What Proprietary Components Are We Developing?

inspira™ Breathing. Empowered.

Forward Looking Statement

This presentation contains express or implied forward-looking statements pursuant to U.S. Federal securities laws. For example, the Company is using forward-looking statements when it discusses the INSPIRA ART's potential benefits, the INSPIRA ART business model, its vision, advantages of the INSPIRA ART and the advantages of the INSPIRA ART's components. 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. 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 Registration Statement on Form F-1 filed with the SEC, which is available on the SEC's website, www.sec.gov.

INSPIRA™ ART System Primary Components

Dual Lumen Cannula

Component:
Dual lumen cannula, with small diameter (16-21Fr*) expected to draw blood at a rate of 1-1.5 Liter per minute**

Hemo-Protective Flow Pump

Component:
Proprietary hemo-protective pump; designed to prevent hemolysis and thrombosis

Initiation System

Component:
Autonomous initiation system for self-priming of the entire blood circuit ,potentially eliminating the need for a perfusionist***

Disposable Respiratory Support Unit

Component:
Plug-and-play disposable cartridge. suitable for deployment both in ICUs and general medical units

Control unit

Component:
An algorithm enhanced digital platform, controls and displays
all sensors' data via a friendly user Graphical User Interface.

* The diameter of the cannula depends on the flow volume required to perform the treatment. As the volume of flow decreases, the cannula diameter is reduced accordingly
** In August 2020, an animal study was performed in swine model at LAHAV CRO in Israel.
*** Perfusionist - operates a heart-lung machine (extracorporeal respiratory system), which is an artificial blood pump, which propels oxygenated blood to the patient's tissues (Britannica.com)

Proprietary Disposable Cartridge

The cartridge (the disposable respiratory support unit) includes the disposable components – oxygenator, tubes and pump head. In addition, it includes reusable components such as sensors.

- Fully sterilized, **close system.**
- **Fully assembled, ready to use disposable set cartridge** - all parts are included. Designed to allow for a faster response time by reducing assembly complexity.
- The simplicity of the design **has the potential to reduce human error** when urgent administration is required.
- Innovative **automatic auto-priming system**[1] ,eliminates the need for perfusionists[2] , and prevents air embolism[3]
- **One set** cartridge, used **throughout treatment**

Plug & play cartridge

Auto priming system
(included in cartridge)

1. **Priming** is the process of replacing air in the intake lines and portions of the pump with water. The priming system in extracorporeal respiratory systems is used to ensure sterility of the circuit for blood oxygenation
2. **Perfusionist** - operates a heart-lung machine (extracorporeal respiratory system), which is an artificial blood pump, which propels oxygenated blood to the patient's tissues.
3. **Air embolism** - When an air bubble enters a vein, it's called a venous air embolism.

Proprietary Low Flow Centrifugal Pump Head

Pump head- sterile magnetic coupling pump-head for one time use, specifically designed for low flow

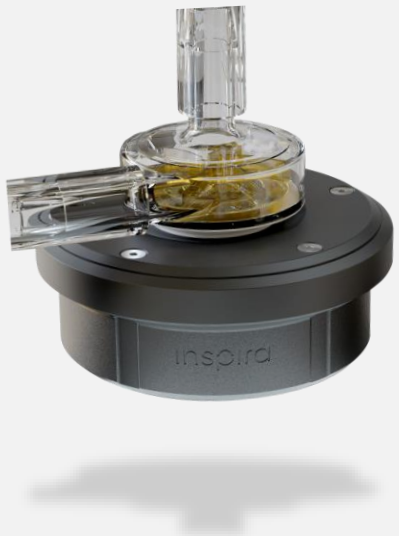
Low priming volume
higher velocity reduces friction duration → Clotting prevention

Low priming volume
higher velocity reduces friction duration → Reduction of sheer forces → Hemolysis reduction

Anti-coagulation coating → Clotting prevention

Designed for increased blood velocity under low flow conditions → Clotting prevention

