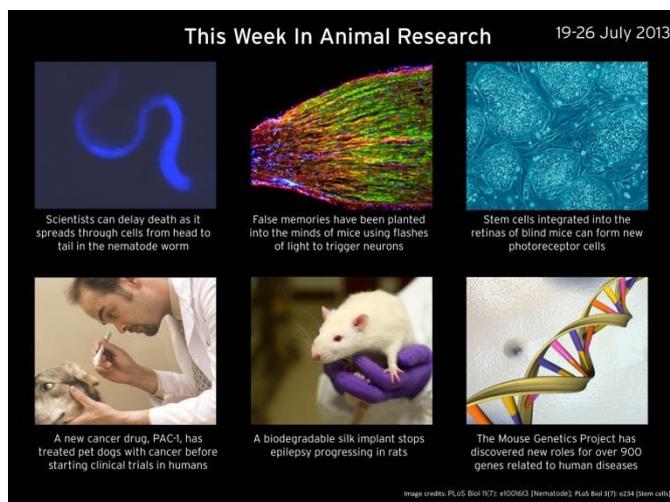


## News feed archive May - July 2013



### 31/07/2013

A drug commonly used to treat type II diabetes has been shown to increase lifespan in mice, by mimicking the effect that extreme caloric restriction has on the metabolism

<http://www.bbc.co.uk/news/health-23490410>

The NC3Rs has announced that it will be investing £4.8 million into replacement, refinement and reduction research projects over the coming year.

<http://www.nc3rs.org.uk/news.asp?id=1976>

Environmental enrichment increases the brain power of captive-reared salmon.

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

### 30/07/2013

Using stem cells taken from human urine, scientists have successfully grown human teeth within the kidneys of mice.

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

Anti-cancer drugs used to cure brain tumours in dogs could also help human patients, thanks to the similarities between human and canine brains.

<http://www.wftv.com/news/news/local/>

A drop in testosterone levels following castration causes neurone death and Parkinson's disease-like symptoms in laboratory mice.

<http://www.medicaldaily.com/articles/>

### 29/07/2013

The image of a stained zebrafish heart glowing with multiple bright colours that highlight the cells of heart muscle has won the British Heart Foundation's annual heart and blood vessel photography competition.

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

A study published last week in *PLOS Medicine* has suggested that poor design of preclinical animal experiments contributes to the high attrition rates of drugs during clinical trials.

<http://www.plosmedicine.org/article/>

Increased use of human tissues to study drug responses could replace animals in research, although variation between humans could impair experimental accuracy.

<http://theconversation.com/>

### 26/07/2013

False 'memories' have been stimulated in mice using optogenetics, a technique that allows scientists to activate specific neurons by shining light on them. When the mice received an electric shock in one chamber, the scientists triggered the cells encoding the memory of a previous, different chamber. When the mice were placed in this second chamber, in which they had never received a shock, the mice showed a fear response as if they associated it with the shock.

<http://www.guardian.co.uk/science/2013/jul/25/false-memory-implanted-mouse-brain>

A pet called Nemo has become the first pig to be treated for lymphoma. Despite a lack of knowledge of how standard chemotherapy regimes work in large (300 kg) animals, the doctors and researchers scaled up treatment and implanted a catheter into the jugular vein as it couldn't be reached by a standard injection. The cancer is in remission thanks to the treatment and Nemo is expected to go home soon.

<http://news.yahoo.com/pet-pig-nemos-lymphoma-treatment-makes-research-history-182857612.html>

An adenosine-releasing implant in the brain made of silk could be used to reduce seizures and slow the progression of epilepsy. The implant has been tested in rats and shown a four-fold drop in the number of seizures. The adenosine works by reversing the epigenetic changes that appear as epilepsy progresses. The silk is biodegradable and so will break down in the brain, removing the need for surgery to remove it. The implant could be used to reduce the risk of epilepsy developing in people who have suffered head trauma and prevent the seizures that commonly follow epilepsy surgery.

