

Herbie's Law: a framework for accelerating animal-free science

Animal-free, human-specific research methods can accelerate breakthroughs in medical research and provide more reliable predictions of whether new drugs will be safe and effective for patients. These approaches include the use of artificial intelligence, computer modelling and 'organ-on-a-chip' technology.



We recommend introducing a new legislative framework (*Herbie's Law*) to support the long-term replacement of animal experiments with these cutting-edge, human-specific research methods.

Human-specific research techniques: **scientific benefits**

- There has been a lack of progress in addressing many key areas of disease. The likelihood of a cancer drug being approved and progressing from small Phase 1 trials to larger clinical trials is [less than 6 per cent](#). Alzheimer's disease has seen clinical trial failures of [more than 99 per cent](#).
- Since they are not hampered by translating from one species to another, human-specific technologies offer the best possible chance of securing medical progress.
- Just one example took place at Animal Free Research UK's Centre of Excellence at the University of Exeter. Using human cells, Professor Lorna Harries and her team [discovered important insights](#) into diabetes treatment and prevention. Meanwhile, a [study](#) published in *Nature Communications Medicine* found that a liver-on-a-chip device was able to correctly identify 87% of drugs that carried a risk of liver toxicity in humans, despite those drugs having passed through animal safety tests.

Human-specific research techniques: **economic potential**

- Finding effective treatments for major diseases will reduce pressure on the NHS and alleviate wider economic impacts, such as loss of productivity.
- These future-focused technologies offer major potential to boost economic growth and make the UK a science and technology superpower.
- There is a [fast-growing global market for human-specific technologies](#). The size of the global market for non-animal testing is expected to grow to \$2.33 billion in 2024. The market is expected to grow at a Compound Annual Growth Rate (CAGR) of 11.8% to reach \$3.63 billion in 2028.
- A [2021 report](#) estimated that by 2026, the human-specific technologies sector would contribute £2.5 billion to UK GDP, which would represent an increase of 700% in the period between 2017 and 2026.



Global developments

Around the world, pro-innovation policy is fuelling the growth of the human-specific technologies sector:

- The USA has passed the [FDA Modernization Act](#), which facilitates the use of non-animal methods within the drug testing process
- The Netherlands government has established the [Transition Programme for Innovation without the use of animals \(TPI\)](#)
- India's [New Drugs and Clinical Trial Rules \(2023\)](#) authorises researchers to use human-specific methods such as organ-chips to test the safety and efficacy of new drugs
- Canada has passed a [bill to phase out animal-based chemical toxicity testing](#)
- The European Commission has committed to [developing a roadmap for ultimately phasing out animal tests](#)

UK policy announcements

During a [February 2024 debate](#), Science Minister Andrew Griffith announced several policies to advance progress in replacing animals. The central commitments were to double funding for non-animal alternatives and publish a plan to accelerate the development, validation and uptake of these. While we welcome these positive commitments, we recommend building on them with world-leading legislation.

Herbie's Law

Britain should show global leadership by introducing a new legislative framework to support the long-term replacement of animals with human-specific technologies. *Herbie's Law* would draw inspiration from the *Climate Change Act* and would:

- Specify a target year for the long-term replacement of animal experiments with human-specific technologies.
- Describe activities that Government must take to ensure progress towards this goal (such as developing and maintaining detailed and time-bound action plans and reporting to Parliament on progress).
- Provide for the set-up of an Expert Advisory Committee who could give specialist advice to the Government on animal replacement.
- Set out specific provisions to facilitate progress in the shorter term, such as a programme of practical support and training for scientists.



Britain has a proud track-record of introducing world-first legislation to improve animal and environmental protection and maximise the positive impact of technology. Examples include the *Online Safety Act*, *Animals (Low-Welfare Activities Abroad) Act*, and of course the *UK Climate Change Act*.



Additional measures

We believe that a new law is essential to secure transformative change, but the following measures would help to kickstart progress in the meantime:

- Further increase Government funding for human-specific technologies, including dedicated transition grants to enable individual organisations to replace animals.
- Host a Global Summit on Human-Specific Technologies, convening scientists and policymakers from around the world to establish shared goals for the transition to these ethical innovations.
- Appoint a Minister for Human-Specific Technologies to ensure progress is sustained and coordinated.
- Launch a programme of practical support and training for scientists to improve awareness and knowledge of human-specific techniques.

Who is Herbie?

Herbie is a 14 year-old beagle who lives with Animal Free Research UK's CEO Carla Owen.

He was part of a litter of beagles bred for research. A number tattooed onto his ear testifies to this.



Luckily for Herbie, someone decided that he was not *needed* in the laboratory he was destined for. He was adopted by Carla's family in 2013 and has happily lived his life in the Midlands, growing old gracefully in his loving forever home.

Public support

There is strong public support for government action in this area. A [2021 YouGov Poll](#) found that 68 per cent of respondents would support a policy ending animal experiments in medical research in the UK and replacing them with non-animal alternatives, while 70 per cent of respondents would support animal experiments in medical research being phased out by 2040.

Conclusion

The UK is perfectly poised to unlock the major opportunities offered by human-specific research methods, transforming the lives of patients around the world, while building a strong and future-focused domestic economy. Introducing *Herbie's Law* will cement our position as a scientific superpower, while supporting our proud identity as a nation of animal lovers.

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