

**Antibiotic Resistance and Food Animal Production:  
a Bibliography of Scientific Studies (1969-2019)**

**Food Animal Production and Antibiotic Resistance**

**‘Antibiotic footprint’ as a communication tool to aid reduction of antibiotic consumption.** *Journal of Antimicrobial Chemotherapy*. Direk Limmathurotsakul, Jonathan A T Sandoe, David C Barrett, Michael Corley, Li Yang Hsu, Marc Mendelson, Peter Collignon, Ramanan Laxminarayan, Sharon J Peacock, Philip Howard. 2019.

**World Health Organization (WHO) guidelines on use of medically important antimicrobials in food-producing animals.** *Antimicrobial Resistance & Infection Control*. Aidara-Kane, Awa & J. Angulo, Frederick & M. Conly, John & Minato, Yuki & K. Silbergeld, Ellen & A. McEwen, Scott & Collignon, Peter. 2018.

**Antimicrobial Resistance in the Food Chain in the European Union.** *Advances in Food and Nutrition Research*. Diego Florez-Cuadrado, Miguel A. Moreno, María Ugarte-Ruíz, Lucas Domínguez. 2018.

**Abundance and diversity of the faecal resistome in slaughter pigs and broilers in nine European countries.** *Nat Microbiol*. Munk, et al. 2018.

**Antimicrobial resistance in bacteria isolated from mastitis in dairy cattle in France, 2006–2016.** *Journal of Dairy Science*. Boireau, Clémence et al. 2018.

**Associations between a decreased veterinary antimicrobial use and resistance in commensal *Escherichia coli* from Belgian livestock species (2011–2015).** *Preventive Veterinary Medicine*. Bénédicte Callens, Mickaël Cargnel, Steven Sarrazin, Jeroen Dewulf, Bart Hoet, Katie Vermeersch, Pierre Wattiau, Sarah Welby. 2018.

***Staphylococcus aureus* nasal carriage among beef packing workers in a midwestern United States slaughterhouse.** *PLoS ONE*. Leibler JH, Jordan JA, Brownstein K, Lander L, Price, LB, Perry MJ. 2016.

**Animal production and antimicrobial resistance in the clinic.** *Lancet*. Robinson TP, Wertheim HFL, Kakkar M, Kariuki S, Bu D, Price, LB. 2016.

**Industrial food animal production and community health.** *Curr Environ Health Rep*. Casey JA, Kim BF, Larsen J, Price, LB, Nachman KE. 2015.

**Microbiological Zoonotic Emerging Risks, Transmitted Between Livestock Animals and Humans (2007–2015).** Filippitzi, M. E., Goumperis, T., Robinson, T. and Saegerman, C., *Transbound Emerg Dis*, 2017.

**World Health Organization Ranking of Antimicrobials According to Their Importance in Human Medicine: A Critical Step for Developing Risk Management Strategies to Control Antimicrobial Resistance From Food Animal Production.** Peter C. Collignon, John M. Conly, Antoine Andremont, Scott A. McEwen, and Awa Aidara-Kane; for the World Health Organization Advisory Group, Bogotá

Meeting on Integrated Surveillance of Antimicrobial Resistance (WHO-AGISAR). *Clinical Infectious Diseases*. 2016.

**Emergence of epidemic multidrug-resistant *Enterococcus faecium* from animal and commensal strains.** F. Lebreton, W. van Schaik, A.M. McGuire, P. Godfrey, A. Griggs, V. Mazumdar, J. Corander, L. Cheng, S. Saif, S. Young, Q. Zeng, J. Wortman, B. Birren, R.J.L. Willems, A.M. Earl, M.S. Gilmore. *mBio*. 2013.

**Extended-spectrum cephalosporin-resistant gram-negative organisms in livestock: An emerging problem for human health?** S.N. Seiffert, M. Hilty, V. Perreten, A. Endimiani. *Drug Resistance Updates*. 2013.

**Stored swine manure and swine faeces as reservoirs of antibiotic resistance genes.** T.R. Whitehead and M.A. Cotta. *Letters in Applied Microbiology*. 2013.

**A retrospective analysis of *Salmonella* serovars isolated from pigs in Great Britain between 1994 and 2010.** D. Mueller-Doblies, K. Speed, R.H. Davies. *Preventive Veterinary Medicine*. 2013.

**Seven ways to preserve the miracle of antibiotics.** J.G. Bartlett, D.N. Gilbert, B. Spellberg. *Clinical Infectious Diseases*. 2013.

**The scourge of antibiotic resistance: the important role of the environment.** R.L. Finley, P. Collignon, D.G. Joakim Larsson, S.A. McEwen, Z. Li, W.H. Gaze, R.Reid-Smith, M Timinouni, D.W. Graham, E. Topp. *Clinical Infectious Diseases*. 2013.

**Livestock-associated methicillin and multidrug resistant *Staphylococcus aureus* is present among industrial, not antibiotic-free livestock operation workers in North Carolina.** J.L. Rinsky, M. Nadimpalli, S. Wing, D. Hall, D. Baron, L.B. Price, J. Larsen, M. Stegger, J. Stewart, C.D. Heaney. *PLoS ONE*. 2013.

**Genetic mechanisms of antimicrobial resistance identified in *Salmonella enterica*, *Escherichia coli*, and *Enterococcus* spp. isolate from US food animals.** J.G. Frye and C.R. Jackson. *Frontiers in Microbiology*. 2013.

**Multidrug-resistant coagulase-negative Staphylococci in food animals.** K. Bhargava, Y. Zhang. *Journal of Applied Microbiology*. 2012.

**In-feed antibiotic effects on the swine intestinal microbiome.** T. Looft, T.A. Johnson, H.K. Allen, D.O. Bayles, D.P. Alt, R.D. Stedtfeld, W.J. Sul, T.M. Stedtfeld, B. Chai, J.R. Cole, S.A. Hashsham, J.M. Tiedje, T.B. Stanton. *Proceedings of the National Academy of Sciences*. 2012.

**Feather meal: A previously unrecognized route for reentry into the food supply of multiple pharmaceuticals and personal care products (PPCPs).** D.C. Love, R.U. Halden, M.F. Davis, K.E. Nachman. *Environmental Science & Technology*, 2012.

**A review of antibiotic use in food animals: Perspective, policy, and potential.** T.F. Landers, B. Cohen, T.E. Wittum, and E.L. Larson. *Public Health Reports*. 2012.

**Antimicrobial drug resistance in *Escherichia coli* from humans and food animals, United States, 1950-2002.** D.A. Tadesse, S. Zhao, E. Tong, S. Ayers, A. Singh, M.J. Bartholomew, P.F. McDermott. *Emerging Infectious Diseases*. 2012.

**Selective pressure of antibiotic pollution on bacteria of importance to public health.** A. Tello, B. Austin, T.C. Telfer. *Environmental Health Perspectives*. 2012.

**Antimicrobial susceptibilities and resistant genes in *Campylobacter* strains isolated from poultry and pigs in Australia.** A. Serwaah Obeng, H. Rickard, M. Sexton, Y. Pang, H. Peng, M. Barton. *Journal of Applied Microbiology*, 2012.

**The shared antibiotic resistome of soil bacteria and human pathogens.** K.J. Forsberg, A. Reyes, B. Wang, E.M. Selleck, M.O.A. Sommer, G. Dantas. *Science*. 2012.

**Livestock density as risk factor for livestock-associated methicillin-resistant *Staphylococcus aureus*, the Netherlands.** B.J. Feingold, E.K. Silbergeld, F.C. Curriero, B.A.G.L. van Cleef, M.E.O.C. Heck, J.A.J.W. Kluytmans. *Emerging Infectious Diseases*. 2012.

**Multidrug-resistant coagulase-negative Staphylococci in food animals.** K. Bhargava, Y. Zhang. *Journal of Applied Microbiology*. 2012.

**Correlation between upstream human activities and riverine antibiotic resistance genes.** A. Pruden, M. Arabi, H.N. Storteboom. *Environmental Science and Technology*. 2012.

**Urine from treated cattle drives selection for cephalosporin resistant *Escherichia coli* in soil.** M. Subbiah, D.H. Shah, T.E. Besser, J.L. Ullman, D.R. Call. *PLoS One*. 2012.

**Producer attitudes and practices related to antimicrobial use in beef cattle in Tennessee.** A.L. Green, L.R. Carpenter, DE. Edmisson, C.D. Lane, M.G. Welborn, F.M. Hopkins, D.A. Bemis and J.R. Dunn. *JAVMA*. 2010.

**Effects of restricted antimicrobial exposure on antimicrobial resistance in fecal *Escherichia coli* from feedlot cattle.** P.S. Morley, D.A. Dargatz, D.R. Hyatt, G.A. Dewell, J.G. Patterson, B.A. Burgess and T.E. Wittum. *Foodborne Pathogens and Disease*, 2011.

**Dose imprecision and resistance: Free-choice medicated feeds in industrial food animal production in the United States.** D.C. Love, M.F. Davis, A. Bassett, A. Gunther, and K.E. Nachman. *Environmental Health Perspectives*, 2011.

**Food animals and antimicrobials: Impacts on human health.** B.M. Marshall and S.B. Levy. *Clinical Microbiology Reviews*. 2011.

**Antibiotic resistance, gene transfer, and water quality patterns observed in waterways near CAFO farms and wastewater treatment facilities.** B.M. West, P. Liggitt, D.L. Clemans, and S.N. Francoeur. *Water, Air & Soil Pollution*. 2011.

