**A Scoping Review to Examine Studies Investigating Zoonotic and Vectorborne Diseases in *Canis familaris* in North America Since the Beginning of the 21st Century.**

**Appendix V:** Bibliography of the 507 references analyzed as part of this scoping review.

Aalbaek, B., Bemis, D.A., Schjaerff, M., Kania, S.A., Frank, L.A., Guardabassi, L., Aalbæk, B., Bemis, D.A., Schjærff, M., Kania, S.A., Frank, L.A., Guardabassi, L., AalbÃ¦k, B., Bemis, D.A., SchjÃ¦rff, M., Kania, S.A., Frank, L.A., and Guardabassi, L., 2010. Coryneform bacteria associated with canine otitis externa. *Veterinary Microbiology*, 145 (3–4), 292–298.

Adesiyun, A.A., Hull-Jackson, C., Mootoo, N., Halsall, S., Bennett, R., Clarke, N.R., Whittington, C.U., and Seepersadsingh, N., 2006. Seroepidemiology of canine leptospirosis in Trinidad: serovars, implications for vaccination and public health. *Journal of Veterinary Medicine. Series B*, 53 (2), 91–99.

Adin, C.A. and Cowgill, L.D., 2000. Treatment and outcome of dogs with leptospirosis: 36 cases (1990-1998). *Journal of the American Veterinary Medical Association*, 216 (3), 371–375.

Alleman, A.R., McSherry, L.J., Barbet, A.F., Breitschwerdt, E.B., Sorenson, H.L., Bowie, M. V., and Bélanger, M., 2001. Recombinant major antigenic protein 2 of Ehrlichia canis: A potential diagnostic tool. *Journal of Clinical Microbiology*, 39 (7), 2494–2499.

Almazan, C., Gonzalez-Alvarez, V.H., Mera, I.G.F. de, Cabezas-Cruz, A., Rodriguez-Martinez, R., and Fuente, J. de la, 2016. Molecular identification and characterization of Anaplasma platys and Ehrlichia canis in dogs in Mexico. *Ticks Tick Borne Dis*, 7 (2), 276–283.

Alton, G.D., Berke, O., Reid-Smith, R., Ojkic, D., and Prescott, J.F., 2009. Increase in seroprevalence of canine leptospirosis and its risk factors, Ontario 1998-2006. *Canadian Journal of Veterinary Research*, 73 (3), 167–175.

Alvarado-Esquivel, C., Romero-Salas, D., Cruz-Romero, A., Garcia-Vazquez, Z., Peniche-Cardena, A., Ibarra-Priego, N., Ahuja-Aguirre, C., Perez-de-Leon, A.A., and Dubey, J.P., 2014. High prevalence of Toxoplasma gondii antibodies in dogs in Veracruz, Mexico. *BMC veterinary research*, 10 (191), 191.

Alymova, I. V., York, I.A., and McCullers, J.A., 2014. Non-avian animal reservoirs present a source of influenza A PB1-F2 proteins with novel virulence-enhancing markers. *PLoS ONE*, 9 (11), e111603.

Amadi, V.A., Hariharan, H., Arya, G., Matthew-Belmar, V., Nicholas-Thomas, R., Pinckney, R., Sharma, R., and Johnson, R., 2018. Serovars and antimicrobial resistance of non-typhoidal Salmonella isolated from non-diarrhoeic dogs in Grenada, West Indies. *VETERINARY MEDICINE AND SCIENCE*, 4 (1), 26–34.

Anderson, T.C., Bromfield, C.R., Crawford, P.C., Dodds, W.J., Gibbs, E.P.J., and Hernandez, J.A., 2012. Serological evidence of H3N8 canine influenza-like virus circulation in USA dogs prior to 2004. *Veterinary Journal*, 191 (3), 312–316.

Anderson, T.C., Crawford, P.C., Dubovi, E.J., Gibbs, E.P.J., and Hernandez, J.A., 2013. Prevalence of and exposure factors for seropositivity to H3N8 canine influenza virus in dogs with influenza-like illness in the United States. *Journal of the American Veterinary Medical Association*, 242 (2), 209–216.

Anderson, T.C., Crawford, P.C., Katz, J.M., Dubovi, E.J., Landolt, G., and Gibbs, E.P.J., 2012. Diagnostic performance of the canine *Influenza A Virus* subtype H3N8 hemagglutination inhibition assay. *Journal of Veterinary Diagnostic Investigation*, 24 (3), 499–508.

Arjona-Jimenez, G., Villegas, N., Lopez-Cespedes, A., Marin, C., Longoni, S.S., Bolio-Gonzalez, M.E., Rodriguez-Vivas, R.I., Sauri-Arceo, C.H., and Sanchez-Moreno, M., n.d. Prevalence of antibodies against three species of Leishmania (L. mexicana, L. braziliensis, L. infantum) and possible associated factors in dogs from Merida, Yucatan, Mexico.

Aslan, H., Oliveira, F., Meneses, C., Castrovinci, P., Gomes, R., Teixeira, C., Derenge, C.A., Orandle, M., Gradoni, L., Oliva, G., Fischer, L., Valenzuela, J.G., and Kamhawi, S., 2016. New insights into the transmissibility of Leishmania infantum from dogs to sand flies: experimental vector-transmission reveals persistent parasite depots at bite sites. *Journal of Infectious Diseases*, 213 (11), 1752–1761.

Balakrishnan, N., Musulin, S., Varanat, M., Bradley, J.M., and Breitschwerdt, E.B., 2014. Serological and molecular prevalence of selected canine vector borne pathogens in blood donor candidates, clinically healthy volunteers, and stray dogs in North Carolina. *Parasites and Vectors*, 7 (1), 116–116.

Ball, K.R., Rubin, J.E., Chirino-Trejo, M., and Dowling, P.M., 2008. Antimicrobial resistance and prevalence of canine uropathogens at the Western College of Veterinary Medicine Veterinary Teaching Hospital, 2002-2007. *Canadian veterinary journal = La revue veterinaire canadienne*, 49 (10), 985–990.

Banovic, F., Bozic, F., and Lemo, N., 2013. In vitro comparison of the effectiveness of polihexanide and chlorhexidine against canine isolates of Staphylococcus pseudintermedius, Pseudomonas aeruginosa and Malassezia pachydermatis. *Veterinary Dermatology*, 24 (4), 409-e89.

Barbabosa-Pliego, A., Gil, P.C., Hernández, D.O., Aparicio-Burgos, J.E., de Oca-Jiménez, R.M., Martínez-Castañeda, J.S., Ochoa-García, L., Guzmán-Bracho, C., Estrada-Franco, J.G., Garg, N.J., and Chagoyán, J.C.V., 2011. Prevalence of *Trypanosoma cruzi* in Dogs ( *Canis familiaris* ) and Triatomines During 2008 in a Sanitary Region of the State of Mexico, Mexico. *Vector-Borne and Zoonotic Diseases*, 11 (2), 151–156.

Barber, R.M., Li, Q., Diniz, P.P.V.P., Porter, B.F., Breitschwerdt, E.B., Claiborne, M.K., Birkenheuer, A.J., Levine, J.M., Levine, G.J., Chandler, K., Kenny, P., Nghiem, P., Wei, S., Greene, C.E., Kent, M., and Platt, S.R., 2010. Evaluation of Brain Tissue or Cerebrospinal Fluid with Broadly Reactive Polymerase Chain Reaction for Ehrlichia, Anaplasma, Spotted Fever Group Rickettsia, Bartonella, and Borrelia Species in Canine Neurological Diseases (109 Cases). *Journal of veterinary internal medicine*, 24 (2), 372–378.

Barr, S.C., McDonough, P.L., Scipioni-Ball, R.L., and Starr, J.K., 2005. Serologic responses of dogs given a commercial vaccine against Leptospira interrogans serovar pomona and Leptospira kirschneri serovar grippotyphosa. *American Journal of Veterinary Research*, 66 (10), 1780–1784.

Barrell, E.A., Pecoraro, H.L., Torres-Henderson, C., Morley, P.S., Lunn, K.F., and Landolt, G.A., 2010. Seroprevalence and Risk Factors for Canine H3N8 Influenza Virus Exposure in Household Dogs in Colorado. *Journal of Veterinary Internal Medicine*, 24 (6), 1524–1527.

Barrett, A., Little, S.E., and Shaw, E., 2014. “ *Rickettsia amblyommii* ” and *R. montanensis* Infection in Dogs Following Natural Exposure to Ticks. *Vector-Borne and Zoonotic Diseases*, 14 (1), 20–25.

Barrett, A.W. and Little, S.E., 2016. Vector-Borne Infections in Tornado-Displaced and Owner-Relinquished Dogs in Oklahoma, USA. *Vector borne and zoonotic diseases*, 16 (6), 428–430.

Bartlett, S.J., Rosenkrantz, W.S., and Sanchez, S., 2011. Bacterial contamination of commercial ear cleaners following routine home use. *Veterinary Dermatology*, 22 (6), 546–553.

Baum, E., Grosenbaugh, D.A., and Barbour, A.G., 2014. Diversity of antibody responses to Borrelia burgdorferi in experimentally infected beagle dogs. *Clinical and Vaccine Immunology*, 21 (6), 838–846.

Beall, M.J., Chandrashekar, R., Eberts, M.D., Cyr, K.E., Diniz, P.P.V.P., Mainville, C., Hegarty, B.C., Crawford, J.M., and Breitschwerdt, E.B., 2008. Serological and Molecular Prevalence of *Borrelia burgdorferi* , *Anaplasma phagocytophilum* , and *Ehrlichia* Species in Dogs from Minnesota. *Vector-Borne and Zoonotic Diseases*, 8 (4), 455–464.

Beckel, N.F., O’Toole, T.E., Rozanski, E. a., and Labato, M. a., 2005. Peritoneal dialysis in the management of acute renal failure in 5 dogs with leptospirosis. *Journal of Veterinary Emergency and Critical Care*, 15 (3), 201–205.

Beckwith-Cohen, B., Gasper, D.J., Bentley, E., Gittelman, H., Ellis, A.E., Snowden, K.F., Shock, B.C., Yabsley, M.J., and Dubielzig, R.R., 2016. Protozoal infections of the cornea and conjunctiva in dogs associated with chronic ocular surface disease and topical immunosuppression. *Veterinary Ophthalmology*, 19 (3), 206–213.

Belanger, M., Sorenson, H.L., France, M.K., Bowie, M. V, Barbet, A.F., Breitschwerdt, E.B., and Alleman, A.R., 2002. Comparison of serological detection methods for diagnosis of Ehrlichia canis infections in dogs. *Journal of clinical microbiology*, 40 (9), 3506–3508.

Bender, S.C., Bergman, D.L., Wenning, K.M., Miller, L.A., Slate, D., Jackson, F.R., and Rupprecht, C.E., 2009. No adverse effects of simultaneous vaccination with the immunocontraceptive GonaConTM and a commercial rabies vaccine on rabies virus neutralizing antibody production in dogs. *Vaccine*, 27 (51), 7210–7213.

Berentsen, A.R., Bender, S., Bender, P., Bergman, D., Gilbert, A.T., Rowland, H.M., and VerCauteren, K.C., 2016. Bait flavor preference and immunogenicity of ONRAB baits in domestic dogs on the Navajo Nation, Arizona. *Journal of Veterinary Behavior: Clinical Applications and Research*, 15, 20–24.

Berentsen, A.R., Bender, S., Bender, P., Bergman, D., Hausig, K., and VerCauteren, K.C., 2014. Preference among 7 bait flavors delivered to domestic dogs in Arizona: Implications for oral rabies vaccination on the Navajo Nation. *Journal of Veterinary Behavior: Clinical Applications and Research*, 9 (4), 169–171.

Bernstein, J.A., Cook, H.E., Gill, A.F., Ryan, K.A., and Sirninger, J., 2007. Cytologic diagnosis of generalized cutaneous sporotrichosis in a hunting hound. *Veterinary Clinical Pathology*, 36 (1), 94–96.

Bilderback, A.L. and Faissler, D., 2009. Surgical management of a canine intracranial abscess due to a bite wound: Case Report. *Journal of Veterinary Emergency and Critical Care*, 19 (5), 507–512.

Birkenheuer, A.J., Correa, M.T., Levy, M.G., and Breitschwerdt, E.B., 2005. Geographic distribution of babesiosis among dogs in the United States and association with dog bites: 150 cases (2000-2003). *Journal of the American Veterinary Medical Association*, 227 (6), 942–947.

Birkenheuer, A.J., Levy, M.G., and Breitschwerdt, E.B., 2003. Development and evaluation of a seminested PCR for detection and differentiation of Babesia gibsoni (Asian genotype) and B. canis DNA in canine blood samples. *Journal of Clinical Microbiology*, 41 (9), 4172–4177.

