# BREAKING BARRIERS WITH 360 DEGREE TECHNOLOGY

## INTRODUCING LAB ANIMAL TOUR, A 'STREET-VIEW' INTO FOUR UK ANIMAL RESEARCH FACILITIES

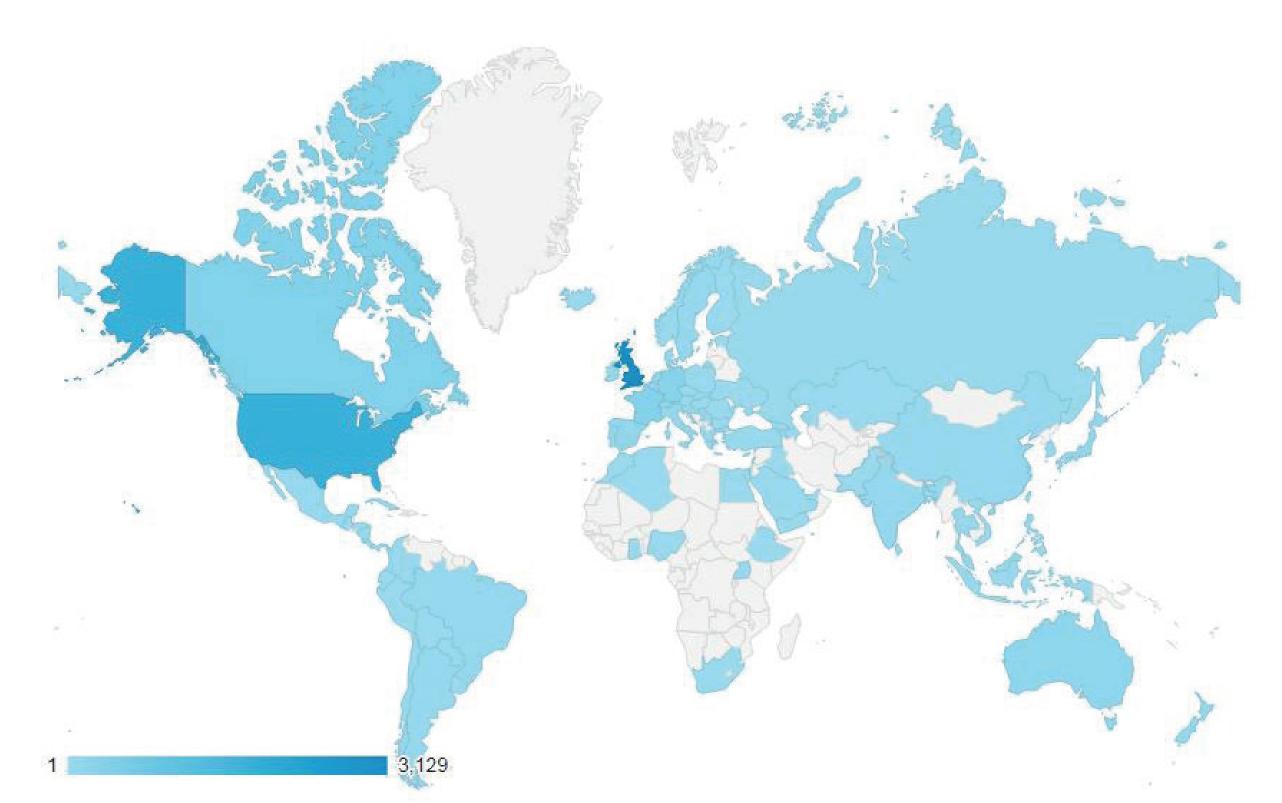
WWW.LABANIMALTOUR.ORG

H. HOBSON, R. SCRASE, A. WILLIAMS | UNDERSTANDING ANIMAL RESEARCH



# AN INNOVATIVE APPROACH TO STORY TELLING

The Concordat on Openness on Animal Research in the UK voluntarily commits life-science organisations within the UK to enhance their communications on animal research. Since its launch in 2014, 117 organisations have signed the Concordat, and now considerably more material about the use of animals in research is available to the public. However, it still remains difficult for those outside the life-science community to visit animal facilities.



Total number of unique visitors, per country, since Lab Animal Tour was launched

being used. One third of the public<sup>2</sup> still don't accept the use of animals in research, a view not helped by the inaccurate images of research found online. Lab Animal Tour aims to showcase the reality of animal research in the UK.

