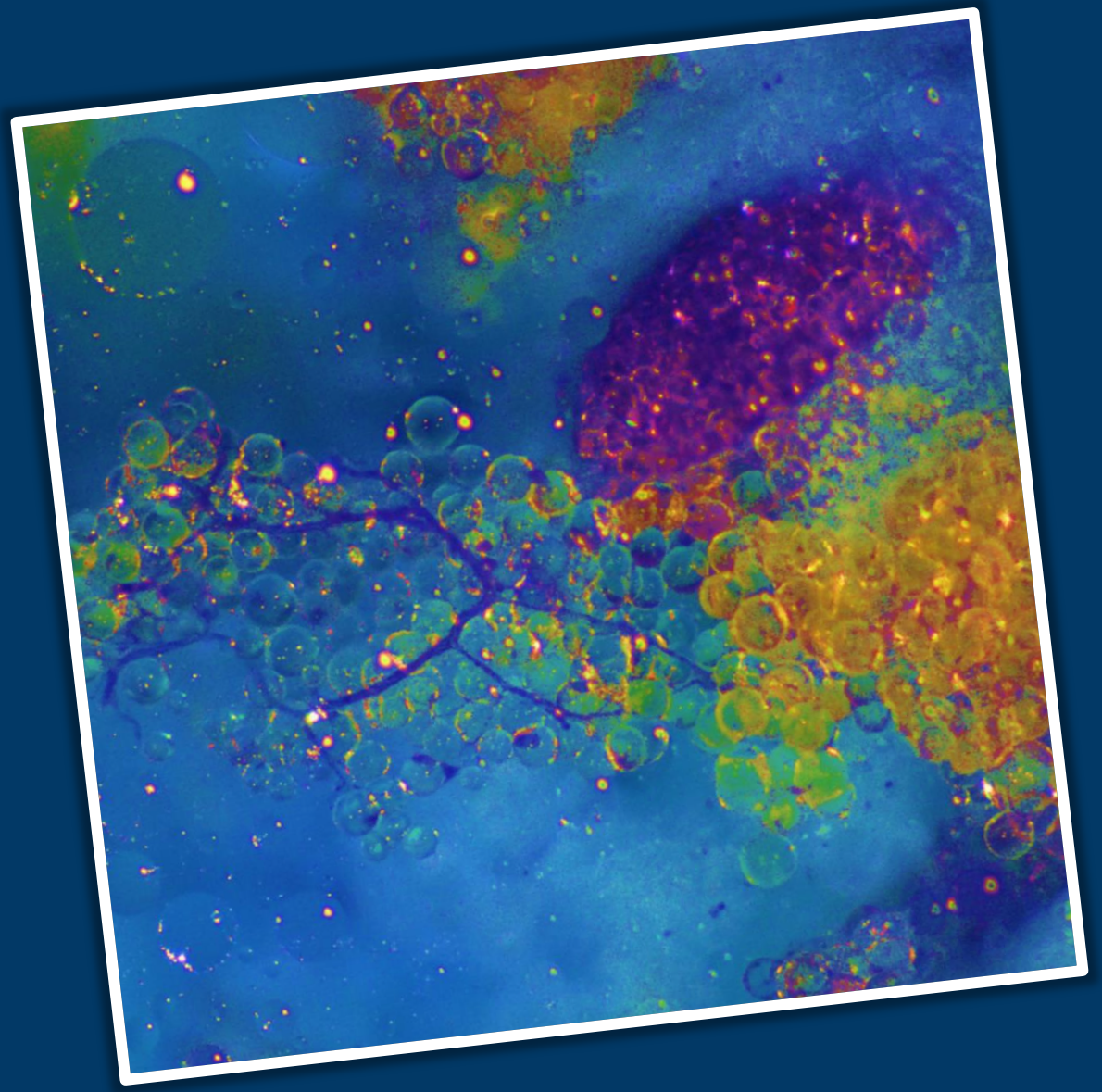
Bonus Biogroup

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

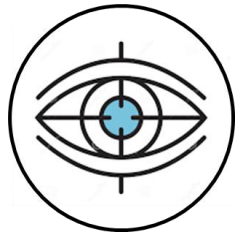
Bonus Biogroup is an advanced clinical-stage biotechnology company developing 'next-generation' therapies for a variety of indications in the regenerative medicine field.

