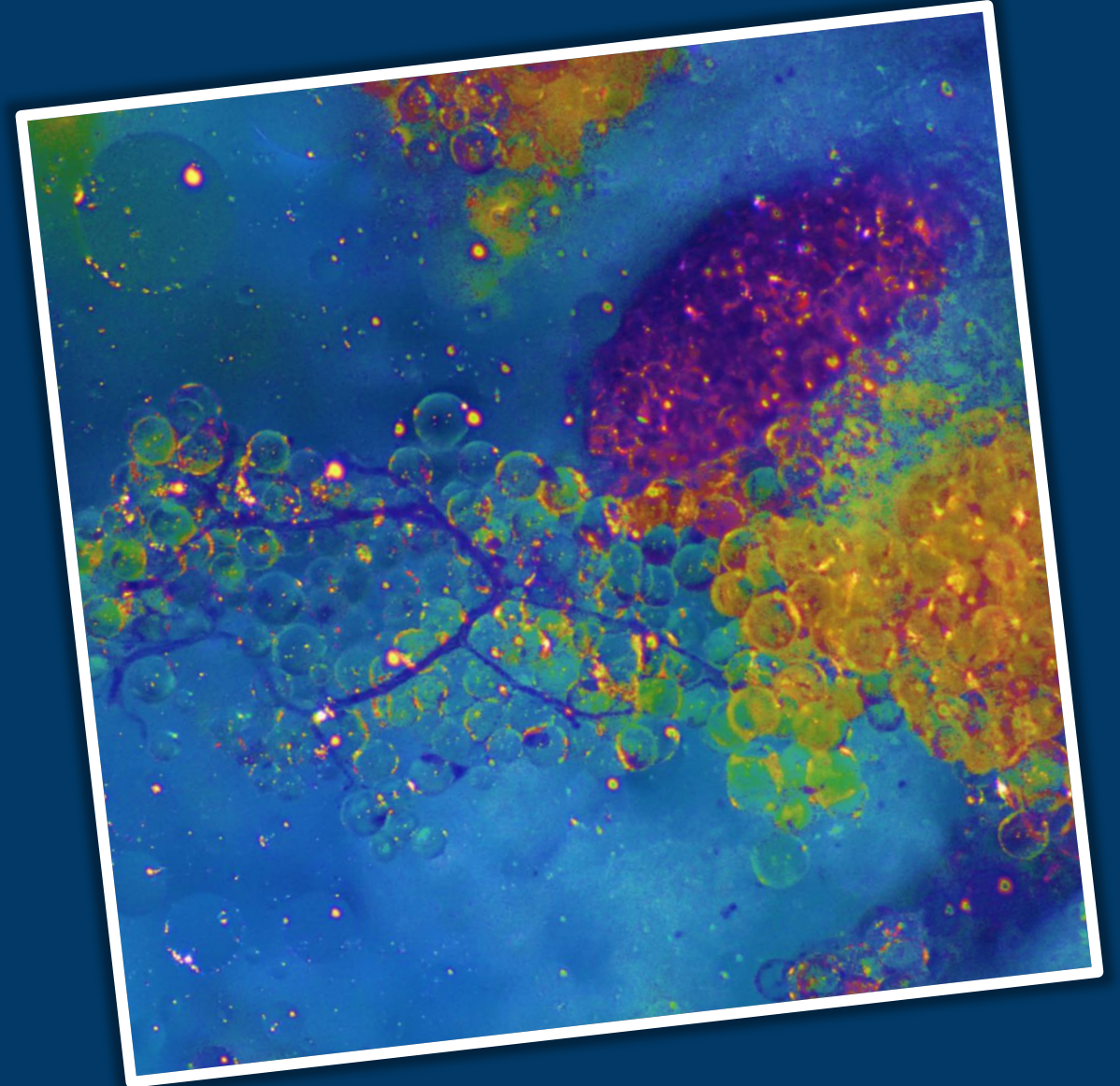


Bonus Biogroup

Company Presentation, July 2023



Disclaimer and Forward-Looking Statement

This presentation, both written and oral, includes statements that are or may be deemed, “forward-looking statements” within the meaning of applicable securities laws. In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately,” “potential” or, in each case, their negative or other variations thereon or comparable terminology, although not all forward-looking statements contain these terms.

For example, when we discuss the addressable market sizes and growth potential of BonoFill and MesenCure, we are using forward-looking statements. Because such statements deal with future events, they are subject to various risks and uncertainties, and actual results, expressed or implied by such forward-looking statements, could differ materially from Bonus BioGroup’s current beliefs, forecasts, and estimates. Factors that could cause or contribute to such differences include, but are not limited to risks and uncertainties associated with natural disasters and public health crises, such as the coronavirus disease (COVID) pandemic; the impact of global economic conditions; regulatory developments; our financing needs; research and development challenges; the demand and acceptance of our products and the other risk factors set forth in Bonus BioGroup’s latest annual report and other filings with the Israeli Securities Authority (“ISA”). Any forward-looking statements that we make in this presentation, both written and oral, speak only as of the date of such statement, and, except as required by applicable law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this presentation.

This presentation, both written and oral, is not intended to provide you with a complete summary of Bonus BioGroup’s business or financial results. For further information about us, you should read our reports and filings with the ISA. Our ISA filings are available at <http://www.magna.isa.gov.il> and <http://maya.tase.co.il>.