**Sublethal antibiotic treatment leads to multidrug resistance via radical-induced mutagenesis.** M.A. Kohanski, M. A. DePristo and J.J. Collins. *Molecular Cell*, 2010.

**Use and environmental occurrence of antibiotics in freestall dairy farms with manured forage fields.** N. Watanabe, B.A. Bergamaschi, K.A. Loftin, M.T. Meyer, and T. Harter. *Environmental Science and Technology*, 2010.

**The interface between veterinary and human antibiotic use.** T.R. Shryock and A. Richwine. *Annals of the New York Academy of Sciences*, 2010.

**The effects of moral obligations to others and others' influence on veterinarians' attitudes toward and recommendations to utilize antibiotics in feedlot cattle.** J-S. Jan, Wm. A. Mcintosh, H. M. Scott, and W. Dean. *Journal of Rural Social Sciences*. 2010.

**Tetracycline and sulfonamide antibiotic resistance genes in livestock lagoons of various operation type, configuration, and antibiotic occurrence.** C.W. McKinney, K.A. Loftin, M.T. Meyer, J.G. Davis, and A. Pruden. *Environmental Science & Technology*. 2010.

**CTX-M-type extended-spectrum  $\beta$ -lactamases present in *Escherichia coli* from the feces of cattle in Ohio, United States.** T.E. Wittum, D.F. Mollenkopf, J.B. Daniels, A.E. Parkinson, J.L. Mathews, P.R. Fry, M.J. Abley and W.A. Gebreyes. *Foodborne Pathogens and Disease*. 2010.

**The effects of transport and lairage on counts of *Escherichia coli* O157 in the feces and on the hides of individual cattle.** N. Fegan, G. Higgs, L. Duffy and R.S. Barlow. *Foodborne Pathogens and Disease*, 2009.

**Comparison of the prevalence of bacterial enteropathogens, potentially zoonotic bacteria and bacterial resistance to antimicrobials in organic and conventional poultry, swine and beef production: a systematic review and meta-analysis.** I. Young, A. Rajic, B.J. Wilhelm, L. Waddell, S. Parker, and S.A. McEwen. *Epidemiol. Infect.*, 2009.

**The transformation of U.S. livestock agriculture: Scale, efficiency, and risks.** J.M. MacDonald and W.D. McBride. *Economic Information Bulletin Number 43*, United States Department of Agriculture, 2009.

**Fate and transport of antibiotic residues and antibiotic resistance genes following land application of manure waste.** J.C. Chee-Sanford, R.I. Mackie, S. Koike, I.G. Krapac, Y.F. Lin, A.C. Yannarell, S. Maxwell and R.I. Aminov. *Journal of Environmental Quality*, 2009.

**Associations between antimicrobial resistance genes in fecal generic *Escherichia coli* isolates from cow-calf herds in western Canada.** S.P. Gow, C.L. Waldner, J. Harel and P. Boerlin. *Applied and Environmental Microbiology*, 2008.

**Industrial food animal production, antimicrobial resistance, and human health.** E.K. Silbergeld, J. Graham and L.B. Price. *Annual Review of Public Health*, 2008.

**Effect of subtherapeutic administration of antibiotics on the prevalence of antibiotic-resistant *Escherichia coli* bacteria in feedlot cattle.** T.W. Alexander, L.J. Yanke, E. Topp, M.E. Olson, R.R. Read, D.W. Morck, and T.A. McAllister. *Applied and Environmental Microbiology*, 2008.

**The potential role of concentrated animal feeding operations in infectious disease epidemics and antibiotic resistance.** M.J. Gilchrist, C. Greko, D.B. Wallinga, G.W. Beran, D.R. Riley and P.S. Thorne. *Environmental Health Perspectives*, 2007.

**Fluoroquinolone-resistant *Campylobacter* species and the withdrawal of fluoroquinolones from use in poultry: A public health success story.** J.M. Nelson, T.M. Chiller, J.H. Powers and F.J. Angulo. *Clinical Infectious Diseases*, 2007.

**Environmental health impacts of concentrated animal feeding operations: Anticipating hazards—searching for solutions.** P.S. Thorne. *Environmental Health Perspective*, 2007.

**Response of antibiotics and resistance genes to high-intensity and low-intensity manure management.** H.N. Storteboom, S-C Kim, K.C. Doesken, K.H. Carlson, J.G. Davis, and A. Pruden. *Journal of Environmental Quality*, 2007.

**Association of antimicrobial resistance in *Campylobacter* isolated from food-producing animals with antimicrobial use on farms.** T. Asai, K. Harada, K. Ishihara, A. Kojima, T. Sameshima, Y. Tamura, and T. Takahashi. *Japanese Journal of Infectious Diseases*. 2007.

**Antibiotic resistance in bacteria associated with food animals: A United States perspective of livestock production.** A.G. Mathew, R. Cissell, and S. Liamthong. *Foodborne Pathogens and Disease*. 2007.

**Antibiotic use in agriculture and its impact on the terrestrial environment.** K. Kumar, S.C. Gupta, Y. Chander and A.K. Singh. *Advances in Agronomy*, 2005.

**Agricultural antibiotics and human health: Does antibiotic use in agriculture have a greater impact than hospital use?** D.L. Smith, J. Dushoff and J.G. Morris, Jr. *PLoS Medicine*, 2005.

**Resistant bugs and antibiotic drugs – State and county estimates of antibiotics in agricultural feed and animal waste.** K. Florini, R. Denison, T. Stiffler, T. Fitzgerald, and R. Goldberg. *Environmental Defense*, 2005.

**Evidence of an association between use of anti-microbial agents in food animals and antimicrobial resistance among bacteria isolated from humans and the human health consequences of such resistance.** F.J. Angulo, V.N. Nargund and T.C. Chiller. *Journal of Veterinary Medicine*, 2004.

**Nontherapeutic use of antimicrobial agents in animal agriculture: Implications for pediatrics.** K.M. Shea. *Pediatrics*, 2004.

**Antimicrobial resistance in livestock.** B. Catry, H. Laevens, L.A. Devriese, G. Opsomer and A. Kruif. *Journal of Veterinary Pharmacology and Therapeutics*, 2003.

**Emergence of multidrug-resistant *Salmonella enterica* Serotype Newport infections resistant to expanded-spectrum cephalosporins in the United States.** A. Gupta, J. Fontana, C. Crowe, B. Bolstorff, A. Stout, S. Van Duyne, M.P. Hoekstra, J.M. Whichard, T.J. Barrett and F.J. Angulo. *Journal of Infectious Diseases*, 2003.

**Potential mechanisms of increased disease in humans from antimicrobial resistance in food animals.** M. Barza. *Clinical Infectious Diseases*, 2002.

**Antimicrobial residues in animal waste and water resources proximal to large-scale swine and poultry feeding operations.** E.R. Campagnolo, K.R. Johnson, A. Karpati, C.S. Rubin, D.W. Kolpin, M.T. Meyer, J.E. Estaban, R.W. Currier, K. Smith, K.M. Thu and M. McGeehin. *The Science of the Total Environment*, 2002.

**Antimicrobial use and resistance in animals.** S.A. McEwen, and P.J. Fedorka-Cray. *Clinical Infectious Diseases*, 2002.

**Emergence, spread and environmental effect of antimicrobial resistance: How use of an antimicrobial anywhere can increase resistance to any antimicrobial anywhere else.** T.F. O'Brien. *Clinical Infectious Diseases*, 2002.

**Generally overlooked fundamentals of bacterial genetics and ecology.** A.O. Summers. *Clinical Infectious Diseases*, 2002.

**Human diseases caused by foodborne pathogens of animal origin.** M.N. Swartz. *Clinical Infectious Diseases*, 2002.

**Antimicrobial resistance of *Escherichia coli* 0157 isolated from humans, cattle, swine, and food.** C.M. Schroeder, C. Zhao, C. DebRoy, J. Torcolini, S. Zhao, D.G. White, D.D. Wagner, P.F. McDermott, R.D. Walker, and J. Meng. *Applied and Environmental Microbiology*. 2002.

**The need to improve antimicrobial use in agriculture: Ecological and human health consequences.** Alliance for the Prudent Use of Antibiotics. *Clinical Infectious Diseases*, 2002 supplement.

**Quinolone and macrolide resistance in *Campylobacter jejuni* and *C. coli*: Resistance mechanisms and trends in human isolates.** J. Engberg, F.M. Aarestrup, D.E. Taylor, P.Gerner-Smidt and I. Nachamkin. *Emerging Infectious Diseases*, 2001.

**Ceftriaxone-resistant *Salmonella* infection acquired by a child from cattle.** P. Fey, T.J. Safraneck, M.E. Rupp, E.F. Dunne, E. Ribot, P.C. Iwen, P.A. Bradford, F.J. Angulo and S.H. Hinrichs. *New England Journal of Medicine*, 2000.

**Appropriate regulation of antibiotics in livestock feed.** R.L. Goforth and C.R. Goforth. *Boston College Environmental Affairs Law Review*, 2000.

**Antibiotic resistance in *Campylobacter* strains isolated from animals, foods and humans in Spain in 1997–1998.** Y. Saenz, M. Zarazaga, M. Lantero, M.J. Gastaneres, F. Baquero and C. Torres. *Antimicrobial Agents and Chemotherapy*, 2000.

**The effect of banning avoparcin on VRE carriage in The Netherlands.** A.E. van den Bogaard, N. Bruinsma and E.E. Stobberingh. *Journal of Antimicrobial Chemotherapy*, 2000. 46(1): 146-148.

