

# Osteopore<sup>®</sup>

## Investor Presentation

August 2023



ASX: OSX



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# Background

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**Osteopore**<sup>®</sup>

**Osteopore** (ASX:OSX) is a regenerative medicine company, which specialises in bone and tissue regeneration technology that harnesses the body's natural regenerative qualities.

OSX is the first company in the world to develop and commercialise 3D-printed bioresorbable implants for surgery, which can reduce the complications associated with permanent implants and bone grafts.



# Osteopore®

## Mission

Harness our superior technology to become the standard of care globally for natural tissue regeneration.

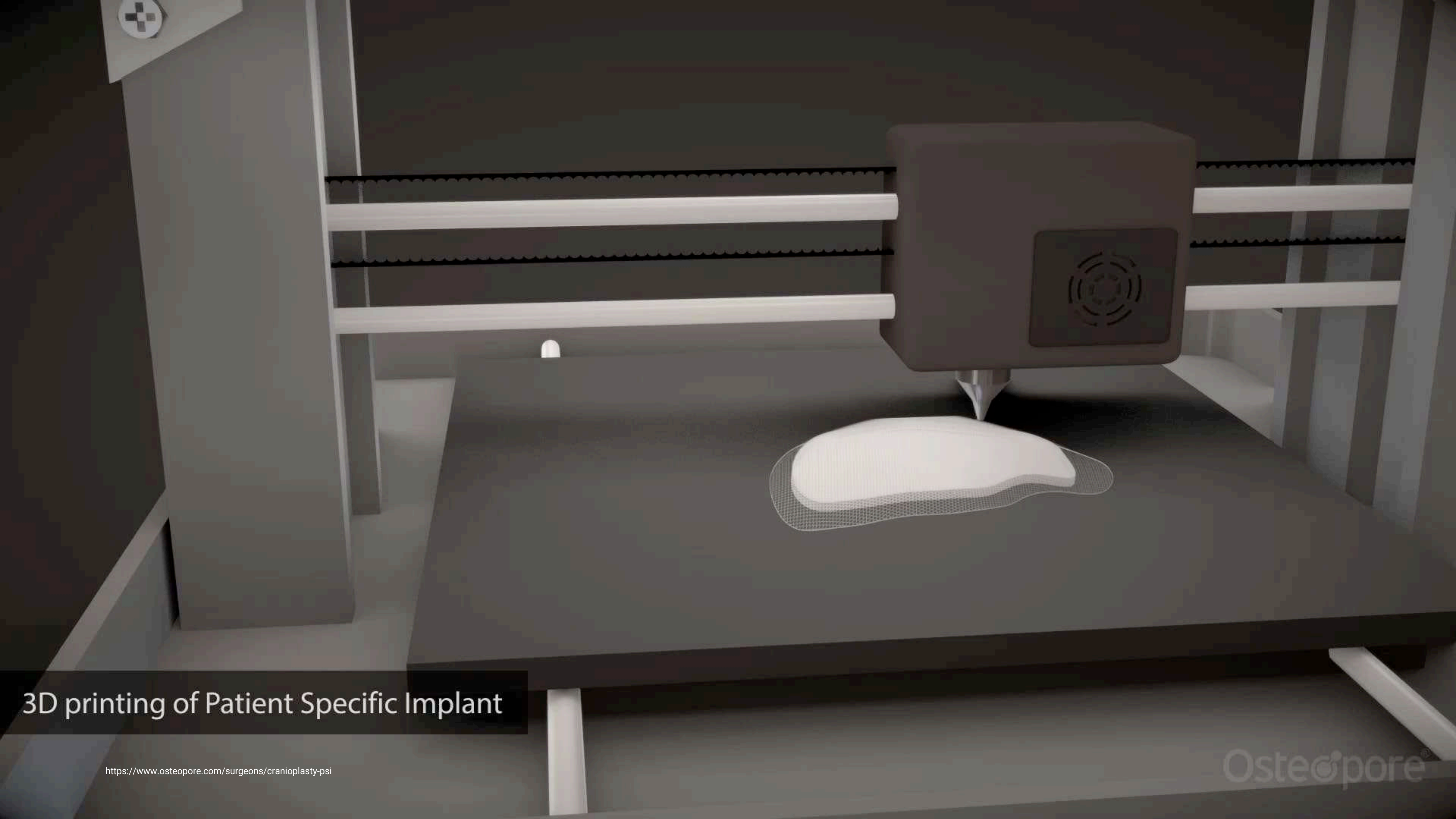
## Vision

To be the most valuable regenerative medical technology company in the world.

## Impact

Improve clinical outcomes and patient quality-of-life, and reduce overall healthcare costs.







A 3D printer is shown in a dark environment, printing a white, patient-specific implant on a dark grey platform. The printer's nozzle is positioned directly above the implant, which has a mesh-like texture. The printer's body is dark grey with a square vent on the front. The printer is supported by a white frame with horizontal bars. The background is dark, and the overall scene is lit from the side, highlighting the printer and the implant.

## 3D printing of Patient Specific Implant

# Regenerative medicine

Exciting market opportunity with growth potential

<p>High market valuation </p>	<p>Links to multiple technology sectors </p>	<p>Reduces cost of care </p>	<p>Tier 1 market access </p>
<ul style="list-style-type: none"> <li>• In 2022, the global <b>regenerative medicine market was worth A\$118.3b</b> <sup>1</sup></li> <li>• The regenerative medicine market is expected to <b>grow to A\$120b by 2035</b> <sup>2</sup></li> <li>• <b>A\$6b in revenue p.a. and ~6,000 new jobs</b> <sup>2</sup> could result- if Australia unlocks a market share of 5%</li> </ul>	<ul style="list-style-type: none"> <li>• Links the multi-billion-dollar <b>medtech, biotech and pharmaceutical sectors</b></li> <li>• <b>Economic growth and better patient outcomes</b> through industry collaboration</li> <li>• Australia is <b>competing against the likes of the US, UK, Canada and Japan</b> in the world's fastest-growing healthcare market</li> </ul>	<ul style="list-style-type: none"> <li>• With the power to reduce drugs, devices and surgeries, the <b>cost of care can be significantly reduced</b></li> <li>• Increasing productivity and <b>reducing the cost of care could add trillions</b> <sup>3</sup> to our economy</li> <li>• <b>Reduces the cost of care</b> amongst Australia's prevalent aging population</li> </ul>	<ul style="list-style-type: none"> <li>• Japan is the <b>1<sup>st</sup> country</b> to adopt an <b>expedited approval system for regenerative medical products</b> <sup>4</sup></li> <li>• Australia can replicate Japan and become the <b>2<sup>nd</sup> country with regenerative medicine capabilities</b></li> <li>• Australia's <b>TGA approval process is internationally respected</b> easing access to Tier 1 markets</li> </ul>

<sup>1</sup> Regenerative Medicine Market Trends, Drivers, and Opportunities | MarketsandMarkets

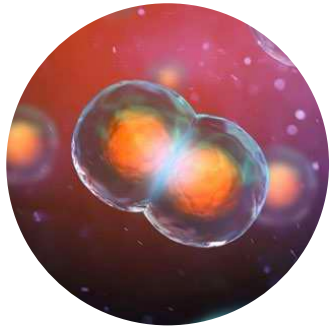



<sup>2</sup> Australia poised for global success in regenerative medicine (themandarin.com.au)

<sup>3</sup> Australia's automation opportunity, March 2019, McKinsey

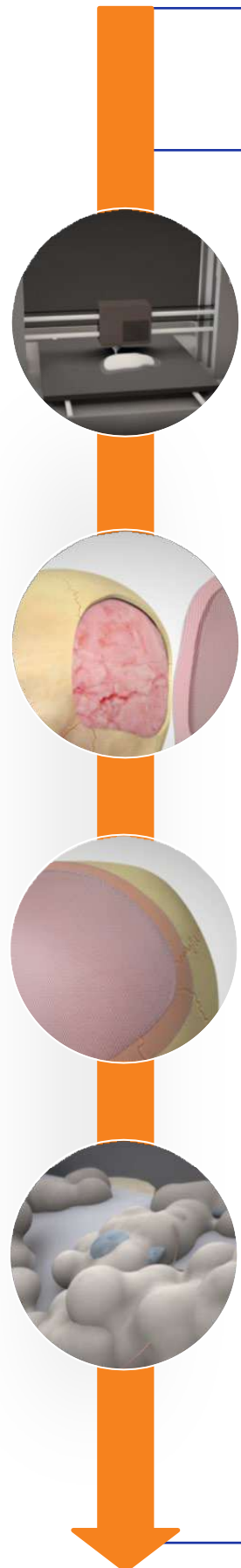

<sup>4</sup> Jokura et al., J Tissue Eng Regen Med, 2018

# Regenerative medicine

## Shaping the future of medicine and science

<p><b>New era of healthcare</b></p> 	<p><b>The future of medicine</b></p> 	<p><b>Fights chronic disease</b></p> 	<p><b>Accelerates R&amp;D</b></p> 
<ul style="list-style-type: none"> <li>• <b>New era of patient-centred healthcare</b> focused on prevention and personalisation</li> <li>• The potential of regenerative medicine is a <b>call to action for Australia</b></li> <li>• Osteopore – a market leader in tissue regeneration – is poised to <b>support Australia to become a world leader</b></li> </ul>	<ul style="list-style-type: none"> <li>• Regenerative <b>medicine harnesses a cell’s capacity to repair and restore health</b> and sustain wellbeing</li> <li>• Could <b>ultimately replace drugs, devices and surgeries</b></li> <li>• Could <b>save lives and increase productivity</b> in the healthcare sector</li> </ul>	<ul style="list-style-type: none"> <li>• Promotes the <b>regeneration of damaged tissue</b> – including bones and organs</li> <li>• Remedies <b>debilitating chronic conditions</b> including diabetes, Alzheimer’s and bone replacements</li> <li>• <b>Minimises patient recovery times</b> and costs</li> </ul>	<ul style="list-style-type: none"> <li>• In regenerative medicine, <b>R&amp;D has high cruciality</b></li> <li>• Puts a spotlight on the <b>cutting-edge research capabilities</b> of doctors and scientists</li> <li>• Accelerating R&amp;D and patient outcomes <b>draws public attention</b></li> </ul>

