**One Health News Bits**

**7-7-13 a**

[**Slime from bottom-dwelling hagfish: Fashion’s next big thing?**](http://www.bbc.co.uk/news/magazine-21954779)

Scientists are studying the strange, protective slime produced by a 500-million-year-old species to fend off predators. The hagfish, a bottom-dwelling sea creature, releases a slime that forms a strong, stretchy layer when mixed with ocean water. The slime consists of small proteins that could be copied artificially, researchers say. Scientists think the material could be used for athletic clothing and even bulletproof vests. (4/1) *Acquired from Animal Health Smartbrief.* <http://www.bbc.co.uk/news/magazine-21954779>

[**USDA scientists to develop better Johne’s disease test**](http://www.dairyherd.com/dairy-news/Identifying-Johnes-Disease-with-accuracy--200859971.html)

Detecting the costly, contagious Johne's disease in cattle is now easier, thanks to [USDA](http://www.usda.gov/wps/portal/usda/usdahome) scientists. Microbiologist [John Bannantine](http://www.ars.usda.gov/pandp/people/people.htm?personid=275) and his colleagues at the [Agricultural Research Service](http://www.ars.usda.gov/main/main.htm) (ARS) [National Animal Disease Center](http://www.ars.usda.gov/main/site_main.htm?modecode=36-25-30-00) (NADC) in Ames, Iowa, discovered an antibody that's 100 percent specific in detecting Johne's disease. This is the first time a specific antibody that binds only to Mycobacterium avium subspeciesparatuberculosis (MAP), the pathogen that causes the disease, has been discovered. (4/1) *Acquired from Animal Health Smartbrief.* <http://www.dairyherd.com/dairy-news/Identifying-Johnes-Disease-with-accuracy--200859971.html>

[**Bighorn sheep cull planned to stop deadly pneumonia**](http://www.sfgate.com/news/science/article/Biologists-to-euthanize-wild-bighorn-sheep-4401115.php)

State and federal biologists plan to euthanize wild bighorn sheep in central Washington to curb the spread of a deadly pneumonia outbreak. Biologists will spend the next several weeks removing sheep from the Tieton herd, about 10 miles west of Naches and 20 miles northwest of Yakima. The herd is currently estimated at between 35 to 50 animals. (4/1) *Acquired from Animal Health Smartbrief.*  <http://www.sfgate.com/news/science/article/Biologists-to-euthanize-wild-bighorn-sheep-4401115.php>

[**One Health Commission all about the human-animal bond\***](http://www.chicagotribune.com/classified/realestate/sns-201304021900--tms--petwrldctnya-a20130403-20130403,0,6577906.column)

Dr. Roger Mahr, then president of the American Veterinary Medical Association, and Dr. Ronald Davis, late president of the American Medical Association, launched the One Health Initiative in 2007. "One Health is the collaborative effort of multiple disciplines and entities working locally, nationally and globally to obtain optimal health for people, animals, plants and everything in the environment and to address critical health issues." (4/3) *Acquired from Animal Health Smartbrief.* <http://www.chicagotribune.com/classified/realestate/sns-201304021900--tms--petwrldctnya-a20130403-20130403,0,6577906.column>

[**H7N9: Concerns mount as third death is confirmed**](http://www.reuters.com/article/2013/04/03/us-birdflu-potential-idUSBRE9320MY20130403)

H7N9, a strain of avian influenza not previously known to affect humans, has killed three people and sickened six others in China. Scientists who have examined the virus' genetic material are voicing concerns that the human outbreak could become more serious. "The virus has to a certain extent already adapted to mammalian species and to humans, so from that point of view it's worrisome," said influenza expert Ab Osterhaus. Additionally, the strain appears to cause mostly mild symptoms in birds, making the virus difficult to track and monitor. (4/4) *Acquired from Animal Health Smartbrief.* <http://www.reuters.com/article/2013/04/03/us-birdflu-potential-idUSBRE9320MY20130403>

[**Rabies transplant survivors, victim pose tough questions, CDC says**](http://www.sfgate.com/news/article/CDC-probes-mystery-of-rabies-transplant-survivors-4407116.php)

Joshua Daniel "Bubba" Hightower was one of four transplant recipients in 2004 who died of rabies within weeks of receiving organs from an infected donor. Investigators at the federal Centers for Disease Control and are trying to understand why three of the four people who got organs from another rabies-infected organ donor in 2011 didn't develop the deadly disease. A fourth recipient from Maryland died of rabies in February. (4/3) *Acquired from Animal Health Smartbrief.*  <http://www.sfgate.com/news/article/CDC-probes-mystery-of-rabies-transplant-survivors-4407116.php#ixzz2QP72f7ii>

[**Tourists warned to avoid sheep as disease moves through Zion park**](http://www.lasvegassun.com/news/2013/apr/04/virus-outbreak-affecting-zions-bighorn-sheep-park-/)

Zion National Park officials are warning people to steer clear of the park's bighorn sheep because they are suffering from contagious ecthyma, also known as sore mouth disease, which is transmissible to humans via direct contact. Although not deadly, the disease causes oral sores and teat inflammation in sheep and painful lesions in people, particularly those with poor immune systems. (4/4) *Acquired from Animal Health Smartbrief.* <http://www.lasvegassun.com/news/2013/apr/04/virus-outbreak-affecting-zions-bighorn-sheep-park-/>

[**2 approved drugs show premise in treating prion disease**](https://mail.google.com/mail/?tab=wm#search/cms7earth%40gmail.com/13de2c8d741a835c)

Researchers have found that two drugs already approved for use in humans -- tacrolimus and astemizole -- reduce the amount of prion protein present on cell surfaces by about 70%. Misfolded forms of the proteins are believed to cause such diseases as Creutzfeldt-Jakob disease. Astemizole is the most promising because it is effective at relatively low doses, while tacrolimus can cause neurotoxicity. (4/4) *Acquired from Animal Health Smartbrief.*

