

## Animal research news archive January – March 2015

**30/03/15**

The first baby was born in Europe using a new IVF procedure which screens embryos to ensure that those carrying genetic code for a specific genetic disorder were not used. The child was at high risk of Charcot-Marie-Tooth disease, a rare form of muscular dystrophy. The doctors screened all the embryos to ensure the genetic sequence for the disease was not in the embryos used for IVF. The procedure is now available on the NHS.

<http://www.telegraph.co.uk/news/science/science-news/11495591/First-baby-born-from-IVF-technique-which-eliminates-inherited-disease.html>

How does a chick breathe in an egg? If you were to place an egg under water, the chick inside would be starved of oxygen and would suffocate – so somehow, the embryonic chick is able to absorb oxygen from the air outside the egg. It achieves this with the aid of a membranous bag called the allantois, which is attached at one end to the chick's gut, while the other end lies close to the inner surface of the eggshell. The allantois protrudes out of the chick and fuses with another membrane which envelops the chick and yolk, called the chorion, which has a network of blood vessels within it. These vessels lie against the inner surface of the porous eggshell, where the gas exchange takes place – oxygen diffuses through the shell into the blood, which is moved around by the chick's heart. These structures can be found in humans, as the placenta and umbilical cord.

<http://www.theguardian.com/science/2015/mar/29/how-does-chick-breathe-in-egg-allantois>

Promiscuous birds make genetic mistakes, potentially putting a species in danger by damaging genetic changes. Researchers believe the stronger the role that sexual selection plays in reproduction, the faster genes evolve. Rapid evolution could turn out to be potentially damaging to the future of a species, because faster evolved genome include more mildly negative mutations. Although minor, these genetic flaws may limit how well future generations can adapt to changing environments. This study shows how powerful sexual selection can be in leading to major changes in how a gene is expressed. So sleeping around isn't always the best thing for the species.

<http://www.theguardian.com/science/occams-corner/2015/mar/27/love-duck-promiscuous-birds-sex-genetic-mistakes>

A tortoise whose shell had pyramided and then deformed was given a synthetic 3D printed shell to cover her own one. The shell will help the tortoise, Cleopatra, regenerate her shell safely while she can still interact with other tortoises.

[http://www.huffingtonpost.com/2015/03/26/injured-tortoise-3d-printed-shell\\_n\\_6948728.html](http://www.huffingtonpost.com/2015/03/26/injured-tortoise-3d-printed-shell_n_6948728.html)

**27/03/15**

The first successful transplant of a non-beating donor heart was made possible thanks to animal research. Up to now, only hearts still beating from brain dead patients were used in transplant surgeries. In the case, the heart is re-started in the donor, five minutes after death and then transferred. This new technique was made

possible thanks to work done on dogs, pigs and monkeys. It has the potential of substantially increasing the number of donor hearts available for transplant by 11 to 15%.

<http://speakingofresearch.com/2015/03/27/pioneering-non-beating-heart-transplant-success-thanks-to-animal-research/>

Squid-inspired stickers – the real world invisibility cloak. Stickers invisible under near infra-red light have been made possible thanks to layers of the protein *reflectin*. This molecule allows squid to rapidly change their skin colour and blend in with their environment. These stickers may potentially shield soldiers from detection by night-vision cameras.

<http://www.the-scientist.com/?articles.view/articleNo/42529/title/Squid-Inspired-Stickers/>

Killer seal develops a taste for shark gut. Cape fur seals might be responsible for killing blue sharks and eating their internal organs – which are the most energy- rich part of a shark's body. If this turns out to be a common fact, ecologists may need to reassess the role of seals in marine ecosystems. Ordinarily, both seals and blue sharks, which are roughly the same size, prey on much smaller fish, squid and other marine life. Several species of seal are also known to feed on smaller sharks, and blue sharks have been seen pursuing – but not catching – fur seals. By killing their competitors, seals could be altering ocean food webs in unexpected ways. If seals help hold down shark populations, for example, that could have a net benefit on populations of smaller fish, even if the seals also eat the same fish themselves. If so, fisheries biologists may need to take that into account in managing fish populations.

<http://www.newscientist.com/article/dn27236-killer-seals-develop-a-taste-for-shark-guts.html?cmpid=RSS|NSNS|2012-GLOBAL|online-news#.VRQOfmsWCI>

**26/03/15**

Opossums could hold the key to saving snakebite victims. Scientists have known since the 1940s that Virginia opossums possess some level of immunity to snake venom, but now the scientists have isolated the compound responsible for the opossum's superpower. Experiments with mice have shown that the compound in the marsupial's blood can neutralize venom. The molecule worked against several venomous snake species including rattlesnakes and viper venom. Scientists believe that the substance could be mass produced to create an inexpensive and universal anti-venom – 94,000 people die each year from snakebites.

<http://news.nationalgeographic.com/2015/03/150323-opossums-snakes-snakebites-venom-health-world-science/>

Pig biobank reduces numbers of animals used in research. Scientists are trying to maximize the scientific benefits of every animal used in research, by trying to use every body part. Thousands of tiny tissue and fluid samples from a single animal will find a place in the newly constructed Munich MIDY-PIG biobank in Germany. This month, the world's first systematic repository of tissue from a large, genetically engineered, non- human animal was deposited – that of a diabetic pig. Each part of the animal will be used, to avoid collecting different organs from different animals.

<http://www.alnmag.com/news/2015/03/pig-biobank-reduces-number-animals-used-research>

Repeated antibiotic use linked to type 2 diabetes. People who need repeated courses of antibiotics may be at increased risk of developing type 2 diabetes. This does not necessarily mean that the drugs trigger diabetes - infections may be a warning sign that diabetes is imminent, people with type 2 diabetes are prone to skin and urine infections for example. Our guts are lined with billions of bacteria and antibiotics can wipe some of these out. Studies in animals and humans have hinted that changes to this 'digestive ecosystem' might contribute to conditions such as diabetes and obesity.

<http://www.bbc.co.uk/news/health-32034195>

A trial to give Bovine TB vaccines to badgers will expand after it was deemed a success by scientists in Cornwall. 80 badgers were vaccinated between September and November and an expansion is planned – up to 1,000 badgers could be vaccinated in the next few years. This may be an alternative to the cull. TB is a terrible problem for farmers and badgers are part of the problem. A TB vaccine has been tested on badgers and reduces the risk of catching the disease and consequently reduces its spread.

<http://www.bbc.co.uk/news/uk-england-cornwall-32046820>

#### **Animal Rights News:**

A piece of ours in the Huffington Post: Will voting be bad for your health ? Why your vote may be detrimental to animal research

[http://www.huffingtonpost.co.uk/mia-rozenbaum/voting-general-election-2015\\_b\\_6933234.html](http://www.huffingtonpost.co.uk/mia-rozenbaum/voting-general-election-2015_b_6933234.html)

**25/03/15**

21 MPs and 143 other parliamentary candidates have signed the BUAV [#VoteCrueltyFree](#) pledge which would see 88.6% of research banned in the UK. Signatures include Natalie Bennett, head of the Green Party, and Ed Davey MP, Secretary of State for the Environment. The former admitted that she thought the pledge to ban "non-medical experiments" referred to household products (which have not been tested since 2011) rather than banning on veterinary, environmental and fundamental research.

<http://www.buzzfeed.com/tomchivers/green-party-leaders-signed-animal-testing-pledge-without-rea>

Bumblebees are in rapid decline in the UK - which is bad news for pollinating flowers and the environment. There is evidence that pesticide may be part of the cause, but the exact reasons are still not entirely clear. In order to understand better, scientists are super gluing trackers to backs of these creatures in order to see if they can work out why these bees are dying off.

<http://www.dailymail.co.uk/sciencetech/article-3010224/Creating-buzz-bumblebee-backpack-Insects-trackers-attached-numbers-dramatic-decline.html>

Why does it take longer to regain muscle strength the longer you have been in space? Researchers at Texas Tech University (US) and the University of Nottingham are using *C.elegans*, a small wormlike creature. *C. elegans* have a short lifespan and are transparent, which makes studying them easier. Many of their genes which control muscle growth are similar to those in humans.

<http://www.alnmag.com/news/2015/03/worms-test-muscle-mass-and-strength-space>

British charities have scored very highly on their statements about animal research. Wellcome Trust, CRUK, BHF, Parkinson's UK and Leukaemia and Lymphoma Trust all got top marks. The post makes up an interesting double post comparing the US and UK charities' approach to openness.

<http://speakingofresearch.com/2015/03/25/uk-charities-explaining-animal-research/>

#### **Animal Rights News:**

The European Animal Research Association (EARA) have written a post debunking some of the claims made by the group behind the ECI Stop Vivisection petition.

<http://eara.eu/myth-busting-stop-vivisection/>

**23/03/15**

Where does Ebola hide between outbreaks? There are many animals in the rainforest which might be harbouring the ebola virus. One Michigan wildlife vet and his team are tracking the red river hog through the Congo river basin. Fruit bats are also suspected of acting as a reservoir host for the virus (carrying but not suffering from the disease).

<http://www.independent.co.uk/news/world/africa/tracking-ebola-the-killer-hiding-in-the-jungle-10123977.html>

Humans are not the only ones who take anti-depressants. With so many pet owners locking their dogs and cats in the home for hours at a time during the day, there is an increasing number of people needing to put their pets on anti-depressants. Animal anti-depressants work in a very similar way to their human counterpart, though there are chemical differences.