<http://www.nih.gov/news/health/jul2013/ninds-25.htm>

#### 25/07/2013

Scientists have been able to watch a wave of cell death spread from head to tail in *C. elegans* by watching the fluorescence of anthranilic acid. The mechanism suggests that it is a mass programmed death and by interrupting the pathway, the researchers delayed stress-induced death in the worms (but not death through old age)

<http://news.discovery.com/human/health/death-happens-slower-than-thought-cell-by-cell-130713.htm>

With the use of eye-tracking cameras, researchers have found that peahens are surprisingly more interested in the base of a peacock's tail

<http://www.bbc.co.uk/news/science-environment-23423074>

The trigger for an allergic reaction to cats has been discovered, raising hopes for a treatment. Researchers have identified the specific receptor in the immune system that responds to the cat protein dander, which is found in their dandruff.

<http://www.telegraph.co.uk/science/science-news/10201207/Scientists-discover-cure-for-cat-allergies.html>

#### 24/07/2013

The Mouse Genetics Project has published an open access resource detailing phenotypes of over 900 genes as found from knockout mice. This has revealed new functions for previously known genes, as well as for novel ones.

<http://www.sanger.ac.uk/about/press/2013/130718.html>

Using human tissue samples and mice, researchers have discovered a mechanism to regenerate the myelin sheaths that protect nerves with the hope of treating patients with multiple sclerosis.

<http://scienceblog.com/64829/ms-research-could-help-repair-damage-affecting-nerves/>

The newly developed meningitis B vaccine has been deemed not cost-effective enough to be adopted by the NHS. Meningitis B kills about 10% of those infected and leaves 25% disabled. The vaccine was developed in mice and rats through an unusual technique of screening a range of potential antigen proteins, rather than the virus itself

(see <http://speakingofresearch.com/2012/11/22/universal-meningitis-b-vaccine-nears-approval-by-european-regulators-thank-the-mice-and-the-scientists/> for more details).

<http://www.bbc.co.uk/news/health-23422973>

#### 23/07/2013

By comparing the human and mouse X chromosomes, researchers have found that (contrary to expectations) the X chromosome is continuing to evolve rapidly, diverging between species and increasing male specialisation

<http://www.the-scientist.com/?articles.view/articleNo/36621/title/X-Marks-the-Spot-for-Sperm-Production/>

Dolphins have been found to call each other by individual whistles and respond to their 'name' when it is played to them

<http://www.bbc.co.uk/news/science-environment-23410137>

A new cancer drug, PAC-1, is due to start phase I clinical trials in humans having gone through trials in pet dogs with naturally occurring cancers. The drug is particularly exciting because it is able to reach the brain and so the focus is on treating brain tumours.

<http://www.alnmag.com/news/cancer-drug-tested-pet-dogs-bound-human-trials>

#### 22/07/2013

One month on, the BBC gauges opinions on the NIH's decision to wind down chimpanzee research. Its main points are that it was already on the decline, however we still need vaccines and we're not sure where the retired chimps will go. However, the article did fail to mention that chimpanzee research is already banned across the rest of the world.

<http://www.bbc.co.uk/news/world-us-canada-23322774>

Stem cells have been used in mice to produce photoreceptor cells to treat blindness. The article nicely explains why treating blindness is particularly suited to stem cell therapy and so has been at the forefront of this research.

<http://www.bbc.co.uk/news/health-23374623>

Japan will be soon going ahead with trials for stem cell treatments for macular degeneration (age-related blindness) in humans using induced pluripotent stem (iPS) cells. Previous trials in humans used embryonic stem cells, but the iPS cells are derived from the patient and so will hopefully reduce rejection.

<http://www.bbc.co.uk/news/health-23374622>

### 17/07/2013

July 16th 2013 saw the release of the annual statistics for the use of animals in research by the Home Office. Animal procedures increased by 8%.

Hannah Devlin of *The Times* applauds the increase, reiterates the importance of animal research, and calls for greater openness among the research community.

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

The increase in GM mouse procedures prompted *The New Scientist* to examine the role of the International Knockout Mouse Consortium in creating a supplying GM strains.

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

In the world of research American scientists have created artificial blood vessels and successfully transplanted them into a mouse in a breakthrough for vascular surgery.

<http://www.thetimes.co.uk/tto/health/news/>

Nature report on a new study that suggests a publication bias towards positive results in animal studies of neurological disease.

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

Research is set to resume into the cattle disease rinderpest, to examine whether existing vaccines could replace the need for stocks of live-attenuated virus.

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

### 15/07/2013

Sara Wells, manager of the MRC centre for mouse genetics at Harwell asks whether it is time to reconsider current husbandry practices in the light of new research on mouse behavioural development.