<https://mail.google.com/mail/?tab=wm#search/cms7earth%40gmail.com/13de2c8d741a835c>

[**Oil-covered animals getting aid after spill in Arkansas**](http://www.seattlepi.com/news/science/article/More-oiled-animals-found-after-Ark-oil-spill-4408810.php)

Officials say at least 16 oily birds, seven turtles, nine reptiles, a beaver and a muskrat have been recovered for treatment since an ExxonMobil pipeline ruptured last week in central Arkansas. Authorities are urging people not to touch any injured or oiled animals as crews clean up Friday's spill in Mayflower, a small town about 20 miles northwest of Little Rock. (4/4) *Acquired from Animal Health Smartbrief.*

<http://www.seattlepi.com/news/science/article/More-oiled-animals-found-after-Ark-oil-spill-4408810.php>

[**Preventing salmonella transmission from pets to kids**](http://www.philly.com/philly/blogs/healthy_kids/Pets-and-salmonella-QA-How-to-prevent-an-infection.html)

Children handling pets that may carry salmonella are at risk of contracting the bacteria that can cause severe nausea, diarrhea and vomiting, and the CDC has linked several recent salmonella outbreaks to pets including hedgehogs, turtles and frogs. In this blog post, veterinarian Nicole Wyre and microbiologist Shelley Rankin discuss how to protect children from contracting salmonella from pets, emphasizing proper hygiene. They note that a negative salmonella test does not mean an animal is not carrying the bacteria, so caution is always warranted. (4/4) *Acquired from Animal Health Smartbrief.* <http://www.philly.com/philly/blogs/healthy_kids/Pets-and-salmonella-QA-How-to-prevent-an-infection.html>

[**Taking stock of effort to eradicate devastating disease**](http://www.forbes.com/sites/skollworldforum/2013/04/07/the-fight-to-end-pandemics/)

The World Health Organization turned 65 on Sunday, and Skoll Global Threats Fund CEO Larry Brilliant writes that the efforts of the WHO and other organizations are giving humans a chance to eradicate devastating infectious diseases and even prevent future pandemics. Brilliant says technology such as mobile symptom reporting applications and Internet-based monitoring programs are important tools that will advance efforts to address public health threats. (4/7) *Acquired from Animal Health Smartbrief.* <http://www.forbes.com/sites/skollworldforum/2013/04/07/the-fight-to-end-pandemics/>

[**China urges changes to food purchases to stem H7N9 spread**](http://www.bloomberg.com/news/2013-04-08/chinese-asked-to-change-eating-habits-as-h7n9-infections-rise.html)

[China](http://topics.bloomberg.com/china/) asked its citizens to avoid contact with live poultry as it tries to stem a H7N9 bird flu outbreak whose death toll rose to seven today, with a further 17 people infected in three eastern provinces and [Shanghai](http://topics.bloomberg.com/shanghai/). Consumers should avoid markets where poultry are butchered as authorities increase monitoring for the new influenza strain, Feng Zijian, head of emergency response at the [Chinese Center for Disease Control and Prevention](http://www.chinacdc.cn/en/), said in Beijing today. A vaccine is being prepared in case the virus starts spreading from human to human, health officials said. (4/8) *Acquired from Animal Health Smartbrief.* <http://www.bloomberg.com/news/2013-04-08/chinese-asked-to-change-eating-habits-as-h7n9-infections-rise.html>

[**Research and education help keep watch on the plague**](http://www.washingtonpost.com/national/health-science/plague-draws-attention-amid-concern-that-it-might-be-deployed-by-terrorists/2013/04/08/bbd9a64a-84de-11e2-999e-5f8e0410cb9d_story.html)

The CDC considers the pathogen that causes plague a Category A bio­­terrorism agent. Although the Yersinia pestis bacteria is not likely to be eliminated entirely, years of research and education at the disease's epicenter in Africa could help protect against future bioterrorism attacks. The CDC has developed a rapid dipstick test that diagnoses plague from a small amount of blood or urine and supported an effort to educate traditional healers in Ugandan villages about the symptoms of plague and other infectious diseases so people can get life-saving diagnoses and treatment. (4/8) *Acquired from Animal Health Smartbrief.* <http://www.washingtonpost.com/national/health-science/plague-draws-attention-amid-concern-that-it-might-be-deployed-by-terrorists/2013/04/08/bbd9a64a-84de-11e2-999e-5f8e0410cb9d_story.html>

[**White nose syndrome found in crucial gray bat population**](http://www.latimes.com/local/lanow/la-sci-sn-bat-disease-20130408,0,5401570.story)

Federal biologists on Monday confirmed the presence of a lethal fungus known as white-nose syndrome at Alabama’s Fern Cave National Wildlife Refuge, home of the largest wintering colony of endangered gray bats. With more than 1 million hibernating gray bats, Fern Cave is the most significant hibernaculum for the species. Documentation of the disease in its maze of chilly sinkholes and galleries  “is extremely alarming and could be catastrophic,” said Paul McKenzie, endangered species coordinator for the U.S. Fish and Wildlife Service.” (4/8) *Acquired from Animal Health Smartbrief.* <http://www.latimes.com/local/lanow/la-sci-sn-bat-disease-20130408,0,5401570.story>

[**Search dogs to help put dent in illegal wildlife trade**](http://www.mercurynews.com/california/ci_22984879/dogs-search-ivory-louisville-elsewhere)

Specially trained wildlife detector dogs, named Viper, Butter, Lancer and Locket, have just completed training alongside handlers and will soon begin working at important U.S. import sites including UPS' global air hub in Louisville, Ky. Other cities where the dogs will conduct searches include Miami, Los Angeles and Chicago. The program is an effort to address the increasing trade in body parts of protected species. (4/9) *Acquired from Animal Health Smartbrief.*

<http://www.mercurynews.com/california/ci_22984879/dogs-search-ivory-louisville-elsewhere>

[**Update: Certain roadkill now legal to eat in Montana**](http://www.telegraph.co.uk/news/worldnews/northamerica/usa/9977527/Montana-legalises-cooking-and-eating-roadkill.html)