**Epidemiology of resistance to antibiotics: Links between animals and humans.** A. Van der Bogaard and E.E. Stobberingh. *International Journal of Antimicrobial Agents*, 2000.

**Selective pressure by antibiotic use in livestock.** W. Witte. *International Journal of Antimicrobial Agents*, 2000.

**Transfer of antibiotic resistant bacteria from animals to man.** H.C. Wegener, F.M. Aarestrup, P. Gerner-Smidt and F. Bager. *Acta Veterinaria Scandinavica Supplementum*, 1999.

**Occurrence and epidemiology of resistance to virginiamycin and streptogramins.** LA. Thal, M.J. Zervos. *Journal of Antimicrobial Chemotherapy*. 1999.

**The use of drugs in food animals: Benefits and risks.** Committee on Drug Use in Food Animals, Panel on Animal Health, Food Safety, and Public Health, National Research Council. 1999.

**Epidemiologic aspects, control, and importance of multiple-drug resistant *Salmonella typhimurium* DT104 in the United States.** J.E. Akkina, A.T. Hogue, F.J. Angulo, R. Johnson, K.E. Petersen, P.K. Saini, P.J. Fedorka-Cray and W.D. Schlosser. *Journal of the American Veterinary Medical Association*, 1999.

**Emergence of multidrug-resistant *Salmonella enterica* serotype Typhimurium DT104 infections in the United States.** M.K. Glynn, C. Bopp, W. Dewitt, P. Dabney, M. Mokhtar and F.J. Angulo. *New England Journal of Medicine*, 1998.

**An epidemic of resistant *Salmonella* in a nursery: Animal-to-human spread.** R.W. Lyons, C.L. Samples, H.N. DeSilva, K.A. Ross, E.M. Julian and P.J. Checko. *Journal of the American Medical Association*, 1980.

**Changes in intestinal flora of farm personnel after introduction of a tetracycline-supplemented feed on a farm.** S.B. Levy, G.B. Fitzgerald and A.B. Macone. *New England Journal of Medicine*, 1976.

**Joint Committee on the use of antibiotics in animal husbandry and veterinary medicine (“Swann Report”).** M.M. Swann, K.L. Blaxter, H.I. Field, J.W. Howie, I.A.M. Lucas, E.L.M. Millar, J.C. Murdoch, J.H. Parsons and E.G. White. Cmnd. 4190. London: Her Majesty’s Stationery Office, 1969.

### [Antibiotic-Resistant Infections in People](#)

**Diversity and Population Overlap between Avian and Human *Escherichia coli* Belonging to Sequence Type 95.** Steffen L. Jørgensen, Marc Stegger, Eglé Kudirkienė, Berit Lilje, Louise L. Poulsen, Troels Ronco, Teresa Pires Dos Santos, Kristoffer Kiil, Magne Bisgaard, Karl Pedersen, Lisa K. Nolan, Lance B. Price, Rikke H. Olsen, Paal S. Andersen, Henrik Christensen. *mSphere*. 2019.

**Molecular characterization of antibiotic resistant *Escherichia coli* isolates recovered from food samples and outpatient Clinics, KSA.** Hassan A. Hemeg. *Saudi Journal of Biological Sciences*. 2018.

**Changes in resistance to and antimicrobial activity of antibiotics during in vitro human digestion.** Seung Yun Lee On You Kim Sung Yeoul Yoon Da Young Lee Sun Jin Hur. *Journal of Global Antimicrobial Resistance*. 2018.

***Escherichia coli* ST131-H22 as a Foodborne Uropathogen.** Cindy M. Liu, Marc Stegger, Maliha Aziz, Timothy J. Johnson, Kara Waits, Lora Nordstrom, Lori Gauld, Brett Weaver, Diana Rolland, Sally Statham, Joseph Horwinski, Sanjeev Sariya, Gregg S. Davis, Evgeni Sokurenko, Paul Keim, James R. Johnson, Lance B. Price. *mBio*. 2018.

**Genomic characterization of a large plasmid containing a bla NDM-1 gene carried on *Salmonella enterica* serovar Indiana C629 isolate from China.** Wang, Wei, Zulqarnain Baloch, Zixin Peng, Yujie Hu, Jin Xu, Séamus Fanning, and Fengqin Li. *BMC Infectious Diseases*. 2017.

**Antimicrobial resistance in commensal *Escherichia coli* in veal calves is associated with antimicrobial drug use.** A.B. Bosman, J.A. Wagenaar, J.A. Stegeman, J.C.M. Vernooij, D.J. Mevius. *Epidemiology & Infection*. 2013.

***Clostridium difficile* infection associated with pig farms.** E.C. Keessen, C. Harmanus, W. Dohmen, E.J. Kuijper, L.J.A. Lipman. *Emerging Infectious Diseases*. 2013.

**Antibiotic resistance in *Salmonella enterica* serovar Typhimurium associated with CRISPR sequence type.** M. DiMarzio, N. Shariat, S. Kariyawasam, R. Barrangou, E.G. Dudley. *Antimicrobial Agents and Chemotherapy*. 2013.

**Chicken as a reservoir for extraintestinal pathogenic *Escherichia coli* in humans, Canada.** C.R. Bergeron, C. Prussing, P. Boerlin, D. Daignault, L. Dutil, R.J. Reid-Smith, G.G. Zhanel, A.R. Manges. *Emerging Infectious Diseases*. 2012.

***Enterococcus faecalis* clones in poultry and in humans with urinary tract infections, Vietnam.** L.L. Poulsen, M. Bisgaard, N.T. Son, N.V. Trung, H.M. An, A. Dalsgaard. *Emerging Infectious Diseases*. 2012.

**Food-borne origins of *Escherichia coli* causing extraintestinal infections.** A.R. Manges, J.R. Johnson. *Clinical Infectious Diseases*. 2012.

**Characterization of extended-spectrum Cephalosporin-resistant *Salmonella enterica* serovar Heidelberg isolated from food animals, retail meat, and humans in the United States 2009.** J.P. Folster, G. Pecic, A.Singh, B. Duval, R. Rickert, S. Ayers, J. Abbott, B. McGlinchey, J. Bauer-Turpin, J. Haro, K. Hise, S. Zhao, P.J. Fedorka-Cray, J. Whichard, P.F. McDermott. *Foodborne Pathogens and Disease*. 2012.



**Antimicrobial-resistant *Campylobacter* in the food chain in Mexico.** M.B. Zaidi, P.F. McDermott, F. D. Campos, R. Chim, M. Leon, G. Vazquez, G. Figueroa, E. Lopez, J. Contreras, T. Estrada-Garcia. *Foodborne Pathogens and Disease*. 2012.

**Association between antimicrobial resistance in *Escherichia coli* isolates from food animals and blood stream isolates from humans in Europe: An ecological study.** A.R. Viera, P. Collignon, F.M. Aarestrup, S.A. McEwen, R.S. Hendriksen, T. Hald, and H.C. Wegener. *Foodborne Pathogens and Disease*. 2011.

**Selection of resistant bacteria at very low antibiotic concentrations.** E. Gullberg, S. Cao, O.G. Berg, C. Ilbäck, L. Sandegren, D. Hughes, and D.I. Anderson. *PLoS Pathogens*. 2011.

**Antibiotic resistance in foodborne pathogens: Evidence of the need for a risk management strategy. (CSPI White Paper).** C. Smith DeWaal, C. Roberts, and C. Catella. Center for Science in the Public Interest, January 25, 2011.

**Antibiotic management of *Staphylococcus aureus* infections in US children's hospitals, 1999-2008.** J.C. Herigon, A.L. Hersh, J.S. Gerber, T.E. Zaoutis, and J.G. Newland. *Pediatrics*, 2010.

***Escherichia coli* isolates from broiler chicken meat, broiler chickens, pork, and pigs share phylogroups and antimicrobial resistance with community-dwelling humans and patients with urinary tract infection.** L. Jakobsen, A. Kurbasic, L. Skjøl-Rasmussen, K. Ejrnaes, L.J. Porsbo, K. Pedersen, L.B. Jensen, H.D. Emborg, Y. Agerso, K.E.P. Olsen, F.M. Aarestrup, N.Frimodt-Moller, and A.M. Hammerum. *Foodborne Pathogens and Disease*, 2010.

**Risk factors for antibiotic-resistant *Escherichia coli* carriage in young children in Peru: Community-based cross sectional prevalence study.** H.D. Kalter, R.H. Gilman, L.H. Moulton, A.R. Cullotta, L. Cabrera, and B. Velapatiño. *American Journal of Tropical Medicine and Hygiene*, 2010.

**Emergence of a new antibiotic resistance mechanism in India, Pakistan, and the UK: A molecular, biological, and epidemiological study.** K.K. Kumarasamy, M.A. Toleman, T.R. Walsh, J. Bagaria, F. Butt, R. Balakrishnan, U. Chaudhary, M. Doumith, C.G., Giske, S. Irfan, P. Krishnan, A.V. Kumar, S. Maharjan, S. Mushtaq, T. Noorie, D.L. Paterson, A. Pearson, C. Perry, R. Pike, B. Rao, U. Ray, J.B. Sarma, M. Sharma, E. Sheridan, M.A. Thirunarayan, J. Turton, S. Upadhyay, M. Warner, W. Welfare, D.M. Livermore, and N. Woodford. *The Lancet*, 2010.

**Genetic identity of aminoglycoside-resistance genes in *Escherichia coli* isolates from human and animal sources.** P. Ho, R.C. Wong, S.W. Lo, K. Chow, S.S. Wong, and T. Que. *Journal of Medical Microbiology*, 2010.