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

Our products bring value to

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

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%

According to an analysis by McKinsey & Company

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

According to an analysis by McKinsey & Company (forecast 2030, both products)

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

Bonus Biogroup

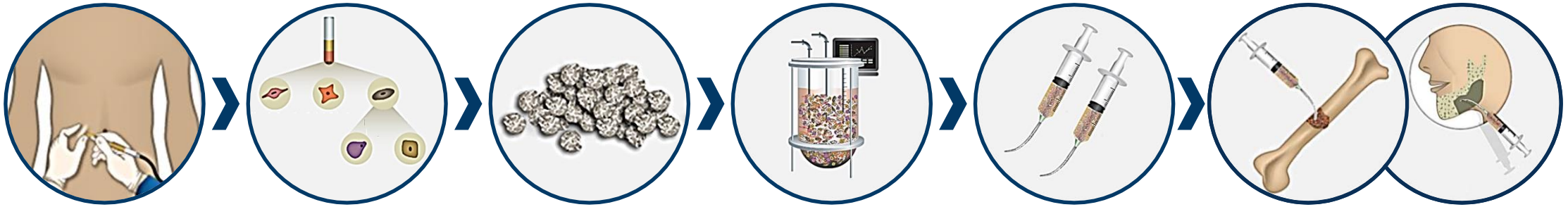
In 2022, we relocated to the new Bonus Biogroup Center:

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.

Bonus Biogroup

BonoFill™

Injectable live human bone graft

Competition & alternatives

Features

BonoFill features

Bone auto-grafting

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

More effective and available than existing treatments and less expensive

Bone Grafts and Substitutes

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

A live bone graft, also suitable for large bone deficiencies

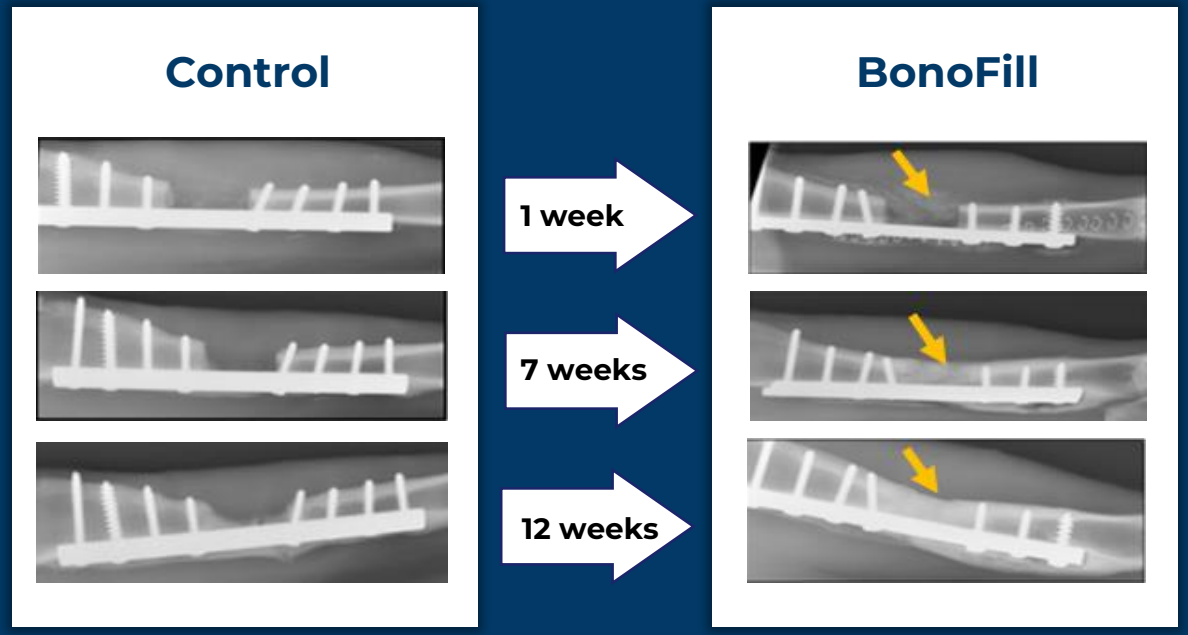
Tissue Engineering in R&D

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

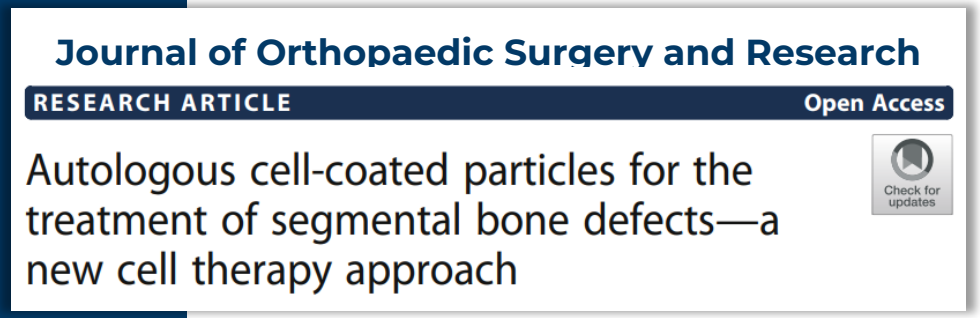
BonoFill is in the most advanced clinical development stage

