

One Health News Bits

December 2014

Malaria killing thousands more than Ebola in West Africa.

West Africa's fight to contain Ebola has hampered the campaign against malaria, a preventable and treatable disease that is claiming many thousands more lives than the dreaded virus.

Associated Press (12/28) Environmental Health News, AboveThe Fold

http://www.washingtonpost.com/world/africa/malaria-killing-thousands-more-than-ebola-in-west-africa/2014/12/28/5f25f94a-8e95-11e4-a66f-0ca5037a597d_story.html

How a veterinarian's knowledge saved her own life

Veterinarian Sarah Boston, an associate professor of surgical oncology at the University of Florida's College of Veterinary Medicine, noticed her own thyroid cancer thanks to her knowledge of and experience with the disease in dogs. She found a lump in her throat, obtained ultrasound images with the help of her husband, who is also a veterinarian, and convinced her physician she needed the lump evaluated as soon as possible. Dr. Boston wrote a book -- "Lucky Dog: How Being a Veterinarian Saved My Life" -- detailing her experience. [WJXT-TV \(Jacksonville, Fla.\) \(12/26\) Animal Health SmartBrief](#)

<http://www.news4jax.com/news/a-veterinarians-lifesaving-story/30368086>

New insect-borne virus identified after death in Kan.

Researchers have identified a tick-borne virus in the blood of a Kansas man who died this summer despite intensive treatment. The Bourbon virus, which was named after the man's county, appears to belong to the thogotovirus family, which can be transmitted by ticks. The CDC and Kansas health officials are testing other blood samples for evidence of the virus.

[Popular Science \(12/24\), The New York Times \(tiered subscription model\) \(12/24\) Animal Health SmartBrief](#)

<http://www.popsci.com/newly-identified-bourbon-virus-has-nothing-do-alcohol>

Team traces evolution of salmonella to prevent future outbreaks

New research published in the Proceedings of the National Academy of Sciences traces the genomic evolution of four related strains of salmonella. The data show salmonella evolved to become increasingly adapted to its host. "Shedding light on how human and animal pathogens arose in the past could potentially allow us to predict how emerging pathogens will evolve in the future," said researcher and veterinary professor Paul Barrow. [PhysOrg.com \(12/23\) Animal Health SmartBrief](#)

<http://phys.org/news/2014-12-future-salmonella-infections.html>

Valley fever anti-fungal drug on accelerated regulatory path

The anti-fungal drug nikkomycin Z is on the fast track for approval, and it is expected to provide much-needed treatment for valley fever, an airborne fungal disease that causes respiratory infections in people and animals. It has been in development since 2005 at the University of Arizona, and clinical trials are set for fall 2015, with a goal of three to five years to release. The effects of valley fever in dogs are similar to those seen in humans, and the drug will be available to veterinarians if approved. [Arizona Daily Star \(Tucson\) \(12/21\) Animal Health SmartBrief](#)

<http://tucson.com/lifestyles/health-med-fit/valley-fever-drug-from-ua-on-fast->

[track/article_314e4d82-866f-53de-9008-b95934386984.html](http://news.nationalgeographic.com/news/2014/12/141221-chickens-civilization-avian-flu-locavore-turkey-ngfood-booktalk/)

Where would humans be without chickens?

Andrew Lawler, author of "Why Did the Chicken Cross the World? The Epic Saga of the Bird that Powers Civilization," sheds light on the humble chicken, which he says has played a more vital role in human history than any other animal -- including cats, dogs, cows and pigs. From the dinner table to backyards to infectious disease laboratories, "humans can't do without chickens," Lawler said. *National Geographic News* (free registration) (12/21) *Animal Health SmartBrief* <http://news.nationalgeographic.com/news/2014/12/141221-chickens-civilization-avian-flu-locavore-turkey-ngfood-booktalk/>

