**One Health News Bits**

1-30-13

[**Montana seeks to control elk population in fight against brucellosis**](http://www.sfgate.com/news/science/article/Montana-considers-elk-reductions-to-curb-disease-4019792.php#ixzz2Cc7KykwQ)

A broad plan to protect against animal disease around Yellowstone National Park by targeting infected elk herds gained initial approval Thursday from Montana wildlife commissioners. The plan includes measures to reduce the size of some elk herds, haze the animals away from livestock and even erect elk-proof fending. It was drafted by a state-appointed citizens working group. (11/8) <http://www.sfgate.com/news/science/article/Montana-considers-elk-reductions-to-curb-disease-4019792.php#ixzz2Cc7KykwQ>

[**Tests, treatments for tuberculosis**](http://www.cvmbs.colostate.edu/ns/pubs/einsight/2012/september/gates-foundation-tb-research-grants.aspx)

Tuberculosis may be an afterthought for many in the developed world, but the truth is that the bacterium that causes tuberculosis is alive and well in many other countries, causing 1.4 million new cases each year. Scientists at the Colorado State University College of Veterinary Medicine & Biomedical Sciences are known for their groundbreaking research into the disease. Thanks to [several grants](http://echo4.bluehornet.com/ct/18500254%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar) from the [Bill & Melinda Gates Foundation](http://echo4.bluehornet.com/ct/18500255%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar), this esteemed team is now developing everything from models that better mimic the impact of tuberculosis infection in humans to tuberculosis-detecting tests that can be used in countries with few resources. (9/1) <http://www.cvmbs.colostate.edu/ns/pubs/einsight/2012/september/gates-foundation-tb-research-grants.aspx>

[**Giving your pet the flu**](http://oregonstate.edu/ua/ncs/archives/2012/oct/onset-flu-season-raises-concerns-about-human-pet-transmission)

The concept is called "reverse zoonosis," and it is still poorly understood. But veterinarians are concerned that pets may be getting sick from their owners, and not the other way around. While new strains of flu can evolve from animal populations and ultimately move into human populations, it now appears that humans have passed the H1N1 flu to cats and other animals, some of which have died of respiratory illness. The phenomenon raises troubling questions – and few answers – for veterinarians. Veterinary researchers at Oregon State University and Iowa State University are working to [find more cases](http://echo4.bluehornet.com/ct/18500259%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar) of this type of disease transmission so that they can better understand the risks they may pose to people and pets.  (10/3) <http://oregonstate.edu/ua/ncs/archives/2012/oct/onset-flu-season-raises-concerns-about-human-pet-transmission>

[**Deer ticks found to harbor more than Lyme disease**](http://www.ibtimes.com/new-scary-tick-borne-diseases-march-875708)

Yale University researchers recently found that the deer tick, known to carry and transmit Lyme disease to animals and people, also harbors Babesia microti and likely transmits more deer tick virus to humans than previously thought. Furthermore, the researchers found the Lyme parasite bolstered B. microti populations. "We increasingly need to apply the most sophisticated genetic tools to identify the numerous new tick-borne microbes that have the theoretical capacity to infect humans," said researcher Sam Telford of Tufts University's Cummings School of Veterinary Medicine. (11/13) <http://www.ibtimes.com/new-scary-tick-borne-diseases-march-875708>

[**How Superstorm Sandy affected animals**](http://blogs.webmd.com/pet-tales/2012/11/animals-were-affected-by-the-hurricane-too.html)

Veterinarian Ann Hohenhaus relates some stories of how animals weathered Superstorm Sandy, noting that their plight paralleled that of humans. Although New York City encouraged owners to bring their animals with them during evacuations, city shelters recently reported 141 animals still unclaimed in the aftermath of the storm. Dr. Hohenhaus recounts how other animals, including the Chincoteague Island ponies, marine animals at the New York Aquarium, and even two displaced brown pelicans, fared during the storm. (11/16) <http://blogs.webmd.com/pet-tales/2012/11/animals-were-affected-by-the-hurricane-too.html>

[**Researchers work toward new foot-and-mouth vaccine**](http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-20393481)

A team led by researchers from St. Andrews University in Scotland has launched a five-year study aimed at developing a new vaccine for foot-and-mouth disease in livestock. The highly contagious virus infects cattle, sheep, pigs and goats, millions of which were destroyed during a 2001 epidemic in the U.K. Researchers hope to create an easier-to-administer vaccine. (11/19) <http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-20393481>