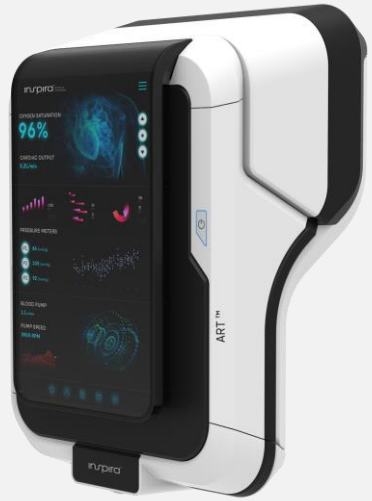
Designed for increased blood velocity under low flow conditions → Reduction of sheer forces → Hemolysis reduction



Proprietary Control Unit

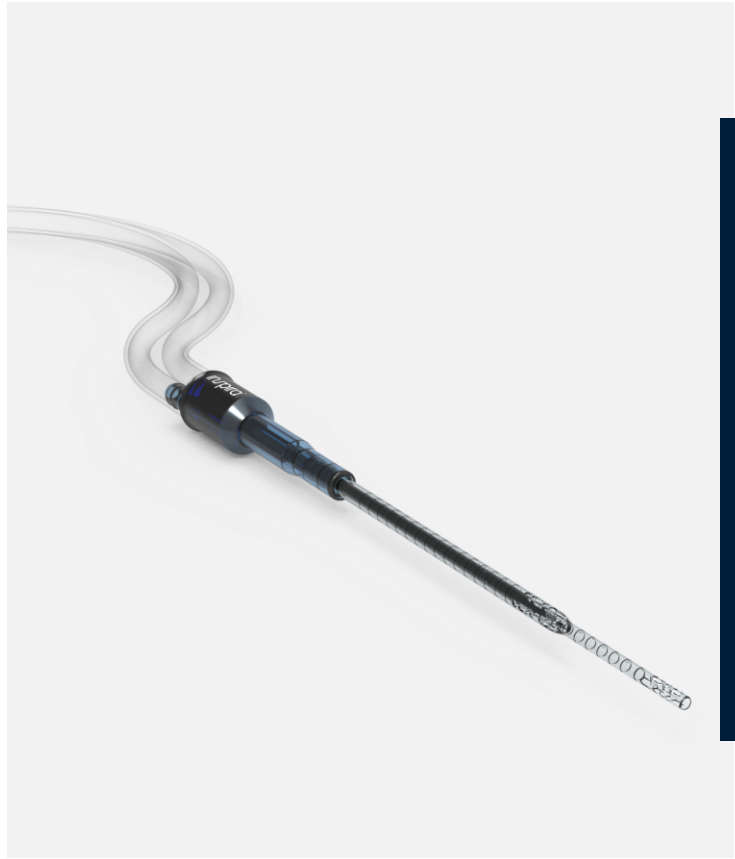
The "brain" of the INSPIRA™ ART system is an algorithm-enhanced control unit

- **Controls and orchestrates multiple hemodynamic measurements documented via sensors**: HCT, SO_2, CO_2, PaO_2 hemoglobin, blood temp and blood flow.
- **Multi state blood flow regulator –** An algorithm based "hemo-protective" patient's flow rate to determine the flow rate automatically based upon the patient's anatomic characteristics
- **Removable batteries** for quick and simple replacement
- Designed to allow both **auto control and manual control** ekilnu) commercial ECMO system which are only controlled manually)
- Comprise of a **graphical user interface** in the form of a touchscreen and the control elements
- **Includes alarm system and alarms window** displays active and past alarms messages. The alarm system distinguishes three priority levels for alarm messages (high, medium, low)



Proprietary Dual Lumen Cannula

Designed for low volume and high velocity ,prevents clotting



Dual lumen cannula design

- One entry point
- Reduced risk of bleeding
- Reduced risk of infection

16-21 French diameter

- Cannula is designed to be insert by an ICU practitioner. Minimize the need for a surgeon

Short in length ,inserted into the jugular vein

- Intra Jugular positioning allows for incrveased patient mobility
- Does not enter the right atrium
- Short length reduces the need for radiography. Can be inserted at bed site via ECHO.

Anticoagulant coating

THANK YOU