CWD vaccine for deer raises hopes for livestock, humans, study says

A vaccine designed to prevent chronic wasting disease in deer suggests a way of guarding against related brain infections in livestock and humans, according to a new study in the journal Vaccine. CWD is a prion disease, as are bovine spongiform encephalopathy in cows and Creutzfeldt-Jakob disease in humans. *DoctorsLounge.com/HealthDay News* (12/21) *Animal Health SmartBrief* <http://www.doctorslounge.com/index.php/news/hd/51868>

Kenyan dog vaccination program attempts rabies eradication

Kenya has become the first nation in Africa to attempt to eliminate rabies through a dog vaccination program. The goal is to eliminate the disease by 2030 by inoculating 70% of dogs annually for three consecutive years. Neighboring countries are keeping a close watch to see if the initiative is successful. *Voice of America* (12/19) *Animal Health SmartBrief* <http://www.voanews.com/content/kenya-targets-dogs-in-ambitious-plan-to-eradicate-rabies/2565492.html>

Tourism brings new diseases to penguins in Antarctica

Species in Antarctica are thought to have weaker immune systems due to long isolation, and the growing tourism on the continent -- along with its warming climate -- is posing a threat to penguins. The animals are vulnerable to infectious diseases, and mass penguin mortality events have been recorded across the continent since 1969. As the climate warms, non-native birds may bring new pathogens, too. *New Scientist* (12/19) *Animal Health SmartBrief* <http://www.newscientist.com/article/dn26725-antarctic-tourism-may-pose-disease-threat-to-penguins.html#.VJSDG8AA8>

Scientists debate gain-of-function research amid moratorium

As part of the government's yearlong investigation into the safety of gain-of-function experiments on deadly zoonotic pathogens such as Middle East respiratory syndrome and highly pathogenic avian influenza, scientists met this week at the National Academy of Sciences. Overall, there was little consensus, and the points discussed were largely unchanged: Some experts say manipulation of pathogens for research is too dangerous, while others argue not doing such research poses the greatest danger because it hampers our understanding of the diseases. *ScienceMag.org* (12/17) *Animal Health SmartBrief* <http://news.sciencemag.org/biology/2014/12/academy-meeting-risky-virus-studies-struggles-find-common-ground>

After oil spill in Bangladesh's mangrove forest, fears about rare animals.

Oil from a wrecked tanker is creating a disaster in the waters of Bangladesh's Sundarbans, the largest contiguous tidal mangrove forest in the world and a haven for a spectacular array of species, including the rare Irrawaddy and Gangetic dolphins and the highly endangered Bengal tiger. *National Geographic News* (12/16) *Environmental Health News, AboveThe Fold*
<http://news.nationalgeographic.com/news/2014/12/141216-sundarbans-oil-spill-bangladesh-tigers-dolphins-conservation/>

Drug-resistant malaria: World's next big health crisis?

Experts say the recent case of Ka Lar Nar could be an indication of drug resistance to malaria, which has been spreading in Myanmar and other countries in the Mekong River basin in what threatens to become the next big global health emergency if it marches on to India and Africa. *Reuters* (12/16) *Environmental Health News, AboveThe Fold*
<http://www.reuters.com/article/2014/12/16/us-health-myanmar-malaria-idUSKBN0JU0DK20141216>

Study: Guinea pigs join horses, cows as source of strep bacterium

Guinea pigs can be a source of the zoonotic bacteria *Streptococcus equi* ssp. *zooepidemicus*, according to a study published in *Emerging Infectious Diseases*. The bacterium is also passed to people from infected cows or horses. Veterinarian Karen Gruszynski, first author on the study, stressed that transmission of the bacteria from animals to humans is rare. "So what's important about this finding is that it identifies another source of transmission that doctors can look for," said Dr. Gruszynski. *HealthDay News* (12/16) *Animal Health SmartBrief*
<http://consumer.healthday.com/infectious-disease-information-21/misc-infections-news-411/strep-infection-linked-to-guinea-pig-exposure-694579.html>