This presentation, both written and oral, shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale by Bonus BioGroup of any securities in any state in which such offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

Bonus Biogroup is an advanced clinical-stage biotechnology company developing 'next-generation' therapies for a variety of indications in the regenerative medicine field.

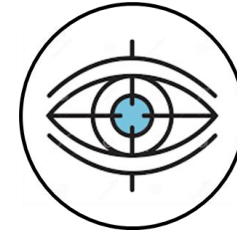


Our mission is to develop and deliver effective, safe, and affordable tissue engineering and cell therapy products to address severe diseases and conditions.

Our key assets in advanced clinical trials include:

BonoFill™ is a live human bone graft for treating bone deficiencies based on the patient's own cells, which are grown outside their body.

MesenCure™ is a cell therapy drug product consisting of viable, enhanced mesenchymal cells. It is designed to treat inflammation and tissue damage, including pneumonia and respiratory distress.



Our Vision:

Empower millions of patients to live healthier and longer lives through scientific leadership and excellence, technological innovation, and patient-centric development.



Bonus Biogroup stands at the forefront of the industry as a pioneer in regenerative medicine, harnessing our unparalleled knowledge and expertise to develop a unique technological platform that revolutionizes cell therapy and tissue engineering.

By leveraging our deep understanding of the power and challenges of cellular therapeutics, we ensure cost-effectiveness, safety, and quality in our products. This leads to clinical success and enhances our prominent role in the biotech industry.

Dr. Shai Meretzki,
Bonus Biogroup's Founder & CEO

BonoFill™

**Injectable live human
bone graft**

Expands bone grafting availability

Facilitates rapid return to normal functions and about 50% shorter hospitalization and recovery times

Reduces surgery time by 70%

Provides more treatment options for complicated patients

Reduces hospitalization and surgery costs by >50%

Reduces the need for revision surgeries

Our products bring value to

Patients



Hospitals



Payers



MesenCure™

**Cell therapy for inflammation
and tissue damage**

Reduces mortality by 68%

Shortens the duration of hospitalization by 9 to 10 days

Relieves ICU burden

Provides more treatment options for severe patients

Reduces hospitalization and healthcare costs by ~40%

The MesenCure™ opportunity

Cell therapy for inflammation and tissue damage

Market Highlights: US only



**~691K
patients**

US target market for treating respiratory distress, including pneumonia cases, Covid-related, and otherwise



**~23B
USD**

Reduction in hospitalization costs by using MesenCure in the US alone



**~118K
patients**

Patients could be treated using MesenCure, each year in the US alone

The BonoFill™ opportunity

Injectable live human bone graft

Market Highlights: US only



**~6.2M
patients**

US target market for treating bone deficiencies where BonoFill could be used



**~70B
USD**

Reduction in surgery and hospitalization costs by using BonoFill: 15 Bn in orthopedics and 10 Bn in craniomaxillofacial applications, in the US alone



**~130K
patients**

Patients could be treated using BonoFill, each year in the US alone

CLINICAL STATUS

Bonus Biogroup has released the results of the MesenCure Phase II trial and recently released interim results of a Phase II trial with BonoFill. We are now preparing for advanced-phase clinical trials in the U.S. with both products.

- We have successfully completed a Phase II clinical trial using MesenCure to treat pneumonia and respiratory distress in severe Covid patients.
- Ongoing communications with the FDA are underway toward an advanced clinical trial in the U.S. for treating severely ill respiratory distress patients with MesenCure.
- We have published interim results of a Phase II trial using BonoFill to treat facial bone deficiencies and have completed study enrollment.
- Our ongoing Phase II trial for treating critical-sized bone defects in the limbs has demonstrated efficacy and safety in reported cases.



The company is exploring additional applications for treating inflammation and tissue damage through the technological platform underlying our products.

Effective use of proceeds

\$60
million USD

Funds raised

in public and private
placements

18%
premium

Average premium

above the closing
share price on the
relevant date

1.56 ILS
per share

Average share price

throughout the last
round, during which
we raised \$11.5 million

\$12.5
million USD

Cash reserves

as of 03.31.23, expected
to support operations
until early 2025

In 2022, we relocated to the new Bonus Biogroup Center:

Advanced GMP facility for R&D and manufacturing of tissue engineering and cell therapy products

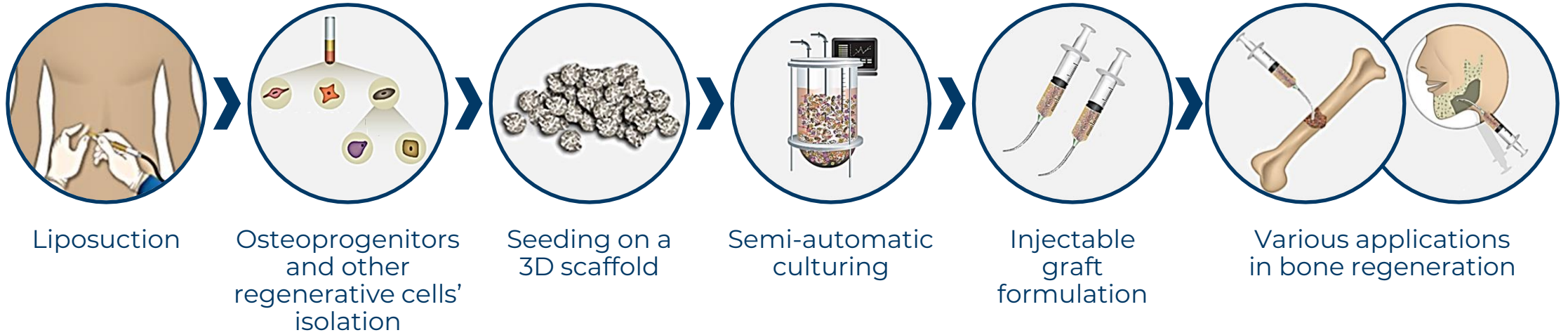
- GMP compliant according to FDA and EMA requirements
- It includes two production halls for BonoFill and MesenCure, as well as QC labs
- Production capacity suitable for commercial activity
- Home to Israel's most advanced R&D center for cell therapy and tissue engineering



