

News feed archive November – December 2013

20/12/2013

A chemical that boosts levels of NAD in the muscles of mice rejuvenates their mitochondria and reverses signs of ageing. The two-year-old mice appeared to be like six-month-olds in terms of insulin resistance, mitochondrial function, inflammation and muscle wastage, although no increase in muscle strength was observed.

<http://www.theguardian.com/science/2013/dec/20/anti-ageing-human-trials>

The fact that HIV integrates into the genome is what makes it so hard to cure. Now, scientists have used Tre recombinase enzyme to snip out the integrated DNA in infected mice. The researchers hope to do this with human patients by extracting and treating their blood before reintroducing it.

<http://www.dw.de/german-scientists-deploy-modified-enzyme-to-seek-and-destroy-hiv-in-mice/a-17307177>

19/12/2013

A computer simulation of zebra stripes show that the patterns create optical illusions when the animals move, confusing all manner of predators from biting insects to big cats.

<http://www.independent.co.uk/news/science/zebra-stripes-explained-9011534.html>

The gene mutations in the malaria parasite that cause resistance to the most potent anti-malarial drugs have been identified.

<http://www.nature.com/news/resistance-gene-identified-in-malaria-parasite-1.14404>

Harvard University has been fined \$24,000 for repeated animal welfare violations at its research centres.

http://www.nytimes.com/2013/12/19/us/massachusetts-harvard-fined-for-deaths-of-research-monkeys.html?_r=0

Wesley J Smith writes about a breakthrough in pain control as a result of animal research for his blog Human Exceptionalism.

<http://www.nationalreview.com/human-exceptionalism/366662/pain-control-breakthrough-due-animal-testing-wesley-j-smith>

18/12/2013

Moderate alcohol consumption could benefit the immune system according to new research in macaques showing that consuming the equivalent of around a glass of wine a day boosted the effectiveness of a smallpox vaccination.

<http://www.telegraph.co.uk/science/10523027/Daily-glass-of-wine-boosts-the-immune-system.html>

Cambridge scientists have successfully printed two types of retinal cells found in adult rats, which could be used in the future to treat sight loss.

<http://www.bbc.co.uk/news/health-25405542>

Two neonicotinoid pesticides have been found to have an impact on the brains of newborn rats, leading the European Food Safety Authority to propose that safe levels for exposure be lowered while further research is carried out.

<http://www.bbc.co.uk/news/science-environment-25421199>

17/12/2013

Research is underway to understand how grizzly bears are able to eat 58,000 calories a day prior to hibernation without suffering from illnesses associated with increased cholesterol or blood pressure.

<http://www.dailymail.co.uk/sciencetech/article-2524726/Could-bears-hold-cure-OBESITY-Grizzlies-eat-58-000-calories-day-dont-fat-develop-heart-disease.html>

Australian scientists have grown a functioning “mini-kidney” using stem cells, by examining the genes that were switched on and off during development.

<http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/australia/10520058/Kidney-grown-from-stem-cells-by-Australian-scientists.html>

16/12/2013

Iran claims to have sent a second monkey into space this year as part of their manned space flight programme.

<http://www.bbc.co.uk/news/world-middle-east-25378313>

Using zebrafish scientists from the University of Michigan have identified a link between calcium deficiency and colon cancer.

<http://www.ns.umich.edu/new/releases/21861-zebrafish-help-decode-link-between-calcium-deficiency-and-colon-cancer>

Despite a very low number of shark attacks annually the government of Western Australia is planning to start a “more aggressive” cull of the local shark population to reduce the risk of attacks on humans.

<http://www.nature.com/news/australian-shark-cull-plan-draws-scientists-ire-1.14373>

Tanzania’s national parks need wider buffer zones around them to reduce the harmful interactions between people and endangered wildlife.



13/12/2013

An entire protein hormone, constructed from scratch by biological chemists has been shown to work just as well in mice as the natural version.

<http://www.nature.com/news/hormone-used-for-doping-is-made-from-scratch-1.14363>

By mixing bull sperm and nanotubes scientists have created "sperm-based biobots" that could be used in the future for targeted fertility treatment or to deliver specific doses of drugs.

<http://www.newscientist.com/article/dn24721-how-do-you-control-a-spermbot-try-a-magnetic-field.html#.UgraTfRdUpk>

12/12/2013

The EU animal research numbers have been released today, using data from 2011 from all 27 Member States, with the exception of France which submitted data from 2010.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0859:FIN:EN:PDF>

A soldier who lost his arm in Afghanistan can now control a prosthesis by thought, in a technique that was pioneered using monkeys.