[**Studies suggest even low-level oil spill exposure is harmful**](http://www.sciencenews.org/view/generic/id/346573/description/Gulf_spill_harmed_small_fish_studies_indicate)

Scientists studying the effects of the explosion of BP's Deepwater Horizon well and the subsequent oil spill two years ago say their findings show that very low levels of exposure to weathered oil for brief periods are enough to kill many fish embryos and hatchlings. Many species were exposed to the spill, from large tuna to tiny killifish. Fish in the study that were exposed to oil demonstrated defects such as heart abnormalities that pose a threat to their long-term survival. (11/19) <http://www.sciencenews.org/view/generic/id/346573/description/Gulf_spill_harmed_small_fish_studies_indicate>

[**Ape study points to biological basis for midlife crisis**](http://abcnews.go.com/blogs/health/2012/11/19/apes-have-midlife-crises-too/)

Chimpanzees and orangutans appear to experience midlife crises similar to those that humans often go through, according to new research published in the Proceedings of the National Academy of Sciences. "This is one more example showing that we may be more related to our non-human primates than we think," said researcher Nadine Kaslow of Emory University's psychiatry department. (11/19) <http://abcnews.go.com/blogs/health/2012/11/19/apes-have-midlife-crises-too/>

[**The animal-world advantages of being big**](http://www.lifeslittlemysteries.com/3078-animal-size-versus-climate.html)

Many vertebrates follow the pattern of growing larger in colder climates known as Bergmann's Rule, giving them a smaller surface-area-to-volume ratio that helps minimize loss of body heat. But experts say there are other upsides to being big in cold weather, and factors such as sexual selection, fat storage and food availability can drive body size. And for some species, the pattern is the opposite: Certain ectothermic animals are smaller in cooler climes and larger in warmer environments. (11/20) <http://www.lifeslittlemysteries.com/3078-animal-size-versus-climate.html>

[**Canine post-traumatic stress recognized as disorder**](http://articles.latimes.com/2012/nov/26/nation/la-na-military-dogs-20121126)

Veterinarians and dog handlers at Lackland Air Force Base in Texas who work with and train combat canines believe dogs are susceptible to post-traumatic stress disorder. Veterinarian Walter Burghardt Jr. estimates that at least one-tenth of dogs returning from active duty have the disorder, which is characterized by sudden attitude changes and inability to perform tasks that were previously routine. Many of the dogs can be rehabilitated with treatment ranging from behavioral training to medication, but some must be retired from military work. (11/26) <http://articles.latimes.com/2012/nov/26/nation/la-na-military-dogs-20121126>

[**mRNA influenza vaccine protects animals, study finds**](http://news.sciencemag.org/sciencenow/2012/11/making-a-flu-vaccine-without-the.html)

German researchers have found that an H1N1 vaccine based on synthetic messenger RNA provided immunity to mice, pigs and ferrets. Unlike the standard protein-based vaccine, the mRNA formulation can be mass-produced in eight weeks or less, doesn't need refrigeration and could be used in people who are allergic to the chicken-egg protein ovalbumin. More work is needed, but the researchers are hopeful the mRNA-based influenza vaccine may help protect people. (11/26) <http://news.sciencemag.org/sciencenow/2012/11/making-a-flu-vaccine-without-the.html>

[**Google data, weather modeling help predict influenza trends**](http://www.latimes.com/news/science/sciencenow/la-sci-sn-model-flu-outbreaks-google-search-data-20121126%2C0%2C4059029.story)

Combining analytical models from weather forecasting with constantly updating Google Flu Trends data, researchers can predict the next influenza outbreak up to seven weeks ahead of time. Such information could help public health organizations anticipate outbreaks and mobilize resources such as vaccines. (11/26) [http://www.latimes.com/news/science/sciencenow/la-sci-sn-model-flu-outbreaks-google-search-data-20121126,0,4059029.story](http://www.latimes.com/news/science/sciencenow/la-sci-sn-model-flu-outbreaks-google-search-data-20121126%2C0%2C4059029.story)

[**NC fair, petting farm sued over outbreak of E.coli**](http://www.charlotteobserver.com/2012/11/27/3689809/lawsuit-targets-fair-petting-zoo.html)