Birkenheuer, A.J., Neel, J., Ruslander, D., Levy, M.G., and Breitschwerdt, E.B., 2004. Detection and molecular characterization of a novel large Babesia species in a dog. *Veterinary Parasitology*, 124 (3–4), 151–160.

Bjurman, N.K., Bradet, G., and Lloyd, V.K., 2016. Lyme disease risk in dogs in New Brunswick. *The Canadian veterinary journal*, 57 (9), 981–4.

Black, D.M., Rankin, S.C., and King, L.G., 2009. Antimicrobial therapy and aerobic bacteriologic culture patterns in canine intensive care unit patients: 74 dogs (January-June 2006). *Journal of Veterinary Emergency and Critical Care*, 19 (5), 489–495.

Blanton, J.D., Dyer, J., McBrayer, J., and Rupprecht, C.E., 2012. Rabies surveillance in the United States during 2011. *Journal of the American Veterinary Medical Association*, 241 (6), 712–722.

Blanton, J.D., Hanlon, C.A., and Rupprecht, C.E., 2007. Rabies surveillance in the United States during 2006. *Journal of the American Veterinary Medical Association*, 231 (4), 540–556.

Blanton, J.D., Palmer, D., Christian, K.A., and Rupprecht, C.E., 2008. Rabies surveillance in the United States during 2007. *Journal of the American Veterinary Medical Association*, 233 (6), 884–897.

Blanton, J.D., Palmer, D., and Rupprecht, C.E., n.d. Public Veterinary Medicine: Public Health Rabies surveillance in the United States during 2009.

Blanton, J.D., Robertson, K., Palmer, D., and Rupprecht, C.E., 2009. Rabies surveillance in the United States during 2008. *Journal of the American Veterinary Medical Association*, 235 (6), 676–689.

Blondeau, J.M. and Shebelski, S.D., 2016. Comparative *in vitro* killing of canine strains of *Staphylococcus pseudintermedius* and *Escherichia coli* by cefovecin, cefazolin, doxycycline and pradofloxacin. *Veterinary Dermatology*, 27 (4), 267-e63.

Boggiatto, P.M., Gibson-Corley, K.N., Metz, K., Gallup, J.M., Hostetter, J.M., Mullin, K., and Petersen, C.A., 2011. Transplacental transmission of Leishmania infantum as a means for continued disease incidence in North America. *PLoS Neglected Tropical Diseases*, 5 (4), e1019.

Boggiatto, P.M., Ramer-Tait, A.E., Metz, K., Kramer, E.E., Gibson-Corley, K., Mullin, K., Hostetter, J.M., Gallup, J.M., Jones, D.E., and Petersen, C.A., 2010. Immunologic indicators of clinical progression during canine Leishmania infantum infection. *Clinical and Vaccine Immunology*, 17 (2), 267–273.

Boothe, D., Smaha, T., Carpenter, D.M., Shaheen, B., and Hatchcock, T., 2012. Antimicrobial Resistance and Pharmacodynamics of Canine and Feline Pathogenic *E. coli* in the United States. *Journal of the American Animal Hospital Association*, 48 (6), 379–389.

Boothe, D.M., n.d. Impact of Routine Antimicrobial Therapy on Canine fecal Escherichia coli Antimicrobial Resistance: A Pilot Study.

Bortolaia, V., Hansen, K.H., Nielsen, C.A., Fritsche, T.R., and Guardabassi, L., 2014. High diversity of plasmids harbouring blaCMY-2 among clinical Escherichia coli isolates from humans and companion animals in the upper Midwestern USA. *Journal of Antimicrobial Chemotherapy*, 69 (6), 1492–1496.

Bostrom, B., Wolf, C., Greene, C., and Peterson, D.S., 2008. Sequence conservation in the rRNA first internal transcribed spacer region of Babesia gibsoni genotype Asia isolates. *Veterinary parasitology*, 152 (1–2), 152–157.

Bottoms, K., Trotz-Williams, L., Hutchison, S., MacLeod, J., Dixon, J., Berke, O., and Poljak, Z., 2014. An evaluation of rabies vaccination rates among canines and felines involved in biting incidents within the Wellington-Dufferin-Guelph Public Health Department. *Zoonoses and public health*, 61 (7), 499–508.

Bouillon, J., Snead, E., Caswell, J., Feng, C., Hélie, P., and Lemetayer, J., 2018. Pyelonephritis in Dogs: Retrospective Study of 47 Histologically Diagnosed Cases (2005–2015). *Journal of Veterinary Internal Medicine*, 32 (1), 249–259.

Boutilier, P., Carr, A., and Schulman, R.L., 2003. Leptospirosis in dogs: a serologic survey and case series 1996 to 2001. *Veterinary Therapeutics*, 4 (2), 387–96.

Bowman, D., Little, S.E., Lorentzen, L., Shields, J., Sullivan, M.P., and Carlin, E.P., 2009. Prevalence and geographic distribution of Dirofilaria immitis, Borrelia burgdorferi, Ehrlichia canis, and Anaplasma phagocytophilum in dogs in the United States: Results of a national clinic-based serologic survey. *Veterinary parasitology*, 160 (1–2), 138–148.

Bowman, D.D., Legg, W., and Stansfield, D.G., 2002. Efficacy of moxidectin 6-month injectable and milbemycin oxime/lufenuron tablets against naturally acquired Toxocara canis infections in dogs. *Veterinary Therapeutics*, 3 (3), 281–285.

Bowman, D.D., Rock, T., Heaney, K., Neumann, N.R., Ulrich, M., and Amodie, D., 2003. Persistent efficacy of moxidectin canine sustained-release injectable against experimental infections of Ancylostoma caninum and Uncinaria stenocephala in dogs. *Veterinary therapeutics : research in applied veterinary medicine*, 4 (3), 228–233.

Boynosky, N.A. and Stokking, L.B., 2015. Retrospective Evaluation of Canine Dermatitis Secondary to *Corynebacterium* spp. *Journal of the American Animal Hospital Association*, 51 (6), 372–379.

Breitschwerdt, E.B., DebRoy, C., Mexas, A.M., Brown, T.T., and Remick, A.K., 2005. Isolation of necrotoxigenic Escherichia coli from a dog with hemorrhagic pneumonia. *Journal of the American Veterinary Medical Association*, 226 (12), 2016–2019, 2001.

Breitschwerdt, E.B. and Maggi, R.G., 2009. A confusing case of canine vector-borne disease: Clinical signs and progression in a dog co-infected with Ehrlichia canis and Bartonella vinsonii ssp. berkhoffii. *Parasites and Vectors*, 2 (SUPPL.1), S3.

Bremer, W.G., Schaefer, J.J., Wagner, E.R., Ewing, S.A., Rikihisa, Y., Needham, G.R., Jittapalapong, S., Moore, D.L., and Stich, R.W., 2005. Transstadial and intrastadial experimental transmission of Ehrlichia canis by male Rhipicephalus sanguineus. *Veterinary Parasitology*, 131 (1–2), 95–105.

Brennan, S.J., Ngeleka, M., Philibert, H.M., Forbes, L.B., and Allen, A.L., 2008. Canine brucellosis in a Saskatchewan kennel. *Canadian Veterinary Journal*, 49 (7), 703–708.

Brock, M.T., Fedderly, G.C., Borlee, G.I., Russell, M.M., Filipowska, L.K., Hyatt, D.R., Ferris, R.A., and Borlee, B.R., n.d. &ITPseudomonas aeruginosa&IT variants obtained from veterinary clinical samples reveal a role for cyclic di-GMP in biofilm formation and colony morphology.

Brook, R.K., Kutz, S.J., Millins, C., Veitch, A.M., Elkin, B.T., and Leighton, T., n.d. Evaluation and delivery of domestic animal health services in remote communities in the Northwest Territories: A case study of status and needs.

Brower, A., Okwumabua, O., Massengill, C., Muenks, Q., Vanderloo, P., Duster, M., Homb, K., and Kurth, K., 2007. Investigation of the spread of Brucella canis via the U.S. interstate dog trade. *International Journal of Infectious Diseases*, 11 (5), 454–458.

Bryan, H.M., Darimont, C.T., Paquet, P.C., Ellis, J.A., Goji, N., Gouix, M., and Smits, J.E., 2011. Exposure to infectious agents in dogs in remote coastal British Columbia: Possible sentinels of diseases in wildlife and humans. *Canadian Journal of Veterinary Research*, 75 (1), 11–17.

Bubenik, L.J., Hosgood, G.L., Waldron, D.R., and Snow, L.A., 2007. Frequency of urinary tract infection in catheterized dogs and comparison of bacterial culture and susceptibility testing results for catheterized and noncatheterized dogs with urinary tract infections. *Journal of the American Veterinary Medical Association*, 231 (6), 893–899.

Budreckis, D.M., Byrne, B.A., Pollard, R.E., Rebhun, R.B., Rodriguez, C.O., and Skorupski, K.A., 2015. Bacterial Urinary Tract Infections Associated with Transitional Cell Carcinoma in Dogs. *Journal of Veterinary Internal Medicine*, 29 (3), 828–833.

Burkert, B.A., Kerwin, S.C., Hosgood, G.L., Pechman, R.D., and Fontenelle, J.P., 2005. Signalment and clinical features of diskospondylitis in dogs: 513 cases (1980-2001). *Journal of the American Veterinary Medical Association*, 227 (2), 268–275.

Burton, E.N., Cohn, L.A., Reinero, C.N., Rindt, H., Moore, S.G., and Ericsson, A.C., 2017. Characterization of the urinary microbiome in healthy dogs. *PLoS ONE*, 12 (5), e0177783.

Cai, H.Y., Hornby, G., Key, D.W., Osuch, M.R., and Maxie, M.G., 2002. Preliminary Study on Differentiation of *Leptospira Grippotyphosa* and *Leptospira Sejroe* from Other Common Pathogenic Leptospiral Serovars in Canine Urine by Polymerase Chain Reaction Assay. *Journal of Veterinary Diagnostic Investigation*, 14 (2), 164–168.

Callister, S.M., LaFleur, R.L., Jobe, D.A., Lovrich, S.D., and Wasmoen, T.L., 2015. Antibody responses to Borrelia burgdorferi outer surface proteins C and F in experimentally infected Beagle dogs. *Journal of Veterinary Diagnostic Investigation*, 27 (4), 526–530.

Cannon, S.H., Levy, J.K., Kirk, S.K., Crawford, P.C., Leutenegger, C.M., Shuster, J.J., Liu, J., and Chandrashekar, R., 2016. Infectious diseases in dogs rescued during dogfighting investigations. *The Veterinary Journal*, 211, 64–69.

Cárdenas, A.M., Doyle, C.K., Zhang, X.F., Nethery, K., Corstvet, R.E., Walker, D.H., McBride, J.W., Cardenas, A.M., Doyle, C.K., Zhang, X.F., Nethery, K., Corstvet, R.E., Walker, D.H., and McBride, J.W., 2007. Enzyme-linked immunosorbent assay with conserved immunoreactive glycoproteins gp36 and gp19 has enhanced sensitivity and provides species-specific immunodiagnosis of Ehrlichia canis infection. *Clinical and Vaccine Immunology*, 14 (2), 123–128.

Carrade, D., Foley, J., Sullivan, M., Foley, C.W., and Sykes, J.E., 2011. Spatial distribution of seroprevalence for Anaplasma phagocytophilum, Borrelia burgdorferi, Ehrlichia canis, and Dirofilaria immitis in dogs in Washington, Oregon, and California. *Veterinary Clinical Pathology*, 40 (3), 293–302.

Carter, S.E., Ravyn, M.D., Xu, Y., and Johnson, R.C., 2001. Molecular typing of the etiologic agent of human granulocytic ehrlichiosis. *Journal of Clinical Microbiology*, 39 (9), 3398–3401.

Casas, V., Sobrepeña, G., Rodriguez-Mueller, B., Ahtye, J., and Maloy, S.R., 2011. Bacteriophage-encoded shiga toxin gene in atypical bacterial host. *Gut Pathogens*, 3 (1).

Cassmann, E., White, R., Atherly, T., Wang, C., Sun, Y., Khoda, S., Mosher, C., Ackermann, M., and Jergens, A., 2016. Alterations of the Ileal and Colonic Mucosal Microbiota in Canine Chronic Enteropathies. *PLoS ONE*, 11 (2), e0147321.

Castellanos-Gonzalez, A., Saldarriaga, O.A., Tartaglino, L., Gacek, R., Temple, E., Sparks, H., Melby, P.C., and Travi, B.L., 2015. A novel molecular test to diagnose canine visceral leishmaniasis at the point of care. *American Journal of Tropical Medicine and Hygiene*, 93 (5), 970–975.