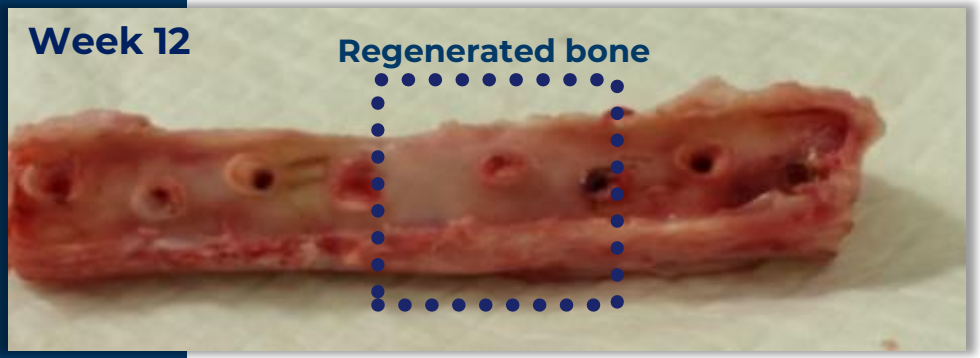
Bonus Biogroup

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.





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

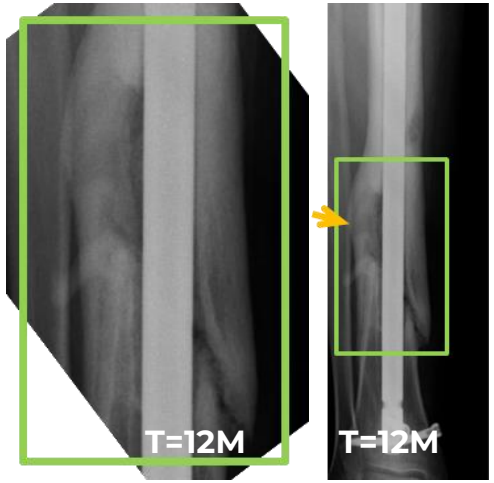
Examples from a Clinical Trial to Treat Critical Bone Defects in the Limbs using BonoFill

Before treatment

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

A year after BonoFill

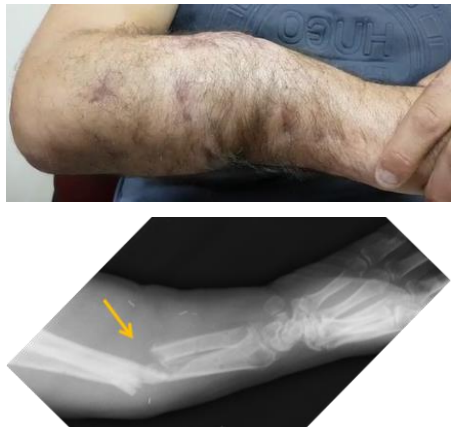
- Complete healing and gap closure
- No pain
- Normal weight bearing
- Normal function
- No adverse events

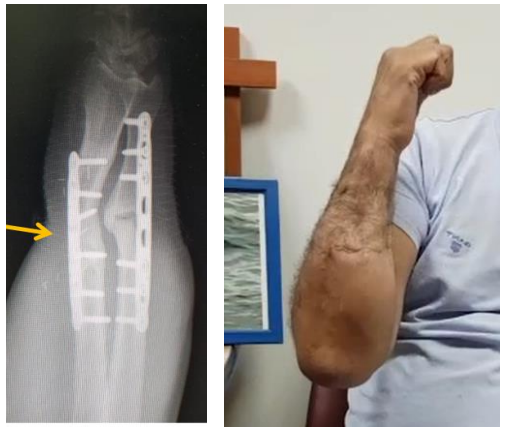


Danny Yaakobson participated in a triathlon and rode 91 km just one year after receiving BonoFill.