Montana [has legalized](http://r.smartbrief.com/resp/eqaHBXzCwNCinWjGCidmoaCicNlOBc) the recovery of meat from deer, elk, moose and antelope hit by vehicles, but recovery of animals such as sheep, bears and bobcats is not allowed. Some observers have raised concerns about animals being intentionally killed for consumption or health issues associated with consuming spoiled or disease-contaminated meat. Authorities will not evaluate the fitness of roadkill for consumption, officials said; that will be left up to individuals. (4/7) *Acquired from Animal Health Smartbrief.*<http://www.telegraph.co.uk/news/worldnews/northamerica/usa/9977527/Montana-legalises-cooking-and-eating-roadkill.html>

[**H7N9 influenza may be growing more infectious, WHO says**](http://www.bloomberg.com/news/2013-04-09/china-bird-flu-outbreak-may-stem-from-numerous-sources.html)

H7N9, the influenza strain that has killed nine people in China in recent weeks, may be growing more virulent, said Richard Webby of the World Health Organization. "If this is let spread from where it is now, it will evolve further. That's what viruses do," he said. Although human-to-human transmission hasn't been seen, scientists have uncovered signs of genetic diversity in the strain. Researchers continue to try to isolate the environmental sources of infection, but they need more data on the lives of China's birds in markets, on farms and in the wild, according to Maria Zambon, director of the U.K.'s national influenza center. (4/10) *Acquired from Animal Health Smartbrief.* <http://www.bloomberg.com/news/2013-04-09/china-bird-flu-outbreak-may-stem-from-numerous-sources.html>

[**Unusual therapy animals make patients of all ages smile**](http://www.cbsnews.com/8301-204_162-57578721/therapy-llamas-alpacas-bring-joy-to-patients-at-oregon-hospitals/)

According to the AVMA, therapy animals enhance people's physical, social, cognitive and emotional function, but what's important to the patients who encounter Napoleon the alpaca and Rojo the llama is that the animals make them smile. Lori Gregory of Mtn Peaks Therapy Llamas and Alpacas in Vancouver, Wash., brings the pair to visit Providence Child Center in Oregon and other health care facilities, and she calls the outreach an "addiction." Social worker Kelly Schmidt expressed gratitude: "I never realized the power animals have to bring healing and joy to people like this." (4/9) *Acquired from Animal Health Smartbrief.*<http://www.cbsnews.com/8301-204_162-57578721/therapy-llamas-alpacas-bring-joy-to-patients-at-oregon-hospitals/>

[**Goats’ milk with antimicrobial lysozyme speeds recovery from diarrhea**](http://news.ucdavis.edu/search/news_detail.lasso?id=10528)

Milk from genetically modified goats may eventually help [prevent human diarrheal diseases](http://echo4.bluehornet.com/ct/20425928:22501259303:m:1:2008126168:AB07F30E34A3A01AF64F0A0A0C687290:r) that each year claim the lives of 1.8 million children around the world and impair the physical and mental development of millions more. Study author Dr. James Murray, along with his research colleagues at the University of California-Davis School of Veterinary Medicine, report that the study is the first of its kind to show that goats' milk carrying elevated levels of the human antimicrobial protein lysozyme can successfully treat diarrhea caused by bacterial infection in the gastrointestinal tract. The milk has proved effective in treating diarrhea in young pigs, demonstrating the potential for food products from transgenic animals to one day also benefit human health. (3/13) *Acquired from AVMA Health News Bytes* <http://news.ucdavis.edu/search/news_detail.lasso?id=10528>

[**One health view of influenza shows where humans, animals, and disease intersect**](http://www.gizmodo.com.au/2013/04/all-the-different-animal-flus-you-could-possibly-catch/)

The internet is often awash with news of new types of flu — spread from pigs, birds and all kinds of other creatures — but it’s not easy to tell which ones you should really be worried about. Fortunately, this visualization explains exactly which strains you can pick up and just how dangerous they are. (4/10) *Acquired from Animal Health Smartbrief.*

<http://www.gizmodo.com.au/2013/04/all-the-different-animal-flus-you-could-possibly-catch/>

[**H7N9 vaccine production fast-tracked**](http://www.reuters.com/article/2013/04/12/usa-birdflu-vaccine-idUSL2N0CZ02P20130412)

Escalating concerns about the H7N9 influenza strain that has surfaced in China have prompted scientists to use new technology to create a viral seed strain, potentially shortening the development time for a vaccine. The approach, developed after the 2009 H1N1 pandemic, uses the genetic code of the virus, instead of a sample of the virus itself, to create synthetic DNA and manufacture the virus then used in vaccine development. The time saved could be critical, said Robin Robinson, director of the Biomedical Advanced Research and Development Authority. (4/11) *Acquired from Animal Health Smartbrief.* <http://www.reuters.com/article/2013/04/12/usa-birdflu-vaccine-idUSL2N0CZ02P20130412>

[**Animals use nature to prevent infections; humans may benefit**](http://www.npr.org/blogs/health/2013/04/09/176694090/on-call-in-the-wild-animals-play-doctor-too)

Whether intentionally or as a result of innate behavior, animals regularly use natural compounds to prevent and address health problems, and studying their habits could lead scientists to new drugs to treat human diseases, researchers say. "When we watch animals foraging for food in nature, we now have to ask, are they visiting the grocery store or are they visiting the pharmacy?" said ecology professor Mark Hunter. "We can learn a lot about how to treat parasites and disease by watching other animals." (4/11) *Acquired from Animal Health Smartbrief.* <http://www.npr.org/blogs/health/2013/04/09/176694090/on-call-in-the-wild-animals-play-doctor-too>

[**New Diseases, Toxins Harming Marine Life**](http://news.nationalgeographic.com/news/2012/04/130412-diseases-health-animals-science-environment-oceans/)