<http://www.dailymail.co.uk/news/article-3006539/Surge-numbers-pets-fed-antidepressants-reduce-stress-left-home-day.html>

Speaking of Research have analysed and rated the animal research policies of nine American charities (which conducted or funded animal research). With an average score of 2.4/5, the charities were found wanting with only two having a statement available online, and two not even providing a statement when asked.

<http://speakingofresearch.com/2015/03/23/us-charities-explaining-animal-research/>

**20/03/15**

Birds stop singing as the moon passes the sun during the solar eclipse. Songbirds will fall silent during the eclipse as the darkening of the sky triggers night-time behaviour. Nocturnal animals like owls and bats could also become more alert when others may be keener on looking for a place to sleep. During previous eclipses, dragonflies were spotted hiding under leaves, ants returned to their nests and grasshoppers stopped making sound. Animal expert warn that nervous animals could get upset.

<http://www.telegraph.co.uk/news/earth/wildlife/11483137/Solar-eclipse-birds-to-stop-singing-as-Moon-passes-Sun.html>

Scientists create 'mini lungs' to fight cystic fibrosis, bypassing tests on mice. 3-D clusters of cells that act just like a pair of mini lungs have been developed using stem cells taken from patients with cystic fibrosis. These 'mini lungs' are being used to test new kinds of drugs to combat the disease, bypassing the need for tests on mice and other animals.

"In a sense, what we've created are 'mini-lungs'," lead researcher, Nick Hannan from the Wellcome Trust-Medical Research Council Cambridge Stem Cell Institute. "While they only represent the [distal part of lung tissue](#), they are grown from human cells, and so can be more reliable than using traditional animal models, such as mice. We can use them to learn more about key aspects of serious diseases – in our case, cystic fibrosis."

<http://www.sciencealert.com/scientists-create-mini-lungs-to-fight-cystic-fibrosis>

Genetically engineered insects could wipe out many mosquito-borne diseases but could also have negative consequences. Researchers have found a way of spreading genes within a population which could be used to spread malaria-resistant genes in mosquitoes to prevent transmission of disease to people. The genetically modified DNA includes a 'cassette' of genetic elements that makes sure the intended mutation is passed from one chromosome to another within the same organism. This ensures that almost all offspring born from those genetically modified mosquitoes have the ability to pass on the mutated gene. Malaria resistant genes could

spread in a population in a single breeding season. However, this method could also be hijacked to spread harmful genes rapidly in the wild.

<http://www.independent.co.uk/news/science/genetically-engineering-mosquitoes-to-end-malaria-could-have-unintended-consequences-10120902.html>

**18/03/15**

In an attempt to reduce animal research, scientists are looking to do tests on virtual mice instead. Over the last century, almost every medical breakthrough has been based on animal research. In an attempt to reduce the number of animals in research, the Human Brain project has taken the first step to building a virtual mouse for experiments. The digital model maps out how a mouse brain connects to a mouse body, using 200,000 virtual neurons. However, there is a long way to go before the model is an exact replica of the living mouse which has 75 million neurons, but as new data flows in, the researchers will continue to fill the model.

<http://www.fastcoexist.com/3043504/world-changing-ideas/save-the-mice-we-can-do-experiments-on-this-virtual-mouse-instead>

Traditional stables make horses depressed. Although a cosy, safe stall, full of hay might seem like the perfect place for horses, researcher have found that horses do not like being on their own and become stresses when kept in isolation – making traditional single unit stables less than attractive. Horses need space and company but most domestic horses are kept in box stalls claimed to prevent injury and protect the animals. Inadequate housing design could potentially cause stress and negative consequence on health and wellbeing of the horses. Researchers found that horses become more stressed and increasingly difficult to handle the more isolated they became.

<http://www.telegraph.co.uk/news/science/11478930/Why-the-long-face-Traditional-stables-make-horses-depressed.html>

A new I-pad app is asking users to 'tag' tigers to help count and track the animals. Images gathered on the internet are fed to the app, which is set up as a game. Players score points by tagging the images that contain tigers, as well as answering questions about the big cats' surroundings and what they are doing. Researchers aim to combine the data with facial recognition software to help track individual animals.

<http://www.bbc.co.uk/news/science-environment-31869772>

A team of scientists have come to Penguin beach in London zoo, installed a hi-tech track and are now trying to study penguin gait while they waddle along the installation. Penguins have a distinctive walk, they have a very upright posture like humans but they have very short crouched legs, which give them their distinctive waddle. Scientists are looking to understand how this evolved. Previous studies have shown that waddling is in fact the most energy efficient way for penguins to get around on land and these experiments will reveal exactly how they are doing this. Fossils show that penguins didn't always waddle, but walked more like an albatross does today. The bird bones show that the first penguins were a varied bunch: some were tiny, but others were as tall as humans. Today's penguins most likely evolved their unusual anatomy and resulting waddle as they became better and better adapted to swimming.

<http://www.bbc.co.uk/news/science-environment-31910427>

**16/03/15**

Man made perfluorinated compounds, used in treating industrial chemicals, upset signal molecules and enzymes in the brains of polar bears. An international study shows that the number of enzymes and signal substances in polar bear brains are dependent on the concentration of perfluorinated compounds – which the bear gets naturally when eating seals. However, studies of dead polar bears show the levels of these compounds are very high and this may be influencing their behaviour.

<http://sciencenordic.com/chemical-pollution-causing-brain-damage-polar-bears>

A new paper has reviewed the **evolutionary origins and development of the anus**. This organ exists in almost every animal (not sea sponges or tapeworms, which also do not have a digestive tract), though in some simple organisms like corals and jellyfish it will double as a mouth. The review notes that two sets of genes play a key role of the formation of the anus in nearly all animals, though some animals (such as acocela) have seemingly evolved again to lose these genes (and the consequent orifice).

<http://www.bbc.com/earth/story/20150313-the-origin-of-the-anus>

**13/03/15**

**Cocaine hijacks memory in rats**. Researchers have found the cells linked to a mechanism in the brain that facilitates the role of memory in drug addiction. Memories associated with drug use are a leading suspect in driving the impulses behind drug addiction. Drug use creates memories so powerful they hijack the system, turning physiology into pathology. Pinpointing the neuronal pathway opens a new area of research for targeted therapy that would alter or disable the mechanism and make drug addiction less compulsive.

[http://www.alnmag.com/news/2015/03/cocaine-hijacks-memory-rats?et\\_cid=4457935&et\\_rid=762765857&type=cta](http://www.alnmag.com/news/2015/03/cocaine-hijacks-memory-rats?et_cid=4457935&et_rid=762765857&type=cta)

The shape of your cat's face can reveal its personality according to a new study. Cats with square faces and bodies, the 'retrievers' such as main coons, are often affectionate, love to snuggle and give head-butts and keen to please their owners. Their round face counterparts tend to be the 'lap-dog' of the feline world. They are low-energy, quiet, shy and submissive whereas triangular faced cats, also referred to as 'the herding dogs of the cat world' can be busy, curious, smart, vocal and thrive in active households. However, this remains a theory, not a study based on scientific studies.

<http://www.dailymail.co.uk/sciencetech/article-2991904/What-face-shape-does-cat-Pet-researcher-claims-feline-s-features-reveal-personality.html>

Female horses prefer stallions with deeper voice. Lower voice frequencies reflect larger body size, lower heart beat and higher reproductive success. By listening to calls, mares are trying to find the toughest, calmest and most fertile males – the ones with the potential to be good fathers and protective mates. Preferring a deeper voices is not confined to horses, humans too are subject to the 'Barry white' effect, as well as deer, bison, giant pandas and koalas. However, in humans, when a voice becomes too deep, it starts becoming unattractive.

<http://www.newscientist.com/article/dn27155-barry-whites-of-horse-world-get-all-the-mares.html>

A rodent virus kills cancer cells only and is currently being tested in a preliminary clinical trial to treat malignant brain cancer. Researchers have discovered that the parvoviruses – a class of viruses that normally infect rodents – don't cause any disease symptoms in humans but however can infect and destroy cancer cells.

[http://www.alnmag.com/news/2015/03/rodent-virus-kills-cancer-cells-only?et\\_cid=4460416&et\\_rid=762765857&type=cta](http://www.alnmag.com/news/2015/03/rodent-virus-kills-cancer-cells-only?et_cid=4460416&et_rid=762765857&type=cta)

**12/03/15**

**Ultrasound treatment successfully treats Alzheimer's disease in mice.** Rodents were found to have improved memories after treatment by focused beams of ultrasound, without any apparent damage to brain tissue. The ultrasounds stimulate microglial cells, which form part of the brain's immune system, to engulf and absorb amyloid plaques. The technique proved very successful at clearing tangles of plaques in the mice brains, removing up to 75% of them. This is the first demonstration that ultrasound waves alone have a beneficial effect on the condition. Despite the debate as to whether plaques are a cause or a symptom of the disease, the treated mice showed improved memory. The research will still need several years before it can be tested in humans, and will have to be tested in sheep first.

"Our research was very exploratory and we really didn't expect to see such a massive effect," Juergen Goetz of the University of [Queensland](#) in Brisbane, one of the study authors, said. "I'm really excited by this."

<http://www.theguardian.com/society/2015/mar/12/alzheimers-breakthrough-as-ultrasound-successfully-treats-disease-in-mice>

Scientists found a way to cut out HIV from infected human cells with 'cellular scissors'. They have been customising a defence system used by bacteria and training this scissor-like machinery to recognise the HIV virus. The method successfully cut HIV's genes, inactivating the virus. This technique could completely remove HIV from up to 72% of human cells that had been infected with HIV, even in a dormant state.