Campus presidents' dogs are ambassadors to the student body

A number of dog-owning college and university presidents have found their dogs help foster good relations with students. Students often appreciate the opportunity for animal interaction after leaving their own pets at home, and there's nothing like witnessing a university leader cleaning up after or chasing a pet to make him or her more approachable. "Having a dog on campus is sort of an ongoing invitation to engage in a conversation and visit," said John Garvey, president of the Catholic University of America. *The Chronicle of Higher Education* (free content) (12/15) *Animal Health SmartBrief*
<http://m.chronicle.com/article/Presidents-Dogs-Leave-Big-Paw/150821>

Australian bat lyssavirus poses silent danger

Australian bat lyssavirus is a zoonotic disease that can be dormant for months or years and then cause death. It is a rabies-related virus that can be transmitted by the bite or scratch of all Australian flying fox species. If treatment occurs soon after exposure, the infection can be dealt with, but if left untreated, it is deadly. *Business Insider* (12/15) *Animal Health SmartBrief*
<http://www.businessinsider.com/scratch-from-australian-bat-can-kill-years-later-2014-12>

The world's scallops and oysters are mysteriously dying out.

The pristine, sheltered sounds off Vancouver Island, British Columbia, offer the cleanliness and protection ideal for farming oysters, clam, scallops, and other shellfish. But something is killing

them off. *Quartz* (12/15) *Environmental Health News, AboveThe Fold*
<http://qz.com/311345/the-worlds-scallops-and-oysters-are-mysteriously-dying-out/>

Mounting evidence shows pets are good for people

Scientific evidence is mounting to validate what many already know: Pets are good for people. People with animals report less stress, and studies have shown that spending time with companion animals can help alleviate symptoms of depression. Cardiovascular health also likely improves with pet ownership, according to the American Heart Association, as pet owners tend to be in better health and more active, although whether the relationship is causal remains unclear. *The Washington Post* (tiered subscription model) (12/15) *Animal Health SmartBrief*
http://www.washingtonpost.com/national/health-science/getting-a-dog-a-pet-might-improve-your-health/2014/12/12/5e00cebe-7f27-11e4-9f38-95a187e4c1f7_story.html

Dogs to shield vulnerable species from danger

The eastern barred bandicoot is extinct in the wild, but an Australian zoo hopes to establish a wild population by releasing some captive bandicoots along with specially trained canine protectors. The zoo is raising money to train Maremma livestock guardian dogs to live with the bandicoots and protect them from predators. The breed is already successfully living with and protecting penguins. *The Age* (Melbourne, Australia) (12/14) *Animal Health SmartBrief*
<http://www.theage.com.au/victoria/odd-couple-paired-together-in-worldfirst-to-protect-endangered-species-20141213-1261bi.html>

Virologist aims to advance science of predicting outbreaks

Virologist Nathan Wolfe says that the emerging zoonotic diseases do not surface as isolated events, but rather they occur in a pattern and can be predicted if researchers are looking in the right places. Wolfe is working to develop tools that will do just that. He says diseases emerging from animals will continue to "blindside us until we have systematic approaches to catching them early and stopping them before they spread." *The Wall Street Journal* (tiered subscription model) (12/12) *Animal Health SmartBrief*
http://www.wsj.com/articles/nathan-wolfe-on-the-hunt-for-new-viruses-1418422069?mod=WSJ_hps_sections_lifestyle

Cape Cod Mystery: A surge of stranded turtles.

Each year, young sea turtles have ventured up the East Coast to feed on crabs and other prey. Some linger too long in northern waters and are stunned when the season turns cold. But this year the usual trickle of stranded turtles has turned into a flood, and nobody seems to know why. *New York Times* (12/12) *Environmental Health News, AboveThe Fold*
<http://www.nytimes.com/2014/12/13/science/a-cape-cod-mystery-hundreds-of-sea-turtles-stranded-on-beaches.html>

Team tests second dose of contraceptive vaccine in wild mares

Research biologist Dan Baker is hoping estradiol tests on feces collected from wild mares in Theodore Roosevelt National Park show the animals are not pregnant. Such findings would mean re-vaccination with GonaCon achieved temporary or permanent sterilization in the mares after an initial dose failed to deliver the hoped-for results. If successful, the vaccine might hold promise as a population management tool in countries with a large number of stray dogs. *The Bismarck*

Tribune (N.D.) (12/12) Animal Health SmartBrief

http://bismarcktribune.com/news/state-and-regional/park-s-wild-horses-an-experiment-in-birth-control/article_a13a157e-816a-11e4-a261-ffd6de663204.html

Why didn't toxic waste cause a cancer epidemic, like we expected in the 1970s?