Castleman, W.L., Powe, J.R., Crawford, P.C., Gibbs, E.P.J., Dubovi, E.J., Donis, R.O., and Hanshaw, D., 2010. Canine H3N8 influenza virus infection in dogs and mice. *Veterinary Pathology*, 47 (3), 507–517.

Castrodale, L., Walker, V., Baldwin, J., Hofmann, J., and Hanlon, C., 2008. Rabies in a puppy imported from India to the USA, March 2007. *Zoonoses and Public Health*, 55 (8–10), 427–430.

Chaban, B., Links, M.G., and Hill, J.E., 2012. A Molecular Enrichment Strategy Based on cpn60 for Detection of Epsilon-Proteobacteria in the Dog Fecal Microbiome. *Microbial Ecology*, 63 (2), 348–357.

Chaban, B., Musil, K.M., Himsworth, C.G., and Hill, J.E., 2009. Development of cpn60-Based Real-Time Quantitative PCR Assays for the Detection of 14 Campylobacter Species and Application to Screening of Canine Fecal Samples. *Applied and environmental microbiology*, 75 (10), 3055–3061.

Chacon-Diaz, C., Altamirano-Silva, P., Gonzalez-Espinoza, G., Medina, M.-C.C., Alfaro-Alarcon, A., Bouza-Mora, L., Jimenez-Rojas, C., Wong, M., Barquero-Calvo, E., Rojas, N., Guzman-Verri, C., Moreno, E., Chaves-Olarte, E., Chacón-Díaz, C., Altamirano-Silva, P., González-Espinoza, G., Medina, M.-C.C., Alfaro-Alarcón, A., Bouza-Mora, L., Jiménez-Rojas, C., Wong, M., Barquero-Calvo, E., Rojas, N., Guzmán-Verri, C., Moreno, E., and Chaves-Olarte, E., 2015. Brucella canis is an intracellular pathogen that induces a lower proinflammatory response than smooth zoonotic counterparts. *Infection and Immunity*, 83 (12), 4861–4870.

Champlin, F.R., Shryock, T.R., Patterson, C.E., Austin, F.W., and Ryals, P.E., 2002. Prevalence of a novel capsule-associated lipoprotein among Pasteurellaceae pathogenic in animals. *Current Microbiology*, 44 (4), 297–301.

Chandrashekar, R., Beall, M.J., Thatcher, B., Saucier, J.M., Tyrrell, P., and Lappin, M.R., 2017. Serologic responses to peptides of Anaplasma phagocytophilum and Borrelia burgdorferi in dogs infested with wild-caught Ixodes scapularis. *Veterinary Journal*, 226, 6–11.

Chandrashekar, R., Mainville, C.A., Beall, M.J., O’Connor, T., Eberts, M.D., Alleman, A.R., Gaunt, S.D., and Breitschwerdt, E.B., 2010. Performance of a commercially available in-clinic ELISA for the detection of antibodies against Anaplasma phagocytophilum, Ehrlichia canis, and Borrelia burgdorferi and Dirofilaria immitis antigen in dogs. *American Journal of Veterinary Research*, 71 (12), 1443–1450.

Chávez-GüitrÓn, L.E., Morales-Montor, J., Muñoz-Guzmán, M.A., Nava-Castro, K.E., Ramírez-Álvarez, H., Moreno-Méndoza, N.A., Hernández-Cervantes, R., Alba-Hurtado, F., Chavez-Guitron, L.E., Morales-Montor, J., Munoz-Guzman, M.A., Nava-Castro, K.E., Ramirez-Alvarez, H., Moreno-Mendoza, N.A., Hernandez-Cervantes, R., and Alba-Hurtado, F., 2016. The in vitro effect of prolactin on the growth, motility and expression of prolactin receptors in larvae of Toxocara canis. *Veterinary parasitology*, 224, 33–38.

Cheng, C. and Ganta, R.R., 2008. Laboratory maintenance of Ehrlichia chaffeensis and Ehrlichia canis and recovery of organisms for molecular biology and proteomics studies. *Current protocols in microbiology*, Chapter 3, Unit 3A.1.

Cheng, C., Sirigireddy, K.R., and Ganta, R.R., 2008. Isolation and molecular detection of Ehrlichia from vertebrate animals. *Current protocols in microbiology*, Chapter 3, Unit 3A.3.

Chou, J., Wünschmann, A., Hodzic, E., and Borjesson, D.L., 2006. Detection of *Borrelia burgdorferi* DNA in tissues from dogs with presumptive Lyme borreliosis. *Journal of the American Veterinary Medical Association*, 229 (8), 1260–1265.

Cohn, L.A., Gary, A.T., Fales, W.H., and Madsen, R.W., 2003. Trends in ﬂuoroquinolone resistance of bacteria isolated from canine urinary tracts. *Journal of Veterinary Diagnostic Investigation*, 15 (4), 338–343.

Coleman, A.S., Rossmann, E., Yang, X.L., Song, H.C., Lamichhane, C.M., Iyer, R., Schwartz, I., and Pal, U., 2011. BBK07 immunodominant peptides as serodiagnostic markers of lyme disease. *Clinical and Vaccine Immunology*, 18 (3), 406–413.

Cooke, K.L., Frenzer, P., Tucker, S.J., Crawford, P.C., Kirk, S.K., and Levy, J.K., 2018. Rapid Diagnosis of Babesia gibsoni by Point-of-Need Testing by Insulated Isothermal PCR in Dogs at High Risk of Infection. *Journal of Veterinary Internal Medicine*, 32 (1), 232–235.

Courtice, R., Sniatynski, M., and Rubin, J.E., 2016. Antimicrobial resistance and beta-lactamase production of Escherichia coli causing canine urinary tract infections: Passive surveillance of laboratory isolates in Saskatoon, Canada, 2014. *Canadian Veterinary Journal*, 57 (11), 1166–1168.

Crawford, P.C., 2005. Transmission of Equine Influenza Virus to Dogs. *Science*, 310 (5747), 482–485.

Cummings, K.J., Aprea, V.A., and Altier, C., 2015. Antimicrobial resistance trends among canine Escherichia coli isolates obtained from clinical samples in the northeastern USA, 2004-2011. *Canadian Veterinary Journal*, 56 (4), 393–398.

Cureton, D.K., Scott-Garrard, M., Parker, D.S., House, A., Veal, E., Aitcheson, T., and Chiang, Y.W., 2016. An inactivated H3N2 canine influenza virus (CIV) vaccine aids in the prevention of clinical disease and virus shedding in dogs challenged with virulent H3N2 CIV. *International Journal of Applied Research in Veterinary Medicine*, 14 (2), 128–134.

Curtis-Robles, R., Snowden, K.F., Dominguez, B., Dinges, L., Rodgers, S., Mays, G., and Hamer, S.A., 2017. Epidemiology and Molecular Typing of Trypanosoma cruzi in Naturally-Infected Hound Dogs and Associated Triatomine Vectors in Texas, USA. *PLoS Neglected Tropical Diseases*, 11 (1), e0005298.

Curtis-Robles, R., Zecca, I.B., Roman-Cruz, V., Carbajal, E.S., Auckland, L.D., Flores, I., Millard, A. V., and Hamer, S.A., 2017. Trypanosoma cruzi (Agent of Chagas Disease) in sympatric human and dog populations in ‘colonias’ of the Lower Rio Grande Valley of Texas. *American Journal of Tropical Medicine and Hygiene*, 96 (4), 805–814.

Curtis, K.M., Foster, P.C., Smith, P.S., Monn, M.P., Stillman, B.A., Chandrashekar, R., Lappin, M.R., and Goldstein, R.E., 2015. Performance of a recombinant LipL32 based rapid in-clinic ELISA (SNAP® Lepto) for the detection of antibodies against Leptospira in dogs. *International Journal of Applied Research in Veterinary Medicine*, 13 (3), 182–189.

Dalziel, B.D., Huang, K., Geoghegan, J.L., Arinaminpathy, N., Dubovi, E.J., Grenfell, B.T., Ellner, S.P., Holmes, E.C., and Parrish, C.R., 2014. Contact heterogeneity, rather than transmission efficiency, limits the emergence and spread of canine influenza virus. *PLoS Pathogens*, 10 (10), e1004455.

Dangoudoubiyam, S., Vemulapalli, R., and Kazacos, K.R., 2009. Pcr Assays for Detection of Baylisascaris procyonis Eggs and Larvae. *Journal of Parasitology*, 95 (3), 571–577.

Daniels, J.B., Tracy, G., Irom, S.J., and Lakritz, J., 2014. Fluoroquinolone levels in healthy dog urine following a 20-mg/kg oral dose of enrofloxacin exceed mutant prevention concentration targets against Escherichia coli isolated from canine urinary tract infections. *Journal of Veterinary Pharmacology and Therapeutics*, 37 (2), 201–204.

Davis, J.A., Jackson, C.R., Fedorka-Cray, P.J., Barrett, J.B., Brousse, J.H., Gustafson, J., and Kucher, M., 2011. Anatomical distribution and genetic relatedness of antimicrobial-resistant Escherichia coli from healthy companion animals. *J Appl Microbiol*, 110 (2), 597–604.

Davis, M.A., Evermann, J.F., Petersen, C.R., VanderSchalie, J., Besser, T.E., Huckabee, J., Daniels, J.B., Hancock, D.D., Leslie, M., and Baer, R., 2008. Serological Survey for Antibodies to Leptospirain Dogs and Raccoons in Washington State. *Zoonoses and Public Health*, 55 (8–10), ???-???

Demma, L.J., Traeger, M., Blau, D., Gordon, R., Johnson, B., Dickson, J., Ethelbah, R., Piontkowski, S., Levy, C., Nicholson, W.L., Duncan, C., Heath, K., Cheek, J., Swerdlow, D.L., and McQuiston, J.H., 2006. Serologic evidence for exposure to Rickettsia rickettsii in eastern Arizona and recent emergence of Rocky Mountain spotted fever in this region. *Vector Borne Zoonotic Dis.*, 6 (4), 423–429.

Dentinger, C.M., Jacob, K., Lee, L. V., Mendez, H.A., Chotikanatis, K., Mcdonough, P.L., Chico, D.M., De, B.K., Tiller, R. V., Traxler, R.M., Campagnolo, E.R., Schmitt, D., Guerra, M.A., and Slavinski, S.A., 2015. Human Brucella canis Infection and Subsequent Laboratory Exposures Associated with a Puppy, New York City, 2012. *Zoonoses and Public Health*, 62 (5), 407–414.

Deshpande, M.S., Abdelmagid, O., Tubbs, A., Jayappa, H., and Wasmoen, T., 2009. Experimental reproduction of canine influenza virus H3N8 infection in young puppies. *Veterinary therapeutics : research in applied veterinary medicine*, 10 (1–2), 29–39.

Detmer, S.E., Bouljihad, M., Hayden, D.W., Schefers, J.M., and Armien, A., 2016. Fatal pyogranulomatous myocarditis in 10 Boxer puppies. *Journal of Veterinary Diagnostic Investigation*, 28 (2), 144–149.

Dilegge, S.K., Edgcomb, V.P., and Leadbetter, E.R., 2011. Presence of the oral bacterium Capnocytophaga canimorsus in the tooth plaque of canines. *Veterinary Microbiology*, 149 (3–4), 437–445.

Doyle, C.K., Labruna, M.B., Breitschwerdt, E.B., Tang, Y.-W., Corstvet, R.E., Hegarty, B.C., Bloch, K.C., Li, P., Walker, D.H., and McBride, J.W., 2005. Detection of medically important Ehrlichia by quantitative multicolor TaqMan real-time polymerase chain reaction of the dsb gene. *The Journal of molecular diagnostics : JMD*, 7 (4), 504–510.

Doyle, C.K., Nethery, K.A., Popov, V.L., and McBride, J.W., 2006. Differentially expressed and secreted major immunoreactive protein orthologs of Ehrlichia canis and E. chaffeensis elicit early antibody responses to epitopes on glycosylated tandem repeats. *Infection and Immunity*, 74 (1), 711–720.

Drazenovich, N., Ling, G. V., and Foley, J., 2004. Molecular investigation of Escherichia coli strains associated with apparently persistent urinary tract infection in dogs. *Journal of Veterinary Internal Medicine*, 18 (3), 301–306.

Dubey, J.P., Chapman, J.L., Rosenthal, B.M., Mense, M., and Schueler, R.L., 2006. Clinical Sarcocystis neurona, Sarcocystis canis, Toxoplasma gondii, and Neospora caninum infections in dogs. *Veterinary Parasitology*, 137 (1–2), 36–49.

Dubey, J.P., Stone, D., Kwok, O.C.H., and Sharma, R.N., 2008. Toxoplasma gondii and Neospora caninum Antibodies in Dogs From Grenada, West Indies. *Journal of Parasitology*, 94 (3), 750–751.