Visits to animal facilities can be time-intensive for staff, problematic when maintaining barriers to infection, and disruptive for the animals. Fortunately many institutions are now using technology to showcase their animal research without the need to take visitors into their facilities. Taking inspiration from the Centre National de la Recherche Scientifique who produced an interactive virtual visit to a primate facility<sup>1</sup>, UAR worked with four UK research institutes (MRC Harwell, The Pirbright Institute, University of Bristol, and University of Oxford) to capture images and videos of their animal facilities.

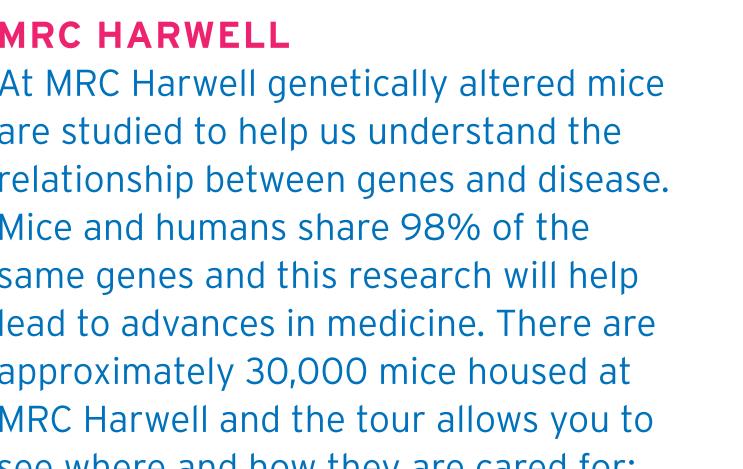


Media responses<sup>3,4</sup> to Lab Animal Tour have been overwhelmingly positive with the website receiving over 45,000 page views, worldwide, since its launch on 14<sup>th</sup> June 2017.



#### **MRC HARWELL**

At MRC Harwell genetically altered mice are studied to help us understand the relationship between genes and disease. Mice and humans share 98% of the same genes and this research will help lead to advances in medicine. There are approximately 30,000 mice housed at MRC Harwell and the tour allows you to see where and how they are cared for; what type of research they are used in, and how their biological material is stored via cryopreservation.



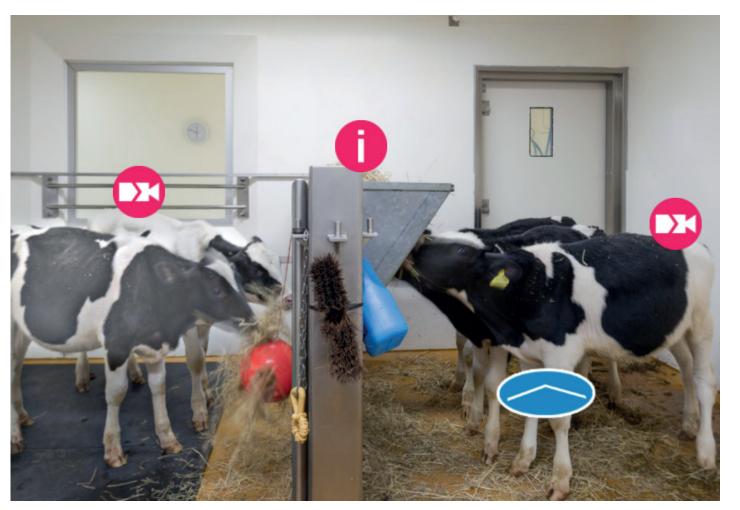
#### Media Coverage of Lab Animal Tour in Science

### A trans-Atlantic transparency gap on animal experiments

As institutions in the United Kingdom and elsewhere publicize their research, many U.S. universities stay quiet

