

**innovations-report 22.06.2007****URL: [http://www.innovations-report.de/html/berichte/biowissenschaften\\_chemie/bericht-86284.html](http://www.innovations-report.de/html/berichte/biowissenschaften_chemie/bericht-86284.html)****UGR researchers design an alternative to blood test to detect drugs in the body****22.06.2007****The presence of narcotic substances in a person's body can usually be detected by a blood or urine test.**

By means of a simple technique, doctors can say if someone is under the influence of a drug (through blood), if they have taken it within the last week (through urine) or if they usually take it (through the bile test). However, a research group of the department of Legal Medicine and Psychiatry of the University of Granada (Universidad de Granada [<http://www.ugr.es>]), coordinated by professor Antonio Hernández Jerez, has developed a new technique to obtain this information by testing the pericardial fluid.

The importance of his research lies in the multiple advantages of this fluid with regard to the others. Pericardial fluid is plasma ultrafiltered from the serous vessel surrounding the heart, a watertight compartment separated from blood. Blood analysis usually presents a problem: matrix interferences, such as red cells, proteins, fats, etc., which complicate this method.

The work, supervised by professor Hernández, has allowed to determine that the pericardial fluid is an alternative to test blood in order to carry out drug tests for forensic purposes, as it offers enough guarantees and presents a similar concentration of narcotic substances. One of the advantages highlighted by the professor of the UGR [<http://www.ugr.es>] is that this test is easier than blood test as it shows less interference and takes more time to decompose after the death of the person, which makes it possible to determine if the presence of drugs is connected with the death.

The research work, sponsored by the UGR, has been carried out with the collaboration of the Local Institute for Medical Research (IMIM) and the Spanish Institute of Toxicology of Barcelona, as a result of the doctoral thesis "Aplicación del líquido pericárdico al análisis de drogas de abuso en toxicología forense" (Application of the pericardial fluid to the testing of drugs of abuse in forensic toxicology) carried out by Teresa Contreras Montero.

The members of the department of Legal Medicine and Psychiatry of the UGR intend now to do research into alcohol consumption through certain metabolites present in the pericardial fluid, used as markers, in order to determine from a dead body if the person had consumed alcohol and if he was an alcoholic.

Antonio Marín Ruiz | Quelle: alphagalileo

Weitere Informationen:

[prensa.ugr.es/prensa/research/index.php](http://prensa.ugr.es/prensa/research/index.php)