Attorney Bill Marler filed suit in Cleveland County, N.C., against a local fair and petting zoo involved in an E. coli outbreak that sickened 106 people and killed one child earlier this year. A fair representative noted hand-washing stations were available and signs throughout the fair reminded visitors to wash their hands, but Marler believes further steps are needed to prevent future outbreaks. (11/26) <http://www.charlotteobserver.com/2012/11/27/3689809/lawsuit-targets-fair-petting-zoo.html>

[**Massachusetts dog protected by restraining order**](http://www.wickedlocal.com/marshfield/newsnow/x1671795007/Marshfield-dog-is-first-in-state-to-win-protection-under-a-restraining-order-for-domestic-violence#axzz2DXn0Nhhm)

For the first time in Massachusetts, a restraining order has been granted to protect a dog from domestic abuse. A woman who, with her 2-year-son, fled an abusive boyfriend was granted a restraining order protecting her dog from the man, prohibiting him from claiming the animal. Some 70% of victims of domestic violence report their abusers threaten to hurt or kill a pet as a way to manipulate the victims into staying or to prevent them from calling authorities, according to animal control officer Deni Michele Goldman.  (11/28) <http://www.wickedlocal.com/marshfield/newsnow/x1671795007/Marshfield-dog-is-first-in-state-to-win-protection-under-a-restraining-order-for-domestic-violence#axzz2DXn0Nhhm>

[**Bennett Aerospace uses trained insects to detect bedbugs**](http://www.businesswire.com/news/home/20121130005113/en/Bennett-Aerospace-Trained-Insects-Detect-Bedbugs)

Smart Hound™ technology has the potential to redefine how consumers can monitor for and detect bedbugs—but if you want the ability to regularly scan for bedbugs, you have to tell Bennett Aerospace via their crowdsourcing campaign on IndieGoGo. “Our technology, derived from US Department of Defense R&D on explosives detection, can put the ability to detect bedbugs directly in the hands of consumers,” says Julia Bennett, the CEO of Bennett Aerospace. And consumers are going to have to vote via crowdsourcing. (11/30) <http://www.businesswire.com/news/home/20121130005113/en/Bennett-Aerospace-Trained-Insects-Detect-Bedbugs>

[**Zoonotic diseases are all around us**](http://www.slate.com/articles/health_and_science/pandemics/2012/12/origins_of_new_diseases_zoonotic_pandemics_come_from_bats_birds_monkeys.html)

Three-quarters of emerging infectious diseases originate in animals, research suggests, as do widespread pathogens such as HIV, writes University of Iowa epidemiologist Tara Smith. She explores the connections between animal species and zoonoses including influenza, rabies, SARS and hantavirus. Smith points out that humans can also transmit pathogens to animals. For example, research has indicated humans can pass antibiotic-resistant Staphylococcus aureus to animals including chickens, dolphins and pigs. (12/4) <http://www.slate.com/articles/health_and_science/pandemics/2012/12/origins_of_new_diseases_zoonotic_pandemics_come_from_bats_birds_monkeys.html>

[**Vaccine developed to prevent Hendra virus infection**](https://www.avma.org/news/javmanews/pages/121215f.aspx?utm_source=javma-news&utm_medium=email)

A vaccine against the deadly Hendra virus in Australia became available Nov. 1, thanks to international collaboration by laboratories, governments, and industry. The zoonotic infectious disease has claimed the lives of 81 horses on the continent and killed three people. The vaccine is being recommended for all horses and veterinarians in Australia. (12/15) <https://www.avma.org/news/javmanews/pages/121215f.aspx?utm_source=javma-news&utm_medium=email>

[**Feral cat exposes people and pets to rabies**](http://savannahnow.com/latest-news/2012-12-06/least-10-people-2-dogs-exposed-rabies#.UQd-67-5OSp)

At least 10 people and two pet dogs have been exposed to rabies after coming into contact with an infected feral cat. Savannah-Chatham police’s Animal Control unit has been in contact with the 10 people known to have been exposed to the virus and are urging anyone else who may have been scratched, bitten or in general contact with the adult white and grey tabby to immediately seek medical attention. (12/6) <http://savannahnow.com/latest-news/2012-12-06/least-10-people-2-dogs-exposed-rabies#.UQd-67-5OSp>

[**Dog prompts boy to speak for the first time**](http://health.yahoo.net/experts/dayinhealth/dog-who-teaches-kids-talk)