'Evolution has led to some of the most astonishing mechanisms for protecting organisms against their natural pathogens,' says Juan Carlos Izpisua Belmonte, a professor of Salk's Gene Expression Laboratory in California. 'Understanding the immune responses by which bacteria protect themselves against viral infections has allowed us to engineer novel platforms for the targeting of devastating viruses, such as HIV, in human patients.'

<http://www.dailymail.co.uk/sciencetech/article-2990549/Could-cure-HIV-Scientists-way-cut-virus-infected-areas-cellular-scissors.html>

Researchers have developed a high-tech gas sensing capsule that can send data from inside your gut direct to a mobile phone, opening new possibilities for diagnosis, treatment and health analysis. Intestinal gases have been linked to colon cancer, irritable bowel syndrome and inflammatory bowel disease, and could potentially be used as key biomarkers for assessing overall health. Animal trials have demonstrated the effectiveness and safety of the capsules, which transmit data as they move through the gut to a device such as a mobile phone, before exiting the body.

Lead investigator, RMIT's Professor Kourosh Kalantar-zadeh, explains "We know gut microorganisms produce gases as a by-product of their metabolism, but we understand very little about how that affects our health. Being able to accurately measure intestinal gases could accelerate our knowledge about how specific gut microorganisms contribute to gastrointestinal disorders and food intake efficiency, enabling the development of new diagnostic techniques and treatments.

<http://www.alphagalileo.org/ViewItem.aspx?ItemId=150592&CultureCode=en>

**11/03/15**

Researchers have discovered **how chameleons change colour**: they rearrange crystals inside specialised skin cells. Reptiles make colours in two ways, they have cells full of pigment for warm or dark colours, but brighter blues and whites come from light bouncing off physical elements like these crystals – structural colours. To create and shift from all sorts of colours, chameleons use a combination of both pigment and structural colorization. When changing colours, the patterns of the crystals inside the cells change and rearrange. This is the first time that reptile skin has been shown to change colour thanks to this kind of geometrical shift. Beneath, a second layer of cells may be used by the animal to reflect the sun's warming rays and keep them cool.

<http://www.bbc.co.uk/news/science-environment-31819588>

**Fruit fly brains could one day cure jet lag.** After removing the brains of flies, researchers used a low-light camera to document how the circadian clock is 'reset' by light. For the first time, scientists have seen in real time how specific neurons in intact brain systems react to light cues. They discovered that a single light pulse cues the biological clock of the fruit fly brain to shift two hours ahead of its original schedule and then effectively resets itself. This study highlights the ways circadian clocks function and could eventually lead to treatments for jet lag, which could have a huge impact on our travel practices.

Lead researcher Todd C Holmes, professor of physiology and biophysics, UCI School of Medicine, said: "Remarkably, our work indicates that the way you feel while jet-lagged exactly reflects what your nervous system is experiencing: a profound loss of synchrony."

Commenting on the study, Professor Erik Herzog, a circadian biology expert, said: "With extraordinary cellular resolution, the researchers show that some cells shift faster than others following a pulse of light. This might become a useful therapy in treating jet lag."

<http://www.independent.co.uk/news/science/how-fruit-fly-brains-could-one-day-cure-jet-lag-10099130.html>

**10/03/15**

Scientists have created false memories in sleeping mice by stimulating the part of the brain associated with specific places and the reward centre of the brain. Whenever the mouse thought about a specific location, and the place cells lit up, the reward centre of the brain was stimulated. When the mice woke up, they headed straight for the happy-associated location. It is thought this research could benefit PTSD patients.

<http://www.theguardian.com/science/2015/mar/09/rodent-recall-false-but-happy-memories-implanted-in-sleeping-mice>

A new computer model could potentially reduce the numbers of animals used in safety testing by analysing dangerous chemical effects on the heart and preventing those compounds from moving to regulatory animal tests. Mr Britton analysed thousands of different computer models to see which fit with data gained from rabbit heart cells.

<http://www.nc3rs.org.uk/news/improving-computer-modelling-cardiac-properties-ditching-one-size-fits-all-approach>

A form of cellular immunotherapy may offer hope for a new arthritis treatment. Scientists managed to alleviate the symptoms of a rheumatoid arthritis mouse model by the intravenous administration of M-MDSCs.

<http://www.alnmag.com/news/2015/03/treatment-shuts-down-arthritis-mouse-model>

**09/03/15**

Imperial released its 2014 annual report on animal research. It was launched at a public event which gave members of the public the chance to talk to researchers and veterinarians. Researchers demonstrated how they went about replacing, refining and reducing the use of animals in research. In 2014, Imperial signed up the Concordat on Openness on Animal Research, pledging to be more open and transparent about their experiments.

[http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news\\_5-3-2015-10-36-38](http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_5-3-2015-10-36-38)

Read the report here: <http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/annual-report/>

Behavioural researchers are looking at the memory abilities of horses. Researchers hid carrots under a bucket and forced horses to wait 10 seconds before retrieving them. They did so slower, with with less wrong buckets, than the control group.

<http://www.bbc.com/earth/story/20150306-horses-remember-more-than-we-think>

Frankie the dog can 'sniff out' thyroid cancer with an 88% success rate. Dogs have an unbelievable sense of smell – they have 10 times the number of smell receptors in people - and can detect the own unique 'volatile organic compounds' released by a tumour. Promising results using dogs have also been seen with bowel and lung cancer. Cancer research UK claims that using dogs would be impractical, but discovering the chemicals the dogs can smell could lead to new tests.

<http://www.bbc.co.uk/news/health-31785245>

**05/03/15**

The latest blog post about gender equality in labs - for the fluffy females too.

"Reliance on only male models to study diseases or develop drugs is another form of discrimination to the female – a discrimination on a potentially life threatening level. Males and females don't have the same bodies in fundamental ways."

<http://www.understandinganimalresearch.org.uk/news/communications-media/we-need-more-furry-females-in-medical-research/>

You may look like mother, but your genes have more in common with your paternal side. A study on mice has shown that although we inherit equal amount of genetic information from our parents, we actually use more of the DNA that we inherit from our father. In the mice studied, the researchers discovered an imbalance in offspring which made their brain genes significantly more like their father's. The finding has important implications for studying the development of diseases, and finding treatments.

Prof Fernando Pardo-Manuel de Villena, who led the research, said: "This is an exceptional new research finding that opens the door to an entirely new area of exploration in human genetics." He explained: "We know there are 95 genes that are subject to this parent-of-origin effect. Now we've found that in addition to them, there are thousands of other genes that have a novel parent-of-origin effect."

<http://www.telegraph.co.uk/news/science/science-news/11448449/Why-you-really-do-get-that-from-your-father.html>

Scientists have found a hormone that mimics the effects of exercise – just one injection is needed to curb weight gain and diabetes in mice. The hormone boosts metabolism, just like exercise. MOTS-c targets muscle tissue and seems to be able to restore insulin sensitivity. This hormone is special because it's encoded in the DNA of the mitochondria – the energy-generating organelle of the cell - rather than the DNA in the nucleus. Clinical trials are planned to begin in the next 3 years.

"This represents a major advance in the identification of new treatments for age-related diseases such as diabetes," Pinchas Cohen, one of the lead researchers from the University of Southern California

<http://www.sciencealert.com/scientists-have-found-a-hormone-that-mimics-the-effects-of-exercise>

A virus from horses is bringing us closer to a vaccine against hepatitis C. The virus is so similar to the Hepatitis C virus in humans (HCV) that it might be possible to use horses to develop vaccines against it which has infected 200 million people. The new study could be used to expand the understanding of liver diseases in horses and to understand where HCV in humans actually comes from. The scientists sequenced the genome of the HCV-like virus in horses. This will help them compare both viruses and enable scientists discover more

about the relationship between the different viruses. The researchers have also produced a copy of the virus' genome and injected it into the liver of a live horse to see if the horse can react in a way that was reminiscent of that of humans – to prove that it is an effective model for a vaccine.

<http://sciencenordic.com/virus-horses-bringing-us-closer-vaccine-against-hepatitis-c>

**04/03/15**

Researchers at Royal Holloway have found that wild bumblebees are infected with many of the same diseases that exist in commercial honeybee populations. Conservation groups are warning that there needs to be more checks to prevent diseases being brought in by imported bees, as well as noting a need for more wild flowers to maintain wild bee populations.

<http://m.bbc.co.uk/news/science-environment-31709115>

Chinese scientists have produced a TB-resistant cow. In 2013, TB cost the taxpayers £100m and the lives of 26,000 cattle. The disease has also convinced the government to test culls of badger populations to prevent its spread. If these new genetically modified cows were to be bred, it may be a great leap forward for animal welfare in the UK.

<http://m.bbc.co.uk/news/science-environment-31709107>

**27/02/15**

Llamas might be the new hope for a new AIDS vaccine or treatment – llamas appear to be immune to HIV. Llama antibodies, which develop in response to the virus potentially neutralizes more than 95% of HIV strains. In humans, the antibodies are completely ineffective at halting the virus they have evolved to target. Unlike human antibodies, llama antibodies have a single chain of proteins, which allows them to accurately aim at specific viruses compared to a more scatter-gun approach to the human immune system, attacking all foreign viruses.