<http://blog.nc3rs.org.uk/inbred-and-well-bred/>

The first case of oestrogen receptor mutation has been identified in a human woman, whose hormone levels were comparable to those of a mouse whose oestrogen receptor gene has been deleted.

[http://www.eurekalert.org/pub\\_releases/](http://www.eurekalert.org/pub_releases/)

Researchers from the United States have successfully transplanted insulin-producing islet cells from pigs into type-1 diabetic mice, without the need for immunosuppressing medication.

<http://www.redorbit.com/news/health/>

The importance of naked-mole rats for studying cancer and longevity is covered in a feature article in *The Guardian*.

<http://www.guardian.co.uk/science/>

### 12/07/2013

Three children who suffer from severe genetic conditions are healthy enough to go to school thanks to a pioneering gene therapy to correct the faults in their DNA, a technique pioneered using mice.

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

Mouse research has also shown a link between nerve growth and tumour proliferation in prostate cancer, providing researchers with specific targets to reduce tumour growth.

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

Zebrafish are renowned for their ability to regenerate body tissues, and now scientists have observed the process of heart regeneration in the embryo.

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

Professor Colin Blakemore appeared on BBC Radio 4's *The Report* describing his experience at the hands of animal activists, and his views on the covert surveillance of these groups by the police.

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

### 11/07/2013

Genetically-engineered mice whose cells carry an artificial human chromosome represent the first step towards new gene therapy treatments for genetic disease.

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

*Science Codex* explores the pioneering pig research that led to a 3D-printed trachea section used to save the life of an infant with a collapsed airway.

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

Dr Jan Langerhans explores how non-human primates have played a vital role in human vaccine development, and stresses the ethical and moral obligation of scientists to take the best care of research primates.

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

A monument to laboratory mice, combining the images of scientist and mouse, has been erected outside a research facility in Novosibirsk, Russia.

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

**09/07/2013**

Professor Gavin MacNally explores the science of animal research, examining the positives and the pitfalls, and addressing some of the abolitionist groups' most common criticisms.

<http://theconversation.com/animals-in-research-benefits-ethics-and-assessment>

Heart disease is a common problem among great apes, which Whipsnade Zoo are addressing by implanting heart monitors into two of their resident chimpanzees.

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

Developmental gene regulation changes are remarkably similar between humans and mice, according to new research.

<http://www.the-scientist.com/>

A *New York Times* feature article examines the collaboration between Dr. Jane Goodall and the NIH leading to the retirement of research chimpanzees.

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

**08/07/2013**

Today marks 80 years since the discovery of the influenza virus, following eleven years of animal research that has led to (among other things) a vaccine for canine distemper.

<http://www.guardian.co.uk/science/>

Feeding glucose to patients with suspected bowel cancer makes their tumours detectable using an MRI scan, according to new research using mice.

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

A new mouse model of Duchenne muscular dystrophy not only closely mimics the human disease, but has also pointed to potential treatments for the associated heart defects.

<http://phys.org/news/>

**05/07/2013**

Asthma researcher Dr. Felicity Rose has written an excellent piece for the NC3Rs blog on the progress and shortcomings of a 3D cell model of asthma, designed to replace animals in research.

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

Guillemot eggs have an unusual nano-structure that makes them self-cleaning, protecting them from salt spray and detritus from other birds.

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

BioMed Central have written about the Basel Declaration for their blog, examining the need for increased access to the results of animal research, and the role for open access publishing.

<http://blogs.biomedcentral.com/bmcblog/>

**04/07/2013**

'Liver buds' grown using human stem cells and transplanted into mice have successfully restored liver function.

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

American scientists have created an *in vitro* bionic ear capable of receiving sound using bovine cells and a 3D printer.

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

Cockatoos are capable of solving complicated 'lock-picking' puzzles to get at food, according to new research from the University of Oxford.

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

**03/07/2013**

Naval sonar does affect the behaviour of whales according to two new studies, potentially disrupting their feeding patterns.

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

A stem cell treatment that restores the healthy structure of damaged tooth root canals has been successfully trialled in dogs.

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

Commonly-used asthma medication has been shown to improve the brain function of Down's syndrome model mice.

<http://www.latimes.com/news/science/sciencenow/>

Climate change may be increasing the transmission of diseases like anthrax between humans and animals.