A therapy dog named Boo helped a 6-year-old boy with selective mutism start talking. The boy, Marc Oliviere, hadn't spoken a single word to anyone until he met Boo. After their first therapy session, Marc released a flood of words and hasn't stopped, according to his mother.  (12/10) <http://health.yahoo.net/experts/dayinhealth/dog-who-teaches-kids-talk>

[**Diabetes service dogs can save lives, restore sense of normalcy**](http://online.wsj.com/article/SB10001424127887324001104578163423121970336.html?mod=dist_smartbrief)

Dogs trained to detect critical changes in blood glucose levels are helping improve the lives of people with type 1 diabetes. As incidence of the condition has increased, so has the need for glucose-detecting dogs, and organizations that train the dogs are swamped with requests, despite the $20,000 price tag. The mother of an 8-year-old with type 1 diabetes calls the service dogs "angels with fur."  (12/10) <http://online.wsj.com/article/SB10001424127887324001104578163423121970336.html?mod=dist_smartbrief>

[**Poaching is a national security issue, WWF study finds**](http://www.ibtimes.com/why-wildlife-poaching-big-problem-even-if-you-dont-care-about-rhinos-934396)

Poaching of wild animals for ivory, horns, skins and other parts has been a dangerous business for animals for decades, but it's evolved into a security threat as well, according to a WWF report. Elaborate criminal syndicates that protect and augment the trade have developed, the report found. "It is one thing to be worried about the traditional poachers who come in and kill and take a few animals, a few tusks, a few horns or other animal parts," said Secretary of State Hillary Clinton. "It's something else when you've got helicopters, night vision goggles, automatic weapons, which pose a threat to human life as well as wildlife." (12/12) <http://www.ibtimes.com/why-wildlife-poaching-big-problem-even-if-you-dont-care-about-rhinos-934396>

[**Underwater navigation technology modeled after Blind Cave Fish**](http://www.sciencedaily.com/releases/2012/12/121212092635.htm)

Scientists have created affordable, easily powered underwater navigational systems by using as a model sensory tissue found on Blind Cave Fish, a species that can swim rapidly while avoiding obstacles. The sensors use water pressure and flow information to direct movement, an approach that is much less expensive than lights and cameras and does not pose the possible harm to marine animals of sonar. Applications of the new technology include better water ecology monitoring and military defense capabilities. (12/12) <http://www.sciencedaily.com/releases/2012/12/121212092635.htm>

*Comparative Research One Health News Bits*

[**Dog tumors may give clues for human breast cancer**](http://abcnews.go.com/Health/dog-tumors-give-clues-humans-breast-cancer/story?id=17638114#.UKlS0Ye5OSo)

**ABC News' Good Morning America** features a segment on how pet dogs diagnosed with cancer are helping to find cures and treatments for other dogs, and humans, too. (11/4) <http://abcnews.go.com/Health/dog-tumors-give-clues-humans-breast-cancer/story?id=17638114#.UKlS0Ye5OSo>

[**Stem cell therapy reversed chemo-linked infertility in male monkeys**](http://consumer.healthday.com/Article.asp?AID=670217)

It might be possible one day to restore male fertility after cancer chemotherapy, new research with monkeys suggests. (11/5) <http://consumer.healthday.com/Article.asp?AID=670217>

[**Model organisms: there’s more to life than rats and flies**](http://www.nature.com/nature/journal/v491/n7422/full/491031a.html)

The tiny number of model organisms constrains research in ways that must be acknowledged and addressed, according to a guest comment. (11/1) <http://www.nature.com/nature/journal/v491/n7422/full/491031a.html>

[**Researchers explore cancer resistance in blind mole rats**](http://www.sciencedaily.com/releases/2012/11/121105200058.htm)

Biologists at the University of Rochester have determined how blind mole rats fight off cancer -- and the mechanism differs from what they discovered three years ago in another long-lived and cancer-resistant mole rat species, the naked mole rat. (11/5) <http://www.sciencedaily.com/releases/2012/11/121105200058.htm>

[**Cat’s surgery in UK underscores One Health Initiative**](http://www.guardian.co.uk/science/2012/nov/06/surgery-pets-save-human-lives)

Harry, a 12-year-old cat, underwent cutting-edge neurosurgery in Britain to remove a pituitary tumor that was making him larger than normal and causing refractory diabetes. The surgery was successful, and it provides pieces of medical information that add to the growing knowledge base accumulating under the umbrella of One Health. Fostered by the AVMA, the One Health Initiative is a global effort to merge veterinary and human health professionals with other scientific disciplines to identify and study the overlap between human and animal disease and improve overall public health. (11/6) <http://www.guardian.co.uk/science/2012/nov/06/surgery-pets-save-human-lives>

