Inspira Technologies

DECEMBER 2024

inspira™ Breathing. Empowered.™

Forward Looking Statement Disclaimer

This presentation contains express or implied forward-looking statements pursuant to U.S. Federal securities laws. These forward-looking statements and their implications are based on the current expectations of the management of the Company only and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. For example, the Company is using forward-looking statements when it discusses the prospective commercialization of its products, prospective U.S. Food and Drug Administration (FDA) regulatory submissions and clearances for its products the projected size of the mechanical ventilation market and perfusion systems market, the projected size of any other markets the Company may operate, the potential market sizes of its future products, the intended outcomes of the use of its products, including the HYLA™ Blood Sensor, INSPIRA™ ART100, INSPIRA™ ART, and INSPIRA™ Cardi-ART, and the intended uses and potential benefits of its products and technology. This presentation also contains estimates of the Company's health economics model. These forward-looking statements and their implications are based solely on the current expectations of the Company's management and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Except as otherwise required by law, the Company undertakes no obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. More detailed information about the risks and uncertainties affecting the Company is contained under the heading "Risk Factors" in the Company's annual report on Form 20-F for the fiscal year ended December 31, 2023 filed with the U.S. Securities and Exchange Commission (the "SEC"), which is available on the SEC's website, www.sec.gov.

See Disclaimers on slides 2-3

Disclaimers

The reference to INSPIRA™ ART should be interpreted as the fact that it is a platform. The use of the term INSPIRA™ ART can refer to the INSPIRA™ ART500 or INSPIRA™ ART Gen2. Mechanical Ventilation refers to Invasive Mechanical Ventilation.

Planned timelines, milestones, estimates or assumptions are subject to change.

The INSPIRA™ ART100 system has FDA 510(k) clearance and Israeli AMAR certification for Cardiopulmonary Bypass and ECMO procedures.
The INSPIRA ™ ART100 System is FDA 510(k) cleared for use in an extracorporeal perfusion circuit to pump blood during short-duration cardiopulmonary bypass procedures lasting 6 hours or less.

INSPIRA™ ART100 and INSPIRA™ ART are different devices

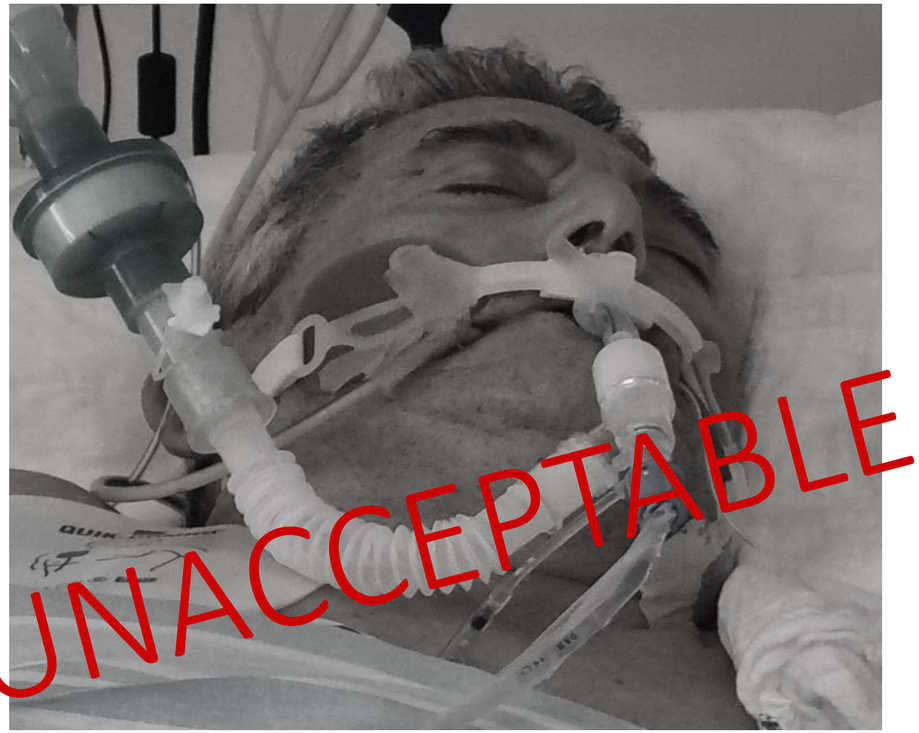
The Augmented Respiration Technology, Adaptive Blood Oxygenation Technology, INSPIRA™ AI, HYLA™, INSPIRA™ ART500, INSPIRA™ ART, INSPIRA™ Cardi-ART, VORTX™ and any other Inspira products, devices, disposables, components, software or technologies are still in development and have not been tested or used on humans. Product intent of uses and regulatory pathways are yet to be defined or finalized. The products have not been cleared or approved by the FDA or any other regulatory or authorizing authority. The estimated date/time of regulatory clearance or approval may be subject to change. Approval or clearance by the FDA, CE or any other authorizing entity may not be granted or may require different study parameters or data or validation from those that are intended or were included in the submission. In addition, there is inherent risk and variability in the overall regulatory process and no guarantee as to the success of any trial or regulatory approval or clearance. Some or all the clinical studies may be conducted outside of the U.S.