Marine life continues to be weakened by pollution, as dead sea otters arrive to California labs with destroyed livers and yellow eyes and gums. Microcystin, produced by cyanobacteria, or blue-green algae, continues to appear in the waterways that otters and other marine life live. Such toxins appear when human sewage and fertilizers run into lakes and rivers, adding nutrients that spur the growth of algae “superblooms.” (4/12) <http://news.nationalgeographic.com/news/2012/04/130412-diseases-health-animals-science-environment-oceans/> Additionally, recent necropsies of manatees in Puerto Rico have found the first case of [toxoplasmosis in four cases.](file:///C:\Users\kbudd\Documents\OneHealth\Bossart%20et%20al.%20Toxoplasmosis%20in%20manatees%20from%20Puerto%20Rico.pdf)

[**Cleanup compound blamed for worsening BP spill’s animal impact**](http://www.independent.co.uk/environment/nature/dead-dolphins-and-shrimp-with-no-eyes-found-after-bp-cleanup-8572080.html)

The dispersant used to help clear the 4.9 billion barrels of crude oil spilled into the Gulf of Mexico three years ago is being blamed for worsening the ecosystem-wide effects of the disaster by some scientists, who point to high numbers of dead dolphins, turtle stranding and marine life with abnormalities as evidence. Experts say 1.8 million gallons of the dispersant broke down the oil into droplets, allowing it to spread farther and deeper. BP notes that the dispersant is a government-approved product and maintains its commitment to resolving the crisis. (4/14) *Acquired by Animal Health Smartbrief* <http://www.independent.co.uk/environment/nature/dead-dolphins-and-shrimp-with-no-eyes-found-after-bp-cleanup-8572080.html>

[**Emu oil found to have healing properties**](http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/australia/9994320/Emu-oil-helps-chemotherapy-patients.html)

In laboratory tests, researchers in Australia found that emu oil decreases inflammation and supports intestinal crypt repair after injury. The findings may lead to new treatments for intestinal problems commonly seen in human chemotherapy patients. (4/15) *Acquired by Animal Health Smartbrief* <http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/australia/9994320/Emu-oil-helps-chemotherapy-patients.html>

[**H7N9 spreading to other provinces in China**](http://www.reuters.com/article/2013/04/14/health-birdflu-china-idUSL3N0D100X20130414)

Two people in the central Chinese province of Henan have been infected by a new strain of avian influenza, the first cases found in the region, while the death toll has risen to 13 from a total of 60 infections after two more deaths in Shanghai. The two cases do not appear to be connected. (4/14) *Acquired by Animal Health Smartbrief* <http://www.reuters.com/article/2013/04/14/health-birdflu-china-idUSL3N0D100X20130414>

[**Grizzly bear weight-loss plan could work for people, too**](http://www.washingtonpost.com/national/health-science/grizzly-bears-may-have-diet-lessons-that-can-be-helpful-for-humans/2013/04/15/7879898c-7f85-11e2-8074-b26a871b165a_story.html)

Veterinarians at Chicago's Brookfield Zoo overhauled the diet and lifestyle of Jim and Axhi, the zoo's Alaskan grizzlies, because the animals were obese. Cardiologist Barbara Natterson-Horowitz, a leading one health advocate who recounted the bears' story in her book "Zoobiquity," thinks it is one of many examples of the overlap between human and animal health. Physician Peter Rabinowitz says human and animal medicine have much to learn from each other. "There are so many things that vets have discovered that are relevant to doctors in practice, and vice versa," he said. (4/15) *Acquired by Animal Health Smartbrief* <http://www.washingtonpost.com/national/health-science/grizzly-bears-may-have-diet-lessons-that-can-be-helpful-for-humans/2013/04/15/7879898c-7f85-11e2-8074-b26a871b165a_story.html>

[**Budding food safety expert has close call with pet food recall**](http://www.npr.org/blogs/thesalt/2013/04/12/177041849/first-you-growl-when-your-dogs-food-is-recalled-for-salmonella)

Food safety policy doctoral candidate Ashley Chaifetz was surprised to find out her dog's food was recalled due to possible Salmonella contamination, but she learned some valuable lessons from the experience. Salmonella in dog food last year sickened 22 people while contaminated pet food caused illness in 79 people from 2006 to 2008. Chaifetz notes that even partially used bags of food possibly contaminated with Salmonella should be discarded because the pathogen may be present in parts of the package. Proper hand-washing after handling pet food or pet feces is an important way to prevent human infections.  (4/15) *Acquired by Animal Health Smartbrief* <http://www.npr.org/blogs/thesalt/2013/04/12/177041849/first-you-growl-when-your-dogs-food-is-recalled-for-salmonella>

[**Study estimates 3.7B toxocara eggs shed daily in U.K. city**](http://phys.org/news/2013-02-dogs-parasite-eggs-humans.html)

The city of Bristol, England, is crawling with intestinal parasites from pets, according to new research that estimated a staggering 3.7 billion toxocara eggs are likely shed each day in the city. Toxocara can cause rare but potentially serious zoonotic infections. The toxocara parasite is harbored in foxes, cats and dogs, and parasite eggs shed in their feces can be transmitted to humans. The research reinforces the importance of routinely deworming pets as well as cleaning up pet excrement. (2/5) *Acquired by Animal Health Smartbrief* <http://phys.org/news/2013-02-dogs-parasite-eggs-humans.html>

[**Texas lab investigates missing zoonotic virus**](http://www.inquisitr.com/588096/vial-of-potentially-deadly-virus-missing-from-texas-lab/)

Last week, lab workers at the University of Texas Medical Branch reported a missing vial of Guanarito virus, which causes the potentially deadly illness known as Venezuelan hemorrhagic fever. The disease caused 618 human illnesses in Venezuela between 1989 and 2006 and is transmitted from certain rodents to humans via aerosol inhalation. Officials think the vial was not stolen but instead was misplaced and likely destroyed during routine lab procedures, but they are investigating. (3/25) *Acquired by Animal Health Smartbrief* <http://www.inquisitr.com/588096/vial-of-potentially-deadly-virus-missing-from-texas-lab/>

