PRESS RELEASE

CARMAT announces the first commercial implant of its Aeson® artificial heart

The implant, performed at the Azienda Ospedaliera dei Colli hospital in Naples, Italy, represents the first sale for CARMAT and paves the way for the Company's commercial development

Paris, July 19, 2021 – 7:00 am CEST

CARMAT (FR0010907956, ALCAR), the designer and developer of the world's most advanced total artificial heart, aiming to provide a therapeutic alternative for people suffering from end-stage biventricular heart failure, today announces the first implant of its Aeson® bioprosthetic artificial heart in a commercial setting.

First commercial implant and first sale in CARMAT's history

This implant of the Aeson® artificial heart was performed by the team headed by heart surgeon Dr. Ciro Maiello at the Azienda Ospedaliera dei Colli hospital in Naples, one of the hospitals with the greatest experience in the field of artificial hearts in Italy.

This implant represents the first sale ever recorded by CARMAT since it was created in 2008. It is a major milestone that opens-up a new chapter in the Company's development.

Commercial development prospects

In accordance with its strategy, in 2021, CARMAT intends to focus its Aeson® artificial heart marketing efforts on Germany, and address one or two other EU countries, including Italy, in a more opportunistic way.

Since it obtained CE marking for its artificial heart as a bridge to transplant in December 2020, the Company has initiated very active and constructive talks, from a scientific and medical as well as contractual perspectives, notably with the twenty most active German hospitals in the field of mechanical assistance.

These discussions have confirmed both the extent of the patient population which could benefit from the Aeson® heart and the medical community's keen interest in a therapy understood to be truly innovative and providing patients with unique benefits.

This assessment has been confirmed by the cardiac surgery teams at Duke University Hospital in the United States, who recently estimated[1] the number of new cases of heart failure in that country at 100,000 per year, with only 3,000 to 4,000 of these patients currently able to benefit from a heart transplant, concluding that a substantial portion of the remaining 96,000 patients could potentially benefit from CARMAT's solution.

At this stage, 5 German hospitals have already been trained by CARMAT and are currently screening patients for an implant. A number of patient files are currently being analyzed by these hospitals with the support of CARMAT, whose teams will remain mobilized throughout the summer to ensure the continuity of the commercial launch of the Aeson® artificial heart.

The Company expects around a dozen medical centers to be trained and commercially active by the end of 2021, primarily in Germany.

CARMAT will provide a comprehensive update on its schedule and main strategic objectives when it publishes its half-year results on September 15, 2021.

The terms of this communication will be specified at a later date.

Prof. Marisa De Feo, Director of the Department of General Cardiac Surgery and Transplantation at Azienda Ospedaliera dei Colli, declared: *"We are pleased to be the first center in the world to implant the Aeson® total artificial heart in a commercial setting. The surgery has been performed by Dr. Ciro Maiello and Dr. Cristiano Amarelli without any particular difficulty thanks to the excellent preparation and cooperation between our department and the specialists from CARMAT. The patient is recovering well and, thanks to the combination of the main features of the device - pulsatility, hemocompatibility and selfregulation - we believe that he will experience a rapid transition to outpatient management. I would also like to take the opportunity to thank the entire Department of Cardiac Surgery and the Azienda Ospedaliera dei Colli for continuing innovating in the domain of transplantation and mechanical assistance, and the Campania Region for supporting our program."*

Stéphane Piat, Chief Executive Officer of CARMAT, added: "*The first commercial implant of the Aeson® heart is a major milestone in CARMAT's history. It paves the way for a large number of patients to gradually access our therapy, and is the culmination of many years of work for our teams and our partners. The feedback we are receiving, both within the framework of our clinical trials, notably very recently in the United States, and in our discussions with European hospitals as part of Aeson®'s commercialization, makes us very confident that our Aeson® artificial heart is a "game changer" and offers unique benefits to patients, compared to all existing therapies. I would like to thank the teams at the Naples hospital for their trust and commitment, and can assure you that our teams are as mobilized as ever to enable other patients, notably in Germany, to benefit from our therapy in the coming weeks*."

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About CARMAT: the world's most advanced total artificial heart project

A credible response to end-stage heart failure: CARMAT aims to eventually provide a response to a major public health issue associated with heart disease, the world's leading cause of death: chronic and acute heart failure. By pursuing the development of its total artificial heart, Aeson®, composed of the implantable bioprosthesis and its portable external power supply system to which it is continuously connected, CARMAT intends to overcome the well-known shortfall in heart transplants for the tens of thousands of people suffering from irreversible end-stage heart failure, the most seriously affected of the 20 million patients with this progressive disease in Europe and the United States.

