

Increase the success of *in vitro* fertilization by selecting the embryos with the best implantation potential

SATT Sud-Est transfers to DiaSys Technologies a biomarker that increases the chances of success of *in vitro* fertilization, thanks to the support of the Eurobiomed cluster

Marseille, Grabels, FRANCE, on Tuesday, January 15, 2019, SATT Sud-Est announces an exclusive license on a co-ownership patent of Aix-Marseille Université, Inserm, Assistance Publique - Hôpitaux de Marseille, Centre Hospitalier Universitaire de Nîmes and Université de Montpellier, to DiaSys Technologies, an Occitan subsidiary of the DiaSys Diagnostics Systems Group (Germany), a leading developer and manufacturer of high quality diagnostic solutions. The license is for CD146 protein, an embryo selection biomarker with the best implantation potential for *in vitro* fertilization (IVF). The action of the health competitiveness cluster of the south of France Eurobiomed was decisive in bringing together its member, DiaSys Technologies, and SATT Sud-Est. It is the historic partnership between Eurobiomed and SATT Sud-Est that has made it possible to bring together the private and public research sectors.

Despite significant advances in reproductive biology, determining the number of embryos to be implanted in IVF remains a difficult step. **To date, embryos are selected by microscopy according to imperfect morphological criteria, leading to multiple pregnancies or even pregnancy failures.** Resulting from research at the Reproductive Biology Laboratory of the Conception Hospital in Marseille (AP-HM), the Cardiovascular and Nutrition Research Centre (C2VN UMR-S 1263), the laboratory "Dysfunction of Vascular Interfaces - Feminine Characteristics of Cardiovascular Interfaces" (EA nb 2992), and the Hematology Laboratory of the University Hospital of Nîmes, **the technology offers a new non-invasive tool to accurately determine the embryos with the best chances of success in IVF based on the expression level of CD146 protein in the embryo culture medium.** SATT Sud-Est has filed and manages a patent that protects the technology. Co-maturation and sub-licensing agreements have been signed between SATT Sud-Est and DiaSys Technologies. Objectives: to validate the results on an extended cohort and adapt the biomarker assay to DiaSys Technologies' proprietary technology. DiaSys Technologies will develop and propose a new kit for the analysis of the chances of success of embryo implantation for medically assisted reproduction services.

"The selection of embryos to be transferred is currently routinely based on morphological criteria, validated by the literature but imperfect. Having additional criteria such as the CD146 rate would make it possible to refine the embryo transfer policy, a priority for this decade", say **Pr. Nathalie BARDIN**, Professor of Immunology (Faculty of Pharmacy, Aix-Marseille Université, C2VN) and Hospital Practitioner (Immunology Laboratory, CHU La Conception, AP-HM), and **Dr. Odile LACROIX**, Senior Lecturer (Faculty of Medicine, Aix-Marseille Université), Hospital Practitioner (Reproduction Biology Department, CHU La Conception, AP-HM).

*"This partnership with DiaSys Technologies is a successful example of collaboration and technology transfer between fundamental research and industry. Its aim is to improve the conditions under which embryos are chosen for *in vitro* fertilization. The objective is twofold: to increase the probability of pregnancy for women and reduce the costs for medically assisted reproduction structures,"* adds **Dr. Marcel BLOT-CHABAUD**, INSERM Research Director at C2VN.

"By allowing a more relevant selection of embryos, this test is a real step forward. I would like to thank the Eurobiomed cluster, whose action has been essential in establishing contact with SATT Sud-Est in order to develop this innovative technology", adds **Thierry MARTEL**, CEO and Technical Director, DiaSys Technologies.

"This transfer illustrates once again that the collaboration between the Eurobiomed cluster and SATT Sud-Est directly contributes to the growth of the cluster's member companies. It is a source of pride for our teams to contribute to the recognition of the excellence of academic research while contributing to the strengthening of our companies," notes **Emilie ROYERE**, General Manager of the Eurobiomed Cluster.

Laurent BALY, President of SATT Sud-Est, concludes: "SATT Sud-Est welcomes the link created between the academic and industrial worlds for the benefit of a public health issue. It thanks its partner, Eurobiomed, which contributes to creating the conditions for the development of scientific partnerships, business flows and technology transfer."

About DiaSys Technologies

DiaSys Diagnostic Systems is a leading specialist in the development and manufacture of high quality diagnostic solutions. Used by customers in more than 100 countries for more than 25 years, the product range contains more than 90 clinical chemistry and immunoturbidimetry reagents for routine and specialized diagnostics, including appropriate calibrators and controls. DiaSys' product range of instruments covers automated, semi-automated clinical chemistry analyzers and POC instruments for the patient in the vicinity. <https://www.diasys-diagnostics.com/>

About SATT Sud-Est

SATT Sud-Est is a key player in regional economic development associated with innovation. Its core business - technology transfer - consists of protecting, developing and licensing the results of research from public laboratories in the South & Corsica Regions to the socio-economic world. Our goal is to help companies acquire reliable innovations that are better suited to the industrial challenges they face. Simplified joint-stock company with a capital of €1 million, its shareholders and founding members are the Universities of Aix-Marseille, Nice Sophia Antipolis, Toulon, Avignon, Corsica, the Ecole Centrale Marseille, CNRS, Inserm and the Caisse des Dépôts; the Assistance Publique-Hôpitaux de Marseille and the Nice University Hospital Centre. Project financed with the support of the European Union with the European Regional Development Fund. SATT Sud-Est is a member of the SATT Network. A total of 44 employees and 22 project engineers worked for the company as of December 31, 2018. Its head office is based at the Silo of Marseille, with a branch in Sophia Antipolis, France. Visit www.sattse.com and twitter [@SATTse](https://twitter.com/SATTse)

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Manipulation under microscope at the Laboratory of Medically Assisted Reproduction of the CHU La Conception in Marseille. © 2018 Odile LACROIX. HD file on demand.