**Food reservoir for *Escherichia coli* causing urinary tract infections.** C. Vincent, P. Boerlin, D. Daignault, C.M. Dozois, L. Dutil, C. Galanakis, R.J. Reid-Smith, P-P. Tellier, P.A. Tellis, K. Ziebell, and A.R. Manges. *Emerging Infectious Diseases*, 2010.

**Hospital and societal costs of antimicrobial-resistant infections in a Chicago teaching hospital: Implications for antibiotic stewardship.** R.R. Roberts, B. Hota, I. Ahmad, R.D. Scott II, S.D. Foster, F.

Abbasi, S. Schabowski, L.M. Kampe, G.G. Ciavarella, M. Supino, J. Naples, R. Cordell, S.B. Levy, and R.A. Weinstein. *Clinical Infectious Diseases*, 2009.

**World health organization ranking of antimicrobials according to their importance in human medicine: A critical step for developing risk management strategies for the use of antimicrobials in food production animals.** P. Collignon, J.H. Powers, T.M. Chiller, A. Aidara-Kane, and F.M.Aarestrup. *Clinical Infectious Diseases*. 2009.

**Endemic and epidemic lineages of *Escherichia coli* that cause urinary tract infections.** A.R. Manges, H. Tabor, P. Tellis, C. Vincent, and P. Tellier. *Emerging Infectious Diseases*, 2008.

**Temporal changes in the prevalence of community-acquired antimicrobial-resistant urinary tract infection affected by *Escherichia coli* clonal group composition.** S.P. Smith, A.R. Manges, and L.W. Riley. *Clinical Infectious Diseases*, 2008.

**First report of the emergence of CTX-M-type extended spectrum  $\beta$ -Lactamases (ESBLs) as the predominant ESBL isolated in a U.S. health care system.** J. S. Lewis II, M. Herrera, B. Wickes, J.E. Patterson, and J. H. Jorgensen. *Antimicrobial Agents and Chemotherapy*, 2007.

**Antimicrobial resistance patterns of *Salmonella* from retail chicken.** M.E. Berrang, S.R. Ladely, M. Simmons, D.L. Fletcher, P.J. Fedorka-Cray. *International Journal of Poultry Science*. 2006.

**Low-level fluoroquinolone resistance among *Campylobacter jejuni* isolates in Australia.** L. Unicomb, J. Ferguson, R.J. Stafford, R. Ashbolt, M.D. Kirk, N.G. Becker, M.S. Patel, G.G. Gilbert, M. Valcanis, and L. Mickan. *Clinical Infectious Diseases*, 2006.

**The rising influx of multidrug-resistant gram-negative bacilli into a tertiary care hospital.** A.E. Pop-Vicas, E. M. and C. D'Agata. *Clinical Infectious Diseases*, 2005.

**Analysis of a uropathogenic *Escherichia coli* clonal group by multilocus sequence typing.** S.Y. Tartof, O.D. Solberg, A.R. Manges, and L.W. Riley. *Journal of Clinical Microbiology*, 2005.

**Possible animal origin of human-associated, multidrug-resistant, uropathogenic *Escherichia coli*.** M. Ramchandi, A.R. Manges, C. DebRoy, S.P. Smith, J.R. Johnson, and L.W. Riley. *Clinical Infectious Disease*, 2005.

**Antibiotic selection pressure and resistance in *Streptococcus pneumoniae* and *Streptococcus pyogenes*.** W.C. Albrich, D.L. Monnet, and S. Harbarth. *Emerging Infectious Diseases*, 2004.

**Fluoroquinolone resistance in *Campylobacter* absent from isolates, Australia.** L. Unicomb, J. Ferguson, T.V. Riley, and P. Collignon. *Emerging Infectious Diseases*, 2003.

**Widespread distribution of urinary tract infections caused by a multidrug-resistant *Escherichia coli* clonal group.** A.R. Manges, J.R. Johnson, B. Foxman, T.T. O'Bryan, K.E. Fullerton, and L.W. Riley. *New England Journal of Medicine*, 2001.

***De Novo* acquisition of resistance to three antibiotics by *Escherichia coli*.** M.A. van der Horst, J.M. Schuurmans, M.C. Smid, B.B. Koenders, and B.H. ter Kuile. *Microbial Drug Resistance*. 2001.

**High-density livestock operations, crop field application of manure, and risk of community-associated methicillin-resistant *Staphylococcus aureus* infection in Pennsylvania.** J.A. Casey, F.C. Curriero, S.E. Cosgrove, K.E. Nachman, B.S. Schwartz. *JAMA Internal Medicine*. 2013.

**Molecular epidemiology of antibiotic resistance in *Salmonella* from animals and human beings in the United States.** T.F. O'Brien, J.D. Hopkins, E.S. Gilleece, A.A. Medeiros, R.L. Kent, B.O. Blackburn, M.B. Holmes, J.P. Reardon, J.M. Vergeront, W.L. Schell, E. Christenson, M.L. Bisset, and E.V. Morse. *New England Journal of Medicine* 1982.

### Impacts of Antibiotic Use in Pigs

**Livestock-Associated, Antibiotic-Resistant *Staphylococcus aureus* Nasal Carriage and Recent Skin and Soft Tissue Infection among Industrial Hog Operation Workers.** Nadimpalli M, Stewart JR, Pierce E, et al. Smith TC, ed. *PLoS ONE*. 2016.

**Antimicrobial Resistance and Resistance Genes in Aerobic Bacteria Isolated from Pork at Slaughter.** Lili Li, Rikke Heidemann Olsen, Lei Ye, He Yan, Qing Nie, Hecheng Meng, Lei SHI. *Journal of Food Protection*, April 2016.

**Absence of livestock-associated methicillin-resistant *Staphylococcus aureus* clonal complex CC38 as a nasal colonizer of pigs raised in an alternative system.** C. Cuny, A.W. Friedrich, W. Witte. *Applied and Environmental Microbiology*. 2012.

**Isolation and characterization of Methicillin-resistant *Staphylococcus aureus* from pork farms and visiting veterinary students.** T.S. Frana, A.R. Beahm, B.M. Hanson, J.M. Kinyon, L.L. Layman, L.A. Karriker, A. Ramirez, T.C. Smith. *PLoS One*. 2013.

**Characterization of swine isolates of *Clostridium difficile* in Spain: A potential source of epidemic multidrug resistant strains?** T. Peláez, L. Alcalá, J.L. Blanco, S. Álvarez-Pérez, M. Marín, A. Martín-López, P. Catalán, E. Reigadas, M.E. García, E. Bouza. *Anaerobe*. 2013.

**The broader context of antibiotic resistance: Zinc feed supplementation of piglets increases the proportion of multi-resistant *Escherichia coli* in vivo.** C. Bednorz, K. Oelgeschläger, B. Kinnemann, S. Hartmann, K. Neumann, R. Pieper, A. Bethe, T. Semmler, K. Tedin, P. Schierack, L.H. Wieler, S. Guenther. *International Journal of Medical Microbiology*. 2013.

**Spread of multidrug-resistant Enterococcus to animals and humans: an underestimated role for the pig farm environment.** C. Norvas, A. Freitas, E. Silveria, P. Antunes, R. Silva, T. Coque, L. Peixe. *Journal of Antimicrobial Chemotherapy*. 2013.

**A longitudinal study on persistence of antimicrobial resistant *Campylobacter* in distinct swine production systems at farm, slaughter, and environment.** M.P. Quintana-Hayashi, S. Thakur. *Applied Environmental Microbiology*. 2012.

**Phylogenetic analysis reveals common antimicrobial resistant *Campylobacter coli* population in antimicrobial-free (ABF) and commercial swine systems.** M.P. Quintana-Hayashi, S. Thankur. *PLoS One*. 2012.

**Ceftiofur use in finishing swine barns and the recovery of fecal *Escherichia coli* or *Salmonella* spp. resistant to ceftriaxone.** E.A. Lutz, M.J. McCarty, D.F. Mollenkopf, J.A. Funk, W.A. Gebreyes, and T.E. Wittum. *Foodborne Pathogens and Disease*. 2011.

**Detection of the staphylococcal multiresistance gene *cfr* in *Proteus vulgaris* of food animal origin.** Y. Wang, Y. Wang, C. Wu, S. Schwarz, Z. Shen, W. Zhang, Q. Zhang, and J. Shen. *Journal of Antimicrobial Chemotherapy*. 2011.

**Prevalence and antimicrobial resistance profile of *Campylobacter* spp. isolated from conventional and antimicrobial-free swine production systems from different US regions.** D.A. Tadesse, P.B. Bahnson, J.A. Funk, S. Thakur, W.E. Morgan Morrow, T. Wittum, F. DeGraves, P. Rajala-Schultz, and W.A. Gebreyes. *Foodborne Pathogens and Disease*. 2011.

**Occurrence and persistence of erythromycin resistance genes (*erm*) and tetracycline resistance genes (*tet*) in waste treatment systems on swine farms.** J. Chen, F. C. Michel Jr. S. Sreevatsan, M. Morrison, and Z. Yu. *Microbial Ecology*, 2010.

**Abundance and diversity of tetracycline resistance genes in soils adjacent to representative swine feedlots in China.** N. Wu, M Qiao, B. Zhang, W-D Cheng, and Y-G. Zhu. *Environmental Science and Technology*, 2010.

**Changes in the use of antimicrobials and the effects on productivity of swine farms in Denmark.** F.M. Aarestrup, V.E. Jensen, H-Dorthe Emborg, E. Jacobsen, and H.C. Wegener. *American Journal of Veterinary Research*, 2010.