Dubey, J.P., Tiwari, K., Chikweto, A., DeAllie, C., Sharma, R., Thomas, D., Choudhary, S., Ferreira, L.R., Oliveira, S., Verma, S.K., Kwok, O.C.H., and Su, C., 2013. Isolation and RFLP genotyping of Toxoplasma gondii from the domestic dogs (Canis familiaris) from Grenada, West Indies revealed high genetic variability. *Veterinary Parasitology*, 197 (3–4), 623–626.

Duncan, A.W., Correa, M.T., Levine, J.F., and Breitschwerdt, E.B., 2005. The dog as a sentinel for human infection: prevalence of Borrelia burgdorferi C6 antibodies in dogs from southeastern and mid-Atlantic states. *Vector Borne and Zoonotic Diseases*, 5 (2), 101–109.

Dunn, D., Creevy, K.E., and Krimer, P.M., 2018. Outcomes of and risk factors for presumed canine H3N2 influenza virus infection in a metropolitan outbreak. *Journal of the American Veterinary Medical Association*, 252 (8), 959–965.

Dyer, J.L., Yager, P., Orciari, L., Greenberg, L., Wallace, R., Hanlon, C.A., and Blanton, J.D., 2014. Rabies surveillance in the United States during 2013. *Journal of the American Veterinary Medical Association*, 245 (10), 1111–1123.

Eddlestone, S.M., Diniz, P.P.V.P., Neer, T.M., Gaunt, S.D., Corstvet, R., Cho, D., Hosgood, G., Hegarty, B., and Breitschwerdt, E.B., 2007. Doxycycline Clearance of Experimentally Induced Chronic Ehrlichia Canis Infection in Dogs. *Journal of Veterinary Internal Medicine*, 21 (6), 1237–1242.

Eddlestone, S.M., Gaunt, S.D., Neer, T.M., Boudreaux, C.M., Gill, A., Haschke, E., and Corstvet, R.E., 2007. PCR detection of Anaplasma platys in blood and tissue of dogs during acute phase of experimental infection. *Experimental Parasitology*, 115 (2), 205–210.

Eddlestone, S.M., Neer, T.M., Gaunt, S.D., Corstvet, R., Gill, A., Hosgood, G., Hegarty, B., and Breitschwerdt, E.B., 2006. Failure of imidocarb dipropionate to clear experimentally induced Ehrlichia canis infection in dogs. *Journal of Veterinary Internal Medicine*, 20 (4), 840–844.

Eguia-Aguilar, P., Cruz-Reyes, A., and Maninez-Maya, J.J., n.d. Ecological analysis and description of the intestinal helminths present in dogs in Mexico City.

Elsemore, D.A., Geng, J., Cote, J., Hanna, R., Lucio-Forster, A., and Bowman, D.D., 2017. Enzyme-linked immunosorbent assays for coproantigen detection of Ancylostoma caninum and Toxocara canis in dogs and Toxocara cati in cats. *Journal of Veterinary Diagnostic Investigation*, 29 (5), 645–653.

Engelen, M., Bock, M. de, Hare, J., and Goossens, L., 2010. Effectiveness of an otic product containing miconazole, polymyxin B and prednisolone in the treatment of canine otitis externa: multi-site field trial in the US and Canada. *International Journal of Applied Research in Veterinary Medicine*, 8 (1), 21–30.

Esch, K.J., Juelsgaard, R., Martinez, P.A., Jones, D.E., and Petersen, C.A., 2013. Programmed Death 1-Mediated T Cell Exhaustion during Visceral Leishmaniasis Impairs Phagocyte Function. *The Journal of Immunology*, 191 (11), 5542–5550.

Esch, K.J., Schaut, R.G., Lamb, I.M., Clay, G., Lima, A.L.M., do Nascimento, P.R.P., Whitley, E.M., Jeronimo, S.M.B., Sutterwala, F.S., Haynes, J.S., and Petersen, C.A., n.d. Activation of Autophagy and Nucleotide-Binding Cross Mark Domain Leucine-Rich Repeat-Containing-Like Receptor Family, Pyrin Domain-Containing 3 Inflammasome during Leishmania infantum-Associated Glomerulonephritis.

Eschner, A.K. and Mugnai, K., 2015. Immunization with a recombinant subunit OspA vaccine markedly impacts the rate of newly acquired Borrelia burgdorferi infections in client-owned dogs living in a coastal community in Maine, USA. *Parasites and Vectors*, 8 (1), 92–92.

Fankhauser, R., Hamel, D., Dorr, P., Reinemeyer, C.R., Crafford, D., Bowman, D.D., Ulrich, M., Yoon, S., and Larsen, D.L., 2016. Efficacy of oral afoxolaner plus milbemycin oxime chewables against induced gastrointestinal nematode infections in dogs. *Veterinary parasitology*, 225, 117–122.

Feng, K.H., Gonzalez, G., Deng, L.Q., Yu, H., Tse, V.L., Huang, L., Huang, K., Wasik, B.R., Zhou, B., Wentworth, D.E., Holmes, E.C., Chen, X., Varki, A., Murcia, P.R., and Parrish, C.R., 2015. Equine and canine influenza H3N8 viruses show minimal biological differences despite phylogenetic divergence. *Journal of Virology*, 89 (13), 6860–6873.

Feng, K.H., Miao, S., Iketani, S., Holmes, E.C., and Parrish, C.R., 2016. Comparing the functions of equine and canine influenza H3N8 virus PA-X proteins: suppression of reporter gene expression and modulation of global host gene expression. *Virology*, 496, 138–146.

Fink, J.M., Moore, G.E., Landau, R., and Vemulapalli, R., 2015. Evaluation of three 5′ exonuclease–based real-time polymerase chain reaction assays for detection of pathogenic Leptospira species in canine urine. *Journal of Veterinary Diagnostic Investigation*, 27 (2), 159–166.

Fiorello, C. V., Straub, M.H., Schwartz, L.M., Liu, J., Campbell, A., Kownacki, A.K., and Foley, J.E., 2017. Multiple-host pathogens in domestic hunting dogs in Nicaragua’s Bosawás Biosphere Reserve. *Acta Tropica*, 167, 183–190.

Flores-Ibarra, M. and Estrella-Valenzuela, G., 2004. Canine eclogy and socio-econmics factors associated withd ogs unvaccinated against ravies in a Mexican city across the US-Mexco border. *Prev. Vet. Med.*, 62 (2), 79–87.

Flores, B.J., Pérez-sánchez, T., Fuertes, H., Sheleby-elías, J., Luis, J., Jirón, W., Duttmann, C., and Halaihel, N., 2017. Acta Tropica A cross-sectional epidemiological study of domestic animals related to human leptospirosis cases in Nicaragua. *Acta Tropica*, 170, 79–84.

da Fontoura Budaszewski, R., Hudacek, A., Sawatsky, B., Kramer, B., Yin, X., Schnell, M.J., von Messling, V., Budaszewski, R. da F., Hudacek, A., Sawatsky, B., Krämer, B., XiangPing, Y., Schnell, M.J., and Messling, V. von, 2017. Inactivated recombinant rabies viruses displaying canine distemper virus glycoproteins induce protective immunity against both pathogens. *Journal of Virology*, 91 (8), e02077-16.

Frank, L.A., Kania, S.A., Kirzeder, E.M., Eberlein, L.C., and Bemis, D.A., 2010. Risk of colonization or gene transfer to owners of dogs with meticillin-resistant Staphylococcus pseudintermedius. *Advances in veterinary dermatology, Volume 6. Proceedings of the Sixth World Congress of Veterinary Dermatology, Hong Kong, 19-22 November, 2008*, 20 (5/6), 153–158.

Freeman, K.S., Miller, M.D., Breitschwerdt, E.B., and Lappin, M.R., 2010. Leishmaniasis in a dog native to Colorado. *Journal of the American Veterinary Medical Association*, 237 (11), 1288–1291.

Fryxell, R.T.T., Steelman, C.D., Szalanski, A.L., Billingsley, P.M., and Williamson, P.C., 2015. Molecular detection of Rickettsia species within ticks (acari: Ixodidae) collected from Arkansas United States. *Journal of Medical Entomology*, 52 (3), 500–508.

Fujiwara, R.T., Loukas, A., Mendez, S., Williamson, A.L., Bueno, L.L., Wang, Y., Samuel, A., Zhan, B., Bottazzi, M.E., Hotez, P.J., and Bethony, J.M., 2006. Vaccination with irradiated Ancylostoma caninum third stage larvae induces a Th2 protective response in dogs. *Vaccine*, 24 (4), 501–509.

Fung, H.L., Calzada, J., Saldaña, A., Santamaria, A.M., Pineda, V., Gonzalez, K., Chaves, L.F., Garner, B., and Gottdenker, N., 2014. Domestic dog health worsens with socio-economic deprivation of their home communities. *Acta Tropica*, 135, 67–74.

Galaviz-Silva, L., Mercado-Hernández, R., Zárate-Ramos, J.J., and Molina-Garza, Z.J., 2017. Prevalence of Trypanosoma cruzi infection in dogs and small mammals in Nuevo León, Mexico. *Revista Argentina de Microbiología*, 49 (3), 216–223.

Ganjei, J., Langenbach, A., Watrous, G., and Hodgson, J., 2016. Comparison of bacterial cultures of the larynx between dogs with laryngeal paralysis and normal dogs. *Journal of Small Animal Practice*, 57 (11), 644–649.

Garces-Ayala, F., Arechiga-Ceballos, N., Ortiz-Alcantara, J.M., Gonzalez-Duran, E., Perez-Agueros, S.I., Mendez-Tenorio, A., Torres-Longoria, B., Lopez-Martinez, I., Hernandez-Rivas, L., Diaz-Quinonez, J.A., Ramirez-Gonzalez, J.E., Garcés-Ayala, F., Aréchiga-Ceballos, N., Ortiz-Alcántara, J.M., González-Durán, E., Pérez-Agüeros, S.I., Méndez-Tenorio, A., Torres-Longoria, B., López-Martínez, I., Hernández-Rivas, L., Díaz-Quiñonez, J.A., and Ramírez-González, J.E., 2017. Molecular characterization of atypical antigenic variants of canine rabies virus reveals its reintroduction by wildlife vectors in southeastern Mexico. *Archives of Virology*, 162 (12), 3629–3637.

Garcia-Alonso, G., Monroy-Noyola, A., Contreras-Arellano, A., Fernando Mariscal-Durand, J., Galvez-Molina, Y., Vazquez-Velazquez, A., Garcia-Jimenez, S., Nunez, P., Cardoso-Taketa, A., and Luisa Villarreal, M., n.d. Preclinical evaluation of anti-Helicobacter spp. activity of Hippocratea celastroides Kunth and its acute and sub-acute toxicity.

Garfield, L.M. and Walker, M.J., 2008. Water potential changes in faecal matter and *Escherichia coli* survival. *Journal of Applied Microbiology*, 105 (4), 1009–1016.

Gaskin, A.A., Schantz, P., Jackson, J., Birkenheuer, A., Tomlinson, L., Gramiccia, M., Levy, M., Steurer, F., Kollmar, E., Hegarty, B.C., Ahn, A., and Breitschwerdt, E.B., 2002. Visceral leishmaniasis in a New York foxhound kennel. *Journal of Veterinary Internal Medicine*, 16 (1), 34–44.

Gasser, A.M., Birkenheuer, A.J., and Breitschwerdt, E.B., 2001. Canine Rocky Mountain Spotted fever: a retrospective study of 30 cases. *J Am Anim Hosp Assoc*, 37 (1), 41–48.

Gates, M.C. and Nolan, T.J., 2009. Endoparasite prevalence and recurrence across different age groups of dogs and cats. *Veterinary Parasitology*, 166 (1–2), 153–158.

Gates, M.C. and Nolan, T.J., 2014. Declines in canine endoparasite prevalence associated with the introduction of commercial heartworm and flea preventatives from 1984 to 2007. *Veterinary parasitology*, 204 (3–4), 265–268.

Gautam, R., Guptill, L.F., Wu, C.C., Potter, A., and Moore, G.E., 2010. Spatial and spatio-temporal clustering of overall and serovar-specific Leptospira microscopic agglutination test (MAT) seropositivity among dogs in the United States from 2000 through 2007. *Preventive Veterinary Medicine*, 96 (1–2), 122–131.

Gautam, R., Wu, C.-C., Guptill, L.F., Potter, A., and Moore, G.E., 2010. Detection of antibodies against Leptospira serovars via microscopic agglutination tests in dogs in the United States, 2000-2007. *Journal of the American Veterinary Medical Association*, 237 (3), 293–298.