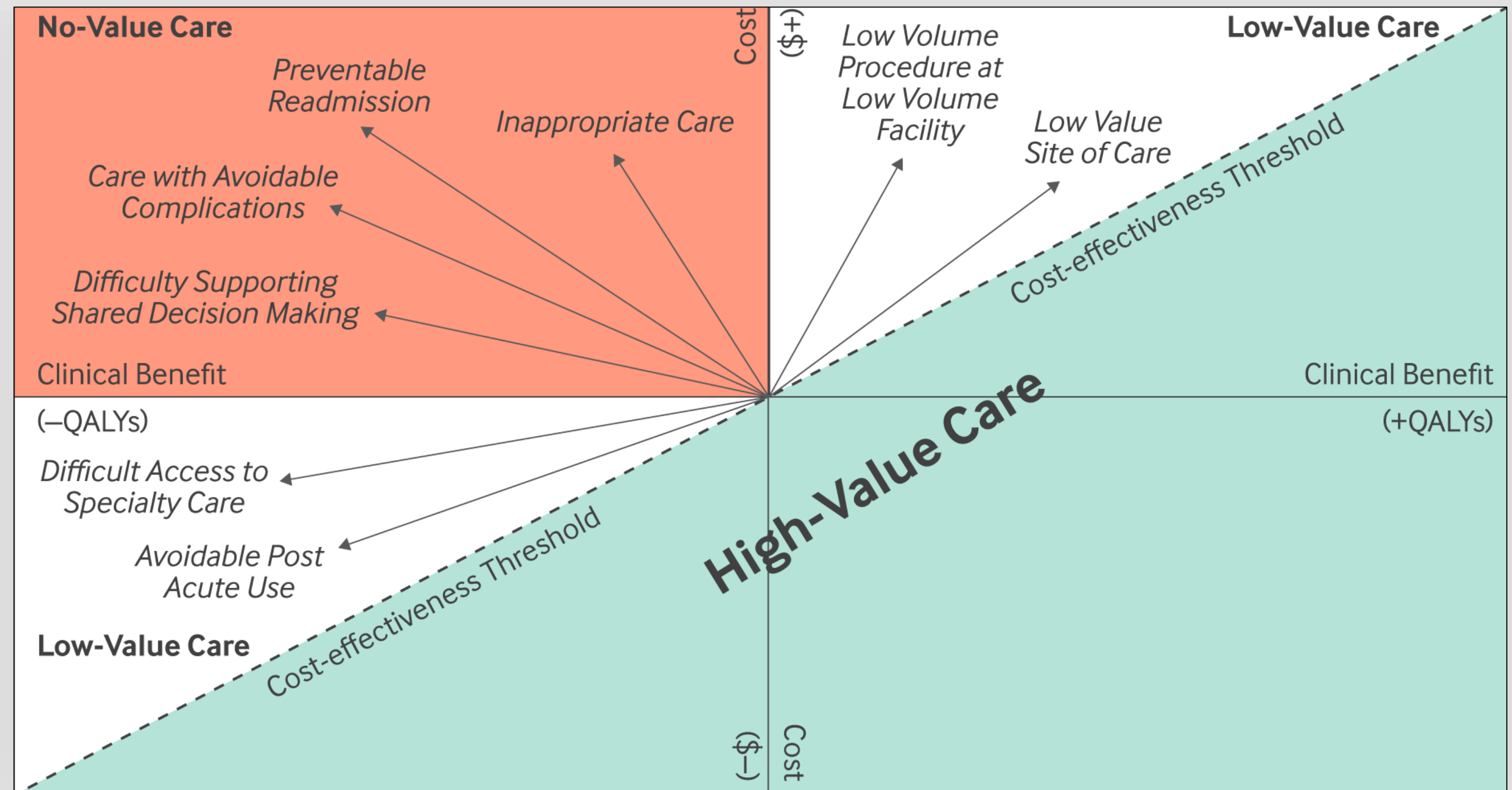
# Revolutionary implants

Proprietary technology	Life changing	Multiple applications
 <ul style="list-style-type: none"> <li>• Breakthrough 3D printed implants that <b>enable natural bone regeneration</b></li> <li>• Following insertion, implants <b>provide a scaffold for the bone to grow</b></li> <li>• Made of bioresorbable polymer, <b>implants dissolve within 18 to 24 months</b></li> <li>• As the regeneration process begins, implants are <b>replaced with the patient's own bone</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Only biomimetic scaffold</b> that dissolves naturally over time</li> <li>• <b>Bespoke or off-the-shelf products</b> that match a range of bones</li> <li>• <b>Leaves healthy bone tissue</b> with no foreign materials</li> <li>• <b>Proven alternative solution</b> to bone grafts and permanent implants</li> <li>• <b>Low complication rates</b> post-surgery</li> <li>• <b>Minimises inflammation</b> or infection</li> </ul>	 <ul style="list-style-type: none"> <li><b>High Use Implants</b> <ul style="list-style-type: none"> <li>• Multiple off-the-shelf implants already in use</li> <li>• Used in <b>high-frequency surgery</b> i.e., skull, face, jaw</li> <li>• Can be <b>manufactured at scale</b> with a long shelf life</li> </ul> </li> <li><b>Patient-specific implants</b> <ul style="list-style-type: none"> <li>• <b>Tailor-made implants</b> used throughout the body</li> <li>• Designed <b>using CT scans</b> of the affected area</li> <li>• Applicable to cases of <b>significant bone loss</b></li> </ul> </li> </ul>

# Unlocking value-driven healthcare

## 'No-value care'<sup>1</sup> could be blowing out healthcare costs:

- In 2022, a study involving 11,897 patients, saw **hospital costs increase 1.5-fold**<sup>2</sup>
- A **20% reduction in hospital re-admissions** = 1.6 million hospitalisations = **US\$15b in savings**<sup>3</sup>
- Other studies in the Netherlands, and New Zealand support evidence that surgical complications can **increase costs by 4x**<sup>4</sup>
- Medicare payments were consistently shown to be **50% higher with complications**<sup>5</sup>



<sup>1</sup> Dietz et al., New England Journal of Medicine, 2021

<sup>2</sup> Stokes et al., Ann. Surg, 2022

<sup>3</sup> Kocher et al., JAMA, 2011

<sup>4</sup> Ludbrook et al., Curr Anaesthesiol. Rep., 2022

<sup>5</sup> Pradarelli et al., JAMA Surg, 2016

# Unlocking value-driven healthcare

Osteopore®



OSTEOPORE.COM

Bone grafts

**6-19%**

Complication Rates

1,2,3

Permanent implants

**25-33%**

Complication Rates

4,5,6

Biomimetic & bioresorbable implants

**0.01%**

Complication Rate

0.01% complication rate, a fraction of other solutions <sup>7</sup>

Proven track record of 10+ years

Potential cost savings for public health \*

<sup>1</sup> Dimitriou et al., Injury, 2011

<sup>2</sup> Younger et al., Journal of orthopaedic trauma, 1989

<sup>3</sup> Arrington et al., Clinical Orthopaedics and Related Research®, 1996

<sup>4</sup> Giese et al., Neurosurgical Review, 2020

<sup>5</sup> Wiggins et al., Neurosurgery, 2013

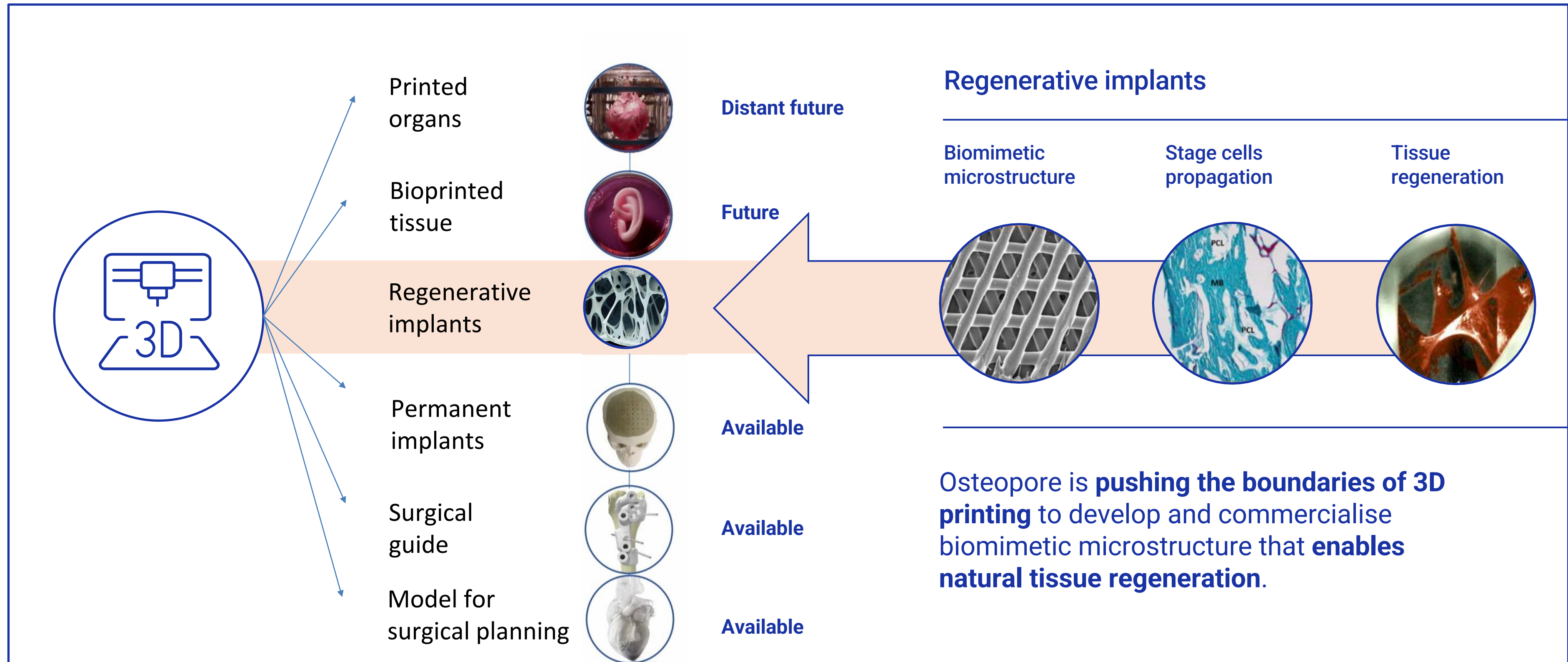
<sup>6</sup> Thien et al., World neurosurgery, 2015