In January 2023, Israel MoH certified the manufacturing facility and process of MesenCure to comply with GMP standards in accordance with the recommendations of the WHO.



BonoFill™: A live human bone graft



BonoFill is a living bone graft composed of mesenchymal cells sampled from the patient's own adipose tissue.

These cells are seeded onto biodegradable mineral particles and cultivated within a unique bioreactor system. The result is a ready-to-use graft designed for treating bone deficiencies across a variety of indications.

Competition & alternatives

BonoFill™

Injectable live
human bone graft

Bone auto-
grafting

Bone
Grafts and
Substitutes

Tissue
Engineering
in R&D

Features

Requires additional bone
harvesting surgery:
**leading to high
complexity, cost, and
low success rates**

Cadaveric or other
inanimate substitutes:
**suitable only for small
bone deficiencies**

Does not include all
ingredients for the
regeneration of large
bone deficiencies: **still
in early academic
research**

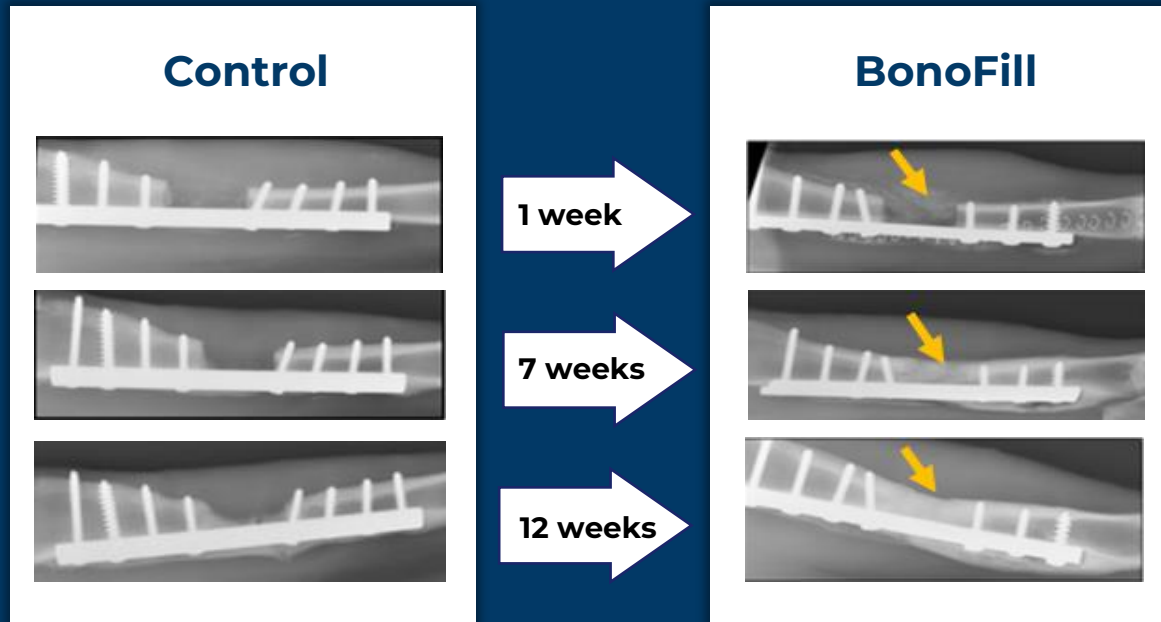
BonoFill features

**More effective and
available than
existing treatments
and less expensive**

**A live bone graft, also
suitable for large
bone deficiencies**

**BonoFill is in the most
advanced clinical
development stage**

Bonus Biogroup revolutionizes technology and science in the development and production of bones



In just seven weeks, BonoFill led to the complete regeneration of a critical-sized bone defect in a preclinical study.