INSPIRA™ Cardi-ART, INSPIRA™ ART500, INSPIRA™ ART or HYLA™ may either have embedded or integrated INSPIRA™ AI or other software with selective levels or functionality, yet to be decided by the Company.

Source: inspira-technologies.com/news/
Source: Perfusion Systems Market
Source: $19 Billion Predicted Global Mechanical Ventilation Market By 2030
Source: Extracorporeal Membrane Oxygenation Machine Market Size by 2036
Source: $2.5 Billion ABG Market By 2030
Source: $39.4 Billion Cardiac Arrest Treatment Market By 2029
Source: High Mortality Rate Source: >50% Mortality Rate
Source: WhitePaper_Oxygenators V11_5.1.2023
Source: ±20M Patients/Year on MV
Source: After Out-of-Hospital Cardiac Arrest
Source: Forbes Millions May Soon Breath Better
Source: Washington Post The Dark Side of Ventilators
Source: CNBC Why Some Doctors Are Moving Away From Ventilators
Source: CNN When Life Support is Really Death Support

See Disclaimers on slides 2-3

± 20 Million People a Year on Mechanical Ventilation



Patients under heavy sedation (COMA)
with tubes pushed down their throat

Patients can often experience legacy complications:
delirium, lung infections, lung injury or severe life-threatening conditions

>50% Mortality rate

The Washington Post

“The dark side of ventilators”

CNN

“When ‘life support’ is really ‘death support’”

NBC NEWS

“Why some doctors are moving away from ventilators”

See Disclaimers on slides 2-3

NEWS

Forbes

Millions May Soon Breath Better

(Article by Carie Rubenstein October 25, 2021)

INSPIRA™ ART

“A new and innovative **direct blood oxygenation technology** may provide a solution. Augmented Respiration Technology, (ART), **developed by Inspira Technologies**, tackles the increased global demand for long-term and short-term respiratory support and the surge in ICU admissions as a result of Covid-19. Even prior to Covid-19, approximately 20 million patients were treated annually with MV in ICUs around the world.”

See Disclaimers on slides 2-3

INSPIRA™ ART

Oxygen Delivery

Straight into the Blood

A breakthrough technology that could disrupt the **$19 Billion*** Mechanical Ventilation Market

inspira™ Breathing. Empowered.™

$19 Billion Predicted Global Mechanical Ventilation Market By 2030

See Disclaimers on slides 2-3

INSPIRA™ ART

Designed to elevate and stabilize declining oxygen saturation levels **without a ventilator**

Patient treated while awake

No coma and weaning

No tube in throat

No lung infection or injury

Rapidly boosts oxygen saturation levels within minutes, potentially **enabling treatment of a great number of patients, both in and beyond ICU settings**

See Disclaimers on slides 2-3

Disruptive Core Technologies of INSPIRA™ ART

VORTX™

A Direct Oxygenation Delivery Technology

Being designed to defuse oxygen into the blood and remove carbon dioxide with minimal contact with foreign materials to avoid blood trauma