<sup>7</sup> Data on file

\* lowers costs that may occur with traditional procedures in the event of complications

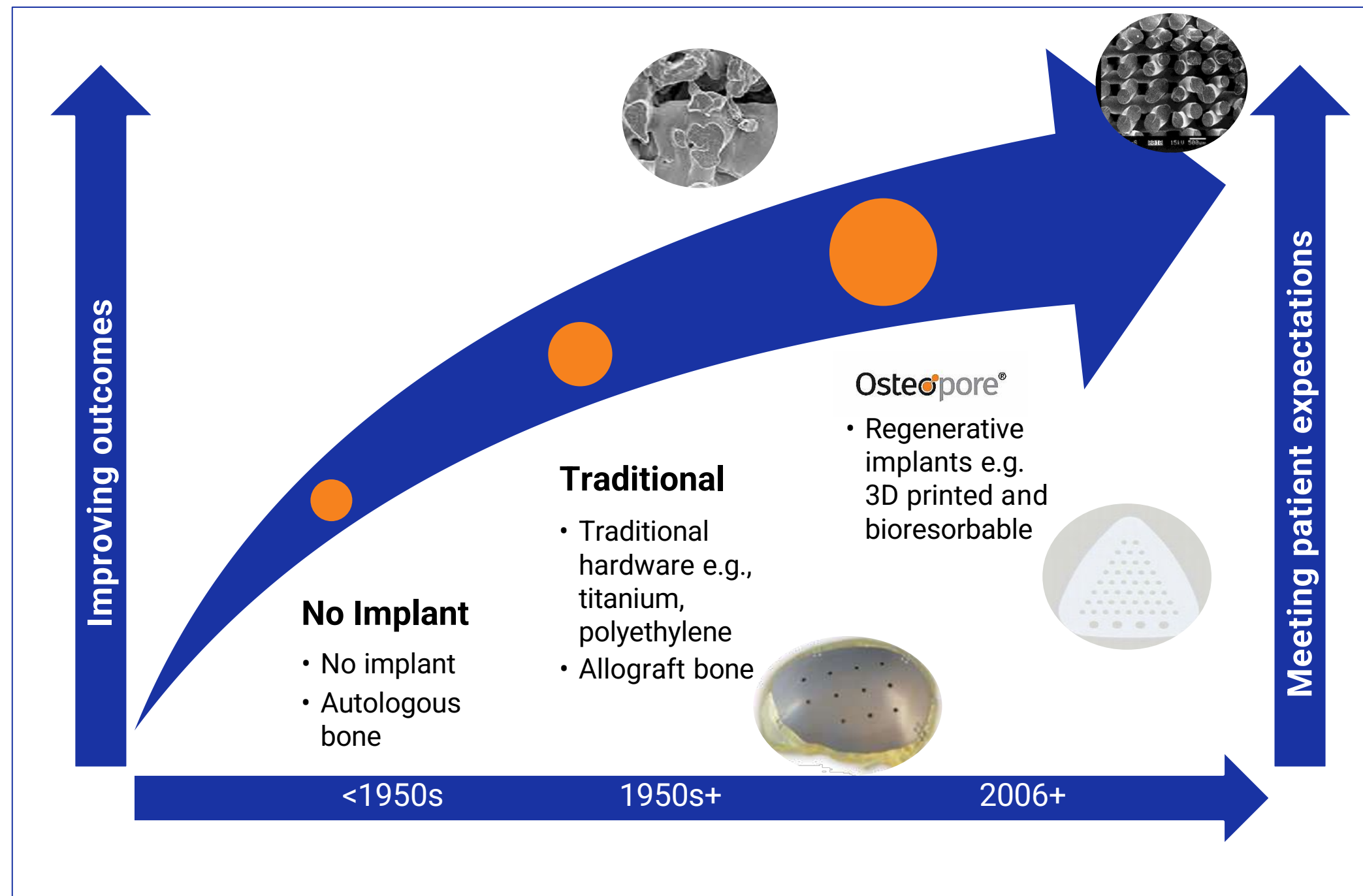
# Breakthrough regenerative technology

Transforming medicine with 3D printed bioresorbable implants



# Evolution of surgical implants

Evolving from covering to bridging, to regenerating bone gaps\*

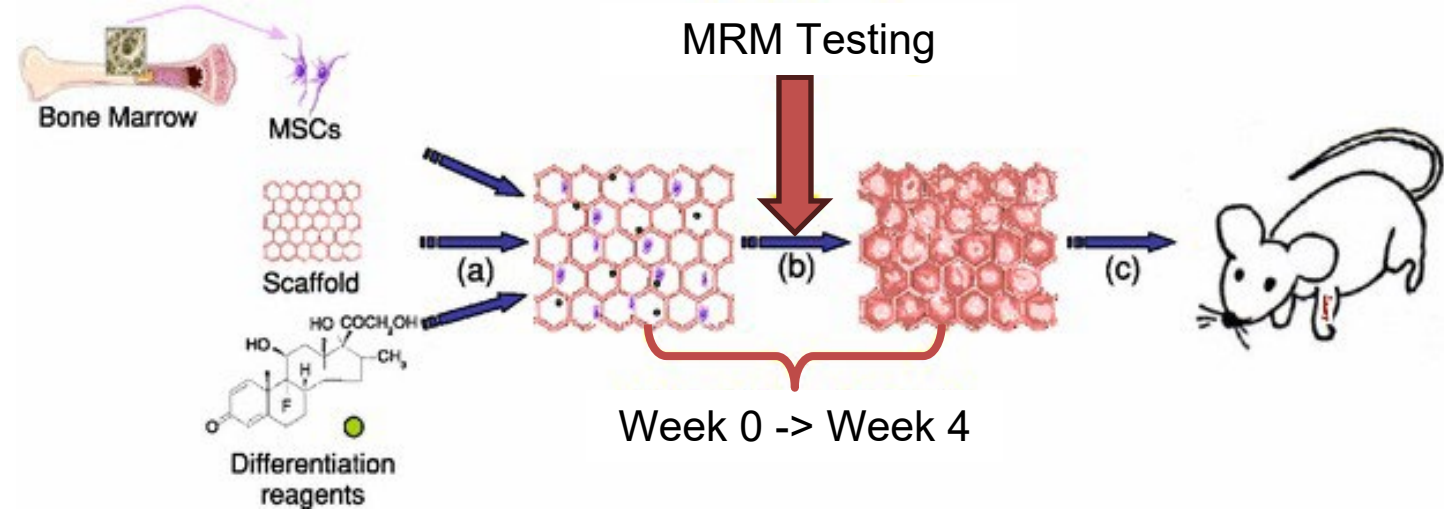


\*applicable to all surgical specialties

## Traditional vs. regenerative

- Today, traditional methods are **falling short of patient expectations**
- Now, with 3D printing and bioresorbable implants, **bone gaps can regrow**
- Subsequently, **no foreign materials** will remain in the body permanently

# Implantation process overview



## In-vitro incubation

Incubated in the lab, then implanted into the patient

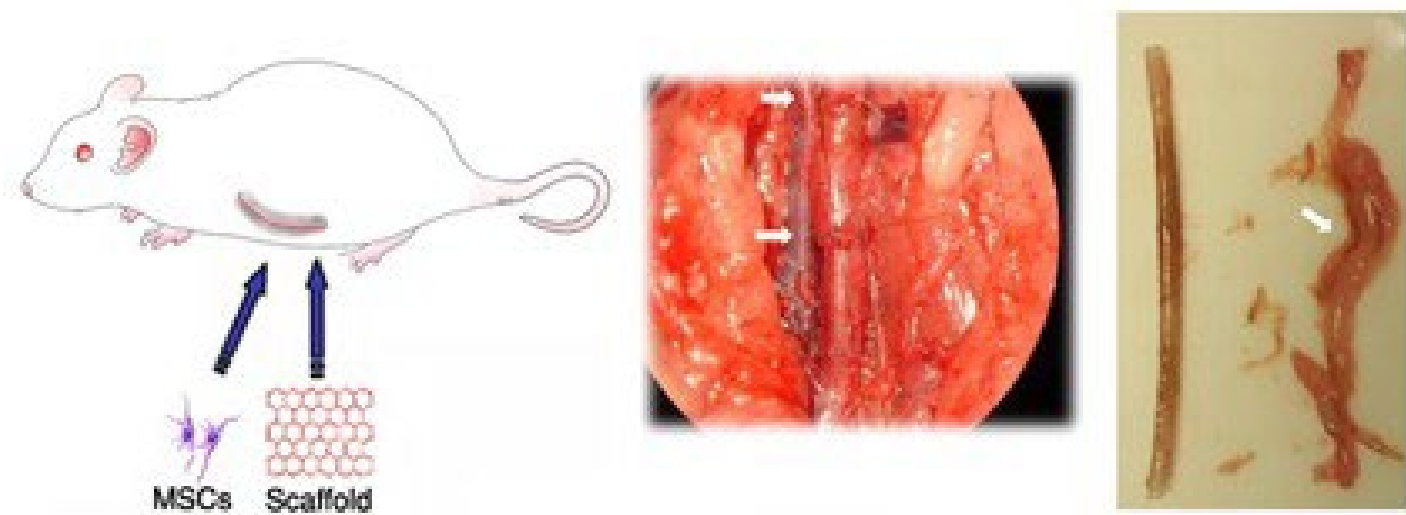
<https://doi.org/10.1088/0031-9155/51/3/016>

## Osteopore<sup>®</sup>

### In-situ Incubation

Implanted and incubated in the same location:

