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# NEWSLETTER

## VERMES Microdispensing engages in the European Development Project – DIACHEMO – for optimizing tumor treatment

VERMES Microdispensing engages in European Development Project to design a microfluidic analysis device.

MUNICH, Germany, September 13, 2018 - VERMES Microdispensing, the world's leading manufacturer of precision dispensing systems, has engaged in the European Development Project – DIACHEMO.

The DIACHEMO project, funded by the European Union's Horizon 2020 Research and Innovation Program is dedicated to the development of

- **The research project is to the develop a microfluidic analysis device for the rapid quantification of chemotherapeutic drugs.**
- **VERMES Microdispensing's goals are to advance the pace of smallest particle extraction in body fluid by fostering its decades of dispensing knowhow.**

a microfluidic analysis device for the rapid quantification of chemotherapeutic drugs in the circulation of a tumor or leukemia patient.

By leveraging decades of scientific understanding from studies and care of chemotherapeutical cancer treatment with the micro dispensing knowhow of VERMES Microdispensing, the team wants to help the medical practitioners to fine-tune their medical treatment.

"The task force's goal is to enable the establishment of an optimized cancer treatment database, where the new device is to quantify chemotherapeutic drugs in small samples of body fluids by highly selective minimal particle extraction and liquid crystal detection," explains Juergen Staedtler, CEO and Managing Director of VERMES Microdispensing.

These collective efforts are not intended to replace existing cancer programs, initiatives, and policies already underway, but rather are focused on areas in which a coordinated effort can accelerate the pace of progress in oncology treatment.

The methods currently in use, in order to determine the amount of active chemotherapeutic agents in the human body are time consuming, costly and require a complex laboratory environment.

At present, the dosages of anti-tumor drugs are determined based on body surface area. However, due to endogenous processes, such as metabolism, the concentration of active therapeutics in the body is subject to fluctuations.

Timely determination of existing drug concentrations is difficult. This may lead to misjudgments in the therapy by the attending physician and possibly to over or under-dose. Therefore the therapy might be less efficient.

Years of experience and competence in the field of microdispensing make VERMES Microdispensing a highly qualified partner for process implementation and system integration. VERMES Microdispensing supports the DIACHEMO project by developing, designing and building a point-of-care device for semi-automatic in vitro diagnostics.

The sensing device will measure, in real-time and with high precision, the concentration of the given drugs by using very small body fluids samples. The objective is to help the oncologist in decision making on dosage of such drugs in patients by providing a rapid, quantitative, and portable detection system.

Today researchers are working with an unprecedented amount of data. The project team therefore aims to develop and provide a reliable and inexpensive way of adapting dosing of anticancer drugs according to patients individual pharmacokinetics.

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