<http://www.usatoday.com/story/news/world/2015/02/23/lima-peru-llama-aids-hiv/23884381/>

Study in mice shows that First World War explosive could reverse diabetes. A chemical – DNP – caused munitions factory workers to lose weight during First World War. The workers exposed to the chemical began to sweat excessively, lose weight and suffer high temperatures – DNP was increasing metabolism by up to 50% and burning fat. Scientists have used a weaker dosage of the chemical to reverse type 2 diabetes. A small daily dose of DNP is enough to make the cells more sensitive to insulin, so that they burn away more fat in the form of heat

"A low-dose infusion of DNP that was 100-fold lower than toxic levels significantly reduced blood glucose and insulin concentrations in a rodent model of type 2 diabetes", said lead author Dr Gerald Shulman. "Given these promising results in animal models of fatty liver disease and type 2 diabetes we are pursuing additional preclinical safety studies to take this approach to the clinic."

<http://www.telegraph.co.uk/news/science/science-news/11437601/First-World-War-explosive-could-reverse-diabetes-says-Yale-University.html>

Tiny beach mollusc could hold the key to augmented reality. The natural optical structures found in the mollusc could be used as a basis for developing colour-selective, controllable, transparent displays that could be incorporated into glass and windows. MIT and Harvard scientists have identified two optical structures within the blue-rayed limpet's shell that give it its blue-stripped appearance that can be quite brilliant when light hits at the right angle. This is the first evidence of an organism using 2D mineral structures to produce optical displays.

“Let’s imagine a window surface in a car where you obviously want to see the outside world as you’re driving, but where you also can overlay the real world with an augmented reality that could involve projecting a map and other useful information on the world that exists on the other side of the windshield,” said Mathias Kolle, assistant professor of mechanical engineering at MIT. “We believe that the limpet’s approach to displaying colour patterns in a translucent shell could serve as a starting point for developing such displays,”

<http://www.independent.co.uk/news/science/tiny-molusc-on-beach-could-hold-key-to-augmented-reality-10073641.html>

**Dogs know when you’re lying to them.** Dogs can sense our emotions, and now researchers have found that they can also tell when you are lying, and will stop following the cues of someone they deem untrustworthy.

"Dogs are very sensitive to human behaviour but they have fewer preconceptions," explained the lead author. "They live in the present, they don't reflect back on the past in an abstract way, or plan for the future." And they certainly don't approach a situation by "thinking deeply about what that entails",

<http://www.sciencealert.com/dogs-know-when-you-re-lying-to-them>26/02/15

**Are we really two years away from the first full body transplant?** Monkey trials are still far from approval. Sergio Canavero, an Italian surgeon has however already drawn up plans to graft a living person’s head on to a donor body and claims that it will be feasible in two years. But there are still technical issues that need to be addressed – removing a living person’s head, grafting it to a dead body, reviving the reconstructed person and retaining their brain to use thousands of unfamiliar spinal cord nerves. And even if that works, the person might wake up and psychologically completely reject the new body. But before any of this can be tried in humans, it needs to be tested in monkeys – and that is far from being accepted. In 1970, a team of scientists had tried to transplant the head of one monkey on to the body of another but the surgeons stopped short of a full spinal cord transfer, so the monkey could not move its body. Last year, a Chinese team came close to head transplants in mice and they hope to perfect the procedure that they call ‘lifesaving’. Will this procedure really be viable someday, and will it be ethically accepted in our society?

<http://www.theguardian.com/society/2015/feb/25/first-full-body-transplant-two-years-away-surgeon-claim>

**Shy kangaroos have fewer ‘friends’** but prefer bigger groups. Making friends is not a random act for kangaroos, they actively choose who and when they mix with. They frequently change of group membership – individuals may be switching groups several times a day. Scientists have found that personality traits such as boldness and shyness can determine how sociable a kangaroo is. Shyer or risk-averse kangaroos feed in larger groups than bolder or braver individuals who actually have more friends.

“We suspect that shy females prefer to be in larger groups because individuals in larger groups are safer from predators,” said lead author Dr Emily Best. “We also suspect that shy ones are less selective of acquaintances because to be selective would require an animal to spend more time leaving groups to search out those acquaintances, and an inherently more risk-averse individual might find that a risky thing to do.”

<http://www.bbc.com/earth/story/20150221-shy-kangaroos-are-more-sociable-than-bolder-ones>

**Stress shaves off telomeres in hyenas’ chromosomes.** Being a low-ranking hyena is stressful – so stressful that even the chromosomes are affected. Telomeres, stretches of DNA at the tips of chromosomes that protect them from shortening during cell replication, are shortened by stress in low ranking hyenas. With increased stress, higher amounts of stress hormones and cellular by-products like oxygen ions and peroxides are produced, both of which have been shown to shorten telomeres in other species. When telomeres fall below a certain length, cells go into damage control mode and die. This study is the first to show that the stress of social hierarchy can shorten telomeres in a wild species.

<http://rsbl.royalsocietypublishing.org/content/11/2/20140991>

**Rats know how to repay a favour**, behavioural study shows. If I scratch your back, you scratch mine, we all end up better – is a fine principle of reciprocity and one of the most popular explanation for how co-operative behaviour evolved. Reciprocity is rarer than might be imagined but rats seem to have understood that very well and will give as much as they get. Rats can recall the quality of help provided and by whom, and then adjust their subsequent behaviour so as to invest more time and energy in helping those that helped them.

<http://www.iflscience.com/plants-and-animals/behavioural-study-shows-rats-know-how-repay-favour>

**24/02/15**

The UK's Chief Medical Officer, Dame Sally Davies, has urged the House of Lords to legalise "three-parent IVF" noting that animal experiments have provided strong evidence for its safety. The House of Commons approved the new technique earlier this month.

<http://www.independent.co.uk/news/science/chief-medical-officer-urges-lords-to-legalise-threeparent-ivf-10065833.html>

Researchers at the University of Sydney have found that oxytocin appears to reverse the sedative effects of alcohol. They believe that the oxytocin binds to the parts of the brain's GABA receptors which are affected by alcohol. It is hoped that such a drug could be used to treat alcohol disorders.

<http://www.newscientist.com/article/dn27016-rats-cant-get-drunk-after-a-dose-of-oxytocin-hormone.html#.VOyFOC6mBjM>

**23/02/15**

**Lemurs the size of gorillas** may sound like a nightmare, but such a creature, the giant lemur, was believed to exist around 4,000 years old. The bones of the animal were found in a cave along side many other extinct animals, creating a mystery as to how they all came to be in the same place.

<http://www.dailymail.co.uk/sciencetech/article-2962025/Mystery-graveyard-containing-lemurs-size-GORILLAS-Underwater-cave-contain-hundreds-giant-fossils.html>

Dolly the Sheep, the first mammal cloned from an adult cell, is being honoured by a blue plaque on the wall of the Roslin Institute at Edinburgh University, where Dolly lived most of her life. The plaque will be unveiled on Wednesday at a ceremony open to the public.

<http://www.independent.co.uk/news/science/dolly-the-sheep-to-be-honoured-with-blue-plaque-in-edinburgh-10061313.html>

For more information on Dolly the Sheep, see here: <http://www.animalresearch.info/en/medical-advances/timeline/cloning-dolly-the-sheep/>

**20/02/15**

**Marine animals have been getting bigger over time**, on average, since the Cambrian period. Over the past 542 million years, the average size of a marine animal has gone up by a factor of 150. The blue whale is more than 100,000 times the size of the largest animal the Cambrian could offer. This is not random – the study suggests that bigger animals generally fare better at sea, possibly by moving faster, burrowing better in sediment, or eating larger prey. The changing chemistry of the ocean, including the increase in oxygen, may also have played a role.

"The degree of increase in both mean and maximum body size just aren't well explained by neutral drift," said Dr Noel Heim, from Stanford University in California. "It appears that you actually need some active evolutionary process that promotes larger sizes."

<http://www.bbc.co.uk/news/science-environment-31533744>

**Scientists have identified the gene that makes our brain bigger** – and used it to make mice with super-brains. Mouse embryos developed massive, fast-growing brains after receiving the human gene in the womb, particularly in the region of the cerebral cortex – important region for decision making and thought in humans. Human DNA is 98% identical to Chimpanzees' DNA, but we've got much bigger brains – a massive white matter growth occurs in the first two years of life with a super-fast proliferation of neuronal connections. Scientists have pinpointed the enhancer sequence responsible for this difference. They speculate that the gene is what separates our brains from those of other animals.

Debra Silver, the lead study author and an assistant professor of molecular genetics and microbiology at Duke, explains *"We discovered that the human DNA sequence, which only had 16 changes in it compared to the chimp sequence, was being expressed differently in mice. The human DNA was really able to accelerate the way the stem cells divide, and as a result, the mice were able to produce more neurons. HARE5 seems to promote the ability to create more neurons and increase brain size, which allows human brain development to take advantage of that."*

<http://www.sciencealert.com/scientists-identify-the-gene-that-makes-our-brains-bigger>

**Psychedelic drugs prevent asthma in mice.** A very small dose of the psychedelic drug comparable to LSD, DOI – about 50 to 100 times less than what is needed to alter behaviour – can prevent the development of symptoms linked to asthma in mice. Scientists had previously shown that psychedelics could anti-inflammatory activity in tissues of blood vessels and gut. This led to the idea to treat asthma – a chronic lung inflammation – with the same chemicals.

"These drugs are known only for their effects in the brain," Pharmacologist Charles Nichols from Louisiana State University "What we have demonstrated for the first time is that they are also effective in treating physiological diseases outside of the brain, a completely new and exciting role for this class of drug."