Journal of Orthopaedic Surgery and Research

RESEARCH ARTICLE

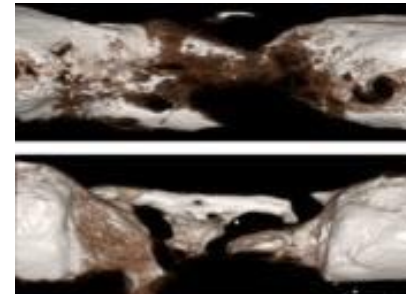
Open Access

Autologous cell-coated particles for the treatment of segmental bone defects—a new cell therapy approach

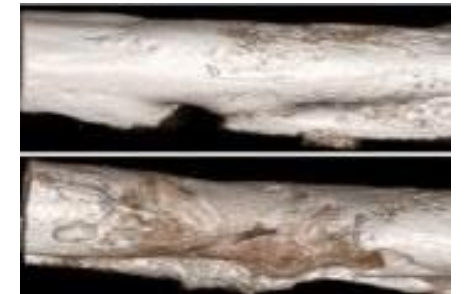


CT imaging at 12 weeks post-transplant

Control

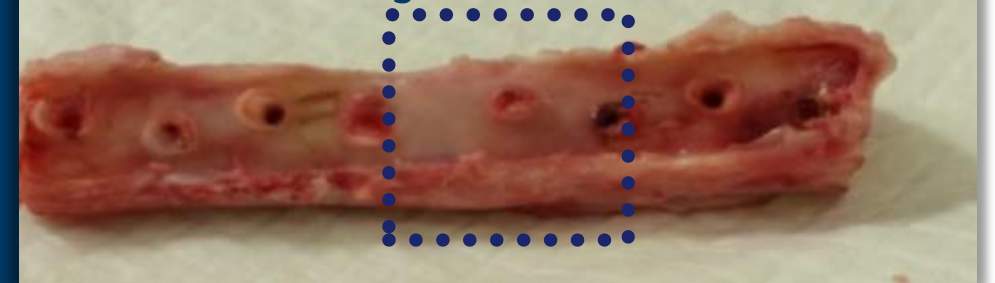


BonoFill



Week 12

Regenerated bone





BonoFill treatment has been completed successfully in dozens of patients and demonstrated safety and efficacy in regenerating bones in the face and limbs, even in patients who failed other treatments.

Clinical Trial to Treat Facial Bone Deficiencies Using BonoFill

- ✓ Phase II clinical study in 30 transplants
- ✓ 90% success following 20 transplants
- ✓ Complete bone healing in three months
- ✓ Reducing the recovery time to half to one-third of the period required today
- ✓ Full safety profile demonstrated
- ✓ Enrollment completed

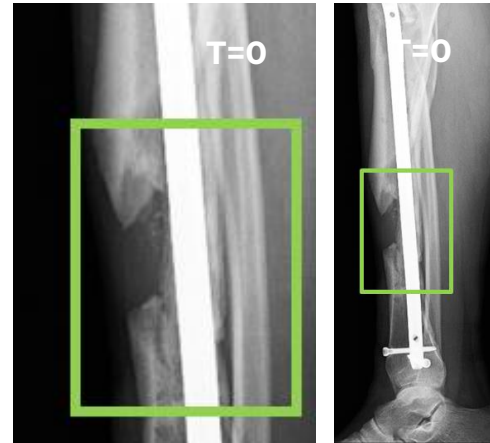
Clinical Trial to Treat Critical Bone Defects in the Limbs Using BonoFill

- ✓ Phase II clinical study in up to 40 transplants
- ✓ Efficacy demonstrated in reported cases
- ✓ Full safety profile demonstrated
- ✓ Expected completion of enrollment in early 2024

Examples from a Clinical Trial to Treat Critical Bone Defects in the Limbs using BonoFill

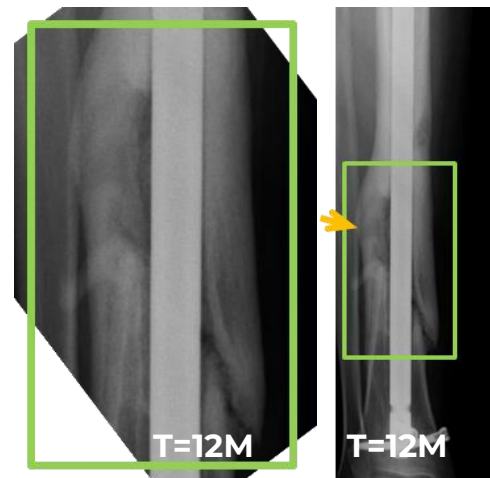
Before treatment

- Significant constant pain
- Limited weight bearing
- >5 cm long bone gap
- Three previous, other treatments failed



A year after BonoFill

- Complete healing and gap closure
- No pain
- Normal weight bearing
- Normal function
- No adverse events

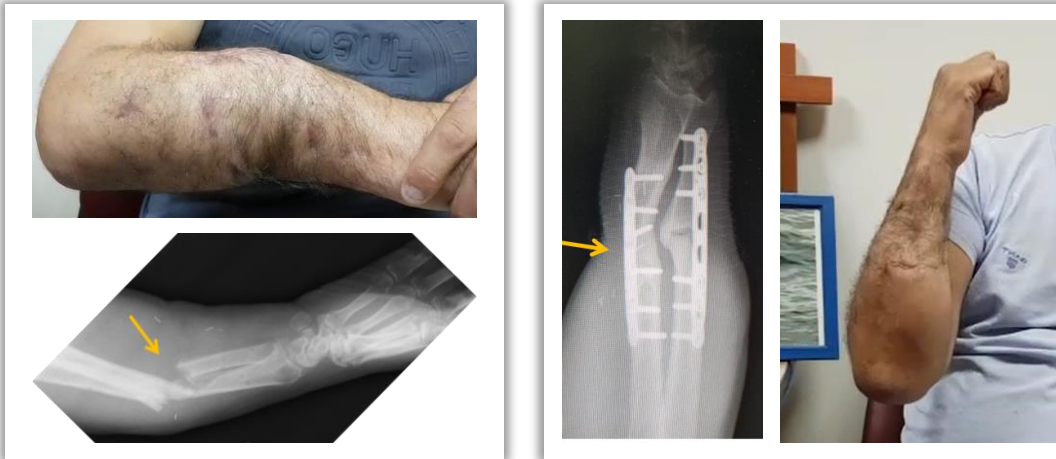


Danny Yaakobson participated in a triathlon and rode 91 km just one year after receiving BonoFill.