There are hundreds of hazardous waste sites in the U.S., but only three have been linked to excess cancers. What happened? Is hazardous waste not as big a deal as we thought? Or is the case against it just too hard to prove? That's still up for debate – but the answer is probably a bit of both. *National Geographic News (12/11) Environmental Health News, AboveThe Fold*
<http://news.nationalgeographic.com/news/2014/12/141211-superfund-hazardous-waste-cancer-science-environment/>

Malaria found in monkeys poses growing danger to humans

A form of malaria carried by monkeys, Plasmodium knowlesi, is causing serious illness in people in Malaysian Borneo, and it is the first time the parasite has been found in humans. Long-tailed macaques are the reservoir species, and mosquitoes transmit the parasite to people -- something that becomes more likely as human and animal habitats increasingly overlap. Plasmodium knowlesi rapidly causes severe illness in people and can be fatal. *National Public Radio/Goats and Soda blog (12/11) Animal Health SmartBrief*
<http://www.npr.org/blogs/goatsandsoda/2014/12/11/369666584/you-dont-want-to-monkey-around-with-monkey-malaria>

Closing in on ALS? Link between lethal disease and algae explored.

Medical researchers are now uncovering clues that appear to link some cases of ALS or Lou Gehrig's Disease to people's proximity to lakes and coastal waters. Researchers have identified several ALS hot spots in lake and coastal communities in New England, and they suspect that toxic blooms of blue-green algae may play a role. *Environmental Health News (12/11) Environmental Health News, AboveThe Fold*
<http://www.environmentalhealthnews.org/ehs/news/2014/dec/als-and-algae>

Drug-resistant infections to lead to 10 million extra deaths a year – report.

Failure to tackle drug-resistant infections will lead to at least 10 million extra deaths a year and cost the global economy up to \$100 trillion by 2050, a report commissioned by David Cameron, the prime minister, has warned. *The Guardian (12/11) Environmental Health News, AboveThe Fold*
<http://www.theguardian.com/society/2014/dec/11/drug-resistant-infections-deaths-soar-10m-by-2050-report>

Antibiotic resistance among wildlife.

Even animals that live far from humans are developing resistance to antibiotics. *The Scientist (12/11) Environmental Health News, AboveThe Fold*
<http://www.the-scientist.com/?articles.view/articleNo/41655/title/Antibiotic-Resistance-Between-Wildlife/>

FDA plan for antibiotics in food-producing livestock has a loophole?

The problem is that many antibiotics approved for weight gain – or growth promotion, as some

call it – are also approved for preventing disease. And as Pew notes, the lines between these usages are not always clear. *Wall Street Journal* (12/10) *Environmental Health News, AboveThe Fold*

<http://blogs.wsj.com/pharmalot/2014/12/10/fda-plan-for-antibiotics-in-food-producing-livestock-has-a-loophole/>

Concerns over pet's weight can motivate owners to exercise

Dog owners who were told by veterinarians that their obese pet's health was in danger began walking their dogs more, and they ended up losing weight themselves, too, according to new research. The dogs and people in the study cohort that was prescribed a clear exercise regimen lost weight, but even owners who were simply urged to watch their pet's food intake and health began walking more and slimmed down, as did their dogs. "Love and concern for a dog can be a powerful motivation for exercise," said physician Mark Stephens, co-author on the study. *The New York Times* (tiered subscription model)/*Well* blog (12/10) *Animal Health SmartBrief*
http://well.blogs.nytimes.com/2014/12/10/pet-weight-gain/?_r=2