<http://www.sciencealert.com/exposure-to-psychedelic-drugs-prevents-asthma-in-mice>

**19/02/15**

**The science of munchies explained** – the urge to eat after smoking is caused by cannabinoids hijacking brain cells that normally suppress appetite. Cannabis causes the brain to produce a different set of chemicals that transform the feeling of fullness into hunger. Scientists injected cannabinoids into the brains of mice and monitored which neurons were activated. This helped illuminate a previously unknown aspect of the brain's feeding circuitry and could help design new drugs that would boost or suppress appetite at will.

Tamas Horvath, who led the work at Yale University, said: "By observing how the appetite centre of the brain responds to marijuana, we were able to see what drives the hunger brought about by cannabis and how that same mechanism that normally turns off feeding becomes a driver of eating. It's like pressing a car's brakes and accelerating instead."

<http://www.theguardian.com/science/2015/feb/18/study-on-why-cannabis-kicks-in-urge-to-eat-could-help-create-new-drugs-to-control-appetite>

A new approach to **vaccination seems to completely protect monkeys from HIV**. Vaccines usually prepare the immune system to fight an infection. Instead, scientists have altered the DNA of monkeys to give their cells HIV-fighting properties. This technique uses gene therapy to introduce a new section of DNA – containing the instruction to build tools to neutralize HIV - inside healthy muscle cells. The monkeys who received the

injection were protected from all types of HIV for at least 34 weeks. Researchers want to start human trials as fast as possible and they believe that this approach may be useful in people who already have HIV.

Lead researcher Prof Michael Farzan told the BBC: "We are closer than any other approach to universal protection, but we still have hurdles, primarily with safety for giving it to many, many people.

<http://www.bbc.co.uk/news/health-31511244>

Mouse mothers pass on traits to their offspring through their own DNA but also bacterial DNA. Researchers have shown that the DNA of bacteria in the mother's body can pass a trait to offspring in a similar way to the parent's DNA. Those commensal bacteria can influence traits such as weight and behaviour. Until now, researchers thought that these were acquired through life. This is the first study that shows they can be inherited in a manner that affects specific traits such as immunity and inflammation.

"We have kept bacteria on one side of a line separating the factors that shape our development — the environmental side of that line, not the genetic side," said co-senior author Herbert Virgin IV. "But our results show bacteria stepping over the line. This suggests we may need to substantially expand our thinking about their contributions, and perhaps the contributions of other microorganisms, to genetics and heredity."

<http://www.alnmag.com/news/2015/02/mouse-mothers-pass-traits-offspring-through-bacterias-dna>

A protein found in [spider venom can be modified to treat erectile dysfunction](#). Toxins in the wandering spider's venom increase relaxation of the sponge-like tissue in the penis. The chemical involved has now been isolated and produced in the lab. Test on rats show that it restores erectile function.

<http://medicalxpress.com/news/2015-02-genetically-spider-venom-erectile-dysfunction.html>

**18/02/15**

Limpet's teeth are the strongest biological material discovered to date. Scientists required a diamond cutter to chop up the tiny teeth of these aquatic snails. These might be used to create false human teeth.

<http://www.independent.co.uk/news/science/the-strongest-biological-material-known-to-man-limpet-teeth-10052321.html> (also covered in Telegraph)

Yesterday's Alzheimer's story (see yesterday's news) got picked up by the Guardian, who mentioned the use of mice.

<http://www.theguardian.com/science/2015/feb/16/alzheimers-research-molecule-delay-onset-dementia-found>

**17/02/15**

A team of scientists at Cambridge University have identified a molecule which can block the progress of Alzheimer's at a critical stage in the development of the disease. Researchers modelled what type of molecules might inhibit Alzheimer's processes before confirming with studies in mice.

<http://www.telegraph.co.uk/news/science/science-news/11415776/Alzheimers-breakthrough-scientists-home-in-on-molecule-which-halts-development-of-disease.html>

A genetic study of penguins suggests they lost most of their ability for taste long ago. While taste may play an important role in telling animals what they should and should not eat, it is likely to matter less to penguins which swallow fish whole. Of the five basic tastes, penguins can only taste salty or sour things.

<http://www.bbc.co.uk/news/science-environment-31490623>

**16/02/15**

Alzheimer's Research UK has announced a Drug Discovery Alliance - a link up of three of the leading British research centres who will pool their knowledge and expertise in an effort to find new treatments. Cambridge, Oxford and UCL universities will all host one of these drug discovery institutes, which will see about 90 new researcher scientists recruited over the next five years.

<http://www.bbc.co.uk/news/uk-31483696>

The sex lives of the animal kingdom would make 50 shades of grey sound like a Dulux paint colour chart. Bondage, sex toys, pornography and transvestism all appear in this (safe for work) list of excitements you might find naturally in the wild.

<http://www.bbc.com/earth/story/20150213-natures-raunchiest-scenes>

**13/02/15**

Dogs can spot the difference between smiling and angry faces of both friends and strangers. Dogs were trained to watch a touchscreen and tap their paw on happy faces in exchange for treats. Scientists are interested in the extent to which dogs “absorb” the emotions of those around, a process called “emotional contagion”.

<http://www.independent.co.uk/news/science/dogs-can-differentiate-between-humans-angry-and-happy-faces-10042559.html>

A study in the Applied Animal Behaviour Science showed that tickling rats could reduce their stress levels before giving an injection. The ultrasonic chirps made by rats when tickled were same as those heard when rats played with each other. Such methods fit well within the principle of refinement (one of the 3Rs).

[http://www.alnmag.com/news/2015/02/tickling-rats-reduces-stress-injections?et\\_cid=4412495&et\\_rid=600084933&type=cta](http://www.alnmag.com/news/2015/02/tickling-rats-reduces-stress-injections?et_cid=4412495&et_rid=600084933&type=cta)

**12/02/15**

Researchers at Edinburgh Heriot-Watt University are developing a 3D bioprinter which uses a gel made from synthetic DNA to produce artificial organs. The new gel, developed by scientists in Tsinghua University, provides a scaffold for the living cells. Researchers will now work on how to get a patient's own stem cells to reprogramme the tissue into a functional organ that could replace a faulty one within the body.

<http://www.edinburghnews.scotsman.com/news/health/3d-printing-of-organs-for-transplant-step-closer-1-3686872>

Our science-writer, Mia Rozenbaum, has an article on how evolution might teach us about Hipster beards in the Huffington Post. Why has evolution given monkeys different facial hair? In the canopies of a rainforest it can be useful to stress features which both mark your species and gender – when there might otherwise be confusion across the multitudes of animals living there.

[http://www.huffingtonpost.co.uk/mia-rozenbaum/hipster-beards\\_b\\_6654008.html](http://www.huffingtonpost.co.uk/mia-rozenbaum/hipster-beards_b_6654008.html)

According to scientists at the University of Oslo, gerbils are much more resistant to the plague than rats or mice. This may be due to a hereditary congenital immune system. Work is ongoing to sequence the gerbil genome – hopefully unlocking more secrets about this plague resistance.

<http://www.alnmag.com/news/2015/02/gerbils-more-tolerant-plague-rats>

**10/02/15**

'Smart' insulin tested in mice is a new hope for diabetes. Instead of repeating blood tests and injections throughout the day to keep blood sugar in check, a single dose of smart insulin would keep circulating in the body and turn on when needed. The molecule is a chemically modified version of regular, long acting-insulin. It has extra sets of molecules that allow it to bind to proteins that circulate in the bloodstream when it is off. When blood sugar rises, the smart insulin switches on and glucose locks onto it and tells it to get to work. Animal studies have shown that the technology works but experts caution that it will take years of testing before smart insulin could be used by patients.

<http://www.bbc.co.uk/news/health-31291722>

Scientists develop potential new therapy based on cow's molecules for hormone deficiencies. Researchers found that human hormones and antibodies can be fused together, mimicking long cow antibodies. Many people need injections of human growth hormone (hGH) to combat hormone deficiencies, but unfortunately it is degraded very fast by the body. Antibodies however, can last for weeks in the body. The fusion hGH to a coiled version of the bovine antibody is stable and maintains the function of hGH. The antibody-hGH molecule was successful in rat and mice models.

<http://www.news-medical.net/news/20150209/Scientists-develop-potential-new-therapy-based-on-cows-immune-molecules-for-hormone-deficiencies.aspx>

Frozen semen from lions is capable of producing embryos. Scientists have successfully produced embryos from African lions via assisted reproduction. What is new here is that they used immature eggs that were retrieved from African lionesses, which were then brought to maturity and injected with lions' sperm. Assisted reproductive technologies are becoming increasingly important for the breeding of endangered species. Shipping embryos or just sperm cells will reduce possible risk of disease transmission between zoos

<http://www.alphagalileo.org/ViewItem.aspx?ItemId=149567&CultureCode=en>

**09/02/15**

"What I'm really thinking: the animal tester" is a great article in The Guardian giving an insight into the thoughts of someone involved in animal research. The author discusses how hard it was to kill a research mouse for the first time, but how important the research is to the development of modern medicine.

<http://www.theguardian.com/lifeandstyle/2015/feb/07/what-really-thinking-animal-tester>

NC3Rs have released a e-learning resource on "Laboratory Animal Anaesthesia for Minor Procedures" – this scenario-based training is professional development for those involved in anaesthetising animals.

<http://cbctraining.ncl.ac.uk/eM-EU20/story.html>

Naked mole rats produce hybrid proteins that prevent tumour growth – new key to defeating cancer. Naked mole rats have never been seen to develop cancer despite living up to 32yrs. Scientists have identified a new protein formed by the fusion of two other proteins, which protects the rodent from cancer. The protein

appears to increase when cells become crowded together, making mole rats more likely to arrest the growth of cells if they are at risk of becoming malignant.