**Antibiotic resistant bacterial profiles of anaerobic swine-lagoon effluent.** J.P. Brooks and M.R. McLaughlin. *Journal of Environmental Quality*, 2009.

**Prevalence, numbers and characteristics of *Salmonella* spp. on Irish retail pork.** D.M. Prendergast, S.J. Duggan, U. Gonzales-Barron, S. Fanning, F. Butler, M. Cormican, and G. Duffy. *International Journal of Food Microbiology*, 2009.

**Risk factors for antimicrobial resistance among fecal *Escherichia coli* from residents on forty-three swine farms.** T.H. Akwar, C. Poppe, J. Wilson, R.J. Reid-Smith, M. Dyck, J. Waddington, D. Shang, N. Dassie, and S.A. McEwen. *Microbial Drug Resistance*, 2007.

**Monitoring and source tracking of tetracycline resistance genes in lagoons and groundwater adjacent to swine-production facilities over a 3-year period.** S. Koike, I.G. Krapac, H.D. Oliver, A.C. Yannarell, J.C. Chee-Sanford, R.I. Aminov, and R.I. Mackie. *Applied and Environmental Microbiology*, 2007.

**Antibiotic-resistant *Enterococci* and fecal indicators in surface water and groundwater impacted by a concentrated swine feeding operation.** A.R. Sapkota, F.R. Curriero, K.E. Gibson, and K.J. Schwab. *Environmental Health Perspectives*, 2007.

**Detection and occurrence of antimicrobially resistant *E. coli* in groundwater on or near swine farms in eastern North Carolina.** M.E. Anderson and M.D. Sobsey. *Water Science and Technology*, 2006..

**The effect of subtherapeutic chlortetracycline on antimicrobial resistance in the fecal flora of swine.** J.A. Funk, J.T. Lejeune, T.E. Wittum, and P.J. Rajala-Schultz. *Microbial Drug Resistance*, 2006.

**Isolation of antibiotic-resistant bacteria from the air plume downwind of a swine confined or concentrated animal feeding operation.** S.G. Gibbs, C.F. Green, P.M. Tarwater, L.C. Mota, K.D. Mena, and P.V. Scarpino. *Environmental Health Perspectives*, 2006.

**Community-acquired MRSA and pig-farming.** X.W. Huijsdens, B.J. van Dijke, E. Spalburg, M.G. van Santen-Verheuvell, M.E. Heck, G.N. Pluister, A. Voss, W.J.B. Wannet, and A.J. de Neeling. *Annals of Clinical Microbiology and Antimicrobials*, 2006. .

**Airborne multidrug-resistant bacteria isolated from a concentrated swine feeding operation.** A. Chapin, A. Rule, K. Gibson, T. Buckley, and K. Schwab. *Environmental Health Perspectives*, 2005.

**Antimicrobial resistance in commensal flora of pig farmers.** H. Aubrey-Damon, K. Grenet, P. Sall-Ndiaye, D. Che, E. Cordeiro, M.E. Bougnoux, E. Rigaud, Y. Le Strat, V. Lemanissier, L. Armand-Lefèvre, D. Delzescaux, J.C. Desenclos, M. Liénard, and A. Andreumont. *Emerging Infectious Diseases*, 2004.

**Productivity and economic effects of antibiotics used for growth promotion in U.S. pork production.** G. Y. Miller, K. A. Algozin, P. E. McNamara, and E. J. Bush. *Journal of Agricultural and Applied Economics*, 2003.

**Effects of administration of antimicrobials in feed on growth rate and feed efficiency of pigs in multisite production systems.** S.S. Dritz, M.D. Tokach, R.D. Goodband, and J.L. Nelssen. *JAVMA* 2002..

**Occurrence and diversity of tetracycline-resistance genes in lagoons and groundwater underlying two swine production facilities.** J.C. Chee-Sanford, R.I. Aminov, I.J. Krapac, N. Garrigues-Jeanjean, and R.I. Mackie. *Applied and Environmental Microbiology*, 2001.

**Concentrated swine-feeding operations and public health: A review of occupational and community health effects.** D. Cole, L. Todd, and S. Wing. *Environmental Health Perspectives*, 2000.

**An outbreak of multidrug-resistant, quinolone-resistant *Salmonella enterica* serotype typhimurium DT104.** K. Molbak, D.L. Baggesen, F.M. Aarestrup, J.M. Ebbesen, J. Engberg, K. Frydendahl, P. Gerner-Smidt, A.M. Petersen, and H.C. Wegener. *New England Journal of Medicine*, 1999.

### **Impacts of Antibiotic Use in Poultry**

**A review on the current situation and challenges of colistin resistance in poultry production.** Ilias Apostolakos & Alessandra Piccirillo. *Avian Pathology*. 2018.

**Variations of antibiotic resistance profiles in chickens during administration of amoxicillin, chlortetracycline and florfenicol.** Mei Wang, Siyuan Chen, Jiakuan Zhang, Xiaoxiao He, Wenguang Xiong, Yongxue Sun. *Journal of Applied Microbiology*. 2018.

**Emerging of a highly pathogenic and multi-drug resistant strain of *Escherichia coli* causing an outbreak of colibacillosis in chickens.** Junfeng Gao, Xueyan Duan, Xiaoqi Li, Hong Cao, Yongqiang Wang, Shijun J. Zheng. *Infection, Genetics and Evolution*. 2018.

**The Prevalence of Extended-Spectrum Beta-Lactamase-Producing Multidrug-Resistant *Escherichia Coli* in Poultry Chickens and Variation According to Farming Practices in Punjab, India.** Charles H. Brower,<sup>1</sup> Siddhartha Mandal,<sup>2</sup> Shivdeep Hayer, et al. *Environmental Health Perspectives*, 2017.

**Antimicrobial use surveillance in broiler chicken flocks in Canada, 2013-2015.** Agunos A, Léger DF, Carson CA, Gow SP, Bosman A, Irwin RJ, et al. *PLoS ONE*. 2017.

**Antimicrobial Resistance in Bacterial Poultry Pathogens: A Review.** Nguyen Thi Nhung, Niwat Chansiripornchai, and Juan J. Carrique-Mas. *Frontiers in Veterinary Science*. 2017.

**Prevalence and antimicrobial susceptibility of *Campylobacter* in broiler flocks in Japan.** M. Haruna, Y. Sasaki, M. Murakami, A. Ikeda, M. Kusukawa, Y. Tsujiyama, K. Ito, T. Asai, Y. Yamada. *Zoonoses and Public Health*. 2012.

**Prevalence of types of methicillin-resistant *Staphylococcus aureus* in turkey flocks and personnel attending the animals.** A. Richter, R. Sting, C. Popp, J. Rau, B.A. Tenhagen, B. Guerra, H.M. Hafez, A. Fetsch. *Epidemiology and Infection*. 2012.

**Prevalence, concentrations, and antibiotic sensitivities of *Salmonella* Serovars in poultry from retail establishments in Seattle, Washington.** E. Mazengia, M. Samadpour, H.W. Hill, K. Greeson, K. Tenney, G. Liao, X. Huang, J.S. Meschke. *Journal of Food Protection*.

**Dutch patients, retail chicken meat and poultry share the same ESBL genes, plasmids and strains.** M.A. Leverstein-van Hall, C.M. Dierikx, J. Cohen Stuart, G.M. Voets, M.P. van den Munckhof, A. van Essen-Zandbergen, T. Platteel, A.C. Fluit, N. van de Sande-Bruinsma, J. Scharinga, M.J.M. Bonten, and D.J. Mevius. *Clinical Microbiology and Infection*. 2011.

**Foregoing Sub-therapeutic Antibiotics: the Impact on Broiler Grow-out Operations.** J.M. MacDonald and S.-L. Wang. *Applied Economic Perspectives and Policy* (2011): 1-20. Advance Access published January 6, 2011.

**Ceftiofur resistance in *Salmonella enterica* Serovar Heidelberg from chicken meat and humans, Canada.** L. Dutil, R. Irwin, R. Finley, L. King Ng, B. Avery, P. Boerlin, A. Bourgault, L. Cole, D.

Daignault, A. Desruisseau, W. Demczuk, L. Hoang, G.B. Horsman, J. Ismail, F. Jamieson, A. Maki, A. Pacagnella, and D.R. Pillai. *Emerging Infectious Diseases*, 2010.

**Veterinary pharmaceuticals and antibiotic resistance of *Escherichia coli* isolates in poultry litter from commercial farms and controlled feeding trials.** V. Furtula, E.G. Farrell, F. Diarrassouba, H. Rempel, J. Pritchard, and M.S. Diarra. *Poultry Science*, 2010.

**Prevalence and distribution of *Salmonella* in organic and conventional broiler poultry farms.** W.Q. Alali, S. Thakur, R.D. Berghaus, M.P. Martin, and W.A. Gebreyes. *Foodborne Pathogens and Disease*. 2010.

**Fate of antimicrobial-resistant *Enterococci* and *Staphylococci* and resistance determinants in stored poultry litter.** J.P. Graham, S.L. Evans, L.B. Price, and E.K. Silbergeld. *Environmental Research*, 2009. .

**Antibiotic-resistant *Enterococci* and *Staphylococci* isolated from flies collected near confined poultry feeding operations.** J.P. Graham, L.B. Price, S.L. Evans, T.K. Graczyk, and E.K. Silbergeld. *Science of the Total Environment*, 2009.

***Salmonella Heidelberg* Ceftiofur-related resistance in human and retail chicken isolates.** Public Health Agency of Canada. 2009.