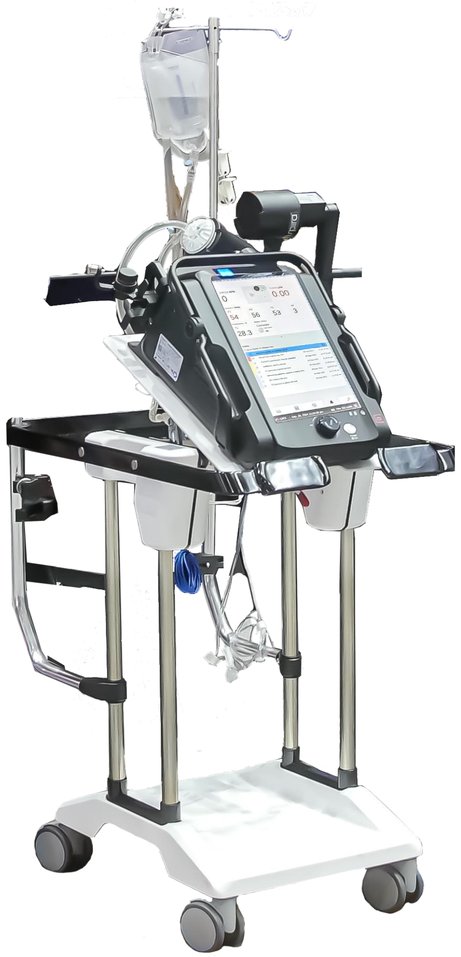
- Targets to replace legacy Hollow Fiber Membrane technology associated with blood cells destruction and clotting

HYLA™

A Clip-on Optic Blood Sensor Technology

Being designed with state-of-the-art algorithms that utilize light to continuously monitor blood parameters in real-time

- Without physical contact with the blood
- Aiming to reduce intermittent actual blood samples
- Provide early detection and decision supporting data



INSPIRA™ ART100

Cardiopulmonary Bypass*

FDA 510(k)-cleared

Inspira has a proven track record taking the INSPIRA™ ART100 all the way from R&D through regulatory clearance to deployment**

inspira™ Breathing. Empowered.™

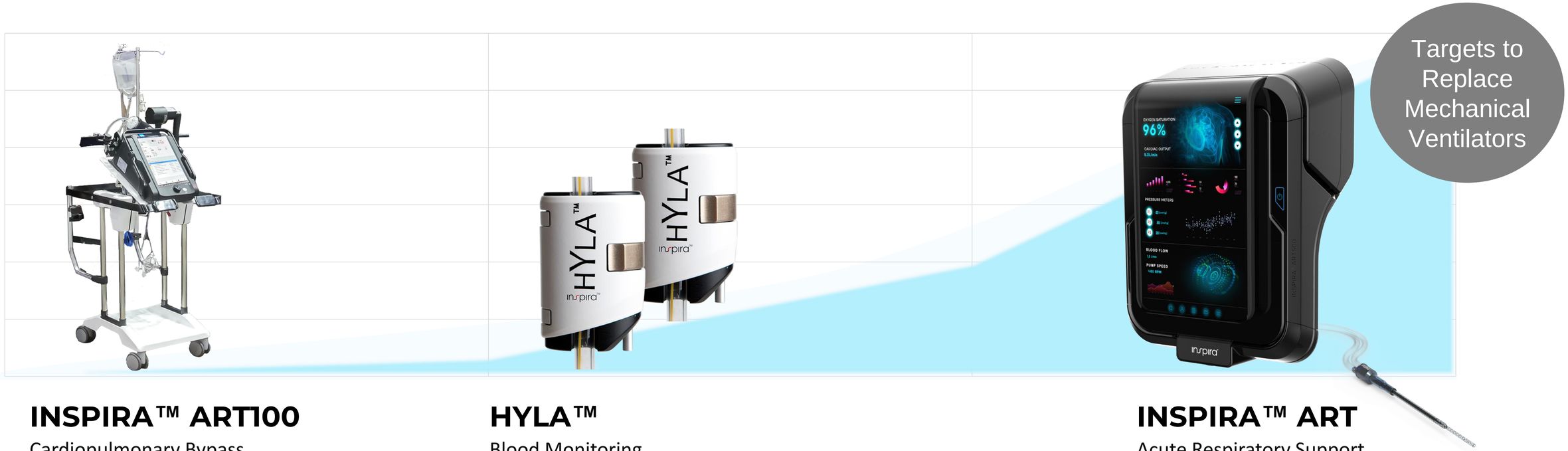
*The INSPIRA™ ART100 System is FDA 510(k) cleared for use in an extracorporeal perfusion circuit to pump blood during short-duration cardiopulmonary bypass procedures lasting 6 hours or less **We expect to deploy the INSPIRA ART100 by the end of 2024