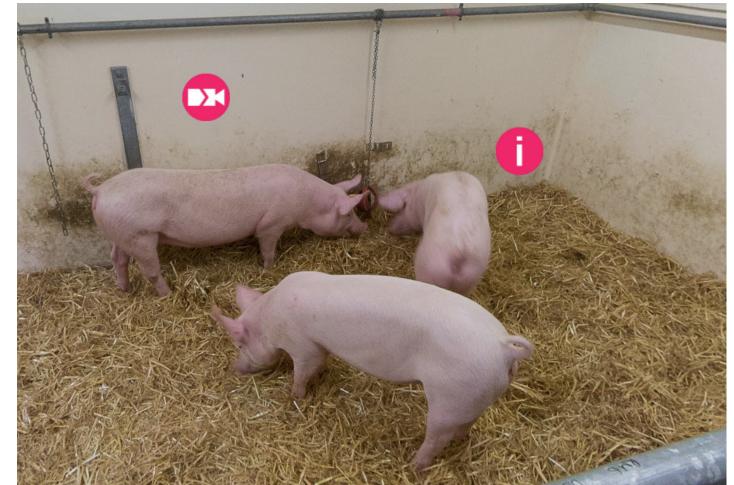


vessel. Researchers hope to replace veins used in human heart bypass operations with more durable vessels



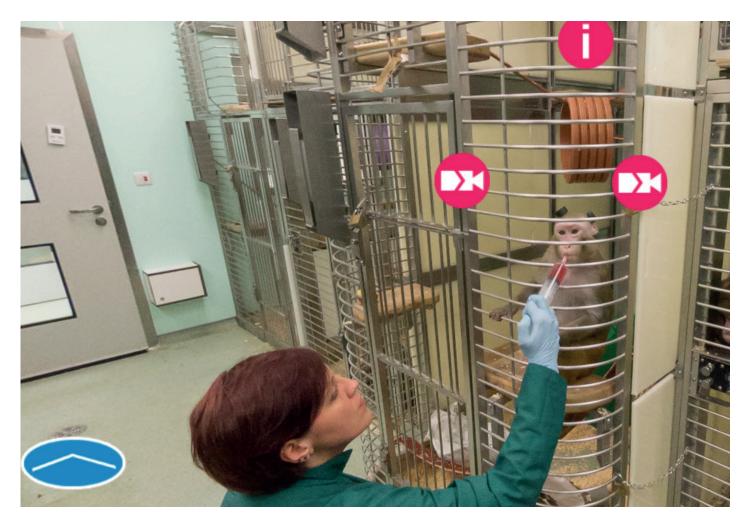
#### THE PIRBRIGHT INSTITUTE

Scientists at The Pirbright Institute research diseases that affect farm animals, and viruses that spread from animals to humans. The tour includes case studies about creating vaccines that protect livestock from diseases such as foot-and-mouth and swine flu, and how vectors like mosquitoes and midges transmit viruses. The Pirbright Institute developed the first rinderpest vaccine which led to the global eradication of this cattle plague by 2010.



#### UNIVERSITY OF BRISTOL

Medical research to benefit man and animals is undertaken at the University of Bristol. Human and veterinary surgeons work side by side to develop new surgical techniques on pigs before trialling them on human patients. Research at the University of Bristol has led to improvements in the surgery used to treat children born with heart defects and during the tour you can watch a video that illustrates the testing of artificial blood vessels in a pig.



These tours present the public

with an online 'street view' of the

four facilities, providing the public

with more opportunities to see the

reality of animal research, without

disturbing the animals or increasing

risks to their health. Virtual visitors

can move around 56 animal rooms

and surgical suites in 360 degree

vision, and watch 35 videos to see

technicians talking about how they

out from scientists why animals are

look after their animals, and find

#### UNIVERSITY OF OXFORD

The University of Oxford's primate centre has been specially designed to accommodate behavioural neuroscience research involving Rhesus Macaque (Macaca mulatta) monkeys, to help us understand how the brain works. Positive reinforcement techniques are used to train the monkeys so they perform various cognitive tests. The tour allows you to see how the monkeys are looked after and how they undergo MRI scans to monitor their brain activity.

#### **METHODOLOGY**

The Lab Animal Tour consists of text information and video clips placed within 360 photographic scenes. The website is navigated through a hyperlinked map; drop-down menu; or hyperlinked arrows that lead the viewer between scenes. The photography was taken by professional photographer Quintin Lake<sup>5</sup>, using 360 photographic equipment on an offset tripod. The photos were seamlessly stitched together by 360 virtual tours<sup>6</sup>. The information text was jointly produced by Richard Scrase and the institution. The video material was filmed and edited by Richard Scrase with editorial contributions from the institutions. The videos with added subtitles are available on the UAR YouTube channel<sup>7</sup>.



Scan this QR code on your mobile phone to visit Lab **Animal Tour** 



#### REFERENCES