Gerhold, R., Newman, S.J., Grunenwald, C.M., Crews, A., Hodshon, A., and Su, C., 2014. Acute onset of encephalomyelitis with atypical lesions associated with dual infection of Sarcocystis neurona and Toxoplasma gondii in a dog. *Veterinary Parasitology*, 205 (3–4), 697–701.

Gianopoulos, A., Mylonakis, M.E., Theodorou, K., and Christopher, M.M., 2016. Quantitative and qualitative leukocyte abnormalities in dogs with experimental and naturally occurring acute canine monocytic ehrlichiosis. *Veterinary clinical pathology*, 45 (2), 281–290.

Gibson-Corley, K.N., Hostetter, J.M., Hostetter, S.J., Mullin, K., Ramer-Tait, A.E., Boggiatto, P.M., and Petersen, C.A., 2008. Disseminated Leishmania infantum infection in two sibling foxhounds due to possible vertical transmission. *Canadian Veterinary Journal*, 49 (10), 1005–1008.

Goldstein, R.E., Cordner, A.P., Sandler, J.L., Bellohusen, B.A., and Erb, H.N., 2007. Microalbuminuria and Comparison of Serologic Testing for Exposure to Borrelia Burgdorferi in Nonclinical Labrador and Golden Retrievers. *Journal of Veterinary Diagnostic Investigation*, 19 (3), 294–297.

Goldstein, R.E., Lin, R.C., Langston, C.E., Scrivani, P. V., Erb, H.N., and Barr, S.C., 2006. Influence of infecting serogroup on clinical features of leptospirosis in dogs. *Journal of Veterinary Internal Medicine*, 20 (3), 489–494.

Goodman, R. a, Hawkins, E.C., Olby, N.J., Grindem, C.B., Hegarty, B., and Breitschwerdt, E.B., 2003. Molecular identification of Ehrlichia ewingii infection in dogs: 15 cases (1997-2001). *Journal of the American Veterinary Medical Association*, 222 (8), 1102–1107.

Gotes, J., Kasian, K., Jacobs, H., Cheng, Z.Q., and Mink, S.N., 2012. Benefits of ethyl gallate versus norepinephrine in the treatment of cardiovascular collapse in Pseudomonas aeruginosa septic shock in dogs. *Critical Care Medicine*, 40 (2), 560–572.

Greenberg, C.B., Davidson, E.B., Bellmer, D.D., Morton, R.J., and Payton, M.E., 2004. Evaluation of the tensile strengths of four monofilament absorbable suture materials after immersion in canine urine with or without bacteria. *American Journal of Veterinary Research*, 65 (6), 847–853.

Greenlee, J.J., Alt, D.P., Bolin, C.A., Zuerner, R.L., and Andreasen, C.B., 2005. Experimental canine leptospirosis caused by Leptospira interrogans serovars pomona and bratislava. *American Journal of Veterinary Research*, 66 (10), 1816–1822.

Greenlee, J.J., Bolin, C.A., Alt, D.P., Cheville, N.F., and Andreasen, C.B., 2004. Clinical and pathologic comparison of acute leptospirosis in dogs caused by two strains of Leptospira kirschneri serovar grippotyphosa. *American Journal of Veterinary Research*, 65 (8), 1100–1107.

Griffeth, G.C., Morris, D.O., Abraham, J.L., Shofer, F.S., and Rankin, S.C., 2008. Screening for skin carriage of methicillin-resistant coagulase-positive staphylococci and Staphylococcus schleiferi in dogs with healthy and inflamed skin. *Veterinary dermatology*, 19 (3), 142–149.

Grosenbaugh, D.A., Rissi, D.R., and Krimer, P.M., 2016. Demonstration of the ability of a canine Lyme vaccine to reduce the incidence of histological synovial lesions following experimentally-induced canine Lyme borreliosis. *Veterinary Immunology and Immunopathology*, 180, 29–33.

Guerra, M.A., Walker, E.D., and Kitron, U., 2000. Quantitative approach for the serodiagnosis of canine Lyme disease by the immunoblot procedure. *Journal of Clinical Microbiology*, 38 (7), 2628–2632.

Gusa, A.A., Buller, R.S., Storch, G.A., Huycke, M.M., Machado, L.J., Slater, L.N., Stockham, S.L., and Massung, R.F., 2001. Identification of a p28 gene in Ehrlichia ewingii: Evaluation of gene for use as a target for a species-specific PCR diagnostic assay. *Journal of Clinical Microbiology*, 39 (11), 3871–3876.

Gyuranecz, M., Rannals, B.D., Allen, C.A., Jánosi, S., Keim, P.S., and Foster, J.T., 2013. Within-host evolution of Brucella canis during a canine brucellosis outbreak in a kennel. *BMC veterinary research*, 9 (1), 643–643.

Hackett, T. and Lappin, M.R., 2003. Prevalence of enteric pathogens in dogs of north-central Colorado. *Journal of the American Animal Hospital Association*, 39 (1), 52–56.

Handt, L.K., Stoffregen, D.A., Prescott, J.S., Pouch, W.J., Ngai, D.T.W., Anderson, C.A., Gatto, N.T., DebRoy, C., Fairbrother, J.M., Motzel, S.L., and Klein, H.J., 2003. Clinical and Microbiologic Characterization of Hemorrhagic Pneumonia Due to Extraintestinal Pathogenic Escherichia coli in Four Young Dogs. *Comparative Medicine*, 53 (6), 663–670.

Hariharan, H., Coles, M., Poole, D., Lund, L., and Page, R., 2006. Update on antimicrobial susceptibilities of bacterial isolates from canine and feline otitis externa. *Canadian Veterinary Journal*, 47 (3), 253–255.

Harkin, K.R. and Hays, M.P., 2016. Variable-number tandem-repeat analysis of leptospiral DNA isolated from canine urine samples molecularly confirmed to contain pathogenic leptospires. *Journal of the American Veterinary Medical Association*, 249 (4), 399–405.

Haro-Alvarez, P., Lopez-Valencia, G., Tinoco-Gracia, L., Renteria-Evangelista, T., and Medina-Basulto, G., n.d. Seroprevalence and traceback of animals suspected of carrying Ehrlichia canis, in dogs attended in veterinary clinics in Mexicali, Baja California, Mexico.

Hartley, A.N., Cooley, G., Gwyn, S., Orozco, M.M., and Tarleton, R.L., 2014. Frequency of IFNgamma-producing T cells correlates with seroreactivity and activated T cells during canine Trypanosoma cruzi infection. *Veterinary research*, 45, 6.

Hassan, H.K., Bolcen, S., Kubofcik, J., Nutman, T.B., Eberhard, M.L., Middleton, K., Wekesa, J.W., Ruedas, G., Nelson, K.J., Dubielzig, R., De Lombaert, M., Silverman, B., Schorling, J.J., Adler, P.H., Unnasch, T.R., and Beeler, E.S., 2015. Isolation of *Onchocerca lupi* in Dogs and Black Flies, California, USA. *Emerging Infectious Diseases*, 21 (5), 789–796.

Hayward, J.J., Dubovi, E.J., Scarlett, J.M., Janeczko, S., Holmes, E.C., and Parrish, C.R., 2010. Microevolution of Canine Influenza Virus in Shelters and Its Molecular Epidemiology in the United States. *Journal of Virology*, 84 (24), 12636–12645.

Hebert, D. and Eschner, A., 2010. Seroprevalence of Borrelia burgdorferi-specific C6 antibody in dogs before and after implementation of a nonadjuvanted recombinant outer surface protein A vaccine in a Rhode Island small animal clinic. *Veterinary therapeutics : research in applied veterinary medicine*, 11 (3), E1-9.

Heeb, H.L., Wilkerson, M.J., Chun, R., and Ganta, R.R., 2003. Large granular lymphocytosis, lymphocyte subset inversion, thrombocytopenia, dysproteinemia, and positive Ehrlichia serology in a dog. *Journal of the American Animal Hospital Association*, 39 (4), 379–384.

Hegarty, B.C., de Paiva Diniz, P.P.V., Bradley, J.M., Lorentzen, L., and Breitschwerdt, E., 2009. Clinical relevance of annual screening using a commercial enzyme-linked immunosorbent assay (SNAP 3Dx) for canine ehrlichiosis. *Journal of the American Animal Hospital Association*, 45 (3), 118–124.

Henderson, H., Carpenter, L.R., and Dunn, J.R., 2018. Rabies risk and use of post-exposure prophylaxis associated with dog bites in Tennessee. *Zoonoses and Public Health*.

Hennebelle, J.H., Sykes, J.E., Carpenter, T.E., and Foley, J., 2013. Spatial and temporal patterns of *Leptospira* infection in dogs from northern California: 67 cases (2001–2010). *Journal of the American Veterinary Medical Association*, 242 (7), 941–947.

Hennenfent, A., DelVento, V., Davies-Cole, J., and Johnson-Clarke, F., 2017. Expanding veterinary biosurveillance in Washington, DC: The creation and utilization of an electronic-based online veterinary surveillance system. *Preventive Veterinary Medicine*, 138, 70–78.

Henneveld, K., Rosychuk, R.A.W., Olea-Popelka, F.J., Hyatt, D.R., and Zabel, S., 2012. *Corynebacterium* spp. in Dogs and Cats with Otitis Externa and/or Media: A Retrospective Study. *Journal of the American Animal Hospital Association*, 48 (5), 320–326.

Henry, C.J., McCaw, D.L., Brock, K. V, Stoker, a M., Tyler, J.W., Tate, D.J., and Higginbotham, M.L., 2001. Association between cancer chemotherapy and canine distemper virus, canine parvovirus, and rabies virus antibody titers in tumor-bearing dogs. *Journal of the American Veterinary Medical Association*, 219 (9), 1238–1241.

Hensel, N., Zabel, S., and Hensel, P., 2016. Prior antibacterial drug exposure in dogs with meticillin-resistant Staphylococcus pseudintermedius (MRSP) pyoderma. *Veterinary Dermatology*, 27 (2), 72-E20.

Herrin, B.H., Beall, M.J., Feng, X., Papeş, M., and Little, S.E., 2018. Canine and human infection with Borrelia burgdorferi in the New York City metropolitan area. *Parasites and Vectors*, 11 (1).

Herrin, B.H., Peregrine, A.S., Goring, J., Beall, M.J., and Little, S.E., 2017. Canine infection with Borrelia burgdorferi, Dirofilaria immitis, Anaplasma spp. and Ehrlichia spp. in Canada, 2013-2014. *Parasites and Vectors*, 10 (1), 244–244.

Himsworth, C.G., Jenkins, E., Hill, J.E., Nsungu, M., Ndao, M., Thompson, R.C.A., Covacin, C., Ash, A., Wagner, B.A., McConnell, A., Leighton, F.A., and Skinner, S., 2010. Short report: Emergence of sylvatic *echinococcus granulosus* as a parasitic zoonosis of public health concern in an indigenous community in Canada. *American Journal of Tropical Medicine and Hygiene*, 82 (4), 643–645.

Himsworth, C.G., Skinner, S., Chaban, B., Jenkins, E., Wagner, B.A., Harms, N.J., Leighton, F.A., Thompson, R.C.A., and Hill, J.E., 2010. Multiple zoonotic pathogens identified in canine feces collected from a remote Canadian indigenous community. *American Journal of Tropical Medicine and Hygiene*, 83 (2), 338–341.

Hinrichsen, V.L., Whitworth, U.G., Breitschwerdt, E.B., Hegarty, B.C., and Mather, T.N., 2001. Assessing the association between the geographic distribution of deer ticks and seropositivity rates to various tick-transmitted disease organisms in dogs. *Journal of the American Veterinary Medical Association*, 218 (7), 1092–7.

Hoelzer, K., Murcia, P.R., Baillie, G.J., Wood, J.L.N., Metzger, S.M., Osterrieder, N., Dubovi, E.J., Holmes, E.C., and Parrish, C.R., 2010. Intrahost evolutionary dynamics of canine influenza virus in naïve and partially immune dogs. *Journal of Virology*, 84 (10), 5329–5335.

HogenEsch, H., Dunham, A.D., Scott-Moncrieff, C., Glickman, L.T., and DeBoer, D.J., 2002. Effect of vaccination on serum concentrations of total and antigen-specific immunoglobulin E in dogs. *American Journal of Veterinary Research*, 63 (4), 611–616.

HogenEsch, H., Thompson, S., Dunham, A., Ceddia, M., and Hayek, M., 2004. Effect of age on immune parameters and the immune response of dogs to vaccines: A cross-sectional study. *Veterinary Immunology and Immunopathology*, 97 (1–2), 77–85.

Holt, D.E., Mover, M.R., and Brown, D.C., 2010. Serologic prevalence of antibodies against canine influenza virus (H3N8) in dogs in a metropolitan animal shelter. *Journal of the American Veterinary Medical Association*, 237 (1), 71–73.