**Antibiotic resistance of *Escherichia Coli* isolated from poultry and poultry environment of Bangladesh.** M.A. Akond, S.M.R. Hassan, S. Alam, and M. Shirin. *American Journal of Environmental Sciences*, 2009.

**Relationships between multidrug-resistant *Salmonella enterica* Serovar Schwarzengrund and both broiler chickens and retail chicken meats in Japan.** T. Asai, K. Murakami, M. Ozawa, R. Koike, and H. Ishikawa. *Japanese Journal of Infectious Diseases*, 2009.

**Antimicrobial resistance of old and recent *Staphylococcus aureus* isolates from poultry: First detection of livestock-associated methicillin-resistant strain ST398.** M. Nemati, K. Hermans, U. Lipinska, O. Denis, A. Deplano, M. Struelens, L.A. Devriese, F. Pasmans, and F. Haesebrouck. *Antimicrobial Agents and Chemotherapy*, 2008.

**Food animal transport: A potential source of community exposures to health hazards from industrial farming (CAFOs).** A.M. Rule, S.L. Evans, and E.K. Silbergeld. *Journal of Infection and Public Health*, 2008.

**Subtherapeutic tylosin phosphate in broiler feed affects *Campylobacter* on carcasses during processing.** M.E. Berrang, S.R. Ladely, R.J. Meinersmann, and P.J. Fedorka-Cray. *Poultry Science*, 2007.

**Growth promoting antibiotics in food animal production: An economic analysis.** J.P. Graham, J.J. Boland, and E. Silbergeld. *Public Health Reports*, 2007.

**Development of macrolide-resistant *Campylobacter* in broilers administered subtherapeutic or therapeutic concentrations of tylosin.** S.R. Ladely, M.A. Harrison, P.J. Fedorka-Cray, M.E. Berrang, M.D. Englen, and R.J. Meinersmann. *Journal of Food Protection*, 2007.

**Elevated risk of carrying gentamicin-resistant *Escherichia coli* among U.S. poultry workers.** L.B. Price, J.P. Graham, L.G. Lackey, A. Roess, R. Vailes, and E. Silbergeld. *Environmental Health Perspectives*, 2007.

**Effect of macrolide usage on emergence of erythromycin-resistant *Campylobacter* isolates in chickens.** J. Lin, M. Yan, O. Sahin, S. Pereira, Y. Chang, and Q. Zhang. *Antimicrobial Agents and Chemotherapy*. 2007.

**Similarity between human and chicken *Escherichia coli* isolates in relation to ciprofloxacin resistance status.** J.R. Johnson, M.A. Kuskowski, M. Menard, A. Gajewski, M. Xercavins, and J. Garau. *The Journal of Infectious Diseases*, 2006.

**Use of streptogramin growth promoters in poultry and isolation of streptogramin-resistant *Enterococcus faecium* from humans.** A.L. Kieke, M.A. Borchardt, B.A. Kieke, S.K. Spencer, M.F. Vandermause, K.E. Smith, S.L. Jawahir, and E.A. Belongia. *The Journal of Infectious Diseases*, 2006.

**Fluoroquinolone-resistant *Campylobacter* isolates from conventional and antibiotic-free chicken products.** L.B. Price, E. Johnson, R. Vailes, and E. Silbergeld. *Environmental Health Perspectives*, 2005.

**The dioxin crisis as experiment to determine poultry-related *Campylobacter enteritis*.** A. Vellinga and F. Van Loock. *Emerging Infectious Diseases*, 2002.

**The effect of withdrawing growth promoting antibiotics from broiler chickens: A long-term commercial industry study.** H.M. Engster, D. Marvil, and B. Stewart-Brown. *The Journal of Applied Poultry Research*, 2002.

**High-frequency recovery of quinupristin-dalfopristin-resistant *Enterococcus faecium* isolates from the poultry-production environment.** J.R. Hayes, A.C. McIntosh, S. Qaiumi, J.A. Johnson, L.L. English, L.E. Carr, D.D. Wagner, and S.W. Joseph. *Journal of Clinical Microbiology*, 2001.

**Antibiotic resistance of faecal *Escherichia coli* in poultry, poultry farmers and poultry slaughterers.** A.E. van den Bogaard, N. London, C. Driessen, and E.E. Stobberingh. *Journal of Antimicrobial Chemotherapy*, 2001.

**Quinolone resistance in *Campylobacter* isolated from man and poultry following the introduction of fluoroquinolones in veterinary medicine.** H.P. Endtz, G.J. Ruijs, B. van Klengeren, W.H. Jansen, T. van der Reyden, and R.P. Mouton. *The Journal of Antimicrobial Chemotherapy*, 1991.

**Direct transmission of *Escherichia coli* from poultry to humans.** A.A. Ojenyiyi. *Epidemiology and Infection*, 1989.

### **Antibiotic-Resistant Bacteria and Retail Meat**

**Use of whole-genome sequencing for *Campylobacter* surveillance from NARMS retail poultry in the United States in 2015.** *Food Microbiology*. Chris A. Whitehouse, Shenya Young, Cong Li, Chih-Hao Hsu, Gordon Martin, Shaohua Zhao. 2018.



**Evaluation of meat, fruit and vegetables from retail stores in five United Kingdom regions as sources of extended-spectrum beta-lactamase (ESBL)-producing and carbapenem-resistant *Escherichia coli*.** L. P. Randall, M. Plodge, N. C. Elviss, et al. *International Journal of Food Microbiology*. 2017.

**Recent Research Examining Links Among *Klebsiella pneumoniae* from Food, Food Animals, and Human Extraintestinal Infections.** Davis GS, Price, LB. *Curr Environ Health Rep*, 2016.

**Intermingled *Klebsiella pneumoniae* Populations Between Retail Meats and Human Urinary Tract Infections.** Gregg S. Davis; Kara Waits; Lora Nordstrom; Brett Weaver; Maliha Aziz; Lori Gauld; Heidi Grande; Rick Bigler; Joseph Horwinski; Stephen Porter; Marc Stegger; James R. Johnson; Cindy M. Liu; Lance B. Price. *Clinical Infectious Diseases*, 2015.

**Extended-spectrum  $\beta$ -Lactamase-producing *Escherichia coli* from retail chicken meat and humans: Comparison of strains, plasmids, resistance genes, and virulence factors.** J.A.J.W. Kluytmans, I.T.M.A. Overvest, I. Willemsen, M.F.Q. Kluytmans-van den Bergh, K. van der Zwaluw, M. Heck, M. Rijnsburger, C.M.J.E. Vandenbroucke-Grauls, P.H.M. Savelkoul, B.D. Johnston, D. Gordon, J.R. Johnson. *Clinical Infectious Diseases*. 2013..

**Ciprofloxacin-resistant *Campylobacter* spp. in retail chicken, Western Canada.** A. Agunos, D. Léger, B.P. Avery, E. J. Parmley, A. Deckert, C.A. Carson, L. Dutil. *Emerging Infectious Diseases*. 2013.

**Occurrence of  $\beta$ -lactamase genes among non-Typhi *Salmonella enterica* isolated from humans, food animals, and retail meats in the United States and Canada.** M. Sjölund-Karlsson, R.L. Howie, K. Blickenstaff, P. Boerlin, T. Ball, G. Chalmers, B. Duval, J. Haro, R. Rickert, S. Zhao, P.J. Fedorka-Cray, J.M. Whichard. *Microbial drug resistance*. 2013.

**Comparative analysis of ESBL-positive *Escherichia coli* isolates from animals and humans from the UK, The Netherlands and Germany.** G. Wu, M.J. Day, M.T. Mafura, J. Nunez-Garcia, J.J. Fenner, M. Sharma, A. van Essen-Zandbergen, I. Rodriguez, C. Dierix, K. Kadlec, A. Schink, J. Wain, R. Helmuth, B. Guerra, S. Schwarz, J. Threlfall, M.J. Woodward, N. Woodford, N. Coldham, D. Mevius. *PLOS ONE*. 2013.

**Prevalence of antibiotic resistance genes and bacterial community composition in a river influenced by a wastewater treatment plant.** E. Marti, J. Jofre, J.L. Balcazar. *PLOS ONE*. 2013.

**Restrictions on antimicrobial use in food animal production: an international regulatory and economic survey.** D.F. Maron, T.J.S. Smith, K.E. Nachman. *Globalization and Health*. 2013.

**Antimicrobial susceptibility of *Staphylococcus aureus* from retail ground meats.** A. Kelman, Y. Soong, N. Dupuy, D. Shafer, W. Richbourg, K. Johnson, T. Brown, E. Kestler, Y. Li, J. Zheng, P. McDermott, and J. Meng. *Journal of Food Protection*, 2011.

**Multidrug-resistant *Staphylococcus aureus* in U.S. meat and poultry.** A.E. Waters, T. Contente-Cuomo, J. Buchhagen, C.M. Liu, L. Watson, K. Pearce, J.T. Foster, J. Bowers, E.M. Driebe, D.M. Engelthaler, P.S. Keim, and L.B. Price. *Clinical Infectious Diseases*, 2011.

**Identification and antimicrobial resistance of extraintestinal pathogenic *Escherichia coli* from retail meats.** X. Xia, J. Meng, S. Zhao, S. Bodeis-Jones, S.A. Gaines, S.L. Ayers, and P.E. McDermott. *Journal of Food Protection*. 2011.

**Prevalence of *Staphylococcus aureus* and methicillin-resistant *Staphylococcus aureus* (MRSA) on retail meat in Iowa.** B.M. Hanson, A.E. Dressler, A.L. Harper, R.P. Scheibel, S.E. Wardyn, L.K. Roberts, J.S. Kroeger, and T.C. Smith. *Journal of Infection and Public Health*. 2011.