- One-off procedure
- User-friendly
- Minimises infection



## In-vivo incubation

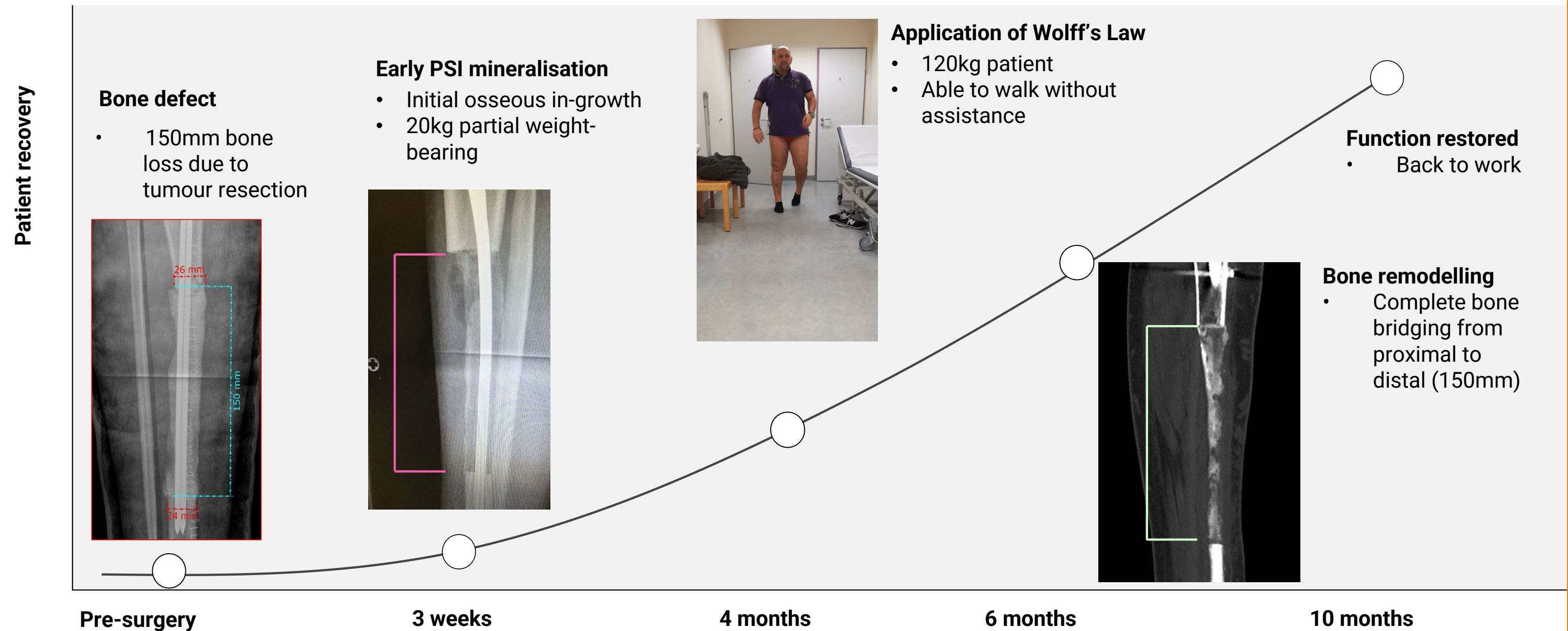
Incubated in the patient, then transplanted to another location in the same patient

<https://doi.org/10.1038/s41598-019-47054-2>

# How our implants compare

## Some possible consequences of not using our implants might include:

- External fixator
- Crutches
- Wheelchair
- Amputation
- Fibular cut and moved to the tibia



# Case in point: Burr-holes

**76%** of patients complain about unsatisfying cosmetic results <sup>1</sup>

**73.9%** of patients had inferiority complexes about cosmetic outcomes <sup>2</sup>

**62.3%** of patients suffered handicaps in their daily routines <sup>2</sup>

## NEUROSURGICAL FOCUS

Neurosurg Focus 47 (5):E14, 2019

### Patterns of care: burr-hole cover application for chronic subdural hematoma trepanation

Julia Velz, MD,<sup>1,2</sup> Flavio Vasella, MD,<sup>1,2</sup> Kevin Akeret, MD,<sup>1,2</sup> Sandra F. Dias, MD,<sup>1,2</sup> Elisabeth Jehli, MSc,<sup>1,2</sup> Oliver Bozinov, MD,<sup>1,2</sup> Luca Regli, MD,<sup>1,2</sup> Menno R. Germans, MD, PhD,<sup>1,2</sup> and Martin N. Stienen, MD, FEBNS,<sup>1,2</sup> on behalf of the CORRECT SCAR study group

<sup>1</sup>Department of Neurosurgery, University Hospital Zurich; and <sup>2</sup>Clinical Neuroscience Center, University of Zurich, Switzerland

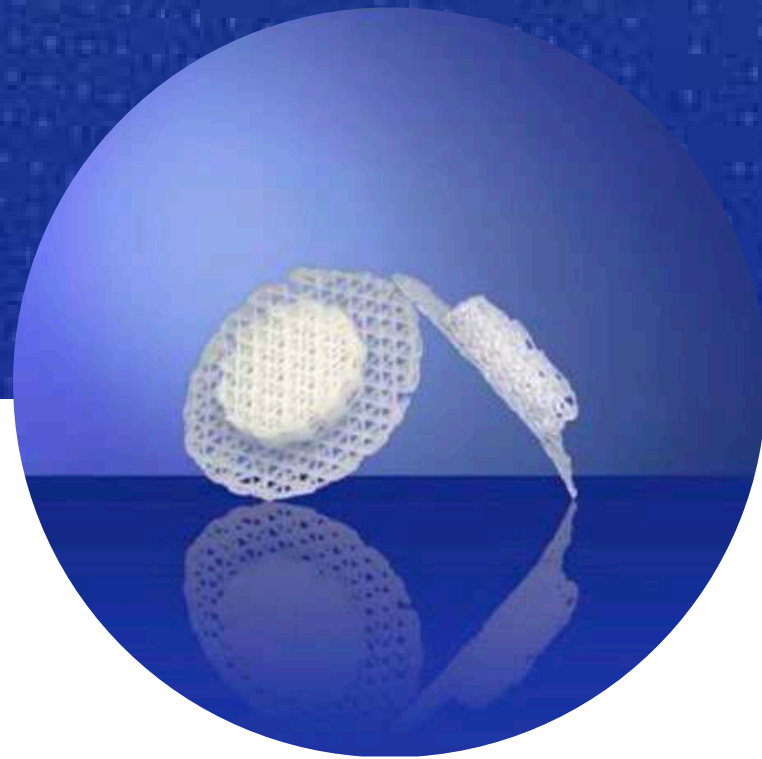
- A survey showed a huge discrepancy exists between surgeon and patient expectations in covering burr holes <sup>1</sup>
- A Swiss study surveying 576 neurosurgeons, discovered that neurosurgeons did not provide sufficient care for their patients' non-neurological needs <sup>1</sup>
- In a Korean study, a neurosurgery team revealed that 62.3% of patients experienced functional handicaps in daily activities <sup>2</sup>
- Whilst in the same study, 73.9% experienced inferiority complexes about the cosmetic outcomes of scalp depressions <sup>2</sup>

<sup>1</sup> Velz et al., Neurosurgical Focus, 2019

<sup>2</sup> Im et al., Korean J Neurotrauma, 2014

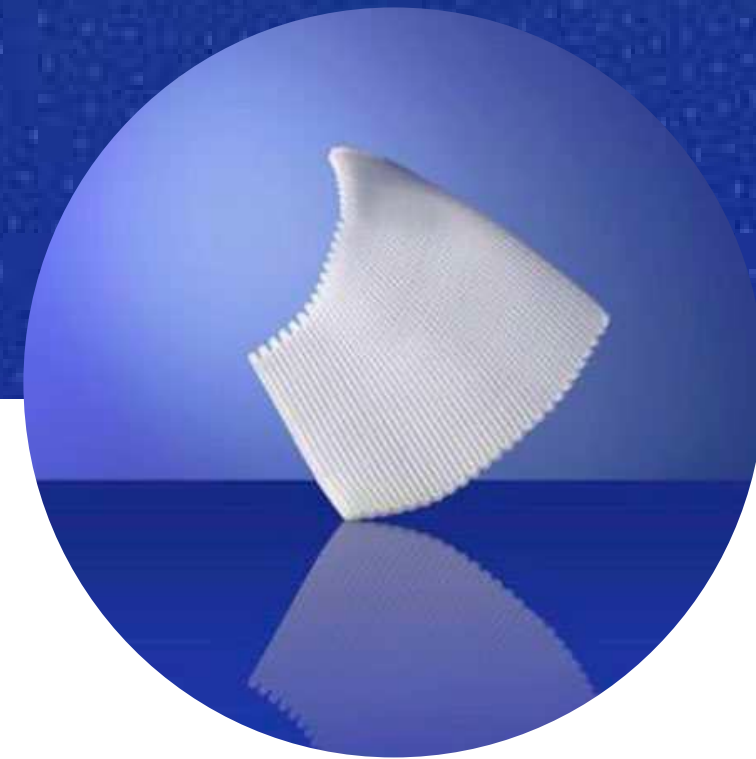
# Our products

## Standard



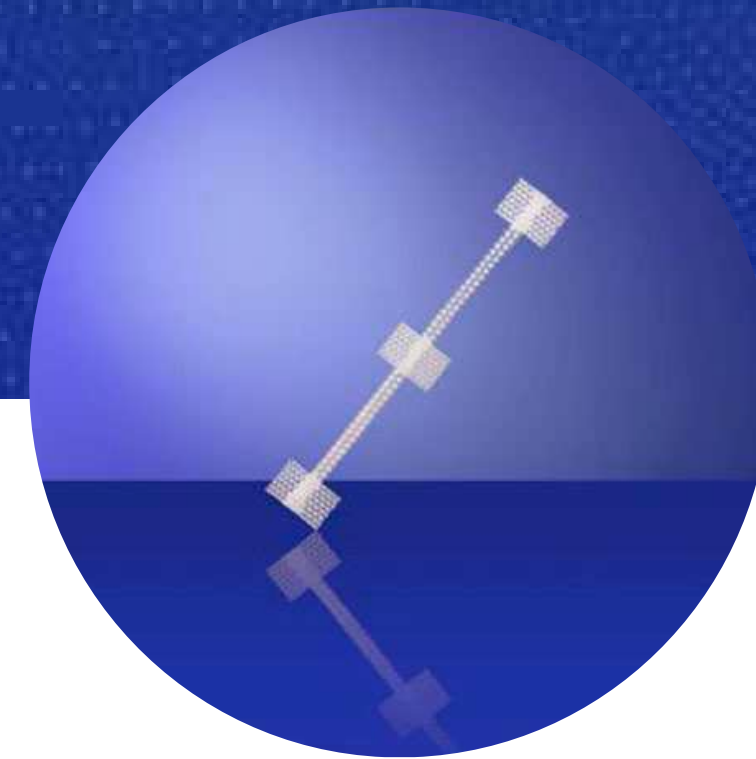
### Osteoplug™

Osteoplug is a bioresorbable implant used post-neurosurgery to cover burr holes (holes in the skull).



