

Replacing, reducing and refining animal testing Official launch of integrative 3R Centre at Ulm University

Developing replacement methods for animal testing is the main goal of the 3R network. One of three new 3R centres in Baden-Württemberg was launched at Ulm University at the beginning of the year and has now officially started work with a kick-off event. The abbreviation 3R stands for "Replace, Reduce, Refine", i.e. replace and reduce animal testing and improve the conditions for unavoidable animal experiments.

The 3R Centre at Ulm University builds on its many years of experience in optimising unavoidable animal experiments (refinement). A refinement laboratory with a focus on tumour and trauma research is to be established in the new, integrative 3R Centre. Other priorities include the further development of stem cell and organoid technology for personalised medicine. In order to reduce animal testing, a biobank for the exchange of animal tissue is also being created. "We are ensuring that excellent science and responsible research go hand in hand," said University President Professor Michael Weber at the launch event for Ulm University's integrative 3R Centre on Monday, 20 October. Around 60 guests attended the event in the Senate Hall. Weber called on them: "Let's work together, be innovative and set a good example."

The state of Baden-Württemberg's 3R network has been existing since 2020. "With the new 3R Centre in Ulm, we are expanding the state-wide network for the prevention, reduction and improvement of animal experiments with a reinforced biomedical partner," said Baden-Württemberg's Science Minister Petra Olschowski. Ulm has outstanding research into tumour and trauma therapies and contributes modern stem cell and organoid technologies for personalised medicine as well as a new biobank for animal tissue to the network. "We are thus creating the best conditions for further avoiding and reducing animal testing and improving methods. We are reinforcing animal welfare, promoting innovative research and at the same time ensuring progress in medicine - in Baden-Württemberg and far beyond."

On site, Dr Sabine Gerbersdorf from the Ministry of Science, Research and the Arts emphasised that the state had promoted research into alternatives to animal testing at an early stage and that Ulm was one of the top addresses in biomedicine. The Ulm centre will receive 150,000 euros from the state for three years. Ulm University is supporting the centre with one staff position and the Medical Faculty is also contributing more than half a million euros. Dean Professor Thomas Wirth said: "We currently still need animal experiments for complex issues - but the more we can replace, the better."

Nobel Prize in Medicine 2025 "inconceivable" without mouse models

Numerous alternative methods to animal experiments are also used at Ulm University, for example pancreatic organoids in cancer research. Alternative methods and computer simulations are constantly improving and are already helping to supplement and reduce animal experiments. "However, we are still dependent on animal models for groundbreaking discoveries," explained Professor Jan Tuckermann, Head of the Institute of Molecular Endocrinology and Physiology and one of the three spokespersons of the Ulm 3R Centre. Tuckermann referred to this year's Nobel Prize in Medicine, which was awarded to three researchers for their discoveries on a form of immune tolerance - research results that would have been inconceivable without mouse models.

The scientist also warned against more and more bureaucracy. "As a result, animal experiments are being carried out abroad under simpler regulations." And some scientists may decide against Germany due to the complicated regulations. The aim should be to have less bureaucratised procedures with the highest animal welfare standards in research projects. "As long as animals are used for research, our task at the i3R Centre is to better dovetail the various research approaches in order to reduce the number of animals used and achieve the best possible research results while optimising the welfare of the animals that are still needed," says Tuckermann.

The subsequent symposium focussed, among other things, on organoids derived from patient stem cells for the treatment of bladder cancer at Ulm University Hospital, the reduction of animal experiments through well-planned study designs and the role of 3Rs in translational trauma research.

About the 3R network

In addition to Ulm, two further 3R centres were launched at the Karlsruhe Institute of Technology and Furtwangen University at the beginning of 2025. The Ministry of Science is funding these new 3R centres for an initial three years with a total of 750,000 euros; since 2020, the Ministry has already funded the establishment of a nationwide 3R network with around 6.8 million euros to date. At the existing five 3R centres in Heidelberg, Constance, Mannheim, Stuttgart and Tübingen, human organ-on-chip models or computer simulations for cancer research and drug testing are being developed, for example.

Baden-Württemberg is characterised by a high density of biomedical research institutions and the pharmaceutical-chemical industry. The state therefore has a special responsibility to protect laboratory animals. In addition to animal welfare, the 3R network is also concerned with improving the transferability of research results to humans and providing further training programmes for young scientists.

Press release

29-Oct-2025

Source: Ulm University

Further information

► [Ulm University](#)