Time magazine honors those who put lives on hold, at risk to fight Ebola

First responders to the Ebola outbreak in West Africa met with complacent or hostile governments, inadequate medical infrastructures and funds, and denial and suspicion among local communities. They soldiered on, "fighting a forest fire with spray bottles," as one volunteer put it, even as dozens around them succumbed to the virus. The villagers, volunteers, troops, caregivers, doctors, nurses, scientists and directors who put their lives on hold and at risk are Time's Person of the Year. *Time.com* (12/10) *Animal Health SmartBrief*
<http://time.com/time-person-of-the-year-ebola-fighters/>

CSU team takes aim at E. coli O157:H7

Researchers at Colorado State University's College of Veterinary Medicine are conducting research on the intestinal flora of cattle in an effort to identify factors that contribute to shedding of E. coli O157:H7. They hope to identify patterns in the gut bacteria of animals that shed the pathogen and use those data to develop new approaches to stemming the spread of disease. *High Plains Journal* (Dodge City, Kan.)/*Colorado State University* (12/9) *Animal Health SmartBrief*
http://www.hpj.com/livestock/article_0bd64e4d-f863-5b3b-bf49-5aafa50682ec.html

How hedgehogs could help build a better city

Researchers have been tracking and mapping the movements of hedgehogs in Zurich in an effort to study habitat connectivity -- how the animals use city corridors to move between suitable environments. Although some animals thrive in urban environments, others do well only under certain circumstances, and the ability to move between habitat islands is key to maintaining genetic diversity. The study findings could help guide city planning decisions. *Next City* (12/9) *Animal Health SmartBrief*

<http://nextcity.org/daily/entry/habitat-connectivity-science-cities-wildlife-nature>

Devices seek to close the human-animal communication gap

Technology has spilled over from human-human interactions into human-animal interactions as more wearable devices are available for pets. There are simple devices that provide basic health information such as calories burned and activity levels, while more advanced devices in

development could push the limits of human-canine communication. Several prototypes are being developed that aim to connect working dogs with a remote handler in unprecedented ways such as transmitting signals to Google Glass or mobile phones. *IO9.com* (12/8) *Animal Health SmartBrief*

<http://io9.com/our-pets-are-turning-into-cyborgs-1668268176>

Research explores gene therapy for blind dogs

Humans with retinitis pigmentosa, a genetic and degenerative condition of the eye that leads to blindness, may benefit from recent advances in dogs with a similar condition. Researchers used gene therapy to activate cells in the retinas of blind dogs and mice, inducing the cells to behave like rods and cones. The treated animals demonstrated some vision capability, and they are undergoing tests to determine just how much they can see. *The Independent (London)* (tiered subscription model) (12/8) *Animal Health SmartBrief*

<http://www.independent.co.uk/news/science/procedure-to-restore-sight-in-dogs-gives-hope-for-future-blindness-cure-9911273.html>

Animal deaths spike on Sierra roads as drought hits habitat.

Bears and deer in particular have been loping across roads and highways this fall, apparently searching for scarce food, according to a rare joint public warning issued by Caltrans and the California Department of Fish and Wildlife. *San Francisco Chronicle*, California (12/8) *Environmental Health News, AboveThe Fold*

<http://www.sfgate.com/bayarea/article/Animal-deaths-spike-on-Sierra-roads-as-drought-5943421.php>

Maryland governor vows to fight farm pollution rules.

Maryland Gov.-elect Larry Hogan promised Maryland farmers Monday that his "first fight" in office would be against costly new farm pollution regulations, even as environmental groups released new data showing many Eastern Shore chicken farms could be fouling the Chesapeake Bay. *Baltimore Sun*, Maryland (12/8) *Environmental Health News, AboveThe Fold*
<http://www.baltimoresun.com/features/green/blog/bs-md-hogan-phosphorus-20141208-story.html>

Common drugs affecting plant growth: study.