[**Putting a pox on canine cancer**](http://news.illinois.edu/news/12/0910myxoma_AmyMacNeill.html)

Researchers at the University of Illinois College of Veterinary Medicine report that a pox virus infects and kills canine cancer cells. The study, which focused on the [myxoma pox virus](http://echo4.bluehornet.com/ct/18500253%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar) and how it affects canine cancer cells, adds to the evidence that viruses or modified viruses may emerge as relatively benign cancer treatments to complement or replace standard cancer therapies like chemotherapy and radiation. Unlike chemo and radiation, viruses like myxoma can target tumors while sparing healthy cells. More preliminary tests and trials remain, but researchers say they will eventually test the virus or a modified version of it in dogs that have been diagnosed with cancer. (9/10) <http://news.illinois.edu/news/12/0910myxoma_AmyMacNeill.html>

[**Painting a Happier Cancer Picture**](http://www.vetmed.wsu.edu/researchVCS/paint.aspx)

Veterinary research teams at the Washington State University College of Veterinary Medicine are playing an integral part in advancing a form of cancer treatment that is nearing human clinical trials. The [researchers](http://echo4.bluehornet.com/ct/18500257%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar) are studying the use of an innovative "tumor paint" – a drug that finds and attaches to tumor cells, illuminating them to show surgeons exactly where to cut – that was developed by [James Olson](http://echo4.bluehornet.com/ct/18500258%3A21013162843%3Am%3A1%3A2008126168%3A1BFA7115AC8F4F4E69EC536F7FB300CC%3Ar), MD, a cancer specialist and brain cancer researcher. The veterinary teams are recruiting dogs with cancer for a study that focuses on the use of tumor paint and how it may provide valuable information for development of new cancer therapies. (10/9) <http://www.vetmed.wsu.edu/researchVCS/paint.aspx>

[**Study:stem cell transplant improves ambulation in injured dogs**](http://www.bbc.co.uk/news/health-20365355)

Dogs with spinal cord injuries who received stem cell injections were able to walk again, British researchers report. Stem cells derived from olfactory ensheathing cells appeared to trigger nerve regeneration across short distances in the spinal cords of the dogs, restoring function to the hind limbs of some of them. "This is not a cure for spinal cord injury in humans -- that could still be a long way off. But this is the most encouraging advance for some years and is a significant step on the road towards it," said physician Geoffrey Raisman of University College London. (11/18) <http://www.bbc.co.uk/news/health-20365355>

[**Canine pathogen may be new vector for human vaccines**](http://www.redorbit.com/news/health/1112737781/vaccine-canine-virus-infectious-diseases-112812/)

Researchers at the University of Georgia's College of Veterinary Medicine found that canine parainfluenza virus 5, which doesn't cause disease in humans, can be loaded with antigens from other pathogens and used in a vaccine to generate immunity to those pathogens. Tests in mice have already shown that a PIV5-based vaccine protected them from seasonal flu strains as well as H5N1, or avian influenza. It's possible that the PIV5 vaccines could be used to develop vaccines for HIV, malaria and tuberculosis, according to lead researcher Biao He. (11/28) <http://www.redorbit.com/news/health/1112737781/vaccine-canine-virus-infectious-diseases-112812/>

[**Veterinary pain-management research may benefit seniors**](http://www.sunriseseniorliving.com/blog/December-2012/Veterinary-Medicine-May-Help-Dogs-And-Seniors-Similarly.aspx)

Kansas State University veterinarian James Roush is examining new ways to use hot and cold therapy as well as novel narcotics to treat post-operative and arthritic pain in animals, and those studies may help seniors living with pain. The Arthritis Foundation reports that some 27 million Americans suffer from osteoarthritis. (12/5) <http://www.sunriseseniorliving.com/blog/December-2012/Veterinary-Medicine-May-Help-Dogs-And-Seniors-Similarly.aspx>

[**White-nose syndrome research in bats may yield AIDS insights**](http://www.washingtonpost.com/national/health-science/research-on-stricken-bats-may-help-aids-fight/2012/12/09/8cc93ab8-38cc-11e2-b01f-5f55b193f58f_story.html)