### Osteomesh™

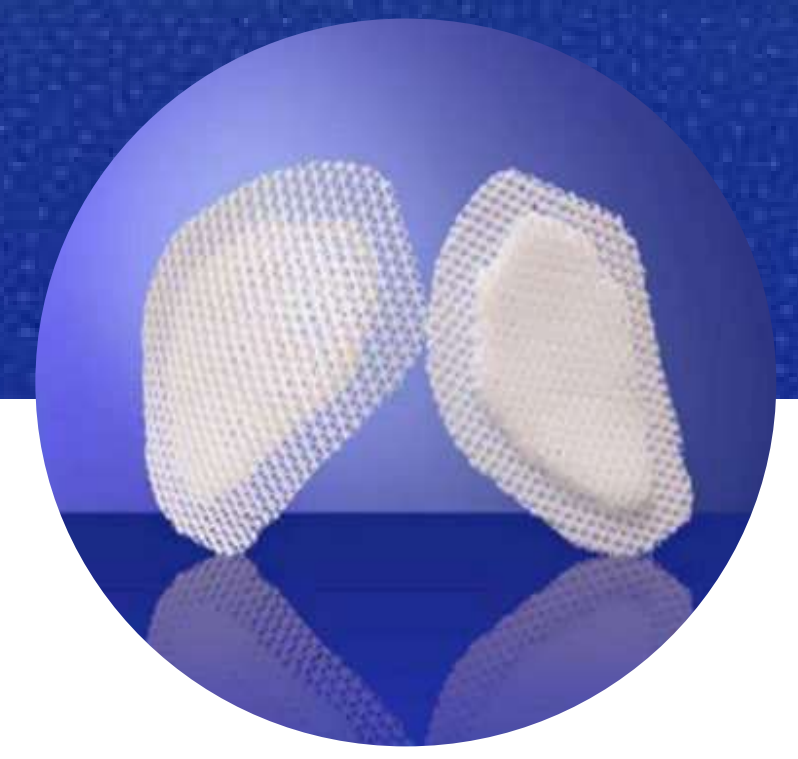
Osteomesh is a bioresorbable implant used in craniofacial surgery to repair fractures and bones in the skull, neck and jaw.



### Osteostrip

Osteostrip is a durable, biodegradable used post-craniotomy (the surgical removal of a portion of the skull to expose the brain) to fill the skull void.

## Customised



### Osteopore®

**Patient Specific Implants (PSI)**  
Based on CT and MRI-imaging of the affected anatomy. These products are used in any part of the body and are necessary for major bone reconstructions.

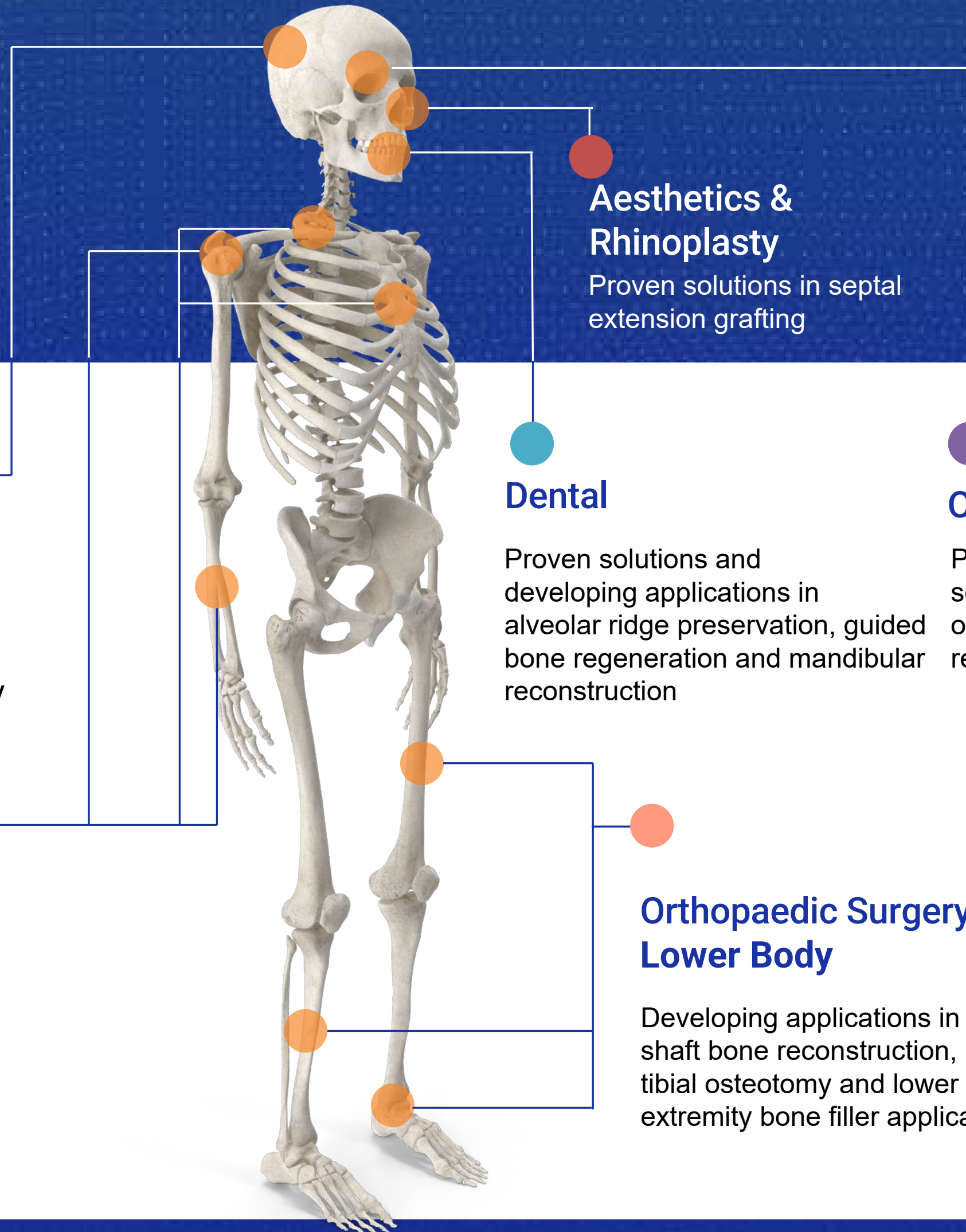
# Our applications

## Patient-centred design

- Aesthetics & Rhinoplasty
- Craniofacial
- Orthopaedic
- Dental/OMF

● **Neurosurgery**  
Proven solutions in burr holes, craniotomy, skull base, cranial vault remodelling and cranioplasty

● **Orthopaedic Surgery Upper Body**  
Developing applications in rotator cuff repair, clavicle non-union, sternum augmentation and distal radius bone reconstruction



● **Aesthetics & Rhinoplasty**  
Proven solutions in septal extension grafting

● **Dental**  
Proven solutions and developing applications in alveolar ridge preservation, guided bone regeneration and mandibular reconstruction

● **Orbital Surgery**  
Proven solutions in orbital floor reconstruction

● **Orthopaedic Surgery Lower Body**  
Developing applications in mid-shaft bone reconstruction, high tibial osteotomy and lower extremity bone filler applications



# Globally validated technology

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- **Regulatory clearances secured** in Tier 1 markets - including FDA (US), CE Mark (Eu.), TGA (Au.), HSA (Sg.) to name a few.
- **80,000+ successful cases** with superior results over traditional procedures.
- Products marketed and sold in 25+ countries, **covering every continent.**
- Multiple patents granted, **protecting Osteopore's IP.**
- **>150 published papers** covering our core technology.
- **~30 published papers** regarding the clinical benefits and outcomes of our technology.



### 3D printed implants

Rapid design, manufacturing and delivery

### Proprietary technology

Strong IP capabilities and expertise

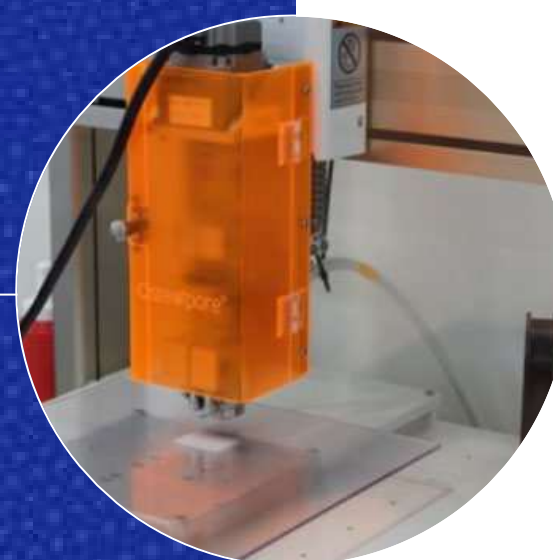


### Scalable

Production can be adapted to meet demand

### Low-cost, high margins

Margins > 70% in CY22 <sup>1</sup>



# Investing in R&D

- **Centre of Excellence** – Co-locating design workflow in proximity to key university and hospital ecosystems to **increase connectivity with key clinicians**
- **Automation and Industry 4.0** – Integrating robotics to **improve productivity and efficiency** and Industry 4.0 readiness
- **Distributed manufacturing** – Distributed manufacturing of products in strategic locations, to **overcome geographical and time zone barriers**
- **AI-driven product design** – Integrating artificial intelligence into complex product design to **reduce turnaround time**
- **New generation 3D printing technology** – Identifying and engineering cutting-edge 3D printing technology to **support product innovation**

<sup>1</sup> ASX announcement: Activities update Qtr ending December 2022 and Appendix 4C, 31 Mar 2023

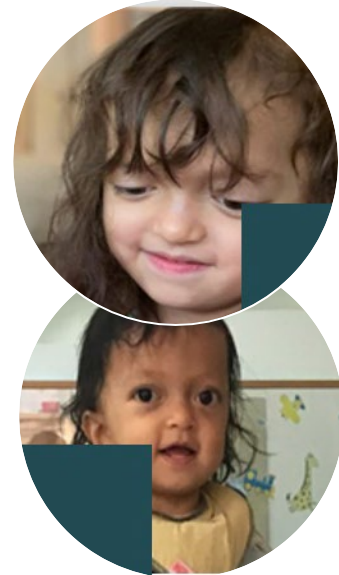
# Solutions- Singapore



## Cranial remodeling

The cranial remodelling of a child with craniosynostosis – a premature fusion of the skull.

