

## PRESSE RELEASE

Lyon, November 9, 2023

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# ADOCIA Revealed Promising Preclinical Data on AdoShell<sup>®</sup> Islets for Cell Therapy of Diabetes

- Oral presentations were held at the congresses of the ADA<sup>1</sup>, EASD<sup>2</sup> and IPITA-IXA-CTRMS<sup>3</sup>
- Evidence support that AdoShell<sup>®</sup> Islets is a scalable biocompatible immunoprotective biomaterial for islet transplantation without immunosuppression:
  - Long-term *in vitro* functionality of encapsulated islets
  - *In vivo* survival of encapsulated islets after 7-month study in diabetic models without immunosuppression
  - *In vivo* efficacy, with ability to control hyperglycemia in diabetic models
  - Outstanding biocompatibility
- Preparation for human application through minimally invasive surgery

6:00 pm CET - Adocia (Euronext Paris: FR0011184241 – ADOC), a clinical-stage biopharmaceutical company focused on the research and development of innovative therapeutic solutions for the treatment of diabetes and other metabolic diseases, disclosed additional results on AdoShell<sup>®</sup> Islets during recent international congresses.

Dr. Rosy Eloy, Chief Medical Officer at Adocia, expressed her confidence in the future prospect of AdoShell<sup>®</sup> Islets: "*We are very excited to contribute to the development of cell therapies with our innovative AdoShell, which could make it possible to cure diabetes through the implantation of allogenic cells or stem cells, without the use of immunosuppressive treatment*".

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<sup>1</sup> American Diabetes Association 83<sup>rd</sup> Scientific Sessions

<sup>2</sup> 59<sup>th</sup> Annual Meeting of the European Association for the Study of Diabetes

<sup>3</sup> International Pancreas and Islet Transplant Association, International Xenotransplantation Association, and Cell Transplant and Regenerative Medicine Society joint congress

Islet transplantation has long been recognized as an effective treatment for Type 1 Diabetes (T1D). However, the limitations imposed by the requirement for immunosuppression have hindered its widespread application. Adocia has set out to overcome this hurdle and has developed AdoShell® Islets, an implantable and fully retrievable scaffold for islet transplantation that eliminates the need for immunosuppressive drugs while ensuring the success of the transplantation procedure.

AdoShell® is based on a permselective hydrogel scaffold, reinforced by a mechanical frame, specifically designed to facilitate the diffusion of insulin while effectively preventing the invasion of immune cells. This innovative biomaterial, comprised of 95% water, is synthesized using non-degradable polymers cross-linked by bio-orthogonal click chemistry. This technology is protected via three patent applications<sup>4</sup>.

Human islets encapsulated in AdoShell® scaffold maintain, *in vitro*, a gluco-responsive insulin secretion comparable to naked islets. The islet functionality is maintained at identical levels for at least 4 months. Encapsulated islets maintain rapid insulin release in response to glucose stimulation, compared to naked islets.

To evaluate the efficacy of AdoShell® *in vivo*, encapsulated rat islets in AdoShell® were implanted into immunocompetent STZ<sup>5</sup>-induced diabetic rats (allograft). The results obtained are really encouraging:

- In 5 independent studies, a significant insulin secretion from encapsulated islets was obtained over 1 month, compared to control diabetic rats.
- AdoShell® Islets induced physiological weight gain, hyperglycemia reduction and sustained insulin secretion for more than 4 months.
- Implants were easily and safely retrieved, and as expected, rats reverted to diabetic phenotype after removal.

One of the remarkable aspects of AdoShell® is its outstanding biocompatibility. After 7 months of implantation in the rat peritoneal cavity, AdoShell® Islets demonstrated excellent tolerance without triggering any inflammatory reaction nor fibrosis. Notably, neither biodegradation nor immune cell penetration was observed.

AdoShell® Islets is scalable for clinical application, and implants parameters (density, thickness, etc) have been optimized in preparation for a first-in-human study.