<http://www.alnmag.com/news/2015/02/extra-protein-gives-naked-mole-rats-more-power-stop-cancer>

Pigeons identify objects in the same way infants learn words. Researchers taught pigeons to use touchscreen computers and to sort 128 different pictures into 16 categories. Pigeons are known to be smarter than many birds and their homing instinct allow them to memorise their location and find their way home from hundreds of miles away. It took them 40 days to learn how different objects fitted into each category. Scientists say this is similar to how parents begin teaching children words – by their parents pointing to pictures and asking them to name the object. The birds, however, require 45,000 lessons to achieve their best scores while humans learn to group objects in under an hour.

<http://www.dailymail.co.uk/sciencetech/article-2941062/Are-pigeons-like-CHILDREN-Study-shows-birds-identify-objects-way-infants-learning-words.html>

**05/02/15**

**Monkeys reached Americas about 36 million years ago.** Peruvian teeth fossils suggest ancient African primates somehow crossed the ocean, around 10 million years earlier than previously thought. Scientists believe first primates travelled to South America, which was once an isolated island before it joined the North America three million years ago, from Africa on natural rafts that drifted across the Atlantic Ocean. The two groups of primates then evolved separately to create distinct families. The ancestral monkey would have been small comparable to today's tamarins Callimico and some species of Saguinus.

<http://www.dailymail.co.uk/sciencetech/article-2939967/Is-South-America-s-monkey-Fossils-Amazon-primates-cross-Atlantic-Africa.html>

Novel concept for HIV and cancer vaccines – incorporating antigenic diversity into it. Conventional vaccines are based on total antigens, but the high variability of some pathogens allows them to escape recognition by the immune system. The research group proposed that an HIV vaccine should be able to induce both humoral and cellular responses – the main defence mechanisms against pathogens – and that a cancer vaccine should reduce tumour growth and metastasis by the activation of lymphocytes T. Faced with the antigenic diversity and the enormous variability of the pathogens and cancer cells, the researcher suggested the construction of vaccines based on Variable epitope (small fragments of an antigen) libraries. This would induce broadly neutralizing serum in mice against the pathogens and cancer cells.

The results of the research group are highly promising as a universal concept for the generation of vaccines against antigenically variable pathogens and cancer.

<http://www.alphagalileo.org/ViewItem.aspx?ItemId=149417&CultureCode=en>

The **DNA from a red deer has been used for the first time in the UK to help prosecute a poacher.** It linked the poacher to a site of an illegal kill of a red deer.

Sara Shaw, a procurator fiscal specialising in wildlife and environment, said "This conviction represents a highly significant step forward in the fight against wildlife crime. Ch Insp Colin Gough, Highland and Islands Division wildlife crime co-ordinator at Police Scotland, said: "It is a ground-breaking step forward from a policing perspective to be able to employ new scientific developments to allow cases such as this to be solved. Very often, poaching goes unreported and investigations can be complex and pro-longed."

<http://www.bbc.co.uk/news/uk-scotland-highlands-islands-31127652>

**04/02/2015**

A new alternative method to replace animal testing in drug trials mimics a whole organism. Thanks to a tiny one euro coin sized chip, researchers hope to recreate a miniature human organism on the scale of 1: 100,000. On the chip, there are small quantities of cells from different organs of the body linked to each other by tiny channels representing blood vessel through which liquid nutrient flow propelled by a mini-pump. This pump mimics the heart and makes sure a constant current of nutrients reach the cells.

The scientists can chose which cells they want to integrate to the chip depending on the substance to test. This 'miniature organism' has yet to be used for a real trial, it is still in the control stage, but shows a lot of promise. It was distinguished by the Animal Safety Research Prize, which recognizes innovations that offer alternatives to animal testing.

<http://www.sciencesetavenir.fr/sante/20150203.OBS1585/tests-de-medicaments-une-puce-pour-replacer-l-experimentation-animale.html>

Cats love for boxes may come from a predatory behaviour. Scientists are still not completely certain about the reasons for the affinity cats have for boxes, but the most prominent theory is that boxes offer security and shelter from predators while they stalk prey. Boxes reduce stress levels in cats, and cats that have boxes get used to new surrounding faster than those that don't. Boxes could also be used to escape unwanted attention, or be used as ideal insulators to keep warm

<http://www.dailymail.co.uk/sciencetech/article-2938758/Why-cats-love-boxes-Scientists-say-predatory-behavior-just-want-leave-alone.html>

The biggest rodent to have roamed the earth used his teeth as fighting and digging tools, just like tusks. The bull-sized cousin of the guinea pig died out around 2 million years ago. According to CT scans, its bite was as strong as a tiger's, but it's 30cm front teeth were built to withstand forces nearly 3 times larger.

<http://www.bbc.co.uk/news/science-environment-3111843>

**02/02/15**

The Association of Liberal Democrat Scientists and Engineers (ALDES) have a [new briefing on animal research](#). The four page summary explains what is and is not animal research, what the regulations are, what species are used and other such facts. It is a useful briefing for anyone, but particularly effective when communicating with Lib Dems.

"Animal research, sometimes referred to as 'animal testing', 'animal experimentation' or (incorrectly) 'vivisection', is the use of animals in medical, veterinary, environmental and other scientific studies. Such research aims to improve our understanding of biological processes associated with health and disease, and to develop medical and veterinary treatments for humans and animals."

<http://www.aldes.org.uk/wp-content/uploads/2015/01/ALDAnimalResearch115.pdf>

The Pew Research Center survey, conducted in collaboration with AAAS, showed a large discrepancy between the view of scientists and the public on a number of issues including climate change, GM food safety, pesticide safety evolution and animal research. While 89% of scientists were in favour of the use of animals in research, only 47% of Americans endorsed this opinion (a 42% difference).

<http://www.independent.co.uk/news/science/americans-vs-scientists-data-shows-disagreement-on-climate-change-and-gm-food-10016606.html>

PRC Report: [http://www.pewinternet.org/files/2015/01/PI\\_ScienceandSociety\\_Report\\_012915.pdf](http://www.pewinternet.org/files/2015/01/PI_ScienceandSociety_Report_012915.pdf)

In the early 1980s, 9/10 pandas died of starvation, however, over the last three decades a parasitic gut worm has become the dominant killer. Baylisascaris schroederi, a parasitic roundworm, cans in large numbers form

bowel obstruction and more serious conditions. The worm lays eggs discriminated in panda faeces, where they stay viable for many years, awaiting for an unlucky panda to swallow them.

<http://www.iflscience.com/plants-and-animals/meet-parasitic-worm-kills-giant-pandas>

**29/01/15**

**Diabetes in rats treated with an engineered microbiome.** Scientists have engineered human lactobacilli, a common gut microbe, to secrete a protein GLP-1. When in contact with this protein, intestinal epithelial cells that cover the guts are converted into insulin-producing and monitoring cells, just like pancreatic cells. Diabetic rats that received the engineered probiotic ended up with up to 30% lower blood glucose levels.

[http://www.biosciencetechnology.com/news/2015/01/diabetes-rats-treated-engineered-probiotic?et\\_cid=4386586&et\\_rid=762765857&type=cta](http://www.biosciencetechnology.com/news/2015/01/diabetes-rats-treated-engineered-probiotic?et_cid=4386586&et_rid=762765857&type=cta)

**A single copy of a gene linked to longevity** is responsible for extra tissue in parts of the brain, which seems to protect against mental decline in old age. About 1/5 people inherit a single copy of the gene KL-VS, which improves heart and kidney function, and adds on average 3 years to the human lifespan. It also accounts for a 12% improvement in people's mental test scores. When KL-VS was modeled in mice, scientists found this strengthened the connections between neurons and enhanced learning and memory. Scientists hope to be inspired by this pathway and turn it into a therapy to slow down Alzheimer's disease.

<http://www.theguardian.com/science/2015/jan/27/long-life-gene-protects-against-mental-decline-old-age-alzheimers-dementia>

England's first population of wild beavers in 500 years have been granted the right to live a river near Devon. This is the first step to a re-introduction programme after they were hunted to extinction in the 16<sup>th</sup> century. It is still unclear where the beavers come from - it is thought they may have escaped from captivity.

<http://www.telegraph.co.uk/news/earth/wildlife/11374653/Beavers-can-stay-in-Devon-rules-Natural-England.html>

Scientists are putting all their hope on **in-vitro fertilisation to save the northern white rhino from extinction.** Last year, two adult male northern white rhinos died within months, leaving the remaining population to only 5 individuals. Conservationists have decided to harvest eggs from the remaining females to be stored for the future. Specialist want to "wait for a time when the IVF techniques will be developed and tested enough to give us a reasonable chance that usage of (northern white rhino) samples would lead to a successful embryo transfer", said Jan Stejskal, from the Dvur Kralove zoo in the Czech Republic, which owns the last animals.

<http://www.bbc.co.uk/news/science-environment-31001941>

**28/01/15**

By coaxing human stem cells to become dermal papilla cells, which are involved in follicle formation, scientists in Orlando believe they may be able to regrow human hair – and potentially a cure for baldness. Researchers managed to grow the hairs on the leg of a rat, and scientists wonder whether the technique could go on to work in humans.

<http://www.dailymail.co.uk/sciencetech/article-2928737/A-cure-hair-loss-Scientists-grow-hair-rats-using-stem-cells-say-treatment-work-humans-too.html>

Scientists have found the fossilised remains of four ancient snakes which they think could be over 140 million years old – much older than previously believed. The fossils were found in the UK, Spain and the US and it is hoped that these fossils could help better understand the evolution from lizards (with limbs) into modern day snakes.