<http://www.theguardian.com/science/2013/dec/11/soldier-controls-bionic-arm-using-power-of-thought>

Ontario Veterinary College is beginning comparative cancer trials by storing tumour samples taken from domestic cats and dogs.

<http://globalnews.ca/news/1024213/ontario-veterinary-college-find-answers-that-may-also-benefit-human-cancer-care/>

11/12/2013

An experimental compound has reduced joint inflammation in mouse models of rheumatoid arthritis.

<http://www.news-medical.net/news/20131211/>

A neural prosthesis can bypass damaged regions of the brain in rats, enabling them to regain movement in their forelimbs.

<http://news.yahoo.com/device-bypasses-destroyed-area-rat-39-brain-214312425.html>

Inadequate supplies of folic acid reduce sperm quality in male mice and increase the likelihood of birth defects.

<http://www.thetimes.co.uk/tto/science/article3945295.ece>

The colour patterning on individual chameleons can influence the outcome of a fight between males.

<http://www.newscientist.com/>

Three different courts in New York have rejected the law suit brought by the Nonhuman Rights Project that pushed for four captive chimps to be given personhood.

<http://www.dailymail.co.uk/>

10/12/2013

The neural mechanism that enables fruit flies to select the optimum place to lay their eggs has been identified, during research that could shed new light on how addiction can override rational decision-making.

<http://www.nature.com/news/why-fruitflies-know-their-beer-1.14327>

09/12/2013

Seven post-mortem surveillance centres in the UK and Wales run by the Animal Health and Veterinary Laboratories Agency are to close, amid concerns from the scientific community that the move could allow diseases in farm animals to go undetected.

<http://www.thetimes.co.uk/tto/environment/article3941533.ece>

New research aimed at understanding the conservation needs of endangered primates has shown that monkey size, and therefore metabolism, is strongly linked to dietary preferences.

<http://www.bbc.co.uk/news/science-environment-25231555>

Mysterious mounds that cover large swathes of land are now thought to be caused by a burrowing rodent, according to new research that used a computer model containing 'digital gophers'.

<http://www.bbc.co.uk/news/science-environment-25259133>

05/12/2013

Animals that do not have a stomach as part of their digestive tract, like the platypus, appear to have lost both the organ and the complex genes required to develop one through evolution.

<http://www.mnn.com/earth-matters/>

There are five genetically distinct populations of Humpback Whale in the North Pacific and at least one of them is likely to be endangered, according to research from the Structure of Populations, Levels of Abundance and Status of Humpbacks project.

<http://www.newscientist.com/>

The first evidence of crocodiles using tools to catch prey has been reported by researchers from the University of Tennessee.

<http://www.thetimes.co.uk/tto/environment/>

04/12/2013

Male songbirds signal their intention to attack a rival through a specific song, but now new research suggests that this signalling is not always honest.

<http://www.nature.com/news/birds-might-bluff-about-intent-to-attack-1.14298>

03/12/2013

Australian researchers, in collaboration with the University of Leicester, have successfully made a male mouse infertile by affecting the actions of two proteins that trigger the release of sperm during mating.

<http://www.iol.co.za/scitech/>

Koalas have evolved a specialised vocal organ that allows them to produce very low-pitched mating calls, at odds with their small body size.

<http://www.bbc.co.uk/news/science-environment-25185236>

A lawsuit in the states is seeking to establish the 'legal personhood' of chimpanzees. The Nonhuman Rights Project is asking a New York State court to declare 26-year-old captive chimpanzee Tommy as an autonomous person "with the fundamental legal right not to be imprisoned".

<http://www.telegraph.co.uk/news/>

02/12/2013

Research using mice has suggested that fearful memories can actually be inherited through generations, through epigenetic, or environmental modifications that alter the way that genes are expressed.

<http://www.nature.com/news/fearful-memories-haunt-mouse-descendants-1.14272>

Proposals designed to protect one of the world's rarest dolphins have been condemned by New Zealand researchers who claim that extending existing protection zones is not enough.

<http://www.bbc.co.uk/news/science-environment-25145805>

29/11/2013

A highly criticised study that linked GM maize to tumours in rats has been retracted by the publisher Elsevier, in spite of objections by the author.

<http://www.nature.com/news/study-linking-gm-maize-to-rat-tumours-is-retracted-1.14268>

A by-product of cholesterol metabolism can fuel the growth of breast cancer according to new research in mice.