Examples from a Clinical Trial to Treat Critical Bone Defects in the Limbs using BonoFill

Rehabilitation from complex fracture of the forearm bones



Before treatment

- Constant pain
- No weight bearing
- Two previous, other treatments failed

A year after BonoFill

- Complete healing
- Normal weight bearing
- Normal function, no pain
- No adverse events

Regeneration of a large 40 cc bone defect following valgus knee repair



Before treatment

- Impaired walking
- Constant pain
- Limited weight bearing

A year after BonoFill

- Normal walking
- No pain
- Normal functions
- No adverse events

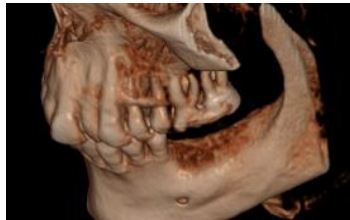
Examples from a Clinical Trial to Treat Facial Bone Deficiencies Using BonoFill

Regeneration of bone in the lower jaw

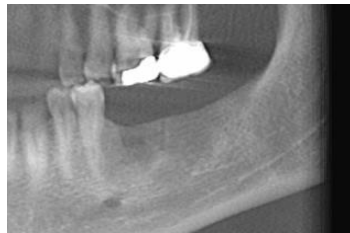
Before treatment



Three months after BonoFill



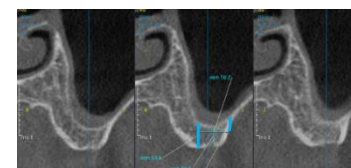
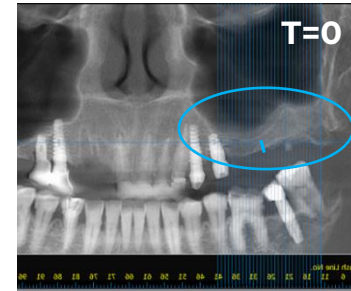
6 months after BonoFill



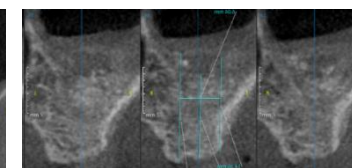
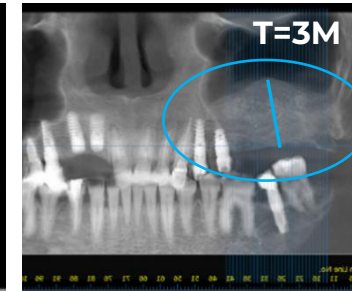
- Before treatment, the bone height was 2.9 mm
- Three months after transplantation, the bone reached a height of 15.6 mm
- At the end of the six months follow-up period, bone regeneration was achieved, enabling continued reconstructive activities

Regeneration of bone in the upper jaw

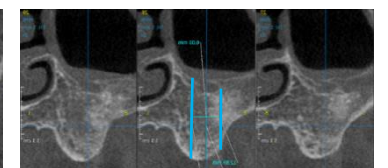
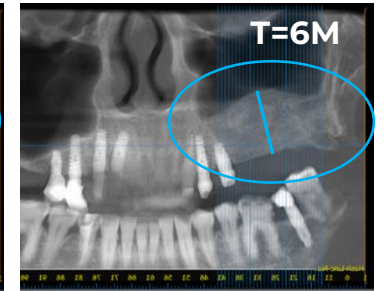
Before treatment



Three months after BonoFill



Six months after BonoFill



- Before treatment, the bone height was 6.6 mm
- Three and six months after transplantation, the bone reached a height of 14.8 and 15.8 mm, respectively
- Bone regeneration enables continued reconstructive activities

BonoFill revolutionizes the safety and efficacy of bone grafting



Rejection failure is minimized: Grown from cells sampled from the adipose tissue of the patient



Tailor-made for the best healing outcome: Designed to precisely fit the anatomical deficiencies of patients



Diversified cell culture to accelerate regeneration: Cells are in a spectrum of differentiation stages to maximize efficacy



Biodegradable 3D matrix mimicking natural bone: FDA- and EMA-approved mineral scaffold, safe and promotes bone regeneration



Proprietary and scalable bioreactor: Enable cost-effective production with large throughput and reproducibility of a safe and high-quality product

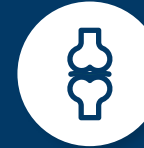


Versatile applications: Accommodates a range of bone deficiencies - available upon demand and in large quantities

BonoFill application



Cranial and maxillofacial bones



Limb bones



Joints



Spine

Clinical stage

Preclinical development

MesenCure™

**A cell therapy drug for treating
inflammation and tissue damage
consisting of enhanced mesenchymal
cells from healthy donors**



The drug has been shown to be safe and effective in treating pneumonia and respiratory distress in severe COVID-19 patients.