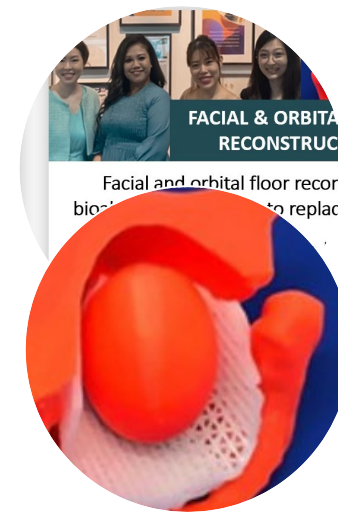
The patient made an incredible recovery, enrolling at preschool in just three months <sup>1</sup>.



## Facial and orbital floor reconstruction

The use of 3D bioabsorbable implants to replace a permanent implant.

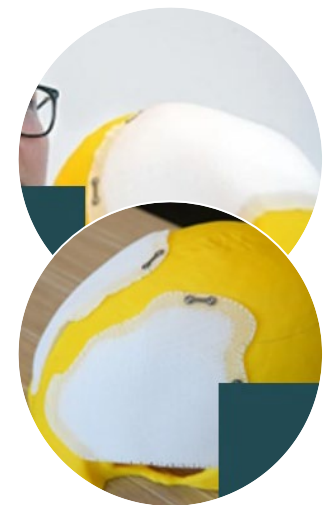
The patient felt no more pain in her cheekbone and regained her confidence <sup>2</sup>.



## Skull reconstruction

Skull reconstructed after a craniotomy – bone removed from the skull.

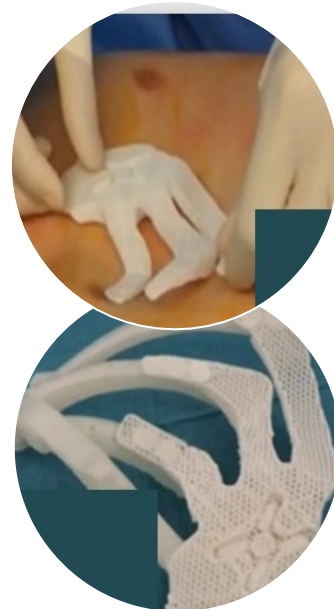
The patient recovered well with new bone growth in only 6 months <sup>3</sup>.



## Half ribcage reconstruction

Half ribcage using Singapore's first 3D-printed biocompatible and bioabsorbable implant.

Improved the patient's self-esteem and his quality of life <sup>4</sup>.



## Heel bone reconstruction

Heel bone reconstruction to save the leg from amputation.

Singaporean auxiliary policeman with a shattered leg overcame his fear and rose to his feet <sup>5</sup>.



## Skull reconstruction

Front skull reconstruction to restore the 'normal' anatomy of the skull.

Improved the patient's appearance and preserved her eye <sup>6</sup>.



<sup>1</sup> <https://singaporemotherhood.com/craniosynostosis-shaped-her-little-girls-head/>

<sup>2</sup> <https://thehomeground.asia/destinations/singapore/3d-implant-gives-young-mother-fresh-start-after-surviving-hit-and-run-10-years-ago/>

<sup>3</sup> <https://www.straitstimes.com/singapore/3d-printed-regenerative-bone-implants-give-patient-new-lease-of-life-after-head-injury>

<sup>4</sup> <https://www.sgh.com.sg/news/patient-care/sgh-pioneers-chest-deformity-treatment-with-3d-printed-implant>

<sup>5</sup> UTUSAN MALAYSIA, 20 Feb 2023

<sup>6</sup> <https://www.straitstimes.com/singapore/11-hour-surgery-to-give-girl-with-birth-defect-a-new-face>

# Solutions- Global



## 36cm tibia reconstruction

The largest-ever reconstruction of a segmental bone defect.

The patient made an incredible recovery, returning to their daily routine in 2 years <sup>1</sup>.



## Post-cancer 15cm tibia reconstruction

The post-cancer reconstruction of a 15cm tibia to save a patient's leg from amputation.

The patient had an amazing recovery as shown in the *Australian Women's Weekly* <sup>2</sup>.



## Half mandible reconstruction

The world's first mandible reconstruction to use a synthetic implant with post-cancer bone growth.

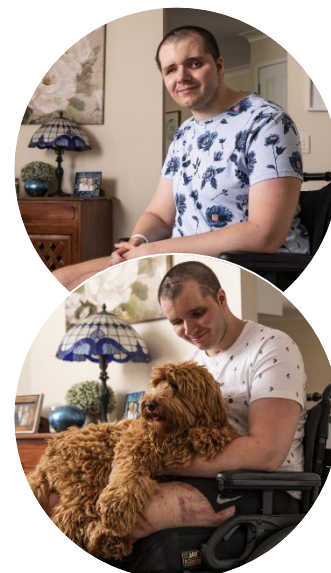
The patient was able to successfully reintegrate into society with bone regrowth 1 year after surgery <sup>3</sup>.



## Skull reconstruction

The first 3D-printed biocompatible and bioabsorbable implant in the world to be used in replacing a missing section of the skull.

The skull reconstruction saved the patient's life and enabled him to return to a more active lifestyle <sup>4</sup>.



## Skull reconstruction

A 3D implant was used to replace a contaminated section of the skull.

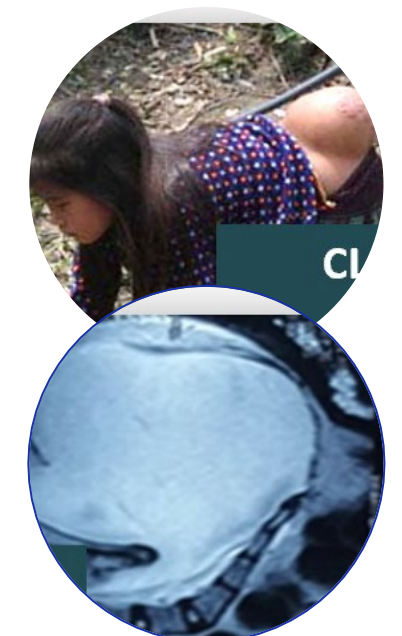
The patient felt whole again after innovative surgery using 3D bioresorbable implants .



## Closure of spine defect

The closure of a spine defect following tumour removal.

Underwent rehabilitation following the operation, so, she could walk normally.



<sup>1</sup> <https://www.abc.net.au/news/2019-10-18/3d-printed-tibia-patient-walking-unaided-2-years-on-from-surgery/11617878>

<sup>2</sup> The Australian Women's Weekly, 2023

<sup>3</sup> <https://www.9news.com.au/national/man-first-to-receive-printed-jaw-in-queensland/1185bfed-2ab1-416c-8e29-112f53d9c03e?OCID=Social-9newsB>

<sup>4</sup> <https://www.brisbanetimes.com.au/national/queensland/brisbane-man-regrows-skull-in-world-first-procedure-20200602-p54yrn.html>

<sup>5</sup> <https://www.portugalresident.com/innovative-surgery-successfully-performed-in-portugal-for-first-time/>

<sup>6</sup> <http://english.vietnamnet.vn/fms/society/155037/health-minister-asks-to-cure-girl-with-giant-tumor.html>

# World-first surgeries, life-changing results

## Segmental bone defect

### Largest-ever construction of a segmental bone defect <sup>1</sup>

- Reconstruction of a 36cm tibia
- Incredible recovery, returning to daily routine after 2yrs



## Post-cancer bone reconstruction

### Post-cancer reconstruction of a 15cm tibia <sup>2</sup>

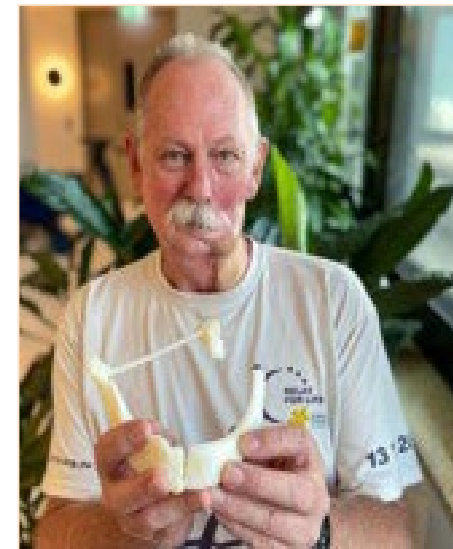
- Reconstruction saved leg from being amputated
- The patient's amazing recovery featured in *Australian Women's Weekly*



## Half mandible reconstruction

### World's first half-mandible reconstruction using a synthetic implant <sup>3</sup>

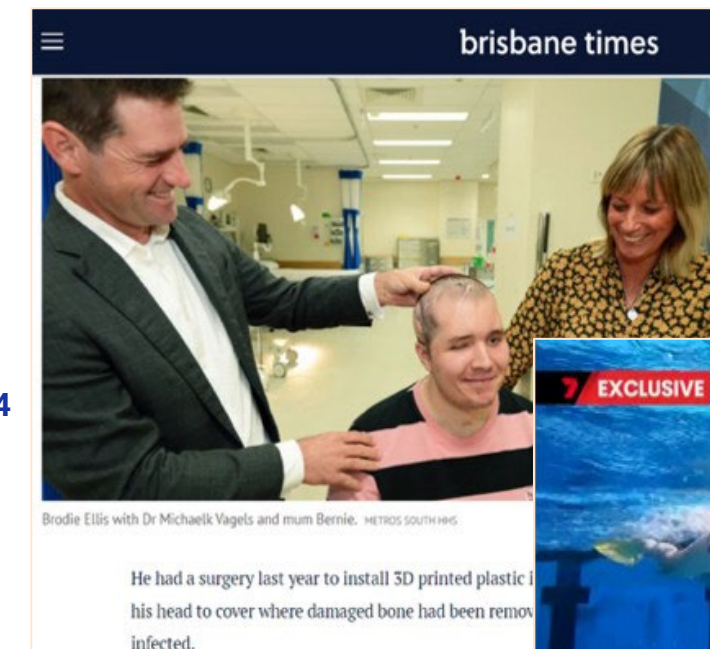
- Bone growth confirmed 1 year after surgery
- Patient reintegrated into society and daily routine



## 3D printed bioabsorbable skull implant

### World's first 3D-printed implant to replace missing pieces of skull <sup>4</sup>

- Reconstruction saved the patient's life
- Enabled patient to return to swimming