<http://www.trust.org/item/20130702153802-a6r1h>

**02/07/2013**

Human mouth ulcer medication has been successfully used to stimulate weight loss and eliminate type II diabetes in obese mice.

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

Nanotechnology researchers at MIT have developed a “superglue” for bone implants that has been successfully tested using rats.

<http://www.bostonglobe.com/business/>

One line of stem cells, established in 1962, has played a pivotal role in vaccine development over the last 40 years.

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

**01/07/2013**

Using a mouse model, American researchers have identified a protein that is linked to rheumatoid arthritis.

<http://www.express.co.uk/news/health/411541/>

One in a thousand domestic cats has been found to be carrying the tuberculosis bacterium, although the risk of cat-to-human transfer is likely to be low.

<http://www.express.co.uk/news/health/411501/>

**28/06/2013**

The UK government has backed the use of donor mitochondrial DNA in IVF procedures, a process that has become known as “three-person IVF”, which was originally pioneered using macaques.

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

Scientists at the University of Sheffield have developed a zebrafish model for Charcot Marie Tooth disease, a genetic disorder that causes progressive weakness and long-term weakness in the feet.

<http://www.redorbit.com/news/science/>

A new fruit fly model of gastric diseases has suggested that Barrett's oesophagus, a precancerous condition in the lower oesophagus, is caused by a change in stem cell.

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

Posts by animal activists on Facebook have revealed that the research mice stolen from the University of Milan are now being housed in extremely poor conditions.

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

**27/06/2013**

Japanese scientists have successfully cloned a female mouse, capable of living a normal lifespan and giving birth to young, from a single drop of blood.

<http://www.bbc.co.uk/news/health-23068423>

The US National Institute of Health has announced that it plans to substantially reduce the use of chimpanzees in its biomedical research.

<http://www.guardian.co.uk/science/2013/jun/26/us-chimpanzees-scientific-research-testing>

Acid-producing bacteria in the guts of obese mice have been found to cause liver cancer, in one of the first studies to uncover a physiological link between obesity and cancer.

<http://www.nature.com/news/gut-microbes-spur-liver-cancer-in-obese-mice-1.13276>

A type I diabetes vaccine, which ‘retrains’ the immune system not to attack pancreatic cells, has been successfully tested in 80 human volunteers.

<http://www.bbc.co.uk/news/health-23064897>

**26/06/2013**

Rats with severed spinal cords have their bladder function partly restored thanks to a new nerve graft.

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

A new understanding of myelin production, arising from a study in zebrafish, has the potential to benefit multiple sclerosis patients.

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

Vampire bat venom is found to contain five new compounds that have the potential to treat strokes and high blood pressure

<http://www.smh.com.au/technology/sci-tech/>

Scientists have uncovered the mutation that turns a benign virus in the intestine of a cat into the deadly feline infectious peritonitis coronavirus.

<http://www.vet.cornell.edu/news/FIP.cfm>

**25/06/2013**

Our voices often deteriorate with age, but now a new study shows that vocal training can ameliorate the decline, with the help of some 'singing rats'.

<http://news.illinois.edu/news/>

A brain implant that has successfully treated memory loss in rats and monkeys is to enter human clinical trials.

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

Advancing age can disrupt our sleep patterns, but according to new research in mice exercise can help to restore normal circadian rhythm.

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

#### 24/06/2013

Scientists from the National University of Singapore have engineered a highly realistic 3-D tumor using a silk scaffold for the cells to attach to and grow around.

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

The inner workings of the brain and other organs can now be studied thanks to new techniques, tested using mouse brains, that turn opaque tissues clear.

<http://news.sciencemag.org/>

#### 21/06/2013

The creation of 'chimeric embryos' – animal embryos containing human DNA – has received widespread support in Japan and may lead to human organs for transplant being grown in animal 'donors'.

<http://www.telegraph.co.uk/science/science-news/10132347/Human-organs-could-be-grown-in-animals-within-a-year.html>

Kathleen Raven writes for *Scientific American* on the value of basic research to the most significant scientific discoveries.

<http://news.yahoo.com/behind-greatest-experiments-basic-research-135000474.html>

'Forrest Gump' mice that can run fast but are not very smart are giving researchers new insights into potential Alzheimer's disease therapies.