About 100,000 doses of MesenCure can be produced from a single cell-bank donor.



A unique manufacturing process gives MesenCure the ability to treat a wide range of inflammation and tissue damage.



MesenCure reduced life-threatening cytokine release syndrome, which occurred as a result of cancer immunotherapy.



The drug is being tested in a number of additional indications for the treatment of acute and chronic inflammations and tissue damage.

Competition & alternatives

MesenCure™

Cell therapy drug for
treating inflammation
and tissue damage

Supportive
care

Steroids, mechanical
ventilation, etc.: **Do not
cure the disease**

MesenCure features

**Equipped with wide
and varied therapeutic
capabilities**

Off-label
drugs

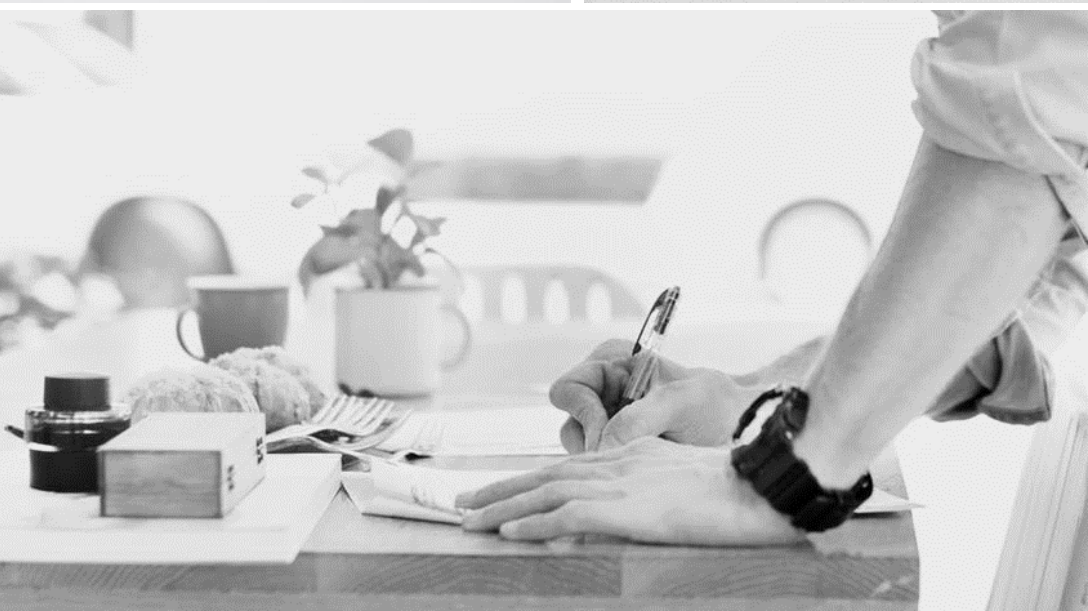
Treat a single cause of
the disease: **Limited
efficacy in a variety of
conditions**

**Treats both
inflammation and
tissue damage**

Cell
therapies in
R&D

Based on natural cells:
**Limited potency and
efficacy**

**MesenCure is the only
cell therapy that
achieved success in
clinical development**



Phase II clinical trial for the treatment of pneumonia and respiratory distress with MesenCure was completed

- 50 severe COVID-19 patients suffering from pneumonia and respiratory distress were treated with MesenCure
- ~90% of the patients suffered significant comorbidities
- Dosage: Up to three doses of the drug
- MesenCure safety and efficacy were demonstrated compared to a control group of 150 similar severe patients who received the standard treatment.

Main Results of the Phase II Trial with MesenCure

68%

reduction in mortality

9.4

days reduced from hospitalization time for highly complex patients*

57%

reduction in the risk of invasive ventilation

59%

of patients treated with MesenCure were discharged from the hospital up to two days after treatment

52%

reduction in inflammation marker CRP, and rapid improvement in respiratory function, and markers of tissue damage



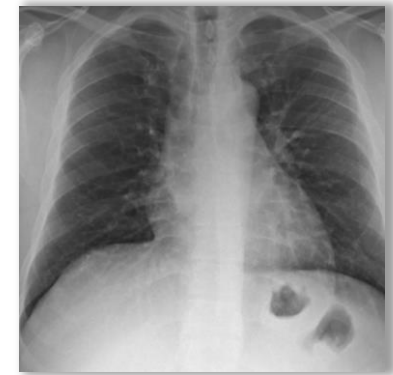
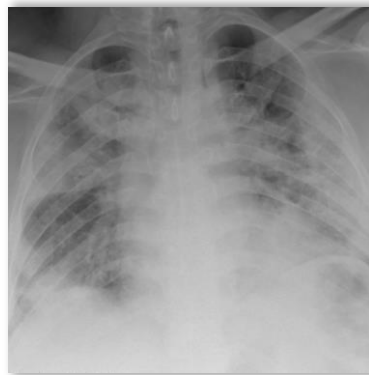
Full safety profile



* Patients with a hospital length of stay longer than seven days

MesenCure rapidly healed pneumonia and improved respiratory functions

Before MesenCure treatment, the lungs were congested with inflammatory infiltrates, obstructing breathing (representative patients)



Approx. 30 days after MesenCure treatment, breathing is normal, and pneumonia dramatically reduced