<sup>1</sup> <https://www.abc.net.au/news/2019-10-18/3d-printed-tibia-patient-walking-unaided-2-years-on-from-surgery/11617878>

<sup>2</sup> The Australian Women's Weekly, 2023

<sup>3</sup> <https://www.9news.com.au/national/man-first-to-receive-printed-jaw-in-queensland/1185bfed-2ab1-416c-8e29-112f53d9c03e?OCID=Social-9newsB>

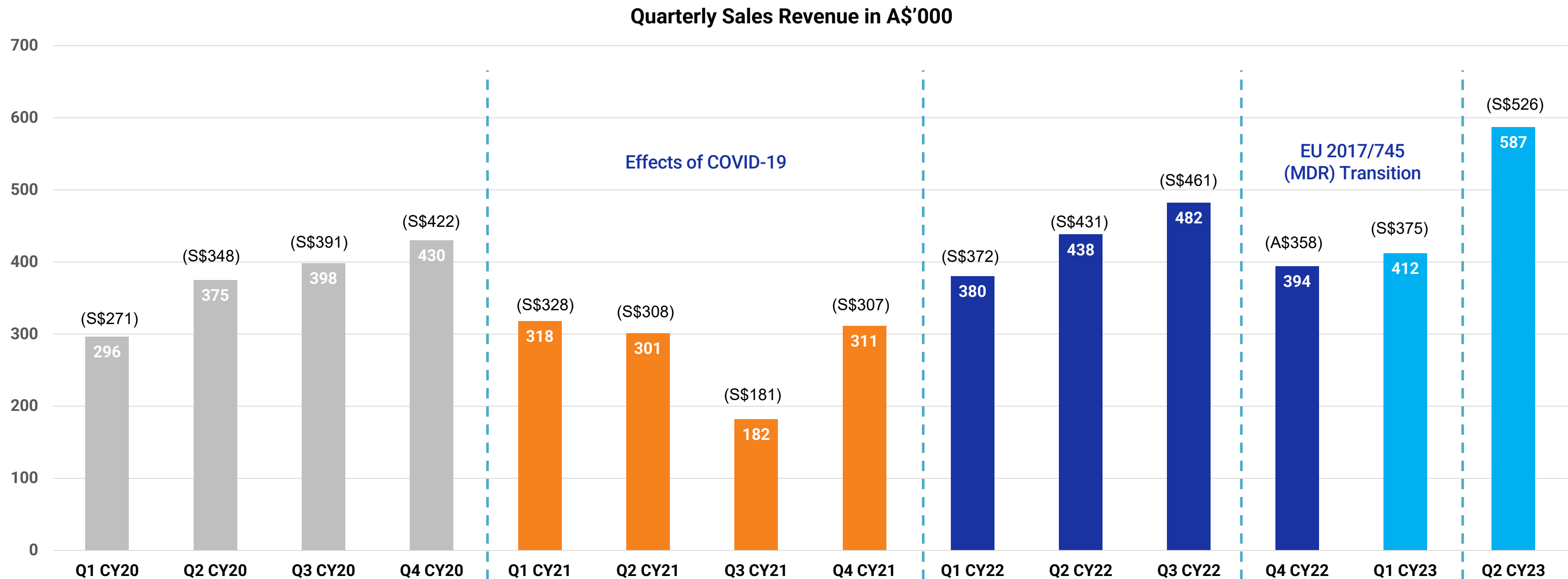
<sup>4</sup> <https://www.brisbanetimes.com.au/national/queensland/brisbane-man-regrows-skull-in-world-first-procedure-20200602-p54yrm.html>

# Our global footprint



# Osteopore revenues grow 43% to A\$587,226

Q2 CY23 was a **RECORD** quarter for Osteopore with a 43% increase in revenues from Q1 CY23 to A\$587,226 (S\$525,740) <sup>1</sup>



\* A\$/S\$: Average exchange rate of each quarter is obtained from <https://www.rba.gov.au/>

<sup>1</sup> ASX announcement: Activities update Qtr ending June 2023 and Appendix 4C, 31 Jul 2023

# Focus on 2024

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## Grow revenue

- Continue to **pursue organic growth** opportunities in existing markets
- **Launch products in new markets** such as orthopaedic and dental to create additional revenue streams

## Partnerships

- Partner with industry peers to cross-sell products that **unlock efficiencies and synergies**

## M&A

- Acquire **revenue-generating companies** that increase revenue at a much higher rate than organically
- Acquire **complementary technology** in the regenerative medicine space to enable market expansion

## China strategy

- With a global footprint in Tier 1 markets including Europe and the US, **China is a key market** for Osteopore

*Note: Osteopore is currently only investigating the viability of acquisitions and has not entered into any agreements. The Company will update the market in accordance with its obligations under ASX Listing Rule 3.1.*

Core business

# Craniofacial

## Craniotomy

*Product Example*

Enables the complete restoration of patients' skull contours in post-craniotomy procedures



## Orbital floor reconstruction

*Product Example*

Delivers structural support and consistent bone regeneration for orbital floor fractures

## Key highlights

- **40,000+ cumulative implants** since 2003
- **30,000 cases of craniotomy repair**
- **10+ years** of clinical experience
- Approved for sale in **25 countries**
- New surgical application for **skull base surgery**
- **150% adoption growth** in 2022

## Focus on 2024

- Drive broader adoption in California and Texas to **enter the markets of other states**
- **Resume commercial activities** in the EU - paused with the introduction of Medical Device Regulation (MDR) 2017/745
- **Build on the early adoption** of our products (pre-MDR) across Germany and Switzerland
- Progress towards **Chinese market entry**

Data on file



OSTEOPORE.COM

Key markets

# Aesthetics

## Septal extension grafting and nasal tip plasty

*Product Example*

Provides structural support to achieve long-term and aesthetically pleasing nose augmentation outcomes

## Key highlights

- **48,000+** cumulative implants since 2017
- Functional and **cosmetic rhinoplasty**
- **6+** years of clinical experience
- Approved for sale in **10 countries**
- **37.4% adoption growth** in 2022

## Focus on 2024

- **Entering new markets** including India, Indonesia and Taiwan
- **Launching septal perforation repair mesh** in Korea and across ASEAN

Data on file

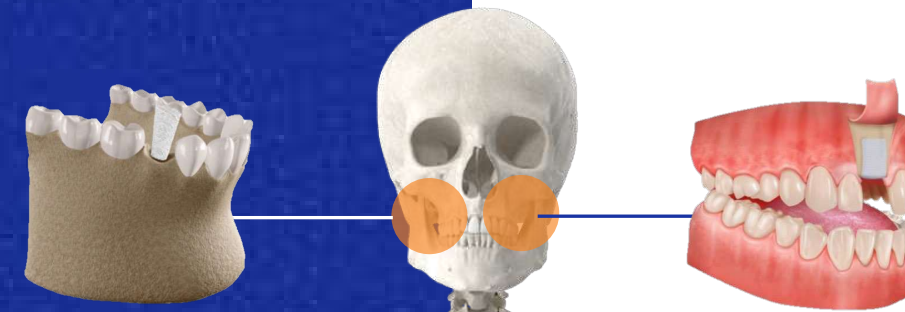


# Dental/OMF

## Socket preservation

*Product Example*

Implant to reinforce and preserve the dental socket following tooth extraction



## Guided bone regeneration

*Product Example*

Supports graft material, delivering a consistent shape to regenerate the bone

## Key highlights

## Focus on 2024

- **Regulatory approval** in Indonesia, Singapore and Vietnam
- **Socket preservation study completed** – with Osteoplug (PCL+TCP) – for 80 patients
- Alveolar height study conducted – with Osteomesh – for 27 patients
- Successful outcome without implant exposure after 6 months
- Osteopore is leading a A\$19m program to champion next-gen material for enhanced bone growth

- **Roll-out alveolar height reconstruction** for jaw defects applications
- **Offers cost savings and efficiencies** compared to titanium mesh
- **Pursue the Indonesian market** - expected to generate ~US\$4b in revenue by 2026 <sup>1</sup>
- Engage distributors across ASEAN to **broaden marketing and sales**

Data on file

<sup>1</sup> Kushwaha, D. (2022b, September 26). Dental Equipment Manufacturers in Indonesia | Dental Clinics Services in Indonesia.

# Pursuing M&A to boost revenue

**Osteopore has acquired several medical distribution businesses that represent 40-45% of our sales globally <sup>1</sup>**

Osteopore acquired 100% of the business relating to the marketing, sales and distribution of our products including:

- Sales teams
- Office premises
- Distribution networks
- Business networks

<sup>1</sup> ASX announcement: OSX Completes Acquisition to Accelerate Revenue Growth, 31 Mar 2023

## Direct-to-customer model

- Pursuing M&A to **unlock revenue synergies** for Osteopore
- Selling full-price products direct-to-customer could **increase our margins**
- Higher revenues per product sold will support our goal of becoming cashflow-positive and profitable
- Opportunity to **scale direct-to-customer sales**

## Distribution model

- **Robust distribution, marketing and sales network** encompassing 25 countries
- **Access to health professionals, hospitals and healthcare services** across every continent
- Provides turnkey access to markets, while **maintaining control over our novel manufacturing process**

*Note: Osteopore is currently only investigating the viability of acquisitions and has not entered into any agreements. The Company will update the market in accordance with its obligations under ASX Listing Rule 3.1*

# Focus on China



## Partnership

Sourcing and matching partners to our product segments to **commercialise and distribute our products in China**



## Regulatory approval

Conducting pre-market testing and clinical trials. Submit dossier and **obtain National Medical Products Association (NMPA) approval**



## Market entry

Identifying grants and other capital streams to **support market entry into China**





















## R&D

Pursuing additional research and development opportunities in China

# Focus on China

## Paving the way for Chinese market entry

-  Future
-  Complete
-  On Track

	Craniofacial	Aesthetics	Dental/Oral Maxillofacial	Orthopaedic
Partnership				
Regulatory approval				
Market entry				
R&D				

<sup>1</sup> OSX receives A\$10m commitment for commercialisation in China, 25 Jul 2023

<sup>2</sup> ASX announcement: Strategic Partnership for Clinical R&D in China worth \$4M, 8 Jun 2023

# Blue Sky R&D projects

## Faster bone regeneration



**Osteopore is creating materials to speed up bone regeneration**

- Bioactive compounds could have potential applications for our implants
- Fast-tracking bone regeneration is seen as the 'holy grail'
- Could signify commercial opportunities for Osteopore

## Cartilage/tendon regeneration



**We are designing new implant scaffolds to regenerate other tissues**

- Successfully completed animal trials to regenerate knee cartilage
- Collaborating with Livingstone Health to expand our business into tendon repair <sup>1</sup>



## Veterinary product development



**Osteopore is developing surgical applications for the veterinary market**

- Successfully completed trials that may lead to the development of veterinary products
- In 2021, the global veterinary orthopaedics market was valued at US\$434m <sup>2</sup>
- Untapped market with limited access to bone regeneration solutions

<sup>1</sup> ASX announcement: Collaboration With Healthcare Group To Develop New Products, 20 Jun 2023

<sup>2</sup> Grand View Research - [www.grandviewresearch.com/industry-analysis/veterinary-orthopedics-market](https://www.grandviewresearch.com/industry-analysis/veterinary-orthopedics-market)

# Turning Blue Sky into a reality



## A\$19m NDCS & A\*STAR partnership

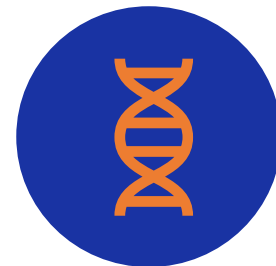
Osteopore secured the lead role in a clinical-industrial partnership with the National Dental Centre Singapore (NDCS) and A\*STAR.