Holt, N., Murray, M., Cuddon, P.A., and Lappin, M.R., 2011. Seroprevalence of Various Infectious Agents in Dogs with Suspected Acute Canine Polyradiculoneuritis. *Journal of Veterinary Internal Medicine*, 25 (2), 261–266.

Hotez, P.J., Ashcom, J., Bin, Z., Bethony, J., Williamson, A., Hawdon, J.M., Jianjun, F., Dobardzic, A., Rizo, I., Bolden, J., Jin, Q., Yan, W., Dobardzic, R., Chung-Debose, S., Crowell, M., Datu, B., Delaney, A., Dragonovski, D., Jiang, Y., Yueyuan, L., Ghosh, K., Loukas, A., Brandt, W., Russell, P.K., and Zook, B.C., 2002. Effect of vaccinations with recombinant fusion proteins on Ancylostoma caninum habitat selection in the canine intestine. *The Journal of parasitology*, 88 (4), 684–90.

Hotez, P.J., Ashcom, J., Zhan, B., Bethony, J., Loukas, A., Hawdon, J., Wang, Y., Jin, Q., Jones, K.C., Dobardzic, A., Dobardzic, R., Bolden, J., Essiet, I., Brandt, W., Russell, P.K., Zook, B.C., Howard, B., and Chacon, M., 2003. Effect of vaccination with a recombinant fusion protein encoding an astacinlike metalloprotease (MTP-1) secreted by host-stimulated Ancylostoma caninum third-stage infective larvae. *J Parasitol*, 89 (4), 853–855.

Hotez, P.J., Bin, Z., Bethony, J., Jin, Q., Hawdon, J.M., Young, H.A., Simmens, S., Hitzelberg, R., and Zook, B.C., 2002. Natural history of primary canine hookworm infections after three different oral doses of third-stage infective larvae of Ancylostoma caninum. *Journal of the Helminthological Society of Washington*, 69 (1), 72–80.

Hubka, P. and Boothe, D.M., 2011. In vitro susceptibility of canine and feline Escherichia coli to fosfomycin. *Veterinary Microbiology*, 149 (1–2), 277–282.

Hutton, T., Goldstein, R.E., Njaa, B.L., Atwater, D.Z., Chang, Y.F., and Simpson, K.W., 2008. Search for Borrelia burgdorferi in kidneys of dogs with suspected ‘Lyme nephritis’. *Journal of Veterinary Internal Medicine*, 22 (4), 860–865.

Hutton, T.A., Innes, G.K., Harel, J., Garneau, P., Cucchiara, A., Schifferli, D.M., and Rankin, S.C., 2018. Phylogroup and virulence gene association with clinical characteristics of *Escherichia coli* urinary tract infections from dogs and cats. *Journal of Veterinary Diagnostic Investigation*, 30 (1), 64–70.

Isaiah, A., Hoffmann, A.R., Kelley, R., Mundell, P., Steiner, J.M., and Suchodolski, J.S., 2017. Characterization of the nasal and oral microbiota of detection dogs. *PLoS ONE*, 12 (9), e0184899.

Jang, H., Jackson, Y.K., Daniels, J.B., Ali, A., Kang, K.-I., Elaish, M., Lee, C.-W., HyeSun, J., Jackson, Y.K., Daniels, J.B., Ali, A., KyungIl, K., Elaish, M., and ChangWon, L., 2017. Seroprevalence of three influenza A viruses (H1N1, H3N2, and H3N8) in pet dogs presented to a veterinary hospital in Ohio. *Journal of Veterinary Science*, 18 (S1), 291–298.

Jay-Russell, M.T., Hake, A.F., Bengson, Y., Thiptara, A., and Nguyen, T., 2014. Prevalence and characterization of Escherichia coli and Salmonella strains isolated from stray dog and coyote feces in a major leafy greens production region at the United States-Mexico border. *PLoS ONE*, 9 (11), e113433.

Jergens, A.E., Pressel, M., Crandell, J., Morrison, J.A., Sorden, S.D., Haynes, J., Craven, M., Baumgart, M., and Simpson, K.W., 2009. Fluorescence in situ hybridization confirms clearance of visible Helicobacter spp. associated with gastritis in dogs and cats. *Journal of Veterinary Internal Medicine*, 23 (1), 16–23.

Jiang, D., Zhan, B., Mayor, R.S., Gillespie, P., Keegan, B., Bottazzi, M.E., and Hotez, P., 2011. Ac-AP-12, a novel factor Xa anticoagulant peptide from the esophageal glands of adult Ancylostoma caninum. *Molecular and Biochemical Parasitology*, 177 (1), 42–48.

Jimenez-Coello, M., Acosta-Viana, K., Guzman-Marin, E., Barcenas-Irabien, A., and Ortega-Pacheco, A., n.d. American trypanosomiasis and associated risk factors in owned dogs from the major city of Yucatan, Mexico.

Jimenez-Coello, M., Ortega-Pacheco, A., Guzman-Marin, E., Guiris-Andrade, D.M., Martinez-Figueroa, L., and Acosta-Viana, K.Y., 2010. Stray Dogs as Reservoirs of the Zoonotic Agents *Leptospira interrogans* , *Trypanosoma cruzi* , and *Aspergillus* spp. in an Urban Area of Chiapas in Southern Mexico. *Vector-Borne and Zoonotic Diseases*, 10 (2), 135–141.

Jimenez-Coello, M., Perez-Osorio, C., Vado-Solis, I., Rodriguez-Buenfil, J.C., Ortega-Pacheco, A., Jiménez-Coello, M., Pérez-Osorio, C., Vado-Solís, I., Rodríguez-Buenfil, J.C., and Ortega-Pacheco, A., 2009. Serological survey of Ehrlichia canis in stray dogs from Yucatan, Mexico, using two different diagnostic tests. *Vector Borne and Zoonotic Diseases*, 9 (2), 209–212.

Jimenez-Coello, M., Vado-Solis, I., Cárdenas-Marrufo, M.F., Rodríguez-Buenfil, J.C., and Ortega-Pacheco, A., 2008. Serological survey of canine leptospirosis in the tropics of Yucatan Mexico using two different tests. *Acta Tropica*, 106 (1), 22–26.

Jirjis, F.F., Deshpande, M.S., Tubbs, A.L., Jayappa, H., Lakshmanan, N., and Wasmoen, T.L., 2010. Transmission of canine influenza virus (H3N8) among susceptible dogs. *Veterinary Microbiology*, 144 (3–4), 303–309.

Joffe, D., Van Niekerk, D., Gagné, F., Gilleard, J., Kutz, S., and Lobingier, R., 2011. The prevalence of intestinal parasites in dogs and cats in Calgary, Alberta. *The Canadian veterinary journal. La revue vétérinaire canadienne*, 52 (12), 1323–1328.

Johnson, J.R., Clabots, C., and Kuskowski, M.A., n.d. Multiple-Host Sharing, Long-Term Persistence, and Virulence of Escherichia coli Clones from Human and Animal Household Members.

Johnson, J.R., Delavari, P., Stell, A.L., Whittam, T.S., Carlino, U., and Russo, T.A., 2001. Molecular Comparison of Extraintestinal *Escherichia coli* Isolates of the Same Electrophoretic Lineages from Humans and Domestic Animals. *The Journal of Infectious Diseases*, 183 (1), 154–159.

Johnson, J.R., Johnston, B., Clabots, C.R., Kuskowski, M.A., Roberts, E., and DebRoy, C., 2008. Virulence genotypes and phylogenetic background of Escherichia coli serogroup O6 isolates from humans, dogs, and cats. *Journal of Clinical Microbiology*, 46 (2), 417–422.

Johnson, J.R., Kaster, N., Kuskowski, M.A., and Ling, G. V., 2003. Identification of urovirulence traits in Escherichia coli by comparison of urinary and rectal E. coli isolates from dogs with urinary tract infection. *Journal of Clinical Microbiology*, 41 (1), 337–345.

Johnson, J.R., Kuskowski, M.A., Owens, K., Clabots, C., and Singer, R.S., 2009. Virulence genotypes and phylogenetic background of fluoroquinolone-resistant and susceptible Escherichia coli urine isolates from dogs with urinary tract infection. *Veterinary Microbiology*, 136 (1–2), 108–114.

Johnson, J.R., O’Bryan, T.T., Low, D.A., Ling, G., Delavari, P., Fasching, C., Russo, T.A., Carlino, U., and Stell, A.L., 2000. Evidence of commonality between canine and human extraintestinal pathogenic Escherchia coli strains that express papG allele III. *Infection and immunity*, 68 (6), 3327–3336.

Johnson, J.R., Stell, A., and Delavari, P., 2001. Canine feces as a reservoir of extraintestinal pathogenic Escherichia coli. *Infection and immunity*, 69 (3), 1306–1314.

Johnson, J.R., Stell, A.L., Delavari, P., Murray, A.C., Kuskowski, M., and Gaastra, W., 2001. Phylogenetic and pathotypic similarities between Escherichia coli isolates from urinary tract infections in dogs and extraintestinal infections in humans. *Journal of Infectious Diseases*, 183 (6), 897–906.

Jones, R.D., Kania, S.A., Rohrbach, B.W., Frank, L.A., and Bemis, D.A., 2007. Prevalence of oxacillin- and multidrug-resistant staphylococci in clinical samples from dogs: 1,772 samples (2001-2005). *Journal of the American Veterinary Medical Association*, 230 (2), 221–227.

Karaca, K., Dubovi, E.J., Siger, L., Robles, A., Audonnet, J.-C., Jiansheng, Y., Nordgren, R., and Minke, J.M., n.d. Evaluation of the ability equine influenza virus of canarypox-vectored vaccines to induce humoral immune responses against canine influenza viruses in dogs.

Kauffman, L.K., Bjork, J.K., Gallup, J.M., Boggiatto, P.M., Bellaire, B.H., and Petersen, C.A., 2014. Early Detection of Brucella Canis via Quantitative Polymerase Chain Reaction Analysis. *Zoonoses and public health*, 61 (1), 48–54.

Kisiel, L.M., Jones-Bitton, A., Sargeant, J.M., Coe, J.B., Flockhart, D.T.T., Reynoso Palomar, A., Canales Vargas, E.J., and Greer, A.L., 2016. Owned dog ecology and demography in Villa de Tezontepec, Hidalgo, Mexico. *Preventive Veterinary Medicine*, 135, 37–46.

Kjaergaard, A.B., Carr, A.P., and Gaunt, M.C., 2016. Enteropathogenic Escherichia coli (EPEC) infection in association with acute gastroenteritis in 7 dogs from Saskatchewan. *Canadian Veterinary Journal*, 57 (9), 964–968.

Kjemtrup, A.M., Kocan, A.A., Whitworth, L., Meinkoth, J., Birkenheuer, A.J., Cummings, J., Boudreaux, M.K., Stockham, S.L., Irizarry-Rovira, A., and Conrad, P.A., 2000. There are at least three genetically distinct small piroplasms from dogs. *International Journal for Parasitology*, 30 (14), 1501–1505.

Kjemtrup, A.M., Wainwright, K., Miller, M., Penzhorn, B.L., and Carreno, R.A., 2006. Babesia conradae, sp. Nov., a small canine Babesia identified in California. *Veterinary parasitology*, 138 (1–2), 103–111.

Kjos, S., Snowden, K., Craig, T., Lewis, B., Ronald, N., and Olson, J., 2008. Distribution and characterization of canine Chagas disease in Texas. *Vet Parasitol*, 152 (3–4), 249–256.

Knowles, T.T., Alleman, A.R., Sorenson, H.L., Marciano, D.C., Breitschwerdt, E.B., Harrus, S., Barbet, A.F., and Bélanger, M., 2003. Characterization of the major antigenic protein 2 of Ehrlichia canis and Ehrlichia chaffeensis and its application for serodiagnosis of ehrlichiosis. *Clinical and Diagnostic Laboratory Immunology*, 10 (4), 520–524.

Kocan, a a, Kjemtrup, a, Meinkoth, J., Whitworth, L.C., Murphy, G.L., Decker, L., and Lorenz, M., 2001. A genotypically unique Babesia gibsoni-like parasite recovered from a dog in Oklahoma. *The Journal of parasitology*, 87 (2), 437–438.

Krebs, J.W., Mondul, A.M., Rupprecht, C.E., and Childs, J.E., n.d. Public veterinary medicine: Public health - Rabies surveillance in the United States during 2000.

Krebs, J.W., Noll, H.R., Rupprecht, C.E., and Childs, J.E., 2002. Rabies surveillance in the United States during 2001. *Journal of the American Veterinary Medical Association*, 221 (12), 1690–1701.