<http://www.bbc.co.uk/news/health-25142026>

28/11/2013

The Animal Procedures Committee has published an assessment of cumulative severity and lifetime experience in research primates used for neuroscience

<http://www.thetimes.co.uk/tto/science/article3933974.ece>

New research using rats has hinted at a link between type II diabetes and Alzheimer's disease.

<http://www.newscientist.com/article/>

The University of Manchester invited 40 A-level students from across the city into its animal facility to show why animals are used in research.

<http://www.manchester.ac.uk/aboutus/news/display/?id=11187>

The NIH have released a statement ahead of World AIDS Day (this Sunday), that details some of the “extraordinary” scientific progress that has been made during the last 25 years.

<http://www.nih.gov/news/health/nov2013/niaid-27.htm>

Domestic cats can recognise their owner’s voice, but generally choose not to respond. The researchers suggest that unlike dogs, cats have not been domesticated to obey humans’ orders.

<http://www.independent.co.uk/news/science/>

27/11/2013

Seahorses are remarkably stealthy according to new research, and are capable of sneaking up on unsuspecting prey without causing any tell-tale ripples.

<http://www.bbc.co.uk/news/science-environment-25103455>

An implant that produces an appetite suppressing hormone signal has been shown to reduce weight in obese mice.

<http://www.thetimes.co.uk/tto/science/article3933123.ece>

Northern Right Whales, a critically endangered species whose numbers have been slowly increasing in recent years, have surprised researchers by abandoning their usual feeding grounds, and appearing in large numbers elsewhere.

http://e360.yale.edu/feature/a_north_atlantic_mystery_case_of_the_missing_whales/2715/

Satellite tracking of a group of loggerhead turtles has revealed that turtles caught accidentally by long-line fishing and subsequently released have a dramatically reduced lifespan.

<http://www.alphagalileo.org/ViewItem.aspx?ItemId=136787&CultureCode=en>

26/11/2013

New research from Switzerland has found that barn owl nestlings, or owlets, have very distinct calls that can be recognised by nestmates.

<http://www.bbc.co.uk/nature/25035503>

Environmental enrichment causes captive male mink to be more successful during mating seasons, implying that improved housing could improve the effectiveness of captive breeding programmes for carnivores.

http://www.eurekalert.org/pub_releases/2013-11/uog-scm111913.php

The *Arizona Daily Wildcat*, campus newspaper for the University of Arizona, carries an interview with Professor Leslie Tolbert who studies cell-cell interactions in the brains of insects.

<http://www.wildcat.arizona.edu/article/2013/11/insects-could-provide-key-clues-to-understanding-humans>

25/11/2013

The resurrection of an extinct frog species has been named one of the best inventions of 2013 by Time Magazine.

<http://www.independent.co.uk/news/science/extinct-frog-brought-back-to-life-lazarus-project-named-one-of-2013-best-inventions-8957888.html>

Red squirrels at a National Trust reserve have shown early signs of resistance to a pox virus that has decimated the UK squirrel population.

<http://www.bbc.co.uk/news/science-environment-25043354>

The Economist have covered the story that temperature affects the immune system function of laboratory mice, which raises numerous questions about both animal welfare and experimental design.

<http://www.economist.com/news/science-and-technology/21590352-studies-may-be-skewed-laboratory-mice-being-kept-too-cool-mice-and-men?fsrc=scn/fb/wl/pe/ofmiceandmen>

Italy has passed amendments to its transposition of the EU directive that would ban the use of animals in xenotransplantation and addiction research.

<http://www.anmvioggi.it/rubriche/attualita/59461-sperimentazione-animale-approvato-lo-schema-di> [Link in Italian]

20/11/2013

Two out of three dogs given an experimental gene therapy treatment for haemophilia have remained free of the disease more than two years following treatment.

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

Spinal injury researcher Gregoire Courtine gives an inspiring TED talk about his work in rats, using drugs in combination with electrode stimulation to enable paralysed rats to walk again.

<http://www.ted.com/talks/>

19/11/2013

Tumour growth in laboratory mice is affected by ambient temperature according to new research that calls for the guidelines on housing temperatures to be changed.

<http://www.nature.com/news/>

Cancer Research UK reports that since the 1960s survival rates for childhood cancers have more than doubled, with particular progress in the fields of liver and bone tumours.

<http://www.cancerresearchuk.org/>

The research chimpanzees due to be retired by the NIH have had their housing budget increased from \$30 million to \$55 million, in a move welcomed by both NIH scientists and animal protection groups.