**Methicillin-resistant *Staphylococcus aureus* in food products: Cause for concern or complacency?** J. A. J. W. Kluytmans. *Clinical Microbiology and Infection*, 2010.

**Multidrug-resistant *Salmonella* isolates from retail chicken meat compared with human clinical isolates.** N.M. M'ikanatha, C.H. Sandt, A.R. Localio, D. Tewari, S.C. Rankin, J.M. Whichard, S.F. Altekruze, E. Lautenbach, J.P. Folster, A. Russo, T.M. Chiller, S.M. Reynolds, and P.F. McDermott. *Foodborne Pathogens and Disease*, 2010.

**Characterization of toxin genes and antimicrobial susceptibility of *Staphylococcus aureus* isolates from Louisiana retail meats.** S. Pu, F. Wang, and B. Ge. *Foodborne Pathogens and Disease*, 2010.

**Molecular analysis of *Escherichia coli* from retail meats (2002–2004) from the United States National Antimicrobial Resistance Monitoring System.** J.R. Johnson, J.S. McCabe, D.G. White, B. Johnston, M.A. Kuskowski, and P. McDermott. *Clinical Infectious Diseases*, 2009.

**Transient intestinal carriage after ingestion of antibiotic-resistant *Enterococcus faecium* from chicken and pork.** T.L. Sorensen, M. Blom, D.L. Monnet, N. Frimodt-Moller, R.L. Poulsen, and F. Espersen. *New England Journal of Medicine*, 2009.

**Isolation and characterization of Methicillin-resistant *Staphylococcus aureus* strains from Louisiana retail meats.** S. Pu, F. Han, and B. Ge. *Applied and Environmental Microbiology*, 2009.

**Resistance in bacteria of the food chain: Epidemiology and control strategies.** F.M. Aarestrup, H.C. Wegener, and P. Collignon. *Expert Reviews*, 2008.

**Sulfamethazine uptake by plants from a manure-amended soil.** H. Dolliver, K. Kumar, and S. Gupta. *Journal of Environmental Quality*, 2007.

**Antimicrobial drug-resistant *Escherichia coli* from humans and poultry products, Minnesota and Wisconsin, 2002–2004.** J.R. Johnson, M.R. Sannes, C. Croy, B. Johnston, C. Clabots, M.A. Kuskowski, J. Bender, K.E. Smith, P.L. Winokur, and E.A. Belongia. *Emerging Infectious Diseases*, 2007.

**The isolation of antibiotic-resistant *Salmonella* from retail ground meats.** D.G. White, S. Zhao, R. Sudler, S. Ayers, S. Friedman, S. Chen, P.F. McDermott, S. McDermott, D.D. Wagner, and J. Meng. *New England Journal of Medicine*, 2007.

**Concurrent quantitation of total *Campylobacter* and total ciprofloxacin-resistant *Campylobacter* loads in rinses from retail raw chicken carcasses from 2001 to 2003 by direct plating at 42 degrees Celsius.** R. Nannapaneni, R. Story, K.C. Wiggins, and M.G. Johnson. *Applied and Environmental Microbiology*, 2005.

**Antimicrobial-resistant and extraintestinal pathogenic *Escherichia coli* in retail foods.** J.R. Johnson, M.A. Kuskowski, K. Smith, T.T. O'Bryan, and S. Tatini. *Journal of Infectious Diseases*. 2005.

**Contamination of retail foods, particularly turkey, from community markets (Minnesota, 1999-2000) with antimicrobial-resistant and extraintestinal pathogenic *Escherichia coli*.** J.R. Johnson, P. Delavari, T.T. O'Bryan, K.E. Smith, and S. Tatini. *Foodborne Pathogens and Disease*. 2005.

**Isolation of antimicrobial-resistant *Escherichia coli* from retail meats purchased in Greater Washington, DC, USA.** C.M. Schroeder, D.G. White, B. Ge, Y. Zhang, P.F. McDermott, S. Ayers, S. Zhao, and J. Meng. *International Journal of Food Microbiology*, 2003.

**The incidence of antimicrobial-resistant *Salmonella* spp. on freshly processed poultry from US Midwestern processing plants** C.M. Logue, J.S. Sherwood, P.A. Olah, L.M. Elijah, and M.R. Dockter. *Journal of Applied Microbiology*, 2003.

**Quinoline-resistant *Campylobacter jejuni* infections in Minnesota, 1992–1998.** K.E. Smith, J.M. Besser, C.W. Hedberg, F.T. Leano, J.B. Bender, J.H. Wickland, B.P. Johnson, K.A. Moore, and M.T. Osterholm. *New England Journal of Medicine*, 1999.

**An evaluation of methods to assess the effect of antimicrobial residues on the human gut flora.** D. Corpet. *Veterinary Microbiology*, 1993.

## **MRSA**

**Drivers and Dynamics of Methicillin-Resistant Livestock-Associated *Staphylococcus aureus* CC398 in Pigs and Humans in Denmark.** *mBio*. Raphael N. Sieber, Robert L. Skov, Jens Nielsen, Jana Schulz, Lance B. Price, Frank M. Aarestrup, Anders R. Larsen, Marc Stegger, Jesper Larsen. Nov 2018.

**Emergence of highly prevalent CA-MRSA ST93 as an occupational risk in people working on a pig farm in Australia.** *PLoS ONE*. Sahibzada S, Hernández-Jover M, Jordan D, Thomson PC, Heller J. 2018.

**Prevalence of Livestock-Associated Methicillin-Resistant *Staphylococcus Aureus* (LA-MRSA) Among Farm and Slaughterhouse Workers in Italy.** *Journal of Occupational and Environmental Medicine*. Mascaro. Valentina, MD; Leonetti, Maria, MD; Nobile, Carmelo Giuseppe Angelo, MD; Barbadoro, Pamela, MD; Ponzio, Elisa, PhD; Recanatini, Claudia, MD; Prospero, Emilia, MD; Pavia, Maria, MD, MPH. 2018.

**MRSA and multidrug-resistant *Staphylococcus aureus* in U.S. retail meats, 2010–2011.** Beilei G, et al. *Food microbiology*. 2017.

**Evidence for Human Adaptation and Foodborne Transmission of Livestock-Associated Methicillin-Resistant *Staphylococcus aureus*.** Jesper Larsen; Marc Stegger; Paal S. Andersen; Andreas Petersen; Anders R. Larsen; Henrik Westh; Yvonne Agerso; Alexandra Fetsch; Britta Kraushaar; Annemarie Käsbohrer; Andrea T. Fessler; Stefan Schwarz; Christiane Cuny; Wolfgang Witte; Patrick Butaye; Olivier Denis; Marisa Haenni; Jean-Yves Madec; Eric Jouy; Frederic Laurent; Antonio Battisti; Alessia Franco; Patricia Alba; Caterina Mammì; Annalisa Pantosti; Monica Monaco; Jaap A.

Wagenaar; Enne de Boer; Engeline van Duijkeren; Max Heck; Lucas Dominguez; Carmen Torres; Myriam Zarazaga; Lance B. Price; Robert L. Skov. *Clinical Infectious Diseases*, 2016.

**Residential proximity to large numbers of swine in feeding operations is associated with increased risk of Methicillin-Resistant *Staphylococcus aureus* colonization at time of hospital admission in rural Iowa veterans.** M. Carrel, M. Schweizer, M.V. Sarrazin, T. Smith, E.N. Perencevich. *Infection Control and Hospital Epidemiology*. 2014.

**Livestock origin for a human pandemic clone of community-associated methicillin-resistant *Staphylococcus aureus*.** L.E. Spoor, P.R. McAdam, L.A. Weinert, A. Rambaut, H. Hasman, F.M. Aarestrup, A.M. Kearns, A.R. Larsen, R.L. Skov, J. Ross Fitzgerald. *mBio*. 2013.

**Concentration of airborne *Staphylococcus aureus* (MRSA and MSSA), total bacteria, and endotoxins in pig farms.** F.G. Masclaux, O Sakwinska, N. Charriere, E. Semaani, A. Oppliger. *Annals of Occupational Hygiene*. 2013.

**Whole genome sequencing identifies zoonotic transmission of MRSA isolates with the novel *mecA* homologue *mecC*.** E.M. Harrison, G.K. Paterson, M.T.G. Holden, J. Larsen, M. Stegger, A.R. Larsen, A. Petersen, R.L. Skov, J.M. Christensen, A. Bak Zeuthen, O. Heltberg, S.R. Harris, R.N. Zadoks, J. Parkhill, S.J. Peacock, M.A. Holmes. *EMBO Molecular Medicine*. 2013.

**Methicillin-resistant *Staphylococcus aureus* in pigs and farm workers on conventional and antibiotic-free swine farms in the USA.** T.C. Smith, W.A. Gebreyes, M.J. Abley, A.L. Harper, B.M. Forshey, M.J. Male, H.W. Martin, B.Z. Molla, S. Sreevatsan, S. Thakur, M. Thiruvengadam, P.R. Davies. *PLOS One*. 2013.

**Longitudinal study on transmission of MRSA CC398 within pig herds.** E.M. Broens, C. Espinosa-Gongora, E.A.M. Graat, N. Vendrig, P.J. Van Der Wolf, L. Guardabassi, P. Butaye, J.P. Nielson, M.C.M. De Jong, A.W. Van De Glessen. *BMC Veterinary Research*. 2012.

