

25 years of the 'oncomouse' patent

The patent that paved the way for patents on mammals

19 May 2017 / In May 1992, the European Patent Office (EPO) granted the first patent on a mammal, the so-called "oncomouse" (EP0169672) patent. The mice were deliberately genetically engineered to be highly susceptible developing cancer within their lifespan. The patent was applied for by Harvard University in cooperation with the US company, DuPont. Many oppositions were filed against the patent. As a consequence, it was narrowed down but not revoked.

The fundamental legal and ethical questions arising from this case are still not settled. The examiners at the EPO explicitly argued that this animal model would help to reduce the number of animal experiments and be useful in developing new medicines. But, in fact, the oncomouse never played a role in developing pharmaceuticals or therapies. Instead, it paved the way for patents on mammals. In the meantime, around 1000 European patents have been granted on laboratory animals.

At the same time, the number of animal experiments continues to increase rapidly. In 2015, more than 1 million genetically engineered animals were used and destroyed in animal experiments in Germany within just one year, most of them were rats and mice. Between 2004 and 2013, the number of animals being used in this way had already nearly tripled.

In many cases, economic interests appear to play an important role. Patent applications on genetically engineered animals provide sufficient evidence that companies and investors have no misgivings about making a profit out of animal suffering. The incentives generated by these patents can be a factor in the soaring number of animal experiments. Many patent holders will try to create maximum profit within the life span of the patents, which is 20 years. Despite all ethical concerns, the EPO continues to grant patents on genetically engineered animals and their use in experiments. Just recently, the EPO rejected oppositions against patents on genetically engineered chimpanzees.

New methods of genetic engineering, such as applications of nucleases e.g. CRISPR Cas, are also a strong driving factor in the increase in the number of animal experiments. These methods allow the fast and targeted insertion of additional DNA into the genome of laboratory animals, likewise the deletion of genes from the genome. Very soon, specialised companies will be offering genetically engineered mice and rats 'on demand'.

In many cases, there will be no medical or therapeutic benefits from these experiments. On the contrary, genetically engineered 'animal models', such as the oncomouse which was produced to simulate human diseases, will fail to fulfil any such expectations.

Further information: [Report: Patents on animals and new methods in genetic engineering](#) [1]

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