[http://www.eurekalert.org/pub\\_releases/2013-06/uowo-gm062013.php](http://www.eurekalert.org/pub_releases/2013-06/uowo-gm062013.php)

#### 20/06/2013

A simple sugar molecule produced by connective tissue appears to protect naked mole rats from developing cancer according to new research.

<http://www.nature.com/news/simple-molecule-prevents-mole-rats-from-getting-cancer-1.13236>

A study using mice has shown that adding silver to existing antibiotics increases their effectiveness and may reduce the spread of antibiotic resistance.

<http://www.bbc.co.uk/news/health-22967727>

Newly-hatched chickens appear to have cognitive skills that human babies can take far longer to master.

<http://www.independent.co.uk/news/science/newlyhatched-chicks-have-skills-that-even-threeyearolds-fail-to-match-8665299.html>

A retinal prosthesis implanted into the eyes of visually impaired rats has restored their ability to detect light.

<http://www.livescience.com/37511-retinal-prosthesis-restores-vision.html>

#### 19/06/2013

A new fertility treatment using a naturally occurring hormone originally discovered in rats has led to the birth of a healthy baby boy.

<http://www.guardian.co.uk/society/2013/jun/18/hormone-breakthrough-fertility-kisspeptin>

Both guinea pigs and human tuberculosis patients will shortly be involved in a new study to examine the airborne transmission of the TB bacterium.

[http://www.coloradoan.com/article/20130617/NEWS01/306170023/CSU-scientists-bringing-humans-guinea-pigs-together-TB-tests?nclick\\_check=1](http://www.coloradoan.com/article/20130617/NEWS01/306170023/CSU-scientists-bringing-humans-guinea-pigs-together-TB-tests?nclick_check=1)

US researchers have expressed concern that changing the status of captive chimpanzees could impact negatively on vital hepatitis research.

<http://bionews-tx.com/news/2013/06/17/proposed-ban-use-of-research-chimpanzees-threatens-hepatitis-research-cure/>

#### 18/06/2013

The brains of male mice change shape to become more "paternal" in the presence of offspring, according to new research.

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

Neural stimulation, used to treat Parkinson's Disease, has been used to control the movements of a cockroach via its antennae.

<http://www.thetimes.co.uk/tto/science/article3793521.ece>

Stem cells that could be used to create patient-specific blood have been developed *in vitro* using mouse fibroblast cells.

<http://in.news.yahoo.com/growing-blood-forming-cells-petri-dish-082614101.html>

**17/06/2013**

The BBC explore the pivotal importance of fruit flies, zebrafish, mice and nematode worms as models for scientific research.

<http://www.bbc.co.uk/news/magazine-22904931>

The journal *Science* highlights three different animals, including the sperm whale, that have evolved different solutions to the same problem.

<http://www.nature.com/news/making-the-most-of-muscle-oxygen-1.13202>

A new mouse model for x-linked retinitis pigmentosa has been developed that could be used to identify therapeutic targets for the disease.

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

**13/06/2013**

Stem cells in the nailbeds of mice trigger limb regrowth following partial amputation, so long as the nailbed is not removed.

<http://www.nature.com/news/how-nails-regenerate-lost-fingertips-1.13192>

The neurons lost during Huntington's Disease have been successfully regenerated using stem cell therapy in both canaries and mice.

<http://www.alnmag.com/news/brains-mice-coaxed-regenerate-cells-lost-huntingtons-disease>

Wild cheetahs are more reliant on their manoeuvrability and acceleration than on their top speed to catch prey, according to data collected from tracking collars.

<http://www.bbc.co.uk/news/science-environment-22861142>

**12/06/2013**

Research using mice has shown that high levels of stress-related hormones in the skin cause hair to turn grey.

<http://www.telegraph.co.uk/science/science-news/10113610/Dont-tear-your-hair-out-it-is-stress-making-you-go-grey.html>

The US Fish and Wildlife Service is proposing to change the endangered classification of captive chimpanzees, effectively increasing the level of licensing required to use them in experiments.

[http://www.washingtonpost.com/national/health-science/fish-and-wildlife-proposes-endangered-listing-for-chimpanzees/2013/06/11/1f3382f4-d216-11e2-a73e-826d299ff459\\_story.html](http://www.washingtonpost.com/national/health-science/fish-and-wildlife-proposes-endangered-listing-for-chimpanzees/2013/06/11/1f3382f4-d216-11e2-a73e-826d299ff459_story.html)

A new study suggests that female mice have greater innate protection against colitis and irritable bowel syndrome than males.