***Staphylococcus aureus* CC398: Host adaptation and emergence of methicillin resistance in livestock.** L.B. Price, M. Stegger, H. Hasman, M. Aziz, J. Larsen, P.S. Andersen, T. Pearson, A.E. Waters, J.T. Foster, J. Schupp, J. Gillece, E. Driebe, C.M. Liu, B. Springer, I. Zdovc, A. Battisti, A. Franco, J. Zmudzki, S. Schwarz, P. Butaye, E. Jouy, C. Pomba, M. Concepcion Porrero, R. Ruimy, T.C. Smith, D.A. Robinson, J.S. Weese, C.S. Arriola, F. Yu, F. Laurent, P. Keim, R. Skov, F.M. Aarestrup. *mBio*. 2012.

**Antimicrobial resistance of *Staphylococcus aureus* strains acquired by pig farmers from pigs.** A. Oppliger, P. Moreillon, N. Charrière, M. Giddey, D. Morisset, O. Sakwinska. *Applied Environmental Microbiology*. 2012.

**A metapopulation model to assess the capacity of spread of methicillin-resistant *Staphylococcus aureus* ST398 in humans.** T. Porphyre, E.S. Giotis, D. H. Lloyd, K. Dorothea, C. Stärk. *PLoS One*. 2012.

**Methicillin resistant *Staphylococcus aureus* ST398 in veal calf farming: Human MRSA carriage related with animal antimicrobial usage and farm hygiene.** H. Graveland, J.A. Wagenaar, H. Heesterbeek, D. Mevius, E. van Duijkeren, and D. Heederik. *PLoS One*, 2010.

**Methicillin-resistant *Staphylococcus aureus* CC398 isolates with indistinguishable ApaI restriction patterns in colonized and infected pigs and humans.** C. Pomba, F.M. Baptista, N. Couto, F. Loução, H. Hasman. *Journal of Antimicrobial Chemotherapy*. 2010.

**Methicillin-resistant *Staphylococcus aureus* (MRSA) strain ST398 is present in Midwestern U.S. swine and swine workers.** T.C. Smith, M.J. Male, A.L. Harper, J.S. Kroeger, G.P. Tinkler, E.D. Moritz, A.W. Capuano, L.A. Herwaldt, and D.J. Diekema. *PLoS ONE*, 2009.

**Methicillin-resistant *Staphylococcus aureus*: A new zoonotic agent?** B. Springer, U. Orendi, P. Much, G. Hoger, W. Ruppitsch, K. Krziwanek, S. Metz-Gercek, and H. Mittermayer. *The Middle European Journal of Medicine*, 2009..

**Methicillin-resistant *Staphylococcus aureus* (MRSA) strain ST398 is present in Midwestern swine and swine workers.** T.C. Smith, M.J. Male, A.L. Harper, J.S. Kroeger, G.P. Tinkler, E.D. Mortiz, A.W. Capuano, L.A. Herwaldt, and D.J. Diekema. *PLoS One*. 2009.

**Methicillin-resistant *Staphylococcus aureus* colonization in pigs and pig farmers.** T. Khanna, R. Friendship, D. Dewey, and J.S. Weese. *Veterinary Microbiology*, 2008.

**Pigs as source of methicillin-resistant *Staphylococcus aureus* CC398 infections in humans, Denmark.** H.C. Lewis, K. Molbak, C. Reese, F.M. Aarestrup, M. Selchau, M. Sorum, and R.L. Skov. *Emerging Infectious Diseases*, 2008.

**Methicillin-resistant and -susceptible *Staphylococcus aureus* sequence type 398 in pigs and humans.** A.van Belkum, D.C. Melles, J.K. Peeters, W.B. van Leeuwen, E. van Duijkeren, X.W. Huijsdens, E. Spalburg, A.J. de Neeling, and H.A. Verbrugh. *Emerging Infectious Diseases*, 2008.

**Transmission of methicillin-resistant *Staphylococcus aureus* strains between different kinds of pig farms.** E. van Duijkeren, R. Ikawaty, M.J. Broekhuizen-Stins, M.D. Jansen, E.C. Spalburg, A.J. de Neeling, J.G. Allaart, A.van Nes, J.A.Wagenaar, and A.C. Fluit. *Veterinary Microbiology*, 2008.

**Increase in a Dutch hospital of methicillin-resistant *Staphylococcus aureus* related to animal farming.** M.M.L. van Rijen, P.H. Van Keulen, and J.A. Kluytmans. *Clinical Infectious Diseases*, 2008.

**Hospitalizations and deaths caused by methicillin-resistant *Staphylococcus aureus*, United States, 1999–2005.** E. Klein, D.L. Smith, and R. Laxminarayan. *Emerging Infectious Diseases*, 2007.

**Invasive methicillin-resistant *Staphylococcus aureus* infections in the United States.** R.M. Klevens, M.A. Morrison, J. Nadle, S. Petit, K. Gershman, S. Ray, L.H. Harisson, R. Lynfield, G. Dumyati, J.M. Townes, A.S. Craig, E.R. Zell, G.E. Fosheim, L.K. McDougal, R.B. Carey, and S.K. Fridkin. *Journal of the American Medical Association*, 2007.

**Emergence of methicillin-resistant *Staphylococcus aureus* of animal origin in humans.** I. van Loo, X. Huijsdens, E. Tuemersma, A. de Neeling, N. van de Sande-Bruinsma, D. Beaujean, A. Voss, and J. Kluytmans. *Emerging Infectious Diseases*, 2007.

**Methicillin-resistant *Staphylococcus aureus* ST398 in humans and animals, Central Europe.** W. Witte, B. Strommenger, C. Stanek, and C. Cuny. *Emerging Infectious Diseases*, 2007.

**Methicillin-resistant *Staphylococcus aureus* colonization in veterinary personnel.** B.A. Hanselman, S.A. Kruth, J. Rousseau, D.E. Low, B.A. Willey, A. McGeer, and J.S. Weese. *Emerging Infectious Diseases*, 2006.

**Methicillin-resistant *Staphylococcus aureus* in pig farming.** A. Voss, F. Loeffen, J. Bakker, C. Klaassen, and M. Wulf. *Emerging Infectious Diseases*, 2005.

**An outbreak of community-acquired foodborne illness caused by Methicillin-resistant *Staphylococcus aureus*.** T.F. Jones, M.E. Kellum, S.S. Porter, M. Bell, and W. Schaffner. *Emerging Infectious Diseases*. 2002.

### MCR-1

**Monitoring Colistin Resistance in Food Animals, An Urgent Threat.** *Expert Review of Anti-infective Therapy*. Yiyun Liu & Jian-Hua Liu. 2018.

**Simultaneous Carriage of *mcr-1* and Other Antimicrobial Resistance Determinants in *Escherichia coli* From Poultry.** *Frontiers in Microbiology*. Dominguez Johana E., Redondo Leandro M., Figueroa Espinosa Roque A., Cejas Daniela, Gutkind Gabriel O., Chacana Pablo A., Di Conza José A., Fernández Miyakawa Mariano E. 2018.

**Prevalence of colistin resistance gene *mcr-1* and absence of *mcr-2* in *Escherichia coli* isolated from healthy food-producing animals in Japan.** *Antimicrob Agents Chemother*. Kawanishi M, Abo H, Ozawa M, Uchiyama M, Shirakawa T, Suzuki S, Shima A, Yamashita A, Sekizuka T, Kato K, Kuroda M, Koike R, Kijima M. 2017.

**Deciphering MCR-2 colistin resistance.** Sun J, Xu Y, Gao R, et al. *mBio*. 2017.

**MCR-1-producing outbreak in China.** Guo-Bao Tian, Yohei Doi, Jianzhong Shen, et al. *The Lancet Infectious Diseases*. 2017.

**Retrospective survey of and in German pig-fattening farms, 2011–2012.** Nicole Roschanski, Linda Falgenhauer, Mirjam Grobbel, et al. *International Journal of Antimicrobial Agents*, 2017.

**First detection of *Escherichia coli* harboring *mcr-1* gene from retail domestic chicken meat in Japan.** Yusuke Ohsaki, Wataru Hayashi, Satomi Saito, et al. *Japanese Journal of Infectious Diseases*. 2017.

**Detection of the colistin resistance gene in pathogenic from pigs affected by post-weaning diarrhoea in Italy.** Ludovica Curcio, Andrea Luppi, Paolo Bonilauri, et al. *Journal of Global Antimicrobial Resistance*. 2017

***mcr-1* is borne by highly diverse *Escherichia coli* isolates since 2004 in food-producing animals in Europe.** El Garch, F. et al. *Clinical Microbiology and Infection*. 2017.

**Novel plasmid-mediated colistin resistance gene *mcr-3* in *Escherichia coli*.** Yin W, Li H, Shen Y, Liu Z, Wang S, Shen Z, Zhang R, Walsh TR, Shen J, Wang Y. *mBio*. 2017.

**Dissemination of the colistin resistance gene.** Hattie E Webb, Sophie A Granier, Muriel Marault, et al. *The Lancet Infectious Diseases*, 2016.

**Colistin resistance: a major breach in our last line of defense.** David L Paterson, Patrick N A Harris. *The Lancet Infectious Diseases*. 2016.

**Emergence of plasmid-mediated colistin resistance mechanism MCR-1 in animals and human beings in China: a microbiological and molecular biological study.** Yi-Yun Liu, Yang Wang, Timothy R Walsh, et al. *The Lancet Infectious Diseases*. 2016.

**Colistin use and colistin resistance in bacteria from animals.** I Kempf, et al., *International Journal of Antimicrobial Agents*, 2016.