Warsaw, 26.01.2023

**NanoGroup S.A. continues advanced R&D of innovative organ perfusion fluid and device**

**For 18 years now, January 26 has been the National Transplantation Day. Transplantation is one of the areas close to NanoGroup S.A.'s business. The company recently announced study results for a system it is developing for the extracorporeal organ storage for transplantation, allowing it to move on to the next phases of the system's development.**

One of the directions for transplantation development is working on the possibility of extending organ storage period. The time to perform the procedure, especially in case of transplants from a deceased donor, is extremely limited. The harvested organ must be properly stored, and should be implanted in the recipient within a short time. Improving organ storage methods can significantly improve the situation in this area. Advanced work on a new organ storage system is being carried out e.g. by the Polish company NanoGroup, as a part of the OrganFarm project. It recently published the results from a study conducted at the Jan Kielanowski Institute of Animal Physiology and Nutrition of the Polish Academy of Sciences by a team led by Prof. dr. med. Maciej Kosieradzki, and Dr. hab. n. med. Piotr Domagała of the Department of General and Transplant Surgery at the University Clinical Center of Medical University of Warsaw.

The study, the results of which were published by the Company in January 2023, indicates the occurrence of regenerative processes in kidneys subjected to perfusion with NanOX fluids under extracorporeal conditions. The kidney that was perfused with NanOX 20 fluid under normothermic conditions was in the best condition after the perfusion process, relative to the other kidneys. It had fairly high levels of a number of regeneration markers, very low levels of markers of vascular and other tissue damage, and the lowest levels of oxidative stress markers and ischemia markers. Furthermore, stable urine production by the kidney was observed, during almost entire perfusion under extracorporeal conditions, which is one of the factors in favor of the returning normal kidney function.

- *Our vision at NanoGroup is to bring a whole new quality to transplantation by revolutionizing organ storage. By extending the period of time that an organ can be safely stored extracorporeally, we can provide the highest value – the time needed for the patient and the medical team to prepare for surgery. In recent studies, we have confirmed that e.g. a kidney perfused with one of our fluids is subject to regenerative processes. We compared it with a kidney perfused with the current "gold standard" used in transplantation, and its regeneration rates were at a negligibly low level. The recent results indicate that our technology can provide a significant advantage in assessing organ survival and potential for further use for transplantation, compared to commercially available fluids, therefore we have made a strategic decision to proceed with the next development phases of our extracorporeal storage system for organs to be transplanted*," comments Piotr Mierzejewski, Vice President of the NanoGroup S.A Board.

The possible new organ storage system may prove so revolutionary that there will be a need for new indicators to assess organ's suitability for transplantation to be developed with it, as those currently in use will be inadequate. NanoGroup already cooperates with the Department of Biochemistry of the Medical University of Warsaw, led by Prof. dr. hab. Marta Struga, conducting extensive research to develop an innovative system for assessing the health of perfused kidneys using proteomic and metabolomic analysis methods. NanoGroup S.A. is going to report on further developments in the OrganFarm project during the upcoming weeks.

**About NanoGroup:**

NanoGroup is a platform for the development of new, safe technologies aimed at saving human life and health. We provide innovative solutions that can improve the effectiveness of existing therapies, as well as help implement entirely new drug technologies, reducing risks and shortening their market path. We have our own patent applications in the fields of oncology and transplantation, and are constantly developing new projects in the bio-tech and nano-tech fields.

<http://nanogroup.eu>