<http://msutoday.msu.edu/news/2013/females-fend-off-gut-diseases/>

Endangered tigers in Asia are becoming increasingly vulnerable to canine distemper virus spread by domestic dogs, sparking a widespread initiative to prevent the spread of the virus.

<http://www.bbc.co.uk/news/science-environment-22812914>

**10/06/2013**

The *Sunday Express* have covered the use of mouse avatar to develop personalised cancer treatments, including the personal story of a patient with secondary breast cancer.

<http://www.express.co.uk/news/health/406168/The-extraordinary-secret-of-how-mice-are-curing-cancer>

A new vaccine for 'Delhi Belly', containing inactive bacteria, may enter human clinical trials later this year after successful tests in animals.

<http://www.telegraph.co.uk/health/healthnews/10108110/Vaccine-to-end-curse-of-Delhi-belly.html>

Patients with Alzheimer's disease have been found to lack a brain protein that acts as a master regulator of long-term memory formation.

<http://www.bbc.co.uk/news/health-22811691>

**06/06/2013**

Research using fruit flies has revealed the regulatory pathways for a gene known to be defective in Down's Syndrome.

<http://medicalxpress.com/news/2013-06-aspect-syndrome.html>

Experimental human cancer treatments are being tested in pet dogs as part of a comparative oncology programme at an American teaching hospital.

<http://www.columbiamissourian.com/a/161216/at-mu-veterinary-hospital-dogs-help-test-human-cancer-treatments/>

A new treatment for multiple sclerosis, in which the body is 'retrained' not to attack the nervous system, has been shown to be safe in a phase 1 clinical trial.

<http://www.bbc.co.uk/news/health-22753214>

**05/06/2013**

The zebrafish has been used to create the first animal model to study a gene thought to be responsible for causing ALS.

<http://www.prnewswire.com/news-releases/zebrafish-provide-answers-to-the-cause-of-als-210049861.html>

A study of zebrafish embryos has led to the discovery of a gene that causes Native American myopathy, a rare inherited muscle disorder.

<http://www.the-scientist.com/?articles.view/articleNo/35854/title/Muscle-Disease-Gene-Identified-in-Fish/>

*The New York Times* reports on the use of zebrafish embryos to study symmetry disorders like situs inversus.

<http://www.nytimes.com/2013/06/04/science/growing-left-growing-right-how-a-body-breaks-symmetry.html?ref=science&r=0>

City living changes the biological rhythms of blackbirds, causing them to have faster-ticking body clocks than their country-dwelling relatives.

<http://www.dailymail.co.uk/sciencetech/article-2336062/Birds-live-city-worn-faster-life-country-cousins.html>

### 04/06/2013

The act of mating causes gene-expression changes in the brains of prairie voles that induce monogamous pair-bonded behaviour.

<http://www.nature.com/news/gene-switches-make-prairie-voles-fall-in-love-1.13112>

A Japanese research team have discovered a human hormone that stimulates the growth of ovarian tissue in mice.

<http://www.alnmag.com/news/hormone-makes-ovaries-grow-mice>

*Nature* reports on the protests held by researchers and students in Milan over the weekend, to increase awareness of the importance of lab animals in biomedical research.

<http://www.nature.com/news/italian-scientists-fight-back-on-animal-testing-1.13116>

### 31/05/2013

A new type of flu vaccine, which uses gene-transfer technology to induce temporary antibody production in the nose, has completely protected mice and ferrets from several deadly influenza viruses.

[http://articles.philly.com/2013-05-30/news/39631496\\_1\\_flu-protein-flu-vaccine-bird-flu-strain](http://articles.philly.com/2013-05-30/news/39631496_1_flu-protein-flu-vaccine-bird-flu-strain)

A clinically-available epilepsy drug may prevent the development of tinnitus, according to new results from a mouse model of the condition.

<http://www.alnmag.com/news/noise-induced-tinnitus-mice-treated-epilepsy-drug>

Striking similarities between the vocal development of baby birds and baby humans have been observed in a paper published today on *Nature's* website.