[**Flight genes may explain bats’ remarkable disease resistance**](http://www.gizmag.com/bats-csiro-cancer-immmune-systems/25953/)

Bats have the capacity to survive infection with deadly zoonotic pathogens such as Ebola, Hendra, Nipah and SARS, something that could be explained by their ability to fly, according to the results of a recent genetic study. The genes involved in flight appear to have the added benefit of conferring disease resistance and longevity, the authors suggest, and delving into this line of research may one day help humans with illnesses including infectious disease and cancer. "The majority of new diseases in humans come from animals and the viruses that come from bats are the most deadly of all," said researcher Chris Cowled. (1/24) *Acquired by Animal Health Smartbrief* <http://www.gizmag.com/bats-csiro-cancer-immmune-systems/25953/>

[**Obesity: A delicate, difficult issue that veterinarians must tackle**](http://theconversation.com/its-a-dogs-life-when-mans-best-friend-becomes-his-fattest-5657)

With pet obesity often tied to owner habits and health, veterinarians are faced with a complicated situation when dealing with obesity in a pet whose owner has the same issue. Veterinarians can engage in an education plan that involves direct client communication about healthy diet and lifestyle for pets in addition to working at the community level to promote pet and human health, this article suggests. (1/24) *Acquired by Animal Health Smartbrief* <http://theconversation.com/its-a-dogs-life-when-mans-best-friend-becomes-his-fattest-5657>

[**Global team will assit with H7N9 investigation in China**](http://uk.reuters.com/article/2013/04/16/uk-birdflu-who-idUKBRE93F0J020130416)

A team of influenza specialists will help health officials in China investigate the origin of the H7N9 avian influenza virus that has killed 14 people and infected scores more while dealing serious economic damage to China's poultry industry. The team of American, European, Australian and Chinese experts will begin its investigation Saturday and will pay close attention to cases of mild infection or recovery from H7N9. (4/16) *Acquired by Animal Health Smartbrief* <http://uk.reuters.com/article/2013/04/16/uk-birdflu-who-idUKBRE93F0J020130416>

[**Deadly cattle virus samples may not be secure, official warns**](http://www.chicagotribune.com/health/sns-rt-us-oiebre93f0ic-20130416,0,3141037.story)

Rinderpest, a disease of cloven-hoofed animals that has a near 100% mortality rate in cattle and buffalo, was eradicated two years ago, but dozens of labs still have samples that some fear aren't secure. Countries in the World Organization for Animal Health agreed to preserve only a few samples at high-security locations, but 25 laboratories have the virus, according to veterinarian and Director General Bernard Vallat. "If you release these materials into the wild, they can touch sensitive species and re-trigger a global animal disease even more so that there are no animals vaccinated anymore," Dr. Vallat said. "It would be a disaster if it happened." (4/16) *Acquired by Animal Health Smartbrief* <http://www.chicagotribune.com/health/sns-rt-us-oiebre93f0ic-20130416,0,3141037.story>

[**Discovery could lead to treatment for Schmallenberg virus**](http://www.sciencedaily.com/releases/2013/04/130417223659.htm)

Researchers have identified a protein that forms a protective ring around the RNA of Schmallenberg virus, and they think it could be a target for antiviral compounds. Schmallenberg, a virus that causes little harm to adult sheep, goats and cattle but results in stillbirths and deformities in offspring, spread from Germany through some 5,000 farms across Europe in less than two years with no signs of stopping. Researchers are working on developing molecules that would block formation of the protective protein. (4/17) *Acquired by Animal Health Smartbrief* <http://www.sciencedaily.com/releases/2013/04/130417223659.htm>

[**The most common pet poisons**](http://www.hellawella.com/top-5-pet-toxins-of-2012/20490)

The ASPCA's Animal Poison Control Center fielded 180,000 calls related to pet poisonings in 2012, and this article lists the five most common toxic substances encountered by pets, according to the organization. Prescription human medication caused the most issues, with 25,000 calls, followed by insecticide exposure, which frequently involved cats. Over-the-counter human medications, veterinary compounds and household products also were problematic for pets. (4/17) *Acquired by Animal Health Smartbrief* <http://www.hellawella.com/top-5-pet-toxins-of-2012/20490>

[**Canine staff makes travel a little more warm and fuzzy at LAX**](http://www.jaunted.com/story/2013/4/17/7555/21135/travel/Why+LAX+Airport+is+Building+a+Team+of+Therapy+Dogs)

About 30 dogs of all shapes and sizes are manning the halls and waiting areas of Los Angeles International Airport seven days a week in an effort to ease tension for passengers. PUPs, or Pets Unstressing Passengers, program dogs have vests that advertise their availability to be cuddled or scratched and even have their own trading cards. (4/17) *Acquired by Animal Health Smartbrief* <http://www.jaunted.com/story/2013/4/17/7555/21135/travel/Why+LAX+Airport+is+Building+a+Team+of+Therapy+Dogs>

[**Disease outbreak highlight risks of traditional Chinese markets**](http://edition.cnn.com/2013/04/18/world/asia/china-bird-flu-food-culture/index.html)

China's food markets represent a long-standing tradition -- and a serious disease transmission threat as the country grapples with an outbreak of H7N9 avian influenza. Reducing risk involves changes such as closing live markets for at least a day each month to disinfect the poultry area, according to Leo Lit Man Poon of the University of Hong Kong's School of Public Health, but he says stopping the spread of the virus is difficult. "[H7N9] reminds us that human health and veterinary health are one and the same thing and we need to be constantly vigilant," said physician Gabriel Leung, of the same school as Poon. "We are linked to animals not just by contact but also by the food chain." (4/19) *Acquired by Animal Health Smartbrief* <http://edition.cnn.com/2013/04/18/world/asia/china-bird-flu-food-culture/index.html>

[**Experts explore possible evidence of H7N9 passing between humans**](http://www.washingtontimes.com/news/2013/apr/18/china-suspects-human-human-transmission-h7n9/)