See Disclaimers on slides 2-3

INSPIRA™ ART - Pathway to **Market Disruption**

Collaboration with leading medical centers and global medical device companies

- Use of FDA-Cleared proprietary and core technologies in high-stakes medical environments for collection of clinical evidence



INSPIRA™ ART100
Cardiopulmonary Bypass
FDA-cleared May 2024

HYLA™
Blood Monitoring
FDA Submission planned 2025

INSPIRA™ ART
Acute Respiratory Support
FDA submission planned TBD

INSPIRA™ Cardi-ART (Portable Module)
FDA submission planned 2026

INSPIRA™ ART100 and INSPIRA™ ART are different devices. The timelines assume certain approvals by regulatory and or other authorizing authorities and are subject to change. There is inherent risk and variability in the overall regulatory process and no guarantee as to the success of any device or the approval or clearance of such devices by any regulatory authorities and or other authorizing authorities. See Disclaimers on slides 2-3

INSPIRED TEAM

Dagi Ben-Noon, BSc
Co-Founder & CEO

Co-founded Nano Dimension
Nasdaq: NNMD

Joe Hayon, MBA
Co-Founder & President

M&A experience & track record
Elscint Technologies, Arazim

Yafit Tehila, CPA
CFO & Legal

Serial Financial management
experience in public companies

Avi Shabtay
COO

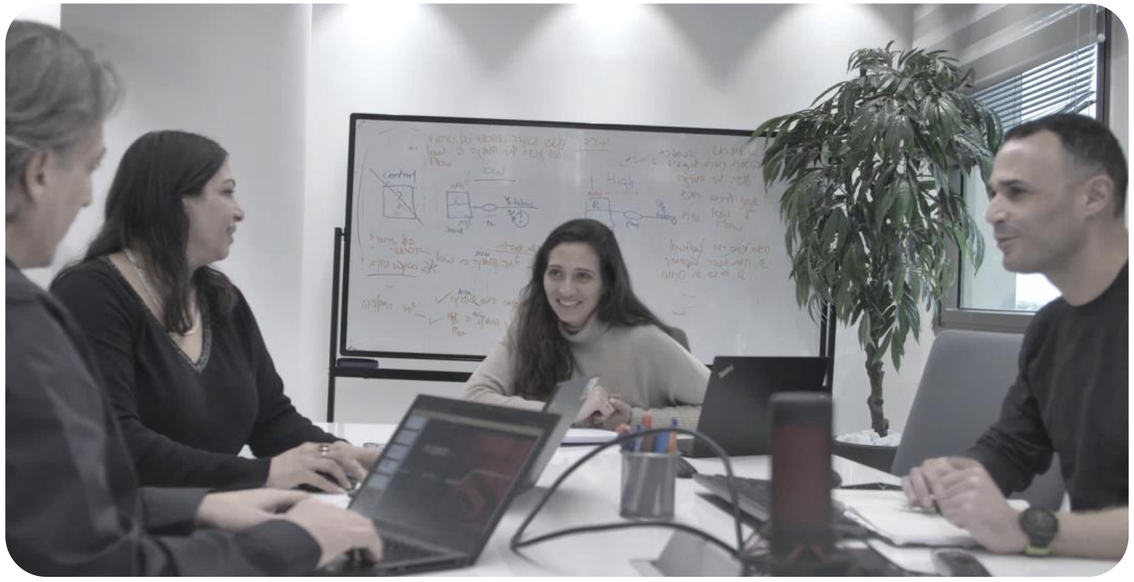
Serial New-tech development
& delivery track record

Dr. Daniella Yeheskely-Hayon, PhD
CTO

Renowned Expert in the field of
Artificial Lung Development

Prof. Benad Goldwasser, MD, MBA
Executive Chairman

Urologic surgeon, inventor
& entrepreneur.
Multiple well-known industry exits



Dr. Dekel Stavi, MD
Medical Director

Senior Intensive Care physician at
Tel Aviv Sourasky Medical Center.
Chairman of the Israeli ECMO Society

inspira™ Breathing. Empowered.™

TARGETING TO DISRUPT THE **$19 BILLION** MECHANICAL VENTILATION MARKET

inspira™ Breathing. Empowered.™

$19 Billion Predicted Global Mechanical Ventilation Market By 2030