

Artificial Lung Devices–Pipeline Insight and Competitive Landscape, 2022

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Abstracts

This report can be delivered to the clients within 4-5 Business Days

DelveInsight's, "Artificial Lung Devices–Pipeline Insight and 2022," report provides comprehensive insights about 20+ companies and 23+ pipeline devices in artificial lung devices pipeline landscape. Globally, number of cases related to respiratory failure and cardiopulmonary collapse has grown rapidly. This has resulted in increasing demand for artificial lung that acts as an external support system providing oxygenation of blood and removal of carbon dioxide from the blood. Researcher and scientists are also making persistent efforts in developing and improving artificial lung, with which it can be used at larger scale and with greater ease. Therefore, due to an increase in demand and more and more players investing in research and development activities there is an extensive pipeline of artificial lung devices.

Delevelnsight latest report has all the emerging artificial lung devices along with competitive landscape to help better understand the market scenario.

Artificial Lung Devices Overview

Artificial Lung Devices: Understanding

Artificial lung device is a prosthetic device works as an alternative to the biological lung. It provides oxygenation of blood and removal of carbon dioxide from the blood. Artificial lung devices are made of synthetic material that are connected to blood vessels through tubes and cannulas of silicone.

Who needs Artificial Lungs?

Chronic obstructive pulmonary diseases (COPD) patients

Idiopathic interstitial pneumonia (IIPs)

Cystic Fibrosis (CF)

Pulmonary Arterial Hypertension

Artificial Lungs Devices: Competitive Assessment

This segment of the artificial lung devices report encloses its detailed analysis of various pipeline devices which include product description, licensing and collaboration details and other developmental activities including latest news and press releases. The report also provides list of major players involved in the pipeline product development.

Product Type

Artificial lung devices for decades have been used in newborns and children with lung failure, pneumonia, meconium aspiration syndrome and other conditions. However, recently they have also been employed to be used in adults. Hence the segmentation of the report categories device products based on pediatric, adult, both.

Product Technology

Artificial lung devices can be used in two different ways – venovenous (VV) and venoarterial (VA), both the ways are covered in the report.

Approval

The assessment has been carried out on the basis of artificial lung device approval- FDA, CE Mark or both.

Stage

The competitive assessment of the pipeline devices has been given pertaining to their stage, whether they are in the clinical or the pre-clinical stage.

Major Players in Artificial Lung Devices

There are approx. 20+ key companies which are developing the products for artificial lung devices.

Hemolung RAS: ALung Technologies, Inc

Hemolung RAS provides ultra-low-flow, veno-venous extracorporeal carbon dioxide removal (ECCO2R) using a single, 15.5 French dual lumen catheter inserted percutaneously in the femoral or jugular vein. Low-flow ECCO2R with the Hemolung RAS provides partial lung support independently of the lungs. The Hemolung RAS removes 25% – 50% of basal metabolic CO₂ production at circuit blood flows of 350-550 mL/min. The Hemolung RAS is designed to minimize the complication risks associated with extracorporeal gas exchange therapy.

OXY-1: Breethe, Inc

Breethe's system, called the OXY-1 System, is designed to remove carbon dioxide and add oxygen to a patient's blood, much like a working human lung would. The tech eliminates the need for bulky oxygen tanks, and allows patients in need of ECMO therapy to move around more easily. Breethe has filed for clearance from the U.S. Food and Drug Administration for the OXY-1 System, but has not yet received it.

Xenolungs: Lung Biotechnology

Lung Biotechnology is actively progressing towards the research and development of xenolungs. They have been constantly trying to develop new technologies and products to alleviate access and improve outcomes in patients that are suffering from Pulmonary Arterial Hypertension (PAH) and other fatal diseases. Xenolungs are human-compatible lungs that are developed in genetically engineered pigs. The patients receiving lung transplants have an improved quality of life and higher chances of survival.

Further product details are provided in the report.....

Artificial Lung Devices - Competitive Assessment

This segment of the report provides a brief competitive analysis of Artificial Lung Devices, to help understand the competition in the market. It gives a comparative understanding of the Artificial Lung Devices based on parameters such patient type.

Artificial Lung Devices: Competitive Benchmarking

This segment of the reports provides analysis of the pipeline report to give a clear understanding of the comparative analysis.

The analysis is based on

- Brand Positioning of Leading companies

- Industry Collaborations

Artificial Lung Devices: Commercialization Activity

This segment of the report provides a detailed list of any commercial activity in the field of artificial lung devices ranging from collaboration, mergers and acquisition, recent breakthrough among others.

Development Activities

In April, 2015, Breeze, Inc. announced to obtained exclusive rights to University of Maryland, Baltimore (UMB) intellectual property (IP) for the development of a wearable, portable blood pump oxygenator that will function as an artificial lung system for patients suffering from respiratory failure and cardiopulmonary collapse.

On February 08, 2017, Miromatrix Medical received an innovative technology contract from Vizient Inc. for their Miromesh® and Miroderm® products. Vizient, Inc. is the largest member-owned healthcare company that is devoted to providing healthcare innovations (MIROMATRIX MEDICAL Inc, 2017).

In December 2020, Abiomed announced that it has treated two patients in the world with the AbiomedBreathe OXY-1 System, a compact cardiopulmonary bypass system. It is an advanced ECMO technology along with pumps and oxygenator that removes carbon dioxide from the blood for patients whose lungs can no longer provide sufficient organ (ABIOMED, Inc., 2020).

Further commercial activities are provided in the report.....