MesenCure is revolutionizing the treatment of pneumonia and respiratory distress



Highly effective in treating respiratory distress in severe COVID-19 patients: The cell culture process is designed to enhance the effectiveness



Effective by acting against different stages of the inflammatory process: Rescues from multi-system failure and death and is also suitable for those suffering from comorbidities



The cells are administered intravenously and reach the lungs: The cells reduce cytokine storm and pneumonia, encouraging repair of lung damage



The treatment has additional benefits on top of reducing pneumonia: The cells reduce the risk of damage to other organs, such as the heart, liver, and kidneys



High production capacity, safe and easy-to-use drug: About 50k doses of the drug can be produced from one liter of adipose tissue from a single donor

MesenCure applications



Acute respiratory distress

Clinical stage



Other inflammations: local and systemic, acute and chronic

Preclinical development



Tissue regeneration

BonoFill: Our exclusivity in the manufacture and commercialization of a live human bone graft is guaranteed by three patent families. This covers the entire bone rehabilitation market for any relevant indication.

MesenCure: Two patent families protect our unique mesenchymal cells with enhanced therapeutic capacity. These cells, with their unique gene expression profile, are used to treat inflammation, tissue damage, and more.

Tissue Engineering and Other Applications: We have a patent family dedicated to the creation and embedding of artificial blood vessel networks within tissue implants. Another patent family protects the composition and method of transporting active compounds to stimulate blood vessel growth in tissues.

Intellectual Property

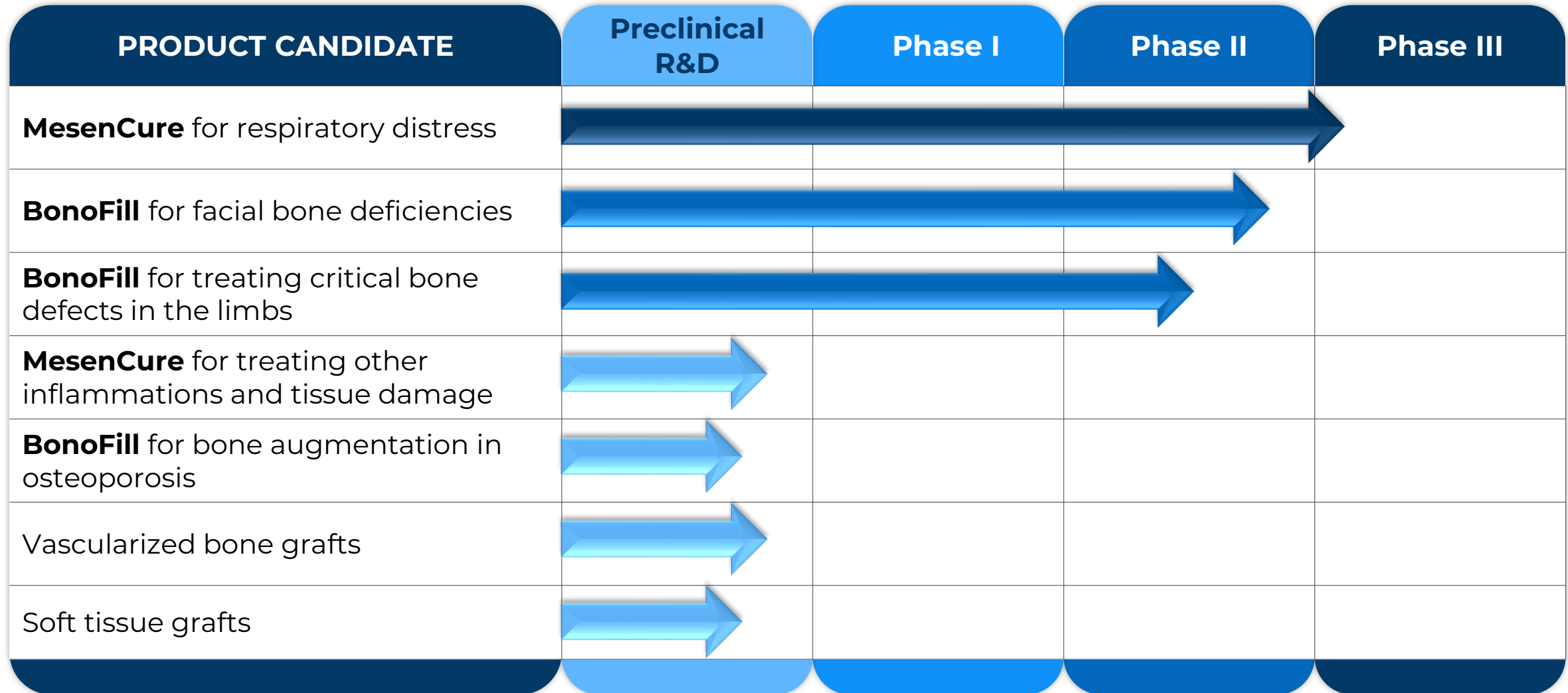
- ❑ Seven patent families
- ❑ 28 approved patents
- ❑ 15 patent applications
- ❑ In the US, Europe, and beyond

Major Predicted Events

2023 - 2024

- Obtain FDA approval for an advanced clinical trial with MesenCure in the U.S.
- Initiate recruitment of centers for an advanced clinical trial with MesenCure in the US.
- Begin patient enrollment and treatment with MesenCure in the US.
- Publish results from a Phase II Clinical Trial for treating critical bone defects in the limbs using BonoFill.
- Release the results of Phase II Clinical Trial for treating facial bone deficiencies using BonoFill.
- Secure FDA approval for an advanced-phase clinical trial with BonoFill in the US.