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

Rehabilitation from complex fracture of the forearm bones





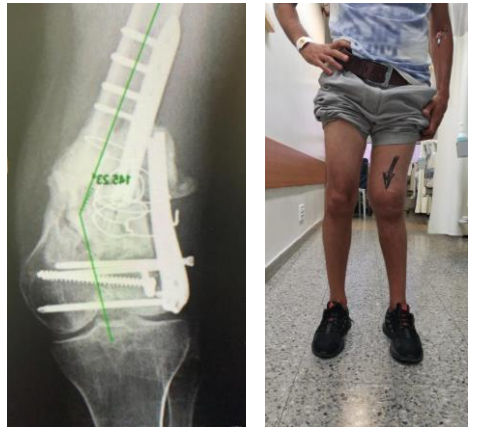
Before treatment

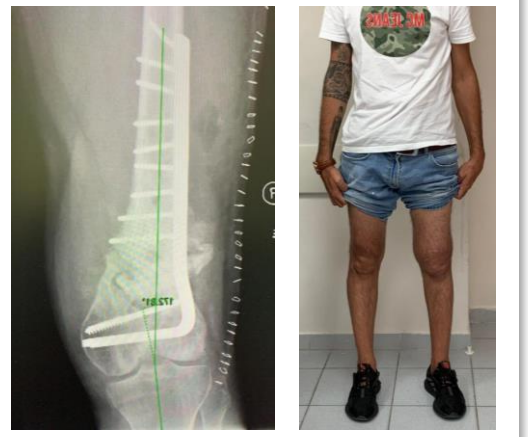
- Constant pain
- No weight bearing
- Two previous, other treatments failed

A year after BonoFill

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

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





Before treatment

- Impaired walking
- Constant pain
- Limited weight bearing

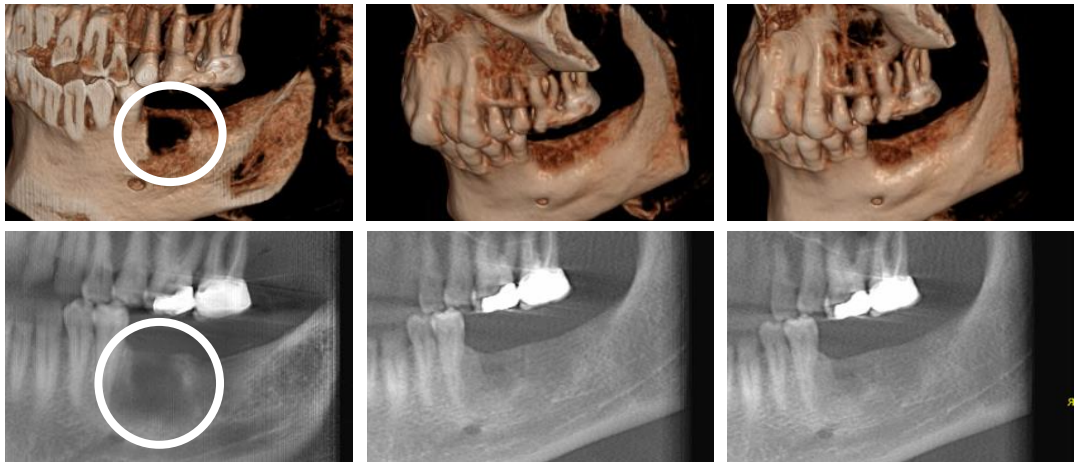
A year after BonoFill

- 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

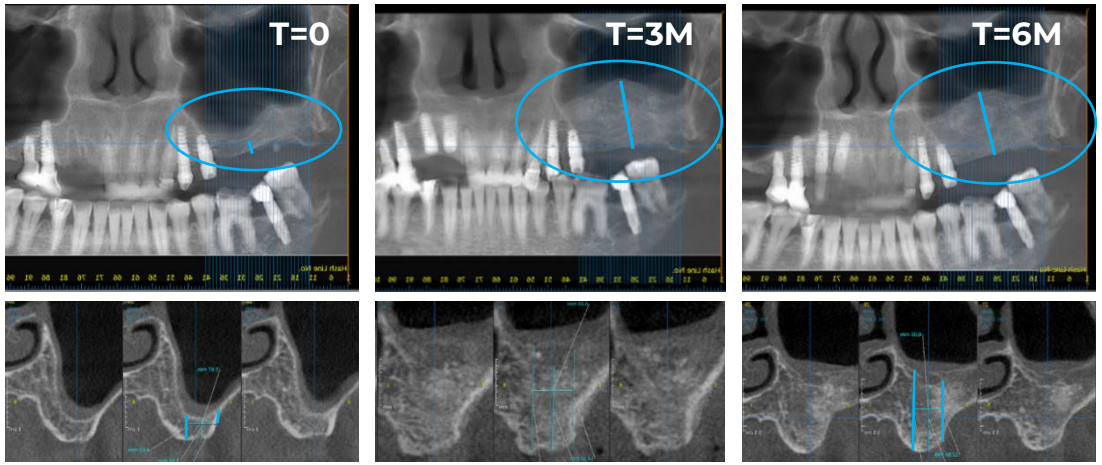
Before treatment	Three months after BonoFill	6 months after BonoFill



- 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

Clinical stage

- Cranial and maxillofacial bones
- Limb bones

Preclinical development

- Joints
- Spine

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.