<http://www.dailymail.co.uk/sciencetech/article-2928605/World-s-oldest-snakes-discovered-140-million-year-old-fossilised-remains-twice-old-previously-found.html>

**27/01/15**

We all know or remember the feeling of trying to get through the school day without falling asleep – it is much harder to learn effectively. Studies in fruit flies showed that when Dorsal Paired Median (DPM) neurons, well known to be responsible for memory consolidation, are activated the flies slept more. If the DPM neurons were deactivated the flies continued flying around. DPM neurons encourage continued sleep in order to convert short term to long term memory.

<http://www.alnmag.com/news/2015/01/fruit-flies-show-how-sleep-connected-memory>

Man-made global warming is already melting the icecaps, reducing the space available to polar bears, but now there is another risk. **Chemical pollutants are reducing the density of bear's penis bone**, making it harder for them to reproduce. Studies have shown that bears with high levels of PCBs (a pollutant) have smaller than average penis bones and testes.

<http://www.dailymail.co.uk/sciencetech/article-2926916/Is-pollution-destroying-polar-bears-penises-Toxic-chemicals-weakening-bone-inside-sex-organs.html>

also: <http://www.newscientist.com/article/dn26855-polar-bear-penis-bone-may-be-weakened-by-pollution.html#.VMddICwl-II>

**26/01/15**

Evolutionary competition between mice can lead them to evolve **better, not bigger, balls**. Researchers in the University of Western Australia found that mice could evolve to produce more sperm without having bigger testes. This runs against findings from earlier studies in primates.

<http://www.newscientist.com/article/dn26845-mice-evolve-better-not-bigger-balls-in-sperm-race.html#.VMYRS6mBjM>

One of the untold victims of the Ebola crisis has been great apes. An estimated one **third of the world's gorilla and chimpanzee populations have been wiped out by Ebola** since the 1990s. Great ape research bans make the development of a vaccine more difficult for these populations, however they may benefit from current advances in human vaccines.

<http://www.independent.co.uk/news/world/africa/ebola-virus-has-killed-a-third-of-the-worlds-gorillas-and-chimpanzees--and-could-pose-greatest-threat-to-their-survival-conservationists-warn-9998386.html>

**23/01/15**

Blocking a gene in mice helped them live 15% longer without any side effects. In humans, switching off that single gene could extend life by 12 years and make elderly people fitter. The gene Myc is important in cell division, growth and death, however, when it is overactive, it can cause cancer. Limiting the gene, on the contrary, extends life, makes the mice fitter, and prevents them from developing age related conditions. The mice have a healthier immune system.

John Sedivy, professor of medical science said: “The animals are definitely aging slower. They are maintaining the function of their organs and tissues for longer periods of time. These mice are incredibly normal, yet they are really long-lived.”

<http://www.telegraph.co.uk/news/science/science-news/11363444/Could-switching-off-single-gene-extend-life-by-12-years.html>

**22/01/15**

By joining the circulatory system of an old mouse to that of a young mouse, scientists have shown that the blood of the young mice seems to bring new life to the ageing organs, making old mice stronger, smarter and healthier. Changes can be seen in the brain, spinal cord, muscles and almost every other tissue examined. Labs have started identifying the components in the blood responsible for these changes and for the first time in September, a clinical trial in California tested the benefits of young blood on older people with Alzheimer’s disease. The young blood seems to activate stem cells in the older mice which results in a variety of rejuvenation across organs and the growth of new cells – the organs appear younger.

“We’re not de-ageing animals,” says Amy Wagers, a stem-cell researcher at Harvard “We’re restoring function to tissues.”

<http://www.nature.com/news/ageing-research-blood-to-blood-1.16762>

**21/01/15**

Obama’s State of the Union called for an increase in funding for the precision initiative, into personalised medicine. Science rarely gets mentioned at the State of the Union, so this was seen as a good sign for science funding in the US.

<http://www.nature.com/news/obama-urges-climate-action-in-state-of-the-union-speech-1.16766>

An experimental vaccine that elicits only a CD4 T cell (No CD8 T cells) response in a mouse model of chronic viral infection resulted in a lethal inflammatory response. HIV has an impact of reducing a bodies CD4 T Cell levels.

<http://bidmc.org/News/In-Research/2015/January/Barouch.aspx>

**20/01/15**

Microscopic machines have delivered a cargo of nanoparticles into the stomach lining of a mouse. Scientists at the University of California, San Diego (UCSD), believes such machines could be used to deliver drugs to specific areas of the body. The machines are made of polymers 20 micrometres long (the width of a human hair) and dissolve in the stomach acid.

<http://www.bbc.co.uk/news/science-environment-30875102>

A geographic cone snail uses a form of insulin to subdue its prey. By either releasing toxins into the water or firing its poison-tipped tooth into prey it can cause the blood sugar of fish prey to plunge, making them sluggish and easy to finish off.

<http://www.theguardian.com/science/2015/jan/19/venomous-sea-snail-insulin-prey-conus-geographus>

Researchers at Duke University have grown human skeletal muscles in a dish. These muscle acts, in many ways, like it would in our body, reacting to electrical impulses and biomedical signals. In the past, the team has grown functioning human muscle tissue in mice. It is hoped these methods will help researchers narrow the field of potential new drugs before they move to animal and human tests.

<http://singularityhub.com/2015/01/19/lab-grown-muscles-to-serve-as-clinical-trials-in-a-dish/>

Gut microbes trigger autoimmune disease later in life in mice. Researchers have revealed that the colonization of the gut of young mice by certain types of bacteria can lead to immune responses later in life that are linked to disease. Increases in the levels of segmented filamentous bacteria can trigger changes in the lymphoid tissue of the mouse gut that result in the production of antibodies that attack components of the cell nucleus. This type of damage is a hallmark of autoimmune diseases like systemic lupus erythematosus and systemic sclerosis where organs throughout the body are damaged by wayward immune responses.

<http://dx.doi.org/10.15252/emj.201489966>

New giant armadillo behaviour recorded: an interaction between mother and son. Little is known about how and how long armadillos interact with their offspring. New evidence shows that the young still share the territory and occasionally the burrow of their mother at 17 months old. Females will produce very few offspring and will invest immensely in the raising of the baby. This explains why giant armadillos are so rare, too few young are born and removing one individual has huge consequences.

<http://www.bbc.com/earth/story/20141226-camera-traps-reveal-new-giant-armadillo-behaviour>

Salmon sperm could be the key to recycling rare earth elements found in smartphones, electric cars and solar panels. Rare earth elements used to make smartphones, electric cars, wind turbines and other supports for the renewable energy industry are becoming increasingly in demand, but the way we recycle and extract these elements is far from environmentally friendly. The solution is salmon sperm or 'milt' that forms tight bonds – more specifically its DNA forms tight bonds- with those rare elements which make them easy to separate and purify.

<http://www.sciencealert.com/salmon-sperm-could-be-the-key-to-safer-rare-earth-element-production>

**16/01/15**

Stress makes it hard for you to empathize with strangers. Empathy is stronger in those that know each other and absent in unfamiliar faces, and stress levels increase in the presence of strangers. In tests in mice and people, when the stress hormone was blocked by a drug, the empathy towards strangers increased. Playing games with a stranger has the same effect as the drug, and makes you more likely to feel empathy towards a stranger.

<http://www.bbc.co.uk/news/health-30831145>

Bobtail squid live in symbiosis with bioluminescent bacteria. The bacteria live in chambers in the squid and *Vibrio fischeri* out-compete other microbes to establish an entirely faithful relationship with their host. They also interact with the squid's immune system, guide its body clock and shape its early development by transforming its body. The microbe benefits by living in a cosy secure environment, and the squid uses the bioluminescence to hide from predators. The study of this relationship could help us understand a bit more about humans and their natural microbiome.

<http://www.nature.com/news/microbiology-here-s-looking-at-you-squid-1.16698>

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<http://www.sciencealert.com/salmon-sperm-could-be-the-key-to-safer-rare-earth-element-production>

Ancient fish fossil may hold the cue to the evolutionary divergence between sharks and fish. The biggest difference between both of them is their skeleton, sharks have a cartilaginous skeleton compared to fish that have a bony one. The fossil fish has a skull with large bony plates like today's fish but the traces of the nerves and blood vessels around the brain resemble those of cartilaginous fish. The findings suggest that the common ancestor of both vertebrates had features of bony fish that were lost in the cartilaginous fish, like the bony plates in the skull.

Rather than one group predated the other, "both groups evolved different adaptations, and they've also retained different primitive features from their ancestor," Sam Giles palaeontologist at Oxford University explains. "Each group has found a different way of approaching the problem of living in the sea."

<http://news.sciencemag.org/paleontology/2015/01/ancient-fossil-may-rewrite-fish-family-tree>

**15/01/15**

Hibernating animals could help fight Dementia and Alzheimer's. A protein used to protect the brain during the lengthy sleep of hibernation and restore brain activity when animals wake up could be used as a treatment for people with dementia. During hibernation, the number of synapses in the animal brains decrease by 20 to 30% allowing them to enter a state of torpor. A 'cold-shock' protein prevents loss of brain cells when the body temperature drops and rebuilds the synapses when the animals awake. This protein exists in humans but isn't functional in Alzheimer's patients. A drug that mimics the protein's effect could help restore brain function in those patients.

