

Research Prize for Innovative Companies in Mecklenburg-Vorpommern (Reduction of Animal Experiments)

The Schwerin company PRIMACYT Cell Culture Technology GmbH and the pharmaceutical company Riemser Arzneimittel AG from Greifswald have jointly received the research prize for the promotion of methodical work towards the stated goal of reducing animal experiments and replacing them with alternative methods.

This prize is awarded annually for methodical operations in this field by the Federal Ministry of Food, Agriculture and Consumer Protection. The award presentation took place on 10 December as part of a ceremony in Berlin. Along with the two companies from Mecklenburg-Vorpommern, the University Ophthalmic Clinic of Lübeck was honoured as a further award winner.

Authorities and official bodies world-wide insist on animal experiments in order to be able to guarantee the safety of clinical tests on humans for medical products. The results gained from the animal experiments are, however, very frequently of no relevance to the human situation. Human liver cell cultures are the in-vitro model which best replicates the processes in the human body when analysing the effects of pharmaceutical products. Human liver cells are, however, only in greatly restricted quantities available for clinical research.

The PRIMACYT Cell Culture Technology GmbH has developed a procedure which allows a cultivation of liver cells over several weeks. During this time, the cells largely retain their functions, so that they can be utilised for tests on medications and other chemicals not just once but many times over. Since the cells are cultivated without serums, the otherwise necessary animal serum can be dispensed with. The further advantages of this procedure are:

1. the natural lack of human donor tissue is circumvented
2. the analysis of long-term effects of pharmaceutical products is possible in a test tube
3. it thus appears that a partial avoidance of the necessity for the use of laboratory animals in pharmacological studies is possible and
4. it allows the cost-efficient implementation of the development of pharmaceutical products, which should eventually be of benefit to both medical research and the patient.

The new procedure has already undergone its practical test within the scope of pharmaceutical research by the company Riemser Arzneimittel AG. Using a pharmaceutical product which is still in the clinical research, both the possible influences on and compatibility with the patient could be determined. During the test, the new procedure was shown to provide more reliable data than research using animal experiments.

"The development of this new procedure represents a valuable instrument for the research into cancer cures, but also for different medications for the treatment of other indicated conditions. At the same time, progress was achieved on the front of finding research methods using fewer animal experiments ", explained Dr. Berno Müller, the head of the medical science department of the Riemser Arzneimittel AG. "This is an important recognition of our research activities and shows that research can be innovative and efficient, even in medium-sized companies ", elaborated Dr. Dagmar Braun, member of the board for research development. Both were present at the awards ceremony on behalf of Riemser Arzneimittel AG.

The technical development of HEPAC2 was enabled partially thanks to the financial support of the Mecklenburg-Vorpommern Finance Ministry's Advancement Programme for Technology and Innovation and further promoted via a close international co-operation between the PPIMACYT GmbH and the University of Pittsburgh. The co-operation of the two companies was facilitated by various programmes, among others the Mentoring Programme of the state Mecklenburg-Vorpommern.