The commonly prescribed drugs such as diclofenac and ibuprofen that we release into the environment are likely to have a significant impact on plant growth, a new study has warned. *Press Trust of India*, India (12/7) *Environmental Health News, AboveThe Fold*

http://www.business-standard.com/article/pti-stories/common-drugs-affecting-plant-growth-study-114120700469_1.html

What physicians can learn from veterinarians, according to a UCLA cardiologist

Cardiologist Barbara Natterson-Horowitz, a professor of medicine at the University of California, Los Angeles, says her work consulting on veterinary cases delivered "a much-needed wake-up call" about the value of working at the intersection of human and animal medicine. "How was it that I had never thought to ask a veterinarian or consult the veterinary literature for insights into one of my human patients?" she asks. In her TED talk, Dr. Natterson-Horowitz discusses numerous examples of how veterinary medical care can inform human medical care.

"Closing the gap has become a passion for me," she says. *MedCityNews.com* (12/5) *Animal Health SmartBrief*
<http://medcitynews.com/2014/12/can-thinking-like-veterinarian-help-physicians-treat-humans/>

Universities training One Health Workforce

The University of Minnesota, Tufts University and institutions in Asia and Africa are joining forces to train a global workforce -- made up of veterinarians, physicians and others -- to prevent pandemics. The \$50 million initiative is funded by the U.S. Agency for International Development. "When they see a disease, whether it be in human populations or animal populations, communicating quickly between those two makes a much stronger response," said veterinarian John Deen, who is helping lead the project. *KARE-TV* (Minneapolis-St. Paul, Minn.) (12/4) *Animal Health SmartBrief*
<http://www.kare11.com/story/news/health/healthfair-11/2014/12/04/university-of-minnesota-preventing-pandemics/19754469/>

Study: Vigilance at the human-animal interface will stem disease

Many diseases that have spilled into humans from animals could have been detected before humans were affected, according to a study reported in EcoHealth that evaluated past zoonotic outbreaks. "One important way to discover new viruses is to monitor for sick or dead animals," said Isabelle-Anne Bisson of the Smithsonian Conservation Biology Institute and lead author of the report. Her team tested the approach in Uganda, engaging local rangers in data collection that identified two diseases. *Vice News* (12/2) *Animal Health SmartBrief*
<https://news.vice.com/article/monitoring-sick-animals-in-the-wild-could-be-the-key-to-preventing-the-next-ebola-outbreak>

Federal wildlife authorities to investigate mysterious crow die-off in downtown Portland.

Federal wildlife investigators are making plans to perform necropsies on some of the crows found dead in downtown Portland last week, hoping to determine what killed the birds, officials said Monday. *Portland Oregonian*, Oregon (12/2) *Environmental Health News, AboveThe Fold*
http://www.oregonlive.com/portland/index.ssf/2014/12/federal_wildlife_authorities_t.html#incar_t_river

Bat researchers work to understand key link in zoonotic chain

Scientists have definitively linked bats to SARS and there is evidence connecting them to MERS, Ebola and other zoonotic diseases. Bats harbor many serious viruses without becoming ill, and scientists are working to understand why. Hypotheses include the animals' high rates of metabolism and well developed DNA repair mechanisms. Experts are quick to note that bats are a vital part of the ecosystems they inhabit, and human habitat encroachment is considered a factor in zoonotic disease transmission. *The Scientist online* (12/1) *Animal Health SmartBrief*
<http://www.the-scientist.com/?articles.view/articleNo/41537/title/Lurking-in-the-Shadows/>

Study: Dogs appear to understand meaning behind words

Dogs can distinguish between words with meaning and sounds without meaning, according to a study of 250 dogs published in the journal Current Biology. The study also found that dogs process the substance of words on the left side of the brain and emotional signals on the right. *National Public Radio/Shots blog* (11/28) *Animal Health SmartBrief*

http://www.npr.org/blogs/health/2014/11/28/367092004/how-dogs-understand-what-we-say?utm_source=npr_email_a_friend