Products and applications pipeline



Proven track record of success

Shai Meretzki, Ph.D., Founder & CEO



Dr. Meretzki is a seasoned leader in the Life Science field, having founded several biotech companies, including Pluristem, where he served as CEO and CTO. He holds a Ph.D. in biotechnology from the Technion - Israel Institute of Technology, in collaboration with the Weizmann Institute of Science, Israel. His proven operational, management, and leadership abilities are instrumental in driving Bonus Biogroup's success.

Dror Ben David, Ph.D., COO



Yoni Livne, CPA, CFO



Vered Kivity, Ph.D., MBA, VP Reg.



Yossi Rauch, MBA, Executive Chairman



Mr. Rauch brings a wealth of financial expertise to his role, having served as the Chief Economist and Manager of the Economics Department at Leumi PIA, Israel's largest mutual fund company at the time. He holds an MBA in Finance & Accounting and Computers & Information Systems from Tel Aviv University and a BA in Economics and Business Administration from Bar-Ilan University.

Tomer Bronshtein, Ph.D., VP BD



Atara Novak, Ph.D., VP R&D



Corinne Chemouny, Pharm.D., VP QA





Bonus Biogroup's technological and scientific strides have garnered significant recognition and appreciation in the field.

Selected Publications include

- ◆ Ben-David *et al.* Autologous cell-coated particles for the treatment of segmental bone defects-a new cell therapy approach. J Orthop Surg Res. 2019 Jul 1;14(1):198.
- ◆ Tzur *et al.* Safety and Efficacy Results of BonoFill First-in-Human, Phase I/IIa Clinical Trial for the Maxillofacial Indication of Sinus Augmentation and Mandibular Bone Void Filling. J Oral Maxillofac Surg. 2021 Apr;79(4):787-798.e2.
- ◆ Bronshtein *et al.* BLOOD 2021, Vol. 138, No. , Pages 2172
- ◆ Bronshtein *et al.* CYTOTHERAPY 2022, Vol. 24, No. 5, Pages S31-S32
- ◆ Kushnir *et al.* CYTOTHERAPY 2022, Vol. 24, No. 5, Pages S24-S25
- ◆ Novak *et al.* CYTOTHERAPY 2022, Vol. 24, No. 5, Pages S46-S46



דאנס מדיקל
Duns Medical

לחיות את הטבע או לחכות לטבע?
שתי גישות בהנדסת רקמות שמעצבות את רפואת המחר

בשנת 1971 הכיר פרופ' דוד דאנס, יו"ר דאנס, כי הטבע והטבעיות הם שני צדדים של אותו המטבע. הטבעיות היא היכולת של הטבע להחליף עצמו באופן טבעי, בעוד שהטבעיות היא היכולת של הטבע להחליף עצמו באופן מלאכותי. דאנס מדיקל היא חברה המפתחת טכנולוגיות להנדסת רקמות, המאפשרות לרפואה להחליף רקמות פגועות או חסרות באופן טבעי, בדומה לטבע. דאנס מדיקל היא חברה המפתחת טכנולוגיות להנדסת רקמות, המאפשרות לרפואה להחליף רקמות פגועות או חסרות באופן טבעי, בדומה לטבע.

הנדסת רקמות היא תחום המאפשר לרפואה להחליף רקמות פגועות או חסרות באופן טבעי, בדומה לטבע. דאנס מדיקל היא חברה המפתחת טכנולוגיות להנדסת רקמות, המאפשרות לרפואה להחליף רקמות פגועות או חסרות באופן טבעי, בדומה לטבע.

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AAOS
Meet us at AAOS 2023
Annual Meeting
7-11 March, Las Vegas

Dr. Shai Meretzki
CEO Bonus Biogroup

Prof. Nimrod Rozen
President of the Israel Orthopedic Association

The Jackson Laboratory
The Jackson Laboratory EU Symposium

Preclinical to Clinical Development of Next-Generation Mesenchymal Cell Therapy: From CAR-T Induced CRS in Humanized Models to Rescuing Severe COVID-19 Patients and Beyond

16 JUNE Paris

Tomer Bronshtein PhD

הדסה הרצוג, מנהל היחידה לרפואת מערכת העצבים, מרכז רפואי

הדסה הרצוג, מנהל היחידה לרפואת מערכת העצבים, מרכז רפואי. הדסה הרצוג, מנהל היחידה לרפואת מערכת העצבים, מרכז רפואי. הדסה הרצוג, מנהל היחידה לרפואת מערכת העצבים, מרכז רפואי.

The Bonus Biogroup Advantage



Demonstrated clinical successes across diverse products and indications.



Targeting multi-billion-dollar markets with minimal competition.



Proprietary platform technology with broad applicability across various indications.



Significant barriers to entry for potential competitors.



Established GMP-compliant production facilities scaled for commercial activity.



Leadership team comprises seasoned executives and scientists with a proven success record.

Shai Meretzki, Ph.D. (Founder & CEO)



info@bonus-bio.com



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