE mark – MagnetOs Flex Matrix | |
| Clinical | • MagnetOs – 3x clinical studies<br>• Fibrin-PTH – Phase 2 enrolment complete<br>• Fibrin-PTH – Publication of non-spine orthopedic data | • MagnetOs – 2x clinical studies<br>• Fibrin-PTH – Phase 2 results<br>• Fibrin-PTH – Phase 3 start | • MagnetOs – 2x clinical studies<br>• Fibrin-PTH – Publication of Phase 2 data |
| Commercial | • EU – 2x new markets<br>• US – Launch MagnetOs Easypack Putty<br>• US – Launch MagnetOs Flex Matrix | • EU – Launch MagnetOs Flex Matrix | |

Kuros Biosciences

# In summary…

The biggest crisis facing the healthcare economy is spine-related pain, with the number of procedures growing every year.

Bone grafts are an essential part of the solution, but current fusion rates are unacceptable and unsustainable.

Kuros is primed to meet this clinical need in both the anterior and posterior columns of the spine.

We achieve this through superior biologics for spinal fusion, supported by the greatest quality and quantity of clinical data.

Kuros is strategically positioned to create significant value and returns for investors.

Kuros Biosciences

# Thank you

# Kuros Biosciences

## The future of spinal fusions

Kuros Biosciences