<http://www.nature.com/news/babies-learn-to-babble-like-birds-learn-to-sing-1.13090>

### 30/05/2013

Injecting foetal stem cells into the damaged spinal cords of rats has caused a marked regeneration of neural pathways and some improvement in muscle function, an American study reports.

<http://www.wired.co.uk/news/archive/2013-05/29/stem-cell-spines>

### 29/05/2013

A 3-D printed windpipe, initially tested in piglets, has been successfully used to hold open the collapsed bronchial tube of a six week old baby.

<http://www.nature.com/news/3-d-printed-windpipe-gives-infant-breath-of-life-1.13085>

Genetically manipulating serotonin production and sensitivity in female mice has been shown to increase their attraction to the same sex.

<http://www.newscientist.com/article/dn23605-mice-lacking-serotonin-swap-sexual-preferences.html>

Work with mice at the University of Aston has shown that hydrogen sulphide can block the release of chemicals that could cause pre-eclampsia in pregnant mothers.

<http://www.dailymail.co.uk/news/article-2331870/Breakthrough-fight-pre-eclampsia-Scientists-cause-life-threatening-pregnancy-condition.html#ixzz2Uc1Im0eo>

### 28/05/2013

Research using both young and old mice has shown that the creation of new brain cells increases our capacity for memory, but also clears the brain of older memories, including those formed during early childhood.

<http://www.bbc.co.uk/news/health-22639040>

UK researchers have developed a micro-fluidic device that can measure the brain activity of nematode worms. The 'NeuroChip' will be used to test the neurotoxicity of experimental drug compounds.

<http://www.alnmag.com/news/worm-eeg-tests-effects-drugs>

A new drug developed by MRC researchers has reduced the tissue damage caused by heart attacks in mouse models.

<http://www.bbc.co.uk/news/health-22655582>

An early stage clinical trial of stem cell therapy for stroke patients is showing positive initial results. The researchers from Glasgow University have recorded small signs of recovery in the five seriously disabled patients taking part in the trial.

<http://www.bbc.co.uk/news/health-22646103>

California researchers have been able to improve the cognitive function and behaviour of Down's Syndrome model mice by restoring the function of a specific brain protein

<http://www.bbc.co.uk/news/health-21900954>

**24/05/2013**

A neurotransmitter that controls the sensation of itching has been discovered using genetically modified mice.

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

The hormone dopamine plays a key role in the development and replacement of zebrafish motor neurons, pointing to new avenues of research into human motor neuron disease.

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

Arthritis Research UK has announced that they are awarding £200,000 to a research team at Cardiff University to investigate potential drug candidates for early onset osteoarthritis.

<http://www.arthritisresearchuk.org/news/press-releases>

Following the news that we should all drink champagne to keep our memories sprightly, the *Daily Mail* reports on a "miracle ingredient" in red wine that can increase the lifespan of worms by 60%.

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

**23/05/2013**

A new flu vaccine, which mimics characteristics common to multiple strains of the virus, has successfully protected ferrets

<http://www.bbc.co.uk/news/health-22623682>

Schizophrenic symptoms in mice have been linked to overexpression of a specific gene. By reducing the expression researchers were able to eliminate the symptoms.

<http://scienceblog.com/63339/researchers-eliminate-schizophrenia-symptoms-in-an-animal-model/>

The mucus of humans, mice and even corals has been found to contain bacteria-killing viruses, which form a unique symbiosis with their hosts' immune systems.

[http://www.nature.com/news/viruses-in-the-gut-protect-from-infection-1.13023?WT.ec\\_id=NEWS-20130521](http://www.nature.com/news/viruses-in-the-gut-protect-from-infection-1.13023?WT.ec_id=NEWS-20130521)

The secret to the regeneration of amputated limbs in salamanders may be due to a more complex regeneration process than found in humans.

<http://www.the-scientist.com/?articles.view/articleNo/35658/title/Macrophages-Drive-Regeneration/>

**22/05/2013**

2014 will see the first Fibrosis Across Species meeting at the University of Louisville, Kentucky, in a move designed to bring together both clinical and veterinary specialists to create a roadmap for comparative research in this area.

<http://www.prnewswire.com/news-releases/race-horses>

Research in both human women and mice has revealed changes in the expression of two specific genes that could indicate susceptibility to post-partum depression.