After a new strand of bird flu previously unseen in humans killed 17 of the 87 people it has infected, Chinese officials are looking into the possibility of human-to-human transmission of the H7N9 strain. The [World Health Organization](http://www.washingtontimes.com/topics/world-health-organization/) said some of those who have contracted the virus have had “no history of contact with poultry,” and the state-owned China Daily newspaper said a boy in Shanghai may have caught the disease from his brother, U.S. News reports. (4/18) *Acquired by Animal Health Smartbrief* <http://www.washingtontimes.com/news/2013/apr/18/china-suspects-human-human-transmission-h7n9/>

[**Tennessee horse contracts rabies**](http://www.tennessean.com/article/20130418/NEWS07/304180088?nclick_check=1)

A horse in Tennessee recently tested positive for rabies, serving as a reminder that not only dogs and cats need rabies vaccines, noted state health officials. As of April 6, Tennessee had confirmed seven cases of rabies in animals. In 2012, two horses tested positive for the disease in the state. (4/18) *Acquired by Animal Health Smartbrief* <http://www.tennessean.com/article/20130418/NEWS07/304180088?nclick_check=1>

[**Much-needed support arrives in Boston in canine form**](http://www.buzzfeed.com/jtes/comfort-dogs-come-to-boston)

It continues to be a difficult week in Boston, but residents enjoyed some relief Wednesday when five K-9 Parish Comfort Dogs delivered some animal affection and support after explosions at the Boston Marathon shook the city. Animals provide the nonjudgmental connection that people who've been through a difficult time need most, according to London psychologist Debbie Custance. (4/18) *Acquired by Animal Health Smartbrief* <http://www.buzzfeed.com/jtes/comfort-dogs-come-to-boston>

[**Dogs and owners share bacteria**](http://www.npr.org/blogs/health/2013/04/18/177746969/bacteria-on-dog-lovers-skin-reveal-their-affection)

People living with dogs harbor betaproteobacteria and actinobacteria, microbes that normally inhabit the tongue and feet of dogs, as part of their microbiome, according to a recent study. Whether the bacteria pose health concerns was not addressed in the research, but previous work has found that exposure to bacteria can help humans prevent infection and even allergies by priming the immune system.  (4/18) *Acquired by Animal Health Smartbrief* <http://www.npr.org/blogs/health/2013/04/18/177746969/bacteria-on-dog-lovers-skin-reveal-their-affection>

[**Natura recall expanded to include all dry pet food production**](http://www.ibtimes.com/natura-pet-recalls-dry-food-salmonella-list-natura-brand-pet-food-treats-recalled-1205849)

Natura Pet Products has voluntarily recalled all dry pet food and treats that expire by March 24, 2014, expanding a recall initiated in March because the food may be contaminated with salmonella bacteria. Agriculture officials in Georgia and Michigan identified salmonella in some of the products included in the recall. "Salmonella can affect animals eating the products and there is risk to humans from handling contaminated pet products, especially if they have not thoroughly washed their hands after having contact with the products or any surfaces exposed to these products," the company said. (4/20) *Acquired by Animal Health Smartbrief* <http://www.ibtimes.com/natura-pet-recalls-dry-food-salmonella-list-natura-brand-pet-food-treats-recalled-1205849>

[**Aflatoxin corn contamination expected to worsen**](http://www.scientificamerican.com/article.cfm?id=grain-handlers-wary-of-toxin-linger)

The worst aflatoxin outbreak in decades began in 2012 and is expected to peak this summer, causing problems for companies that produce products using corn. The problem has extended north to states not normally affected by extensive aflatoxin. The FDA allows for contaminated grain to be blended with unaffected stores at low levels, but testing is critical because aflatoxin can be carcinogenic in animals and people. (4/19) *Acquired by Animal Health Smartbrief* <http://www.scientificamerican.com/article.cfm?id=grain-handlers-wary-of-toxin-linger>

[**H7N9 cases may be more widespread than originally thought**](http://www.bloomberg.com/news/2013-04-22/h7n9-cases-may-be-double-known-figure-hong-kong-researchers-say.html)

H7N9 bird flu may have infected twice as many people as the 103 cases reported, an analysis by researchers at the University of Hong Kong showed. There may be 90 to 120 ill adults who haven’t been detected because their infections are mild, Benjamin Cowling, associate professor at the university’s public health research center, said today. The researchers’ analysis suggests risk of serious illness from the virus rises substantially with age, with more than half of reported cases age 60 or older, he said. (4/22) *Acquired by Animal Health Smartbrief* <http://www.bloomberg.com/news/2013-04-22/h7n9-cases-may-be-double-known-figure-hong-kong-researchers-say.html>

[**Burn dressing 'lights up' to signal an infection**](http://www.bbc.co.uk/news/health-21900955)

Scientists have developed a medical dressing that 'lights up' when a burn is infected. It could be lifesaving in young children with serious burns in whom infections can rapidly become fatal, the Bath researchers said. The dressing developed by scientists at the University of Bath uses nanocapsules containing a dye that burst open in the presence of disease-causing bacteria. The nanocapsules are activated when they come into contact with toxins produced by harmful bacteria, so do not release the dye in response to normal bacteria that live on the skin. *Acquired from Animal Health Smartbrief.* (3/24) <http://www.bbc.co.uk/news/health-21900955>

## [Sequencing-based Tracking Finds Animal-to-Human MRSA Transmission on Danish Farm](http://www.genomeweb.com/sequencing/sequencing-based-tracking-finds-animal-human-mrsa-transmission-danish-farm) (3/25). <http://www.genomeweb.com/sequencing/sequencing-based-tracking-finds-animal-human-mrsa-transmission-danish-farm>