The partnership comprises a A\$19m research project to develop next-gen jaw implants.

The project seeks to develop a next-gen proprietary 3D printer to facilitate future biomaterial innovations.

The project, which is in the implementation phase, is performing in line with the grant deliverables.

ASX announcement: Osteopore secures A\$19m clinical-industrial partnership, 13 Dec 2021



## Accelerate Technologies biologics collaboration

Osteopore signed two non-binding term sheets with Accelerate to pursue the commercialisation of biologic compounds in Singapore.

Osteopore will pursue licensing agreements to secure the rights to commercialise and incorporate compounds that speed up bone regeneration.

Osteopore will lead human clinical trials at Singapore's National University Hospital.

ASX announcement: Osteopore to Commercialise Innovative Bone Rengeneration Tec, 14 Apr 2023



## Livingstone Health collaboration

Osteopore signed a collaboration with Livingstone Health to conduct animal trials in knee cartilage regeneration.

Osteopore implant scaffolds were used to treat ~6 patients for rotator cuff repairs. The patients are recovering well.

The outcomes of the animal trials are pending release in medical and scientific journals.

ASX announcement: Collaboration With Healthcare Group To Develop New Products, 20 Jun 2023



## A\$4m CellHeal R&D partnership

Osteopore signed a binding term sheet with CellHeal to pursue the commercialisation of our regenerative implants in China.

Pending regulatory approval and commercialisation activities, Osteopore seeks to enter the Chinese market.

The partnership, which is in the collaboration phase has established a steering committee.

Following a review of the work plan by Osteopore, the necessary materials will then be shipped to CellHeal.

ASX announcement: Strategic Partnership for Clinical R&D in China worth \$4M, 8 Jun 2023



## University of Chile collaboration

Osteopore is collaborating with the University of Chile to identify additives for 3D bioprinting.

The collaboration has the potential to break new ground in the regenerative medicine space.

ASX announcement: Chile Government and University co-fund Osteopore research, 28 Sep 2022

# Board and management



**Mark Leong**  
Executive Chairman  
ACCA, ISCA, SID



**Prof. Teoh Swee Hin**  
Non-Executive Director  
B Eng. (1<sup>st</sup> Hons);  
PhD Materials Engineering (Singapore)



**Daniel Ow**  
Non-Executive Director  
B.Com; CPA (Australia)



**Hon. Michael Keenan**  
Non-Executive Director  
B. Arts; B. Arts (Hon); M. Phil. (UK)



**Lim Jing**  
CEO & CTO  
PhD Bioengineering (Singapore)



**Goh Khoon Seng**  
Director, Global Marketing  
M. Mechanical Eng. (Singapore)



**Voon Shu Ning**  
Financial Controller  
CPA (Australia)



**Deborah Ho**  
Company Secretary



**Kellie Davis**  
Company Secretary  
B.Com; CA (Australia)

# Corporate advisory panel



**Greg Rudd**  
**Director**  
Glengarry Advisory



**David Yeow**  
**Independent Director**  
UOB Kay Hian Holding Ltd.



**Joy Song**  
**CEO & Co-Founder**  
CellHeal Therapeutics



**Tommy Shin**  
**CEO & Co-Founder**  
Lateral Capital Ventures



**Jin Wei Low**  
**IP Strategist**  
IPOS International

# Technical advisory panel



## Neurosurgery surgery



**Dr. Rondhir Jithoo MD**  
Neurosurgeon  
Alfred Hospital (Au.)



**A/Prof. Yeo Tseng Tsai**  
Neurosurgeon  
National University Hospital (Sg.)

## Craniofacial surgery



**Dr. Michael Wagels MD**  
Plastic Reconstructive Surgeon  
Alexandra Hospital (Au.)



**A/Prof. Lim Thiam Chye**  
Plastic Reconstruction Surgeon  
National University Hospital (Sg.)

## Radiology



**Dr. Tan Bang Wei (Mark)**  
Head & Neck Radiology;  
Clinical 3D Printing  
Singapore General Hospital (Sg.)

## Dental/Oral maxillofacial surgery



**Dr. Samintharaj Kumar MD**  
CEO & Founder  
Nuffield Dental Group (Sg.)



**Dr. GK Ananda MD**  
Oral Maxillofacial Surgeon  
Gleneagles Hospital (My.)

## Orthopaedic surgery



**Clinical Asst. Prof. Hamid Razak**  
Consultant Orthopaedic Surgeon  
Sengkang General Hospital (Sg.)



**Dr. James Tan MD**  
Orthopaedic Surgeon  
Quantum Orthopaedics (Sg.)

## Research and development



**Tan Kim Cheng**  
Senior Lecturer  
Temasek Polytechnic (Sg.)

# Why Osteopore?

## De-risked profile

80K+

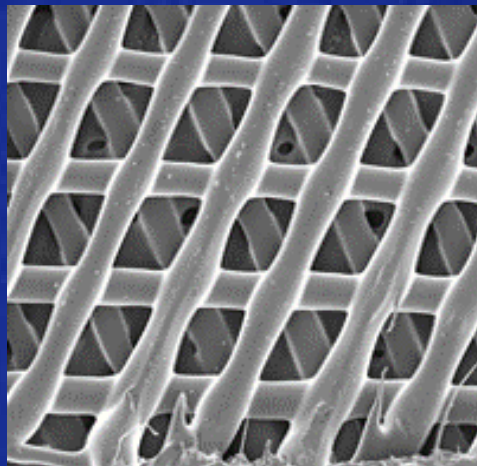
- Fully **validated technology**
- **80K+ successful cases** with a growing sales pipeline
- **Clear vision** to achieve profitability
- Strong IP with patents and **regulatory approvals secured**
- **World-first surgeries** and global post-sales

## Established pedigree



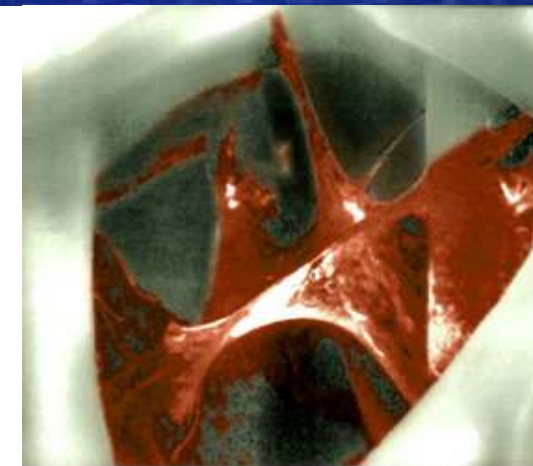
- Osteopore is recognised as a **global leader in regenerative medicine**
- **Leading-edge** bioresorbable and biomimetic implants
- Responsible for many **world-first surgeries**

## Breakthrough technology



- **Novel and revolutionary implants** which empower in-situ natural bone regeneration
- Osteopore's implants **dissolve over time** – a world-first – with no permanent residue

## Superior outcomes



- Proven to be a **superior treatment to bone grafts** and permanent implants
- Lower risk of inflammation/infections, **delivering better patient outcomes**

# Why Osteopore?



## Global opportunity



- Sizeable **addressable market**
- Potential to be **the new standard of care** in regenerative medicine globally

## Addressable market



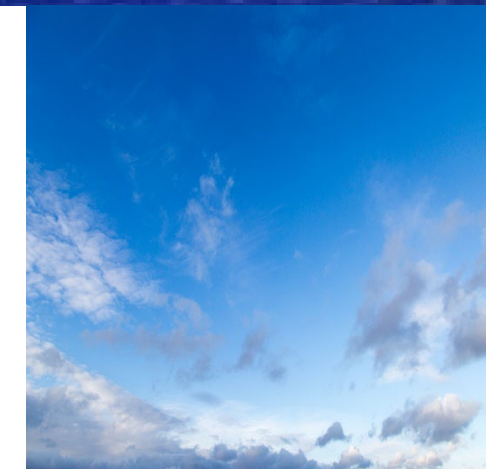
- Targeting the **US\$100bn permanent implant market** <sup>1</sup>
- Pursuing the **US\$3.9bn bone graft market** with our superior offering <sup>2</sup>

## Regulatory approvals



- **Key regulatory approvals** in Tier 1 markets including Europe and the US
- Products sold in 25+ countries, with a **presence in every continent**

## Blue sky



- **Potential expansion into the tendon market** with Livingstone Health
- Developing possible surgical **applications for the veterinary market**

<sup>1</sup> Allied Market Research - Permanent Implant Sales

<sup>2</sup> BCC Research - Bone Graft Substitutes Market by 2025

# Osteopore<sup>®</sup>

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**Mark Leong**

Executive Chairman

E: [mark\\_leong@osteopore.com](mailto:mark_leong@osteopore.com)

**Lim Jing**

Chief Executive Officer & Chief Technology Officer

E: [lim\\_jing@osteopore.com](mailto:lim_jing@osteopore.com)

**Isaac Stewart**

Investor & Media Relations

E: [istewart@canningspurple.com.au](mailto:istewart@canningspurple.com.au)

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