Research on white-nose syndrome in bats may shed light on the overzealous immune response that wreaks havoc in AIDS patients, known as immune reconstitution inflammatory syndrome. Veterinarian Carol Meteyer, a pathologist with the U.S. Geological Survey, studied hundreds of bats that had survived white-nose syndrome only to die as a result of their immune system's frenzied attempt to eliminate the fungal pathogen, killing healthy tissue in the process. Although the process is different in people with AIDS, researchers think understanding the trigger in bats could help manage the condition in humans. (12/9) <http://www.washingtonpost.com/national/health-science/research-on-stricken-bats-may-help-aids-fight/2012/12/09/8cc93ab8-38cc-11e2-b01f-5f55b193f58f_story.html>

[**Newly identified raccoon virus may cause brain tumors**](http://www.sciencedaily.com/releases/2012/12/121212130946.htm)

Twelve raccoons with brain tumors were found to be infected with a newly identified virus called raccoon polyomavirus, and scientists think the virus may be causing the tumors. Raccoons live in close proximity to people and are exposed to items from our environment including waste, and researchers are evaluating the potential role of humans among factors that may have contributed to the tumors. They hope the study will ultimately benefit people. "Understanding how infectious agents may contribute to cancer in animals has provided fundamental new knowledge on the cause of cancer in people," said veterinarian Michael Lairmore, dean of the University of California, Davis, School of Veterinary Medicine. (12/12) <http://www.sciencedaily.com/releases/2012/12/121212130946.htm>

[**Panda blood contains antibiotic compound**](http://www.telegraph.co.uk/science/science-news/9770944/Giant-Pandas-hold-new-weapon-in-fight-against-superbugs.html)

Researchers in China studying pandas have discovered a peptide with antibacterial properties in panda blood. The compound, cathelicidin-AM, destroys bacteria in an hour, compared with the more than six hours needed by other antibiotics. This isn't the first time antibacterial peptides have been identified in animals. "More than 1,000 antimicrobial peptides have been found from animals, plants and microorganisms," said lead researcher Xiuwen Yan. The findings may lead to new antibiotics for humans. (12/30) <http://www.telegraph.co.uk/science/science-news/9770944/Giant-Pandas-hold-new-weapon-in-fight-against-superbugs.html>

[**Violence is widespread in the natural world**](http://online.wsj.com/article/SB10001424127887323874204578220002834225378.html?mod=dist_smartbrief)

Violence is far from a uniquely human behavior, according to the authors of this essay, who note that a number of species employ violence on a regular basis at a level far beyond that of any human society. Such species include chimpanzees, wolves, lions and spotted hyenas. The authors, including chimpanzee researcher Jane Goodall, conclude that understanding and preventing human violence can only be achieved once we understand all aspects of human nature, including the propensity for violence under certain circumstances. (1/4) [http://online.wsj.com/article/SB10001424127887323874204578220002834225378.html?mod=dist\_smartbrief#](http://online.wsj.com/article/SB10001424127887323874204578220002834225378.html?mod=dist_smartbrief)

[**Oxidants may aid tissue regeneration, tadpole study finds**](http://www.sciencedaily.com/releases/2013/01/130113201141.htm)

Researchers have found tadpole tails regrow with the help of reactive oxygen species, generally thought to be damaging, providing new insight for scientists studying human healing. The findings echo a recent publication by Nobel Prize winner and DNA research pioneer James Watson that suggests antioxidants may be detrimental for humans with late-stage cancer. "Our findings and those of others are leading to a reversal in our thinking about the relative beneficial versus harmful effects that oxidants and antioxidants may have on human health, and indeed that oxidants, such as ROS, may play some important beneficial roles in healing and regeneration," said researcher Enrique Amaya. (1/14) <http://www.sciencedaily.com/releases/2013/01/130113201141.htm>

[**Zebrafish are latest and greatest medical research model**](http://www.popsci.com/science/article/2013-01/will-fish-transform-medicine)

While rodents far outnumber any other research model in use today, zebrafish are rapidly gaining ground among scientists studying human diseases such as skin cancer, narcolepsy and muscular conditions. The zebrafish's transparent body, rapid reproduction rate and low cost of maintenance make it an attractive research model. "More labs are building aquariums," said Duke University geneticist Nico Katsanis, who studies rare human diseases using zebrafish. "The number that use zebrafish is going up hyper-exponentially. (1/21) <http://www.popsci.com/science/article/2013-01/will-fish-transform-medicine>