The surgical procedure has been validated in pigs, with quick and easy implantation and explantation by laparoscopy.

The outcomes achieved by AdoShell® Islets in preclinical trials hold true promises for people with T1D. This technology could not only obviate the need for immunosuppression but also ensure extended functionality, and outstanding biocompatibility. The potential of AdoShell® Islets could have a fundamental impact on the lives of millions of people living with diabetes and the way we approach its treatment.

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<sup>4</sup>WO2023118599 (A1), and soon to be published PCT/EP2023/069584 and PCT/EP2023/069586

<sup>5</sup>Streptozotocin

## Clinical and Business Perspectives

Adocia is committed to advancing the development of AdoShell<sup>®</sup>, making it one of its strategic priorities. Adocia is actively working towards initiating clinical trials to bring this technology to patients as quickly and safely as possible. Adocia is preparing interactions with the EMA (European Medicines Agency) to validate the proposed development plan. AdoShell<sup>®</sup> Islets could then be tested in clinics by the end of 2024.

Preclinical data generated so far trigger interest from the scientific community and pharmaceutical industry.

In parallel, AdoShell<sup>®</sup> scaffold, as a technology platform, is being considered for applications with stem cells and in other therapeutic areas (Parkinson disease, hemophilia, oncology, etc.). The deployment of the platform will be driven by interests from future partners.

## About AdoShell<sup>®</sup> Islets

AdoShell<sup>®</sup> Islets is an immuno-protective synthetic biomaterial containing islets of Langerhans. After implantation, the islets encapsulated in AdoShell<sup>®</sup> secrete insulin in response to blood glucose levels. The physical barrier formed by AdoShell<sup>®</sup> allows the implanted cells to be invisible to the host's immune system while allowing the necessary physiological exchanges to occur for the survival and function of the islets. AdoShell<sup>®</sup> Islets is easily implantable through a minimally invasive surgery (laparoscopy) and is fully retrievable. This biomaterial has demonstrated to be biocompatible and non-fibrotic.

## About Adocia

Adocia is a biotechnology company specializing in the discovery and development of therapeutic solutions in the field of metabolic diseases, primarily diabetes and obesity.

The company has a broad portfolio of drug candidates based on four proprietary technology platforms: 1) The BioChaperone<sup>®</sup> technology for the development of new generation insulins and products combining insulins with other classes of hormones; 2) AdOral<sup>®</sup>, an oral peptide delivery technology; 3) AdoShell<sup>®</sup>, an immunoprotective biomaterial for cell transplantation, with a first application in pancreatic cells transplantation; 4) AdoGel<sup>®</sup>, a long-acting drug delivery platform.

Adocia holds more than 25 patent families. Based in Lyon, the company has more than 80 employees. Adocia is listed on the regulated market of Euronext<sup>TM</sup> Paris (Euronext: ADOC; ISIN: FR0011184241).

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# Disclaimer

*This press release contains certain forward-looking statements concerning Adocia and its business. Such forward-looking statements are based on assumptions that Adocia considers as being reasonable. However, there can be no guarantee that the estimates contained in such forward-looking statements will be achieved, as such estimates are subject to numerous risks including those which are set forth in the "Risk Factors" section of the universal registration document that was filed with the French Autorité des marchés financiers on April 26, 2023 updated by the amendment of 26 July 2023 (D.23-0346-A01) and amendment of 13 September 2023 (D.23-0346-A02), available at [www.adocia.com](http://www.adocia.com),*

*in particular uncertainties that are linked to research and development, future clinical data, analyses, and the evolution of the economic context, the financial markets and the markets in which Adocia operates.*

*The forward-looking statements contained in this press release are also subject to risks not yet known to Adocia or not considered as material by Adocia as of this day. The occurrence of all or part of such risks could cause that actual results, financial conditions, performances, or achievements of Adocia be materially different from those mentioned in the forward-looking statements.*