<http://www.philly.com/philly/health/womenshealth/>

Researchers from UC Davis, California have identified a potential therapeutic target for multiple sclerosis, and have successfully reduced the onset of the disease in MS model mice using a clinically available anti-anxiety drug

<http://www.futurity.org/health-medicine/anxiety-drug-reduces-ms-symptoms-in-mice/>

A Croatia study has shown that bees can be trained to associate the smell of the TNT contained in explosives with sugar, making them a potentially valuable tool for clearing the estimated 460 square miles of Croatia that contain landmines left over from the Balkan wars in the early 90s.

<http://www.express.co.uk/news/science-technology/401069/WATCH-Can-honeybees-be-trained-to-find-explosives>

**21/05/2013**

Government vets have approved a vaccine against the Schmallenberg virus (SBV), which can lead to deformities in the offspring of sheep and cattle. UK farmers will be among the first in the EU to receive the vaccine for their livestock, which is scheduled for rollout in July this year.

<http://www.bbc.co.uk/news/science-environment-22596562>

**20/05/2013**

Researchers have successfully grown human thymus tissue using a mouse model. The thymus has a vital role to play in immune system function, and patients who suffer thymus failure typically die of infection. A thymus transplant could be used to retrain the body's immune system for patients with autoimmune conditions, and type 1 diabetes.

<http://www.medicaldaily.com/articles/15614/20130516/stem-cell-advance-human-thymus-tissue-autoimmune-disease.htm#bpV7T7XGCBL4wwrM.99>

Using transgenic zebrafish, whose brain neurons express fluorescent proteins when active, scientists have been able to visualise real time memory retrieval. Zebrafish were trained to respond to specific light stimuli: a red light heralded an electric shock, which could be escaped from by swimming to the other side of the tank. When the fish were immobilised

with a muscle relaxant and shown a red light, they showed a massive amount of brain activity in the telencephalon region, which did not occur in 'un-trained' fish.

<http://www.the-scientist.com/?articles.view/articleNo/35596/title/Watching-the-Brain-Remember/>

The Bion-M orbiting capsule, launched by the Russian Space Agency in April and containing, among other animals, 45 mice and 15 newts, has returned to earth after a month in orbit.

<http://www.thetimes.co.uk/tto/science/space/article3769221.ece>

### 17/05/2013

Reported in both Nature News and the New Scientist: a protein present in the blood of young mice that relieves tissue ageing in the hearts of older mice. The circulation of this hormone declines with age, but the study showed that older mice treated with the protein experiences a reversal of tissue ageing in the heart.

<http://www.nature.com/news/blood-hormone-restores-youthful-hearts-to-old-mice-1.12971>

The active ingredients of yoghurt drinks could be about to change dramatically: a study in PNAS reports that naturally occurring bacterium in the mouse gut can fight obesity and diabetes. *Akkermansia muciniphila* makes up 3-5% of the gut microbes in a healthy mammal, but occurs at far lower levels in obese humans and mice, and in those with type II diabetes. Obese mice fed with live *A. muciniphila* lost weight and showed reduced insulin resistance characteristic of type II diabetes.

<http://www.nature.com/news/gut-microbe-may-fight-obesity-and-diabetes-1.12975>

The New Scientist has a great article about the process of developing an H7N9 vaccine, including a description of how chicken embryos and fertilised chicken eggs are used to grow viruses, which are then injected into the classic animal model for human flu – the ferret – to test for an immune response.

<http://www.newscientist.com/article/dn23539-inside-the-lab-racing-to-make-vaccine-for-deadly-flu.html>

But this weeks main story, covered in all the major newspapers with opinions ranging from the hopeful to the hysterical is that an American research team successfully producing the first cloned human embryo, using a similar technique to that used to produce Dolly the sheep.

See <http://www.bbc.co.uk/news/health-22540374> and <http://www.telegraph.co.uk/science/science-news/10059542/Cloning-breakthrough-by-US-scientists.html>

Finally, Johnny Depp has been forever immortalised to science, in the form of the "lobster-like beast" with scissor claws that now bears his name: *Kooteninchela deppi*. Lobster Scissor-Hands lived during the Ordovician period around 450 million years ago, at a time when the oceans were teeming with giant arthropods.

<http://www.dailymail.co.uk/sciencetech/article-2325614/Meet-Kooteninchela-deppi-ancient-lobster-like-beast-scissor-claws-roamed-sea-500-million-years-ago--just-named-Johnny-Depp.html>