[1] Source: Virtual press conference held by Duke University Hospital on July 15, 2021, following the first implantation of the Aeson® heart in the United States within the framework of the EFS (Early Feasibility Study).

The result of combining two types of unique expertise: the medical expertise of Professor Carpentier, known throughout the world for inventing Carpentier-Edwards® heart valves, which are the most used in the world, and the technological expertise of Airbus Group, world aerospace leader.

The first physiologic heart replacement therapy: given the use of highly biocompatible materials, its unique self-regulation system and its pulsatile nature, the CARMAT total artificial heart could, assuming a successful clinical development, potentially save the lives of thousands of patients each year with no risk of rejection and with an enhanced quality of life.

A project leader acknowledged at a European level: with the backing of the European Commission, CARMAT has been granted the largest subsidy ever given to an SME by Bpifrance; a total of €33 million.

Strongly committed, prestigious founders and shareholders: Matra Défense SAS (subsidiary of the Airbus Group), Professor Alain Carpentier, the Centre Chirurgical Marie Lannelongue, Truffle Capital, a leading European venture capital firm, ALIAD (Air Liquide's venture capital investor), CorNovum (an investment holding company held 50-50 by Bpifrance and the French State), the family offices of Pierre Bastid (Lohas), of Dr. Antonino Ligresti (Santé Holdings S.R.L.), of the Gaspard family (Corely Belgium SPRL and Bratya SPRL) and of M. Pierre-Edouard Stérin (BAD 21 SPRL), Groupe Therabel as well as the thousands of institutional and individual shareholders who have placed their trust in CARMAT.

CARMAT's history in brief:

- 2008: creation of CARMAT
- 2010: Initial public offering (Euronext Growth Paris)
- 2013: 1st implant of the artificial heart in human as part of a clinical feasibility study conducted in France
- 2016: start of the PIVOTAL study in France, then in Europe, on approx. 20 patients with the aim of obtaining CE marking
- December 2020: obtaining CE marking in the "bridge to transplant" indication, allowing the heart to be marketed under the trade name Aeson® in Europe and in other countries that recognize this marking.
- July 2021:
  - 1st human implant within the framework of an early feasibility study in the United States;
  - 1st sale in Europe.

For more information: *www.carmatsa.com*

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This press release and the information contained herein do not constitute an offer to sell or subscribe to, or a solicitation of an offer to buy or subscribe to, shares in CARMAT ("the Company") in any country. This press release contains forward-looking statements that relate to the Company's objectives. Such forward-looking statements are based solely on the current expectations and assumptions of the Company's management and involve risk and uncertainties. Potential risks and uncertainties include, without limitation, whether the Company will be successful in implementing its strategies, whether there will be continued growth in the relevant market and demand for the Company's products, new products or technological developments introduced by competitors, and risks associated with managing growth. The Company's objectives as mentioned in this press release may not be achieved for any of these reasons or due to other risks and uncertainties.

No guarantee can be given as to any of the events anticipated by the forward-looking statements, which are subject to inherent risks, including those described in the Universal registration document filed with the Autorité des Marchés Financiers on February 24, 2021 under number D.21-0076 as well as changes in economic conditions, the financial markets or the markets in which CARMAT operates. In particular, no guarantee can be given concerning the Company's ability to finalize the development, validation and industrialization of the prosthesis and the equipment required for its use, to manufacture the prostheses, satisfy the requirements of competent authorities, enroll patients, obtain satisfactory clinical results, perform the clinical trials and achieve commercial objectives.

Aeson® is an active implantable medical device commercially available in Europe ONLY, CARMAT SA., CE0344. The Aeson® TAH is intended to replace ventricles of native heart and is indicated as a bridge to transplant in patients suffering from end-stage biventricular heart failure (INTERMACS classes 1-4) who are not amenable to maximal medical therapy or LVAD and are likely to undergo heart transplant in the 180 days following device implantation. The decision to implant and the surgical procedure must be executed by Health Care professionals trained by the manufacturer. Carefully read the documentation (clinician manual, patient manual & alarm booklet) for characteristics and information necessary for patient selection and good use (contraindications, precautions, side effects).

In the USA, Aeson® is currently exclusively available within the framework of clinical trials.