## [New coronavirus claims 2 more victims](http://abcnews.go.com/Health/sars-virus-kills-germany-britain/story?id=18822417#.UWwp7LXviSp) Two more people have died from a recently identified SARS-like coronavirus, bringing the virus' death toll to 11, with six other confirmed infections. Both people had been in the Middle East prior to developing symptoms. Health officials believe the zoonotic virus isn't easily or consistently transmitted between people, but they recommend physicians exercise caution when treating cases of pneumonia of unknown causes. *Acquired from Animal Health Smartbrief.* (3/27) <http://abcnews.go.com/Health/sars-virus-kills-germany-britain/story?id=18822417#.UVtSKpPviSo>

[**Foot-and-mouth vaccine could revolutionize disease response**](http://www.independent.co.uk/news/uk/home-news/footandmouth-advance-heralds-end-of-farmers-greatest-horror-8552241.html)Using high-powered microscopy, insect cells and genetic engineering, U.K. scientists developed a foot-and-mouth vaccine that confers immunity, doesn't appear to need refrigeration and allows for the identification of vaccinated versus naturally infected animals. Strategic use of the vaccine in an outbreak could help prevent massive culls like the one of some 10 million livestock in 2001, when the U.K. was struck with a devastating outbreak. "What we have achieved here is close to the holy grail of foot-and-mouth vaccines," said Dave Stuart of Diamond Light Source, the facility that operates the high-powered microscopy unit used in development. *Acquired from Animal Health Smartbrief.* (3/27) <http://www.independent.co.uk/news/uk/home-news/footandmouth-advance-heralds-end-of-farmers-greatest-horror-8552241.html>

[**Veterinarians from East Africa learn about U.S. livestock traceability**](http://www.capitalpress.com/content/ml-Africa-delegation-032613-art)In an effort to improve the traceability of diseased animals in East Africa, veterinarians from countries including Sudan, Uganda and Ethiopia are in the U.S. to study livestock health and movement regulations. "The reason for this trip is for them to see the mature program in operation," said veterinarian Andrew Clark, one of the trip's coordinators. "The economic implications of what we are doing are enormous in terms of livelihoods of people," said veterinarian Peter Ithondeka, Kenya's chief veterinary officer. *Acquired from Animal Health Smartbrief.* (3/26) <http://www.capitalpress.com/content/ml-Africa-delegation-032613-art>

[**Modified diet improves performance of detection dogs, study finds**](http://www.sciencedaily.com/releases/2013/03/130327102652.htm)Veterinarian Joseph Wakshlag, chief of nutrition at Cornell University's College of Veterinary Medicine, and his team found that decreasing protein intake to 18% and increasing fat intake improved dogs' sniffing abilities. Less protein results in a faster return to normal body temperature after activity, which translates to better olfactory ability, according to Dr. Wakshlag. The study used a new research technique, completely evacuating residual fumes from testing areas, that contributed to higher detection accuracy, suggesting dogs' detection abilities are better than previously thought. *Acquired from Animal Health Smartbrief.* (3/27) <http://www.sciencedaily.com/releases/2013/03/130327102652.htm>

[**Devastating Schmallenberg virus has spread to Scotland**](http://www.businessweek.com/news/2013-03-27/scotland-confirms-first-schmallenberg-cases-in-dairy-cows)Scotland confirmed its first cases of Schmallenberg virus in a dairy herd in a southern region of the country that borders England. The disease, which is spread by midges, a biting fly, and can cause stillbirths or malformations in young animals, was discovered in eight cows on the Barony campus of Scotland’s Rural College in Parkgate. According to Scottish government, this represents the first time animals bred within the country showed the disease, suggesting infected midges have spread. (3/27). <http://www.businessweek.com/news/2013-03-27/scotland-confirms-first-schmallenberg-cases-in-dairy-cows>

[**First human cases of H7N9 flu are confirmed in China**](http://www.telegraph.co.uk/health/healthnews/9963932/New-avian-flu-strain-kills-two-in-China.html)Infections involving avian H7N9 influenza have been confirmed in humans for the first time. Three people in China have been infected with the avian flu subtype. Two of them died, and the third is in critical condition. The illness has not been found in 88 people who had contact with the three patients, and human-to-human transmission is not considered likely, according to the World Health Organization. *Acquired from Animal Health Smartbrief.* (3/31) <http://www.telegraph.co.uk/health/healthnews/9963932/New-avian-flu-strain-kills-two-in-China.html>

[**White nose syndrome decimates bat population in Pa.**](http://www.phillyburbs.com/my_town/palisades/all-but-of-bats-in-durham-bat-mine-have-died/article_19e44845-452b-5ffe-ba71-110122304402.html)White nose syndrome, a deadly fungal disease that has been spreading through the country, has claimed all but 23 of some 10,000 bats in one of the largest colonies in Pennsylvania. Of the surviving bats in an abandoned mine in Upper Bucks, about half show symptoms of the illness, according to Pennsylvania Game Commission biologist Greg Turner. Almost all of the state's cave-dwelling bat population has been felled, according to Turner. "Going to places where there used to be tens of thousands of bats hibernating, and then going in and seeing only a few bats -- only a few stragglers left -- that's very difficult," he said. *Acquired from Animal Health Smartbrief.* (4/1) <http://www.phillyburbs.com/my_town/palisades/all-but-of-bats-in-durham-bat-mine-have-died/article_19e44845-452b-5ffe-ba71-110122304402.html>

[**Seals beaching themselves by the hundreds**](http://www.sanluisobispo.com/2013/03/30/2451082/seals-in-crisis-along-the-central.html)Marine Mammal Center’s Morro Bay triage facility has seen a big increase in rescues along beaches. The National Oceanic and Atmospheric Administration has declared “an unusual morbidity event is occurring for California sea lions in Southern California.” Biologists are unsure of the exact cause of the problem. One possible explanation is that environmental changes in the ocean have caused sardines and anchovies to move out of the area, but biologists are also looking at disease and harmful algal blooms as potential causes. (3/30). <http://www.sanluisobispo.com/2013/03/30/2451082/seals-in-crisis-along-the-central.html>

