Our 3Rs (Replacement, Refinement and Reduction) process in action

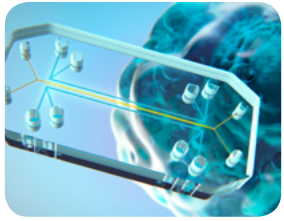
Pre-clinical animal studies ensure safety for clinical trials with patients and provide scientific benefit for future discoveries. Animals are only used after applying the 3Rs and are always valued for their contribution to medical progress. Under the leadership of our Chief Veterinary Officer, our Council for Science and Animal Welfare (C-SAW) oversees animal welfare and compliance.

1 → 2 → 3 → 4 → 5

Hypothesis formed and evaluated against past results

Great care is taken to share all information generated from animal studies in a clear and well-defined way.

Benefit
Avoids unnecessary repetition of studies. Makes best use of existing data and knowledge.



Study evaluated for alternatives

Team considers if the scientific objectives could be achieved without using animals. Examples include organ-on-a-chip technology and computer models.

Benefit
Only studies with no suitable alternative are conducted, replacing the use of animals wherever possible.

Study evaluated for animal use

When animal studies are needed, project teams must weigh the costs to the animals against the benefit to patients.

Benefit
The most appropriate species and fewest number of animals able to provide patient benefit are used, reducing the number of animals needed.

Ethics and regulatory review

Studies are scrutinised by ethical review bodies made up of veterinarians, scientists and members of the community. In some countries, animal studies also require regulatory approval.

Benefit
Our standards are applied globally, refining the care and use of animals – whether the work is conducted in our own facilities or by external partners.

Study conducted

Proper animal welfare is the right thing to do ethically and also essential for reliable research outcomes as stress can impact results.

Benefit
Animal welfare is optimised throughout the process and during the study.

Image credit: Understanding animal research