MesenCure™

Cell therapy drug for treating inflammation and tissue damage

Competition & alternatives	Features	MesenCure features
Supportive care	Steroids, mechanical ventilation, *etc.*: **Do not cure the disease**	**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.

20

Bonus Biogroup

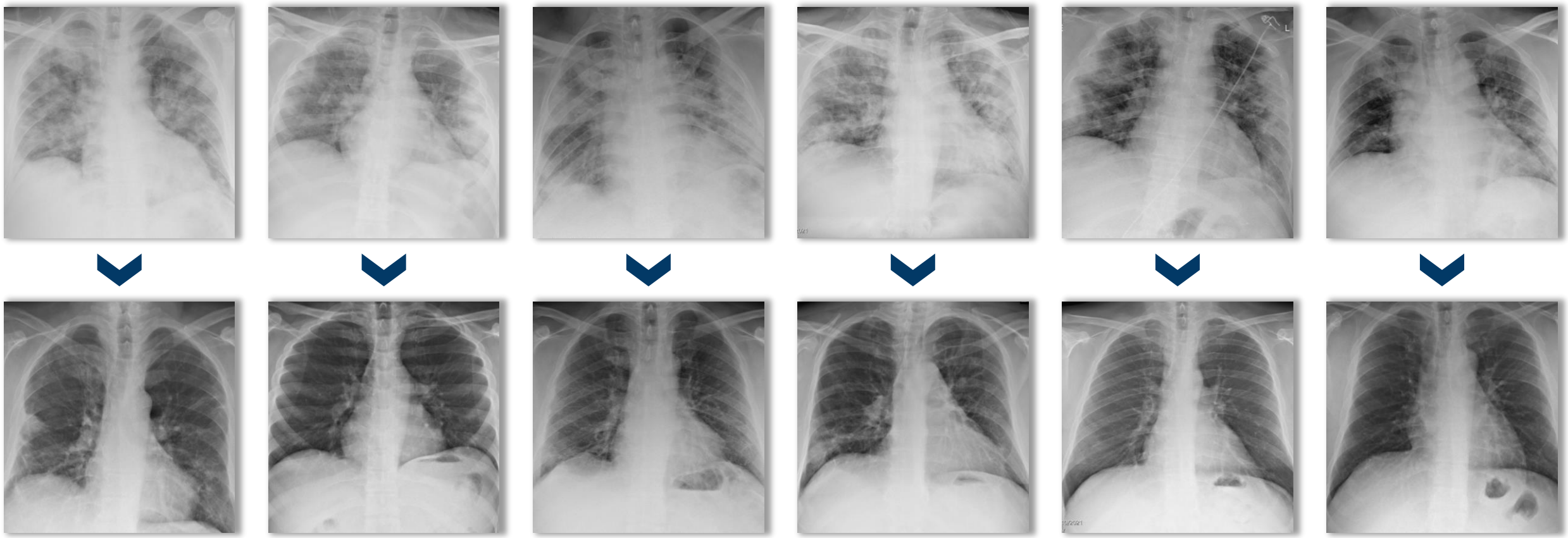
Main Results of the Phase II Trial with MesenCure

- **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

Clinical stage

- Acute respiratory distress

Preclinical development

- Other inflammations: local and systemic, acute and chronic
- 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

PRODUCT CANDIDATE	Preclinical R&D	Phase I	Phase II	Phase III
MesenCure for respiratory distress				
BonoFill for facial bone deficiencies				
BonoFill for treating critical bone defects in the limbs				
MesenCure for treating other inflammations and tissue damage				
BonoFill for bone augmentation in osteoporosis				
Vascularized bone grafts				
Soft tissue grafts				

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.

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.

Dror Ben David, Ph.D., COO

Yoni Livne, CPA, CFO

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

Tomer Bronshtein, Ph.D., VP BD

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

Corinne Chemouny, Pharm.D., VP QA

Bonus Biogroup

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

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

info@bonus-bio.com

+972 (0)73 206 7100

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.