Krebs, J.W., Rupprecht, C.E., and Childs, J.E., 2000. Rabies surveillance in the United States during 1999. *Journal of the American Veterinary Medical Association*, 217 (12), 1799–1811.

Krimer, P.M., Miller, A.D., Li, Q., Grosenbaugh, D.A., Susta, L., and Schatzberg, S.J., 2011. Molecular and pathological investigations of the central nervous system in borrelia burgdorferi-infected dogs. *Journal of Veterinary Diagnostic Investigation*, 23 (4), 757–763.

Kruth, S.A., Carman, S., and Weese, J.S., 2008. Seroprevalence of antibodies to canine influenza virus in dogs in Ontario. *Canadian Veterinary Journal*, 49 (8), 800–802.

Labelle, A.L., Maddox, C.W., Daniels, J.B., Lanka, S., Eggett, T.E., Dubielzig, R.R., and Labelle, P., 2013. Canine ocular onchocercosis in the United States is associated with Onchocerca lupi. *Veterinary Parasitology*, 193 (1–3), 297–301.

Lafleur, R.L., Callister, S.M., Dant, J.C., Jobe, D.A., Lovrich, S.D., Warner, T.F., Wasmoen, T.L., and Schell, R.F., 2010. One-year duration of immunity induced by vaccination with a canine lyme disease bacterin. *Clinical and Vaccine Immunology*, 17 (5), 870–874.

LaFleur, R.L., Callister, S.M., Dant, J.C., Wasmoen, T.L., Jobe, D.A., and Lovrich, S.D., 2015. Vaccination with the ospA- and ospB-negative Borrelia burgdorferi strain 50772 provides significant protection against canine Lyme disease. *Clinical and Vaccine Immunology*, 22 (7), 836–839.

Lafleur, R.L., Dant, J.C., Wasmoen, T.L., Callister, S.M., Jobe, D.A., Lovrich, S.D., Warner, T.F., Abdelmagid, O., and Schell, R.F., 2009. Bacterin that induces anti-ospA and anti-ospC borreliacidal antibodies provides a high level of protection against canine lyme disease. *Clinical and Vaccine Immunology*, 16 (2), 253–259.

Lakshmanan, N., Gore, T.C., Duncan, K.L., Coyne, M.J., Lum, M. a, and Sterner, F.J., 2006. Three-year rabies duration of immunity in dogs following vaccination with a core combination vaccine against canine distemper virus, canine adenovirus type-1, canine parvovirus, and rabies virus. *Vet Ther*, 7 (3), 223–231.

Larson, L.J., Henningson, J., Sharp, P., Thiel, B., Deshpande, M.S., Davis, T., Jayappa, H., Wasmoen, T., Lakshmanan, N., and Schultz, R.D., 2011. Efficacy of the canine influenza virus H3N8 vaccine to decrease severity of clinical disease after cochallenge with canine influenza virus and Streptococcus equi subsp. zooepidemicus. *Clinical and Vaccine Immunology*, 18 (4), 559–564.

Lavan, R. and Knesl, O., 2015. Prevalence of canine infectious respiratory pathogens in asymptomatic dogs presented at US animal shelters. *Journal of Small Animal Practice*, 56 (9), 572–576.

Lawrence, M., KuKanich, K., KuKanich, B., Heinrich, E., Coetzee, J.F., Grauer, G., and Narayanan, S., 2013. Effect of cefovecin on the fecal flora of healthy dogs. *Veterinary Journal*, 198 (1), 259–266.

Ledbetter, E.C., Landry, M.P., Stokol, T., Kern, T.J., and Messick, J.B., 2009. Brucella canis endophthalmitis in 3 dogs: clinical features, diagnosis, and treatment. *Veterinary ophthalmology*, 12 (3), 183–191.

Lee, H.S., Guptill, L., Johnson, A.J., and Moore, G.E., 2014. Signalment changes in canine leptospirosis between 1970 and 2009. *Journal of Veterinary Internal Medicine*, 28 (2), 294–299.

Lee, H.S., Levine, M., Guptill-Yoran, C., Johnson, A.J., von Kamecke, P., and Moore, G.E., 2014. Regional and Temporal Variations of LeptospiraSeropositivity in Dogs in the United States, 2000-2010. *Journal of Veterinary Internal Medicine*, 28 (3), 779–788.

Lehtinen, L.E., Birkenheuer, A.J., Droleskey, R.E., and Holman, P.J., 2008. In vitro cultivation of a newly recognized Babesia sp. in dogs in North Carolina. *Veterinary Parasitology*, 151 (2–4), 150–157.

Leonard, E.K., Pearl, D.L., Finley, R.L., Janecko, N., Peregrine, A.S., Reid-Smith, R.J., and Weese, J.S., 2011. Evaluation of pet-related management factors and the risk of *Salmonella* spp. carriage in pet dogs from volunteer households in Ontario (2005-2006). *Zoonoses and Public Health*, 58 (2), 140–149.

Leonard, E.K., Pearl, D.L., Finley, R.L., Janecko, N., Reid-Smith, R.J., Peregrine, A.S., and Weese, J.S., 2012. Comparison of antimicrobial resistance patterns of Salmonella spp. and escherichia coli recovered from pet dogs from volunteer households in Ontario (2005-06). *Journal of Antimicrobial Chemotherapy*, 67 (1), 174–181.

Lester, S.J., Breitschwerdt, E.B., Collis, C.D., and Hegarty, B.C., 2005. Anaplasma phagocytophilum infection (granulocytic anaplasmosis) in a dog from Vancouver Island. *Canadian Veterinary Journal*, 46 (9), 825–827.

Levin, M.L., Killmaster, L.F., Zemtsova, G.E., Ritter, J.M., and Langham, G., n.d. Clinical Presentation, Convalescence, and Relapse of Rocky Mountain Spotted Fever in Dogs Experimentally Infected via Tick Bite.

Levy, J.K., Lappin, M.R., Glaser, A.L., Birkenheuer, A.J., Anderson, T.C., and Edinboro, C.H., 2011. Prevalence of infectious diseases in cats and dogs rescued following Hurricane Katrina. *Journal of the American Veterinary Medical Association*, 238 (3), 311–317.

Levy, S.A., 2002. Use of a C(6) ELISA test to evaluate the efficacy of a whole-cell bacterin for the prevention of naturally transmitted canine Borrelia burgdorferi infection. *Veterinary therapeutics : research in applied veterinary medicine*, 3 (4), 420–424.

Levy, S.A., Millership, J., Glover, S., Parker, D., Hogan, J., Heldorfer, M., and Ng, T., 2010. Confirmation of Presence of Borrelia burgdorferi Outer Surface Protein C Antigen and Production of Antibodies to Borrelia burgdorferi Outer Surface Protein C in Dogs Vaccinated with a Whole-cell Borrelia burgdorferi Bacterin. *International Journal of Applied Research in Veterinary Medicine*, 8 (3), 123–128.

Liang, F.T., Jacobson, R.H., Straubinger, R.K., Grooters, A., and Philipp, M.T., 2000. Characterization of a Borrelia burgdorferi VlsE invariable region useful in canine Lyme disease serodiagnosis by enzyme-linked immunosorbent assay. *Journal of clinical microbiology*, 38 (11), 4160–4166.

Liddell, A.M., Stockham, S.L., Scott, M.A., Sumner, J.W., Paddock, C.D., Gaudreault-Keener, M., Arens, M.Q., and Storch, G.A., 2003. Predominance of Ehrlichia ewingii in Missouri dogs. *Journal of Clinical Microbiology*, 41 (10), 4617–4622.

Ling, G. V, Norris, C.R., Franti, C.E., Eisele, P.H., Johnson, D.L., Ruby, A.L., and Jang, S.S., 2001. Interrelations of Organism Prevalence, Specimen Collection Method, and Host Age, Sex, and Breed among 8,354 Canine Urinary Tract Infections (1969–1995). *J Vet Intern Med*, 15 (4), 341–347.

Liotta, J.L., Y., L.A.C., Sarp, A., Ibrahim, A., Cruz-Reyes, A., HeeJeong, Y., Bienhoff, S.E., and Bowman, D.D., 2012. Obtaining an Isolate of Ancylostoma braziliense From Dogs Without the Need for Necropsy. *Journal of parasitology*, 98 (5), 1034–1036.

Little, S.E., Beall, M.J., Bowman, D.D., Chandrashekar, R., and Stamaris, J., 2014. Canine infection with Dirofilaria immitis, Borrelia burgdorferi, Anaplasma spp., and Ehrlichia spp. in the United States, 2010-2012. *Parasites and Vectors*, 7 (1), 257–257.

Little, S.E., O’Connor, T.P., Hempstead, J., Saucier, J., Reichard, M. V., Meinkoth, K., Meinkoth, J.H., Andrews, B., Ullom, S., Ewing, S.A., and Chandrashekar, R., 2010. Ehrlichia ewingii infection and exposure rates in dogs from the southcentral United States. *Veterinary Parasitology*, 172 (3–4), 355–360.

Liu, J., Eberts, M., Bewsey, H., O’Connor, T.P., Chandrashekar, R., and Breitschwerdt, E.B., 2018. Sensitivity and specificity levels of two rapid assays for antibodies to Anaplasma spp. in dogs. *Journal of Veterinary Diagnostic Investigation*, 30 (2), 290–293.

Liu, X., Lazzaroni, C., Aly, S.A., Thungrat, K., and Boothe, D.M., 2014. In vitro selection of resistance to pradofloxacin and ciprofloxacin in canine uropathogenic Escherichia coli isolates. *Veterinary microbiology*, 174, 514–522.

Lizer, J., Velineni, S., Weber, A., Krecic, M., and Meeus, P., 2018. Evaluation of 3 Serological Tests for Early Detection Of Leptospira-specific Antibodies in Experimentally Infected Dogs. *Journal of Veterinary Internal Medicine*, 32 (1), 201–207.

Lodmell, D.L., Ewalt, L.C., Parnell, M.J., Rupprecht, C.E., and Hanlon, C.A., 2006. One-time intradermal DNA vaccination in ear pinnae one year prior to infection protects dogs against rabies virus. *Vaccine*, 24 (4), 412–416.

Lodmell, D.L., Parnell, M.J., Weyhrich, J.T., and Ewalt, L.C., 2003. Canine rabies DNA vaccination: A single-dose intradermal injection into ear pinnae elicits elevated and persistent levels of neutralizing antibody. *Vaccine*, 21 (25–26), 3998–4002.

Loftis, A.D., Kelly, P.J., Freeman, M.D., Fitzharris, S., Beeler-Marfisi, J., and Wang, C., 2013. Tick-borne pathogens and disease in dogs on St. Kitts, West Indies. *Veterinary parasitology*, 196, 44–49.

Logan, M.R., Raskin, R.E., and Thompson, S., 2006. ‘Carry-on’ dermal baggage: a nodule from a dog. Pyogranulomatous inflammation with intralesional fungal agents. *Veterinary clinical pathology*, 35 (3), 329–331.

Long, S.W., Zhang, X., Zhang, J., Ruble, R.P., Teel, P., and Yu, X.-J., 2003. Evaluation of transovarial transmission and transmissibility of Ehrlichia chaffeensis (Rickettsiales: Anaplasmataceae) in Amblyomma americanum (Acari: Ixodidae). *Journal of medical entomology*, 40 (6), 1000–1004.

Longoni, S.S., Marín, C., Sauri-Arceo, C.H., López-Cespedes, A., Rodríguez-Vivas, R.I., Villegas, N., Escobedo-Ortegón, J., Barrera-Pérez, M.A., Bolio-Gonzalez, M.E., and Sánchez-Moreno, M., 2011. An Iron-Superoxide Dismutase Antigen-Based Serological Screening of Dogs Indicates Their Potential Role in the Transmission of Cutaneous Leishmaniasis and Trypanosomiasis in Yucatan, Mexico. *Vector-Borne and Zoonotic Diseases*, 11 (7), 815–821.

Loukas, A., Bethony, J.M., Williamson, A.L., Goud, G.N., Mendez, S., Zhan, B., Hawdon, J.M., Bottazzi, M.E., Brindley, P.J., and Hotez, P.J., 2004. Vaccination of dogs with a recombinant cysteine protease from the intestine of canine hookworms diminishes the fecundity and growth of worms. *Journal of Infectious Diseases*, 189 (10), 1952–1961.

Lower, K.S., Medleau, L.M., Hnilica, K., and Bigler, B., 2001. Evaluation of an enzyme-linked immunosorbent assay (ELISA) for the serological diagnosis of sarcoptic mange in dogs. *Veterinary Dermatology*, 12 (6), 315–320.