<http://www.bbc.co.uk/news/health-30812438>

Testing for bovine tuberculosis is more effective than badger culls at controlling the disease. When badger culling would save 12 cows from TB, more frequent testing would save 193 according to computer models. The recent rise of TB in cattle over the past few decades could be caused by bigger herds or keeping cattle inside for the winter, which could potentially double the number of infected animals.

<http://www.bbc.co.uk/news/science-environment-30820579>

Mobile technology has transformed the ways wild animals are studied at a distance. Knowing what animals do and where they do it could help us understand how diverse elements of the ecosystems interact and an array of technologies are being developed to study and record wild animals from afar. The development of special tags, tracking the animal's movement and behaviour has become more and more performant across the years, flooding scientist with amazing data.

<http://www.theguardian.com/science/2015/jan/13/zoology-animal-tracking-mobile-tech>

Birds intentionally choose colour-matching materials to camouflage their nest in order to reduce predation. The birds specifically select materials that reduce the conspicuousness of their nest. The birds also include a small amount of mismatched materials to provide 'disruptive camouflage' which helps jumble the visual outline of the nest.

<http://www.theguardian.com/science/grrlscientist/2015/jan/14/hidden-in-plain-sight>

Zebras stripes keep them cool. Those are the conclusion of a new study that looked at zebras from 16 sites and compared their weather conditions, vegetation and the presence of lions and biting flies. The black and white pattern keeps the animals cool under the hot sun, the ones in the hottest conditions are the stripiest and the darkest. The differences in the way the dark and light fur absorb and give off heat create refreshing air currents.

<http://www.dailymail.co.uk/sciencetech/article-2908552/So-S-zebra-got-stripes-Alternating-pattern-absorbs-reflects-heat-create-air-conditioning.html>

**14/01/15**

Today is STI day (#STIday2015) – we have a great piece on animal research into STIs on our website:

<http://www.understandinganimalresearch.org.uk/news/staff-blog/sti-day/>

A group of geneticists have unveiled the results of efforts to sequence the genomes of 99 domestic cats. Such work could help understand the mutations involved in underlying conditions that afflict two species, such as kidney disease. There has been less work done on the cat genome compared with dog, especially since dogs suffer from many of the same genetic-linked conditions as humans.

<http://www.nature.com/news/i-can-haz-genomes-cats-claw-their-way-into-genetics-1.16708>

Scientists in the US have transplanted human cells into a mouse resulting in a fully functioning gut tissue grown inside of the mouse. Researchers hope that such breakthroughs could be used to investigate various digestive conditions such as short bowel syndrome.

<http://www.dailymail.co.uk/sciencetech/article-2906734/Human-gut-grown-inside-MOUSE-Scientists-transplant-cells-grow-fully-functional-small-intestine-tissue.html>

**13/01/15**

Tiny wormlike parasites called "helminths" live inside over a billion people round the world. The parasite suppresses the hosts immune system which can make them vulnerable to other infections. Researchers believe that treating helminth in patients may help them fight off other diseases a person may have.

Researchers used 216 buffalo to study the effect of treating the helminth infection. TH1 immunity against bovine TB (BTB) in the treated group (108) rose, however by the end of the study there were similar levels of BTB in both control and treated groups - against the expectation of the researchers. BUT, the treated group were a lot less likely to die from the BTB

<http://www.earthtouchnews.com/discoveries/discoveries/a-lesson-on-disease-spread-courtesy-of-buffaloes-parasitic-worms>

**12/01/15**

A study at the University of Wisconsin into white-handed gibbons appears to show "clear evidence" that the animals have linguistic structures in their communication – suggesting that language is not unique to humans. The animals have a range of "words" which can be used to warn predators or discipline children.

<http://www.independent.co.uk/news/science/gibbons-may-communicate-as-our-ancestors-did-scientists-say-9970631.html>

A female orang-utan called Tilda, living in a zoo in Cologne, has shown abilities to make human-like sounds. She attracts the attention of her keepers by rhythmical clicking and imitating human mouth movements. These rhythms are around seven times faster than those used by most orang-utans.

<http://www.dailymail.co.uk/sciencetech/article-2903407/Dawn-Planet-Apes-Orangutan-learns-whistle-tunes-mimic-human-speech.html>

According to researchers from the Chinese Academy of Sciences, monkeys can be taught to recognize themselves in a mirror. The mirror self-reflection test is passed by very few species of animals and is often used to suggest most animals lack the same sense of 'self' that humans have. The animals were trained to look at a laser light in a mirror. After 2-5 weeks they were trained to touch the areas marked by the laser spot. Five of the seven monkeys then appeared to show mirror-induced self-directed behaviour. <http://www.dailymail.co.uk/sciencetech/article-2902198/Monkeys-taught-recognise-reflections-technique-help-boost-memory-Alzheimer-s-patients.html> also in Nature: <http://www.nature.com/news/monkeys-seem-to-recognize-their-reflections-1.16692>

Scientists at Liverpool School of Tropical Medicine are working on a universal cure for snake venom. A technique called antivenomics involved researchers increasing the potency of snake venom, injecting it into livestock, and then extracting the antibodies. <http://metro.co.uk/2015/01/10/scientists-are-developing-a-universal-cure-for-snake-venom-5017218/>

Scientists have discovered by genetically modifying mice, the gene behind one of the most aggressive forms of breast cancer – triple-negative breast cancer affecting around 10,000 people a year and killing 23% of those affected within 5 years. The study helped show the way to new therapies which could suppress the gene and could permit early diagnosis of the disease through genetic screenings

<http://www.telegraph.co.uk/news/science/science-news/11336050/Breast-cancer-breakthrough-as-Cambridge-University-finds-gene-behind-killer-disease.html>

**08/01/15**

The first new antibiotic to be discovered in nearly 30 years was extracted from bacteria that live in dirt and when tested in mice, easily cured severe infections with no side effects. The best news is that the drug, teixobactin, works in a way that makes it very unlikely that bacteria will become resistant to it. In a world where drug resistant bacteria infect at least 2 million people a year in the US and kill 23,000, the results are very welcome.

[http://www.nytimes.com/2015/01/08/health/from-a-pile-of-dirt-hope-for-a-powerful-new-antibiotic.html?\\_r=0](http://www.nytimes.com/2015/01/08/health/from-a-pile-of-dirt-hope-for-a-powerful-new-antibiotic.html?_r=0)

<http://www.telegraph.co.uk/news/science/science-news/11331174/First-new-antibiotic-in-30-years-discovered-in-major-breakthrough.html>

Fat cells under the skin help fight infections. White blood cells were thought to be the principal combatants when the skin barrier is broken, but they take time to recruit. Within hours of infections in mice, dermal fat cells known as adipocytes will multiply, increase in size and produce antimicrobial peptides to directly kill invasive bacteria, viruses, fungi and other pathogens.

<http://health.ucsd.edu/news/releases/Pages/2015-01-05-fat-cells-fight-infection.aspx>

Touch is the sense scientists know the least about. For the first time, a group of neurons has been linked to a specific type of somatosensation— feeling texture, temperature, pressure, pain or vibration. For the first time, a team was able to visualize neurons in the somatosensory cortex in transgenic mice brain that respond to a specific tactile stimulus. This research could help understand how somatosensory information is coded which could then be used in brain-machine interfaces, allowing robotic limbs to actively sense and receive tactile input.

[http://www.laboratoryequipment.com/news/2015/01/neuroscientists-get-better-feeling-about-sense-touch?et\\_cid=4351957&et\\_rid=762765857&type=cta](http://www.laboratoryequipment.com/news/2015/01/neuroscientists-get-better-feeling-about-sense-touch?et_cid=4351957&et_rid=762765857&type=cta)

**07/01/15**

Dr Vicky Robinson, Chief Executive of the NC3Rs, was awarded a CBE for services to Science and Animal Welfare on the New Year's Honours list.

<http://www.nc3rs.org.uk/news/new-years-honours-2015>

Animals living in larger groups tend to have larger brains. A study showed that as the colony size increased, leaf ants showed an increase in brain regions dealing with learning and memory. Researchers believe this is as larger societies need more specialized workers (some for defence, some for foraging etc).

<http://news.sciencemag.org/biology/2015/01/why-some-ants-have-bigger-brains>

**06/01/15**

South Korea bans the testing of finished cosmetics on animals. The BUAV's sister organisation, Cruelty Free International, is claiming it as a personal victory.

<http://www.cosmeticsdesign-asia.com/Regulation-Safety/Korea-implements-animal-testing-ban-on-finished-cosmetics>

Studies in mice showed that Fexaramine could trick the the body into believing it had eaten, resulting in a variety of biological signals that caused the body to burn body fat, reduce blood sugar and cholesterol levels and increase metabolism. It is believed to be a potential weight-loss drug.

<http://www.theguardian.com/science/2015/jan/05/weight-loss-pill-diet-meal-fat-metabolism-fexaramine>

Bowhead whales can live for more than 200 years but do not get many age-related ailments. To study this, scientists have sequenced the whale's genome which brought to light two genes they believe to be linked to cancer resistance and DNA repair.

<http://news.sciencemag.org/biology/2015/01/how-some-whales-live-more-200-years>

The Advertising Standards Agency upheld all three of UAR's complaints about an advert run by the National Anti-Vivisection Society (NAVS). The ASA concluded "The ad must not appear again in its current form. We told NAVS to ensure that claims were appropriately qualified and not to repeat the claims "animal safety tests cannot accurately predict what will happen in humans"

<http://www.understandinganimalresearch.org.uk/news/communications-media/asa-rules-navs-misleading-public/>