[**Could transplant guidelines have saved man who died from rabies?**](http://www.utsandiego.com/news/2013/mar/24/transplant-guidelines-too-late-for-rabies-victim/?ap)A Maryland man who died last month of rabies might have lived under transplant recommendations that had not yet been published when he received a kidney from an infected donor in 2011. The guidance from the United Network for Organ Sharing came out in June, nine months after organs from the infected Florida donor went to four patients. The encephalitis document urges organ banks and transplant surgeons to be cautious in considering organs from donors whose clinical symptoms suggest neurologic infection, such as rabies. (3/24). <http://www.utsandiego.com/news/2013/mar/24/transplant-guidelines-too-late-for-rabies-victim/?ap>

[**New vaccine to enhance FMD control**](http://www.bbsrc.ac.uk/news/food-security/2013/130327-pr-new-foot-and-mouth-vaccine.aspx) **Scientists have developed a new method to produce a foot-and-mouth disease virus (FMDV) vaccine. The synthetic vaccine doesn't rely on growing live virus so is much safer to produce.** The vaccine is **made up of tiny protein shells designed to trigger optimal immune response. These shells have been engineered to be more stable, making the vaccine much easier to store. This should greatly decrease production costs allowing global distribution of vaccine. (3/27).**  <http://www.bbsrc.ac.uk/news/food-security/2013/130327-pr-new-foot-and-mouth-vaccine.aspx>

[**China confirms 4 more human cases of H7N9 avian influenza**](http://news.yahoo.com/strain-bird-flu-infects-four-others-china-xinhua-141428081.html)China has announced four new human cases of the H7N9 avian influenza strain that killed two people and infected another, bringing the total human infection count to seven. The new patients are hospitalized in critical condition. Public health officials believe the virus is not readily transmitted between humans because 255 people who had contact with those who were infected have not shown signs of illness. *Acquired from Animal Health Smartbrief.* (4/2). <http://news.yahoo.com/strain-bird-flu-infects-four-others-china-xinhua-141428081.html>

[**Tick populations to explode in 2013**](http://www.veterinarypracticenews.com/vet-cover-stories/tick-populations-to-explode.aspx?cm_mmc=17155264)For a number of reasons, tick populations in many areas of the country will likely surge this year, according to several parasitologists, so veterinarians should be vigilant about discussing preventives with clients. Winters in the United States have been milder than they were 20 or more years ago, when long periods of harsh weather used to kill off many ticks, explains Michael W. Dryden, DVM, Ph.D. With the help of wildlife migration, ticks have spread across nearly half of the country. They have been implicated in the transmission of nearly a dozen human and animal infectious diseases, including anaplasmosis, babesiosis, ehrlichiosis and [Lyme disease](http://www.veterinarypracticenews.com/vet-dept/small-animal-dept/theres-never-a-good-time-for-lyme.aspx). (3/28). <http://www.veterinarypracticenews.com/vet-cover-stories/tick-populations-to-explode.aspx?cm_mmc=17155264>

**[Dengue Fever Cases Have Been Seriously Underestimated](http://www.npr.org/blogs/health/2013/04/08/176563030/dengue-fever-cases-have-been-seriously-underestimated)**

A new scientific [paper](http://www.nature.com/nature/journal/vaop/ncurrent/full/nature12060.html) in the journal Nature recognizes the underestimation of dengue existence around the globe. The study says there could be as many as 400 million dengue infections worldwide each year, which is four times higher than the current dengue prevalence estimate of the World Health Organization. Dengue is continuing to spread and appears to be attracted to overcrowded slums in growing cities of the developing world. Therefore, poverty is a significant risk factor for dengue taking hold in a new environment. (4/8). <http://www.npr.org/blogs/health/2013/04/08/176563030/dengue-fever-cases-have-been-seriously-underestimated>

[**Why China’s leaders should worry about climate change**](http://globalpublicsquare.blogs.cnn.com/2013/04/09/why-chinas-leaders-should-worry-about-climate-change/?hpt=hp_c3)Climatic stresses on the environment can lead to shortages of water or food, which in turn can lead to anything from increased prices to disease. Beijing has tended to address these kinds of issues but never at the expense of slowing down growth in any way. However, there is proof to show that climate change creates stresses that can trigger social revolution, which may urge China’s leaders to find ways of more sustainable growth. (4/9). <http://globalpublicsquare.blogs.cnn.com/2013/04/09/why-chinas-leaders-should-worry-about-climate-change/?hpt=hp_c3>

**[The](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2813%2960720-5/fulltext?_eventId=login&elsca1=ETOC-LANCET&elsca2=email&elsca3=E24A35F)*[Lancet](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2813%2960720-5/fulltext?_eventId=login&elsca1=ETOC-LANCET&elsca2=email&elsca3=E24A35F)*[journals welcome a new open access policy](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2813%2960720-5/fulltext?_eventId=login&elsca1=ETOC-LANCET&elsca2=email&elsca3=E24A35F)** The debate about how best to make publicly funded research more widely accessible and useable has intensified over recent years and is gradually reaching a practicle resolution. For example, the UK's Finch report, published last June by an independent group of academics, research funders, and publishers, clearly stated that the UK should embrace the transition to open access while recognizing that it is important “to ensure that they [researchers] have effective and high-quality channels through which they can publish and disseminate their findings.” (4/2). <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2813%2960720-5/fulltext?_eventId=login&elsca1=ETOC-LANCET&elsca2=email&elsca3=E24A35F>

[**Measuring universities’ commitments to global health**](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60823-5/fulltext)

The *University Global Health Impact Report Card* assesses 54 institutions’ commitment to research that affects the developing world and their use of open, socially responsible technology licensing that promotes affordable access. Released on April 4, the Report Card found tremendous inequities in the resources being devoted to neglected disease research and a lack of equity in socially responsible licensing and accessibility in the developing world. The report shows significant inadequacies in institutional commitments to the developing world, but also establishes clear goals toward which institutions can strive to increase global access to research. (4/13) doi:10.1016/S0140-6736(13)60823- <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60823-5/fulltext>