Artificial Lung Devices: Reimbursement

US

In 2018, Centers for Medicare and Medicaid Services (CMS) implemented a series of coding categories and qualifiers for extracorporeal membrane oxygenation (ECMO) care, also known as artificial lungs. Among them, exclusion of veno-venous (VV) ECMO from DRG 003 heralds significant reimbursement reductions that may threaten fiscal viability of ECMO programs. This case series analysis evaluates merits and pitfalls of altering ECMO reimbursement.

Further information is provided in the report.....

Report Highlights

Extensive coverage of the artificial lung devices under development

The report reviews details of major pipeline products which includes, product description, licensing and collaboration details and other developmental activities

The report reviews the major players involved in the development of artificial lung devices and list all their pipeline projects

The coverage of pipeline products based on various stages of development ranging from Early Development to Approved / Issued stage

The report provides key clinical trial data of ongoing trials specific to pipeline products

Recent developments in the segment / industry

The report consists of in depth analysis of pipeline products based on various parameters

Artificial Lung Devices Report Insights

Artificial Lung Devices - Pipeline Analysis

Artificial Lung Devices - Unmet Need

Artificial Lung Devices - Market Dynamics

Artificial Lung Devices - Future Perspectives and Conclusion

Artificial Lung Devices- Analyst Views

Key Questions

What are significant companies in this segment, their information, analysis, and insights to improve R&D strategies?

How to identify emerging players with potentially strong product portfolio and create effective counter-strategies to gain competitive advantage?

What are important and diverse types of artificial lung devices under development?

What are market-entry and market expansion strategies in artificial lung devices?

What are some of the mergers and acquisitions and to identify major players with the most promising pipeline?

What is in-depth analysis of the product's current stage of development, territory and estimated launch date?

Key Players

Lung Biotechnology

Miromatrix

Charles Stark Draper Laboratory Inc

United Therapeutics Corporation

XVIVO Perfusion

Medtronic

Getinge

Xenios AG

ALung Technologies Inc.

MC3 Cardiopulmonary

Abiomed

Contents

1 KEY INSIGHTS

2 ARTIFICIAL LUNG DEVICES: SNAPSHOT

3 ARTIFICIAL LUNG DEVICES: BACKGROUND AND OVERVIEW

3.1 Introduction

3.1.1 Cardiopulmonary Bypass (CPB)

3.1.2 Extracorporeal Membrane Oxygenation (ECMO)

3.1.3 Xenotransplantation

3.1.4 3D bio-printed lungs

3.2 Location of Artificial Lung Devices

3.3 Mechanism of Artificial Lung Device

3.4 Clinical Application of Artificial Lung Devices

3.4.1 Chronic obstructive pulmonary disease (COPD)

3.4.2 Idiopathic interstitial pneumonia (IIPs)

3.4.3 Cystic Fibrosis (CF)

3.4.4 Pulmonary Arterial Hypertension

3.5 Nomenclature and Competition in ALD

4 PRODUCT PROFILING

4.1 ALD Pipeline Devices

4.1.1 Xenolung

4.1.2 Perfusion Decellularization of Lungs

4.1.3 Artificial Lung Technology

4.1.4 Total Artificial Lung (TAL)

4.1.5 U-Lung

4.2 ALD Marketed Devices

4.2.1 XVIVO Perfusion System (XPS) with STEEN Solution Perfusate

4.2.2 Quadrox-ID Pediatric oxygenator

4.2.3 Affinity NT

4.2.4 HLS Set Advanced

4.2.5 Novalung ILA System

4.2.6 Hemolung RAS

4.2.7 The Nautilus™ Smart ECMO Module

4.2.8 Abiomed Breathe OXY-1 System

5 ARTIFICIAL LUNG DEVICES: COMPETITIVE ASSESSMENT OF LISTED PRODUCTS

5.1 Competitive Assessment of Listed Pipeline Devices

5.1.1 Assessment Based on Stage

5.2 Competitive Assessment of Listed Marketed Devices

5.2.1 Assessment Based on Patient Type

5.2.2 Assessment Based on Approval

5.2.3 Assessment Based on Route of Implantation

5.3 Competitive Assessment between Listed Pipeline and Marketed Devices

5.3.1 Assessment Based on Pipeline vs Marketed Devices

6 ARTIFICIAL LUNG DEVICES: COMPETITIVE BENCHMARKING: BY COMPANY

6.1 Brand Positioning of Leading Companies

6.2 Analysis based on Industry Collaborations

7 ARTIFICIAL LUNG DEVICES – COMMERCIALIZATION ACTIVITY

7.1 Collaboration

7.2 Licensing

7.3 Merger and Acquisition

7.4 Recent Breakthroughs

7.5 Literature Studies

7.6 KOL Views

8 ARTIFICIAL LUNG DEVICES: REGULATORY OVERVIEW

8.1 United States Regulation of Devices

8.2 European Regulation of Devices

8.3 Japan Regulation of Devices

9 ARTIFICIAL LUNG DEVICES: REIMBURSEMENT

9.1 United States

9.2 Europe

9.3 Japan

10 ARTIFICIAL LUNG DEVICES: MARKET DYNAMICS

- 10.1 Unmet Needs
- 10.2 Market Drivers
- 10.3 Market Barriers

11 DELVEINSIGHT'S ANALYTICAL PERSPECTIVE

- 11.1 PEST Analysis

12 CONCLUSION & FUTURE GROWTH PERSPECTIVES

13 APPENDIX

- 13.1 Bibliography

14 REPORT METHODOLOGY

15 DELVEINSIGHT CAPABILITIES

16 DISCLAIMER

17 ABOUT DELVEINSIGHT

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