<http://www.dailymail.co.uk/news/>

13/11/2013

GM mice with Alzheimer's disease loose thickness in specific retinal cells, a finding that could one day allow opticians to detect the disease during a regular eye check.

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

A new antibiotic that causes microbes to digest themselves has been shown to be effective against persistent strains of Staphylococcus bacteria in laboratory mice.

<http://www.independent.co.uk/news/>

Dr Jarrod Bailey, funded by FRAME and the BUAV, has published an analysis of toxicity testing using dogs that he believes casts serious doubts upon their validity as a model for human toxicological responses in drug development.

<http://www.frame.org.uk/>

12/11/2013

A chemical often present in damp, mouldy buildings can damage nerve cells in the brain that are responsible for Parkinson's disease, according to results from a fruit fly model of the condition.

<http://www.independent.co.uk/news/>

Every animal carries a host of microbes with them inhabit every nook and cranny, but far from being a "passive hitchhikers" these bacteria can actually shape their hosts' well-being and behaviour.

<http://www.nature.com/news/>

Researchers have recreated a rodent model of autism in a very different creature: the tadpole.

<http://www.alnmag.com/news/2013/11/>

11/11/2013

Human stem cells can be passed through a 3D printer to create micro-tissues and organs that could be used in drug testing.

<http://www.dezeen.com/2013/11/07/>

A rat model of morphine addiction has shown that withdrawal can trigger a decline in mental health.

<http://medicalxpress.com/news/>

The Hull Daily Mail has been given a tour of the B&K Universal beagle facility at Grimston, Yorkshire, where beagles imported from overseas are housed and cared for before being transported to UK research institutions.

<http://www.hulldailymail.co.uk/>

08/11/2013

Two genes involved in tissue regeneration, dubbed the "fountain of youth" by a number of newspapers, have been identified in mice.

<http://www.independent.co.uk/news/>

The USFDA has given approval to a new method of stunning broiler chickens prior to slaughter that is believed to be far more humane than current practises

<http://www.newscientist.com/>

Today the NC3Rs has announced its support for the Research Councils' Concordat in Engaging the Public with Research.

<http://blog.nc3rs.org.uk/>

07/11/2013

A new gene editing technique called Crispr that could dramatically change how we treat genetic diseases and how we go about studying conditions like cancer and HIV.

<http://www.independent.co.uk/news/science/>

Nature have discussed the implications of Crispr technology to creating transgenic primates to study human genetic conditions.

<http://www.nature.com/news/>

A device that interprets nervous impulses from the bladder following spinal injury has been shown to restore bladder function rats.

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

The oldest fossil of two insect caught during the act of copulation has been found by a Chinese scientist who has dedicated 10 years of his life to looking for fossilised mating.

<http://www.newscientist.com/article/>

06/11/2013

A naturally-occurring bacterium from a species of turnip has been shown to treat flu in mice, and is now progressing to a human trial.

<http://www.dailymail.co.uk/>

The world's oldest known animal, an arctic-dwelling bivalve mollusc, is 507 years old.

<http://sciencenordic.com/>

Populations of "mutant super rats" in Kent, the west country and Sussex are becoming immune to common rat poison, and even consume poisoned pellets "like feed".

<http://metro.co.uk/2013/11/05/>

05/11/2013

Nancy Lee from the Wellcome Trust writes for the New Statesman blog on the reasons for animals research and the importance of the public consultation.

<http://www.newstatesman.com/2013/11/>

A potential vaccine against respiratory syncytial virus has been developed using mice and macaques, a disease that causes the deaths of nearly 7% of babies worldwide.

<http://www.nih.gov/news/health/>

04/11/2013

The public consultation for the Concordat on Openness on Animal Research is now open, and will run until 5pm on December 16th.

<http://www.understandinganimalresearch.org.uk/policy/>

Cancer Research UK has a new leaflet describing the role of animal research in cancer science entitled "Animal Research Helps Beat Cancer".

<http://speakingofresearch.com/2013/11/01/>

01/11/2013

Reindeer eyes have been found to change colour to adapt to changing light levels in summer and winter, effectively giving them "night vision".

<http://www.independent.co.uk/news/>

Scientists frequently use devices like satellite tags to track the movements and behaviour of marine animals, but new research suggests that these may actually disrupt natural behaviour.

<http://news.xinhuanet.com/english/>

Dogs can spot and respond to subtle differences in tail-wagging in fellow canines, according to new research from Italy.

<http://www.nc3rs.org.uk/>