Lu, Z., Dubovi, E.J., Zylich, N.C., Crawford, P.C., Sells, S., Go, Y.Y., Loynachan, A.T., Timoney, P.J., Chambers, T.M., and Balasuriya, U.B.R., 2010. Diagnostic application of H3N8-specific equine influenza real-time reverse transcription polymerase chain reaction assays for the detection of Canine influenza virus in clinical specimens. *Journal of veterinary diagnostic investigation*, 22 (6), 942–945.

Lucio-Forster, A., Liotta, J.L., Yaros, J.P., Briggs, K.R., Mohammed, H.O., and Bowman, D.D., 2012. Morphological Differentiation of Eggs of Ancylostoma caninum, Ancylostoma tubaeforme, and Ancylostoma braziliense From Dogs and Cats in the United States. *Journal of Parasitology*, 98 (5), 1041–1044.

Lugo-Chavez, B.L., Velasco-Rodriguez, L.C., Canales-Velasquez, G., Velazquez-Hernandez, J.F., and Herrera-Huerta, E.V., 2015. [Detection of antileptospira antibodies in a vulnerable population of Ixhuatlancillo, Veracruz]. *Revista medica del Instituto Mexicano del Seguro Social*, 53 (2), 158–163.

Maggi, R.G., Birkenheuer, A.J., Hegarty, B.C., Bradley, J.M., Levy, M.G., and Breitschwerdt, E.B., 2014. Comparison of serological and molecular panels for diagnosis of vector-borne diseases in dogs. *Parasites & vectors*, 7 (1), 127–127.

Magnarelli, L.A., Ijdo, J.W., Van Andel, A.E., Wu, C., and Fikrig, E., 2001. Evaluation of a polyvalent enzyme-linked immunosorbent assay incorporating a recombinant p44 antigen for diagnosis of granulocytic ehrlichiosis in dogs and horses. *American Journal of Veterinary Research*, 62 (1), 29–32.

Magnarelli, L.A., Levy, S.A., Ijdo, J.W., Wu, C., Padula, S.J., and Fikrig, E., 2001. Reactivity of dog sera to whole-cell or recombinant antigens of Borrelia burgdorferi by ELISA and immunoblot analysis. *Journal of Medical Microbiology*, 50 (10), 889–895.

Mansfield, C.S., James, F.E., Craven, M., Davies, D.R., O’Hara, A.J., Nicholls, P.K., Dogan, B., MacDonough, S.P., and Simpson, K.W., 2009. Remission of Histiocytic Ulcerative Colitis in Boxer Dogs Correlates with Eradication of Invasive Intramucosal Escherichia coli. *Journal of Veterinary Internal Medicine*, 23 (5), 964–969.

Martinez-Barbabosa, I., Gutierrez Cardenas, E.M., Alpizar Sosa, E.A., and Pimienta Lastra, R. de J., n.d. Parasitic contamination by dog feces collected from the streets of San Cristobal de Las Casas, Chiapas, Mexico.

Martinez-Barbabosa, I., Marcia Gutierrez-Cardenas, E., Aguilar Venegas, J., Pimienta Lastra, R. de J., and Shea, M., n.d. Frequency of geohelminths in pet dogs from seven municipalities of Mexico City.

Martinez-Vega, P.P., Bolio-Gonzalez, M.E., Rodriguez-Vivas, R.I., Gutierrez-Blanco, E., Perez-Osorio, C., Villegas-Perez, S.L., and Sauri-Arceo, C.H., 2016. Associated Factors to Seroprevalence of Ehrlichia spp. in Dogs of Quintana Roo, Mexico. *Journal of Tropical Medicine*.

Martinez, I., Martinez-Ibarra, A., Arce-Fonseca, M., Rodriguez-Morales, O., Perez-Morales, D., Reyes Lopez, P.A., and Espinoza, B., 2014. Seroprevalence and major antigens recognized by sera from Trypanosoma cruzi-infected dogs from Jalisco, Mexico. *Revista Argentina de microbiologia*, 46 (2), 85–90.

Martinez, I., Mattoon, J.S., Eaton, K.A., Chew, D.J., and DiBartola, S.P., n.d. Polypoid cystitis in 17 dogs (1978-2001).

Massa, K.L., Gilger, B.C., Miller, T.L., and Davidson, M.G., 2002. Causes of uveitis in dogs: 102 cases (1989-2000). *Veterinary Ophthalmology*, 5 (2), 93–98.

Mathews, K.A. and Monteith, G., 2007. Evaluation of adding diltiazem therapy to standard treatment of acute renal failure caused by leptospirosis: 18 dogs (1998-2001). *Journal of Veterinary Emergency and Critical Care*, 17 (2), 149–158.

Mavromatis, K., Doyle, C.K., Lykidis, A., Ivanova, N., Francino, M.P., Chain, P., Shin, M., Malfatti, S., Larimer, F., Copeland, A., Detter, J.C., Land, M., Richardson, P.M., Yu, X.J., Walker, D.H., McBride, J.W., and Kyrpides, N.C., 2006. The genome of the obligately intracellular bacterium Ehrlichia canis reveals themes of complex membrane structure and immune evasion strategies. *Journal of Bacteriology*, 188 (11), 4015–4023.

May, E.R., Conklin, K.A., and Bemis, D.A., 2016. Antibacterial effect of N-acetylcysteine on common canine otitis externa isolates. *Veterinary Dermatology*, 27 (3), 188-e47.

Mazepa, A.W., Kidd, L.B., Young, K.M., and Trepanier, L.A., 2010. Clinical Presentation of 26 *Anaplasma phagocytophilum* -Seropositive Dogs Residing in an Endemic Area. *Journal of the American Animal Hospital Association*, 46 (6), 405–412.

McBride, J.W., Corstvet, R.E., Breitschwerdt, E.B., and Walker, D.H., 2001. Immunodiagnosis of Ehrlichia canis infection with recombinant proteins. *Journal of Clinical Microbiology*, 39 (1), 315–322.

McBride, J.W., Corstvet, R.E., Gaunt, S.D., Boudreaux, C., Guedry, T., and Walker, D.H., 2003. Kinetics of antibody response to Ehrlichia canis immunoreactive proteins. *Infection and Immunity*, 71 (5), 2516–2524.

McClure, J.C., Crothers, M.L., Schaefer, J.J., Stanley, P.D., Needham, G.R., Ewing, S.A., and Stich, R.W., 2010. Efficacy of a doxycycline treatment regimen initiated during three different phases of experimental ehrlichiosis. *Antimicrobial Agents and Chemotherapy*, 54 (12), 5012–5020.

McCown, M.E., Opel, T., and Grzeszak, B., 2013. Vector-borne disease surveillance in puerto rico: pathogen prevalence rates in canines ? Implications for public health and the u.s. Military ? Applying the one health concept. *Journal of special operations medicine : a peer reviewed journal for SOF medical professionals*, 13 (2), 59–63.

McGettigan, J.P., David, F., Figueiredo, M.D., Minke, J., Mebatsion, T., and Schnell, M.J., 2014. Safety and serological response to a matrix gene-deleted rabies virus-based vaccine vector in dogs. *Vaccine*, 32 (15), 1716–1719.

McGill, J.L., Nair, A.D.S., Cheng, C., Rusk, R.A., Jaworski, D.C., and Ganta, R.R., 2016. Vaccination with an attenuated mutant of ehrlichia chaffeensis induces pathogen-specific CD4+T cell immunity and protection from tick-transmitted wild-type challenge in the canine host. *PLoS ONE*, 11 (2), e0148229.

McKay, L., Rose, C.D.S., Matousek, J.L., Schmeitzel, L.S., Gibson, N.M., and Gaskin, J.M., 2007. Antimicrobial testing of selected fluoroquinolones against Pseudomonas aeruginosa isolated from canine otitis. *Journal of the American Animal Hospital Association*, 43 (6), 307–312.

McLean, N.J., Newkirk, K., and C.M, A., 2017. Canine Ocular Onchocerciasis: a retrospective review of the diagnosis, treatment, and outcome of 16 cases in New Mexico (2011-2015). *Veterinary Ophthalmology*, 20 (4), 349–356.

McMahan, C.S., Wang, D., Beall, M.J., Bowman, D.D., Little, S.E., Pithua, P.O., Sharp, J.L., Stich, R.W., Yabsley, M.J., and Lund, R.B., 2016. Factors associated with Anaplasma spp. seroprevalence among dogs in the United States. *Parasites and Vectors*, 9 (1), 169–169.

McVey, D.S., Chengappa, M.M., Mosier, D.E., Stone, G.G., Oberst, R.D., Sylte, M.J., Gabbert, N.M., Kelly-Aehle, S.M., and Curtiss, R., 2002. Immunogenicity of chi4127 phoP- Salmonella enterica serovar Typhimurium in dogs. *Vaccine*, 20 (11–12), 1618–1623.

Merkel, L.K., Lulich, J., Polzin, D., Ober, C., Westropp, J., and Sykes, J., 2017. Clinicopathologic and Microbiologic Findings Associated with Emphysematous Cystitis in 27 Dogs. *Journal of the American Animal Hospital Association*, JAAHA-MS-6722.

Meyers, A.C., Meinders, M., and Hamer, S.A., 2017. Widespread Trypanosoma cruzi infection in government working dogs along the Texas-Mexico border: Discordant serology, parasite genotyping and associated vectors. *PLoS Neglected Tropical Diseases*, 11 (8), e0005819.

Midence, J.N., Leutenegger, C.M., Chandler, A.M., and Goldstein, R.E., 2012. Effects of recent Leptospira vaccination on whole blood real-time PCR testing in healthy client-owned dogs. *Journal of Veterinary Internal Medicine*, 26 (1), 149–152.

Millen, K., Kugeler, K.J., Hinckley, A.F., Lawaczeck, E.W., and Mead, P.S., 2013. Elevated Lyme Disease Seroprevalence Among Dogs in a Nonendemic County: Harbinger or Artifact? *Vector-Borne and Zoonotic Diseases*, 13 (5), 340–341.

Misic, A.M., Cain, C.L., Morris, D.O., Rankin, S.C., and Beiting, D.P., 2016. Divergent Isoprenoid Biosynthesis Pathways in *Staphylococcus* Species Constitute a Drug Target for Treating Infections in Companion Animals. *mSphere*, 1 (5), e00258-16.

Mohamed, A.S., Moore, G.E., and Glickman, L.T., 2009. Prevalence of intestinal nematode parasitism among pet dogs in the United States (2003-2006). *Journal of the American Veterinary Medical Association*, 234 (5), 631–637.

Montenegro, V.M., Jiménez, M., Dias, J.C.P., and Zeledón, R., 2002. Chagas disease in dogs from endemic areas of Costa Rica. *Memórias do Instituto Oswaldo Cruz*, 97 (4), 491–494.

Moore, G.E., Guptill, L.F., Glickman, N.W., Caldanaro, R.J., Aucoin, D., and Glickman, L.T., 2006. Canine leptospirosis, United States, 2002-2004. *Emerging Infectious Diseases*, 12 (3), 501–503.

Moore, G.E., Ward, M.P., Kulldorff, M., Caldanaro, R.J., Guptill, L.F., Lewis, H.B., and Glickman, L.T., 2005. A space-time cluster of adverse events associated with canine rabies vaccine. *Vaccine*, 23 (48–49), 5557–5562.

Moroff, S., Sokolchik, I., Woodring, T., Woodruff, C., Atkinson, B., and Lappin, M.R., 2014a. Detection of antibodies against Anaplasma phagocytophilum in dogs using an automated fluorescence based system. *The Veterinary Journal*, 202 (2), 348–352.

Moroff, S., Sokolchik, I., Woodring, T., Woodruff, C., Atkinson, B., and Lappin, M.R., 2014b. Use of an automated system for detection of canine serum antibodies against Ehrlichia canis glycoprotein 36. *Journal of Veterinary Diagnostic Investigation*, 26 (4), 558–562.

Moroff, S., Woodruff, C., Woodring, T., Sokolchik, I., and Lappin, M.R., 2015. Multiple antigen target approach using the Accuplex4 BioCD system to detect Borrelia burgdorferi antibodies in experimentally infected and vaccinated dogs. *Journal of Veterinary Diagnostic Investigation*, 27 (5), 581–588.

Morris, D.O., Davis, M.F., Palmeiro, B.S., O’Shea, K., and Rankin, S.C., 2017. Molecular and epidemiological characterization of canine *Pseudomonas* otitis using a prospective case-control study design. *Veterinary Dermatology*, 28 (1), 118-e25.

Morshed, M.G., Scott, J.D., Fernando, K., Geddes, G., McNabb, A., Mak, S., and Durden, L.A., 2006. Distribution and characterization of *Borrelia burgdorferi* isolates from *Ixodes scapularis* and presence in mammalian hosts in Ontario, Canada. *Journal of medical entomology*, 43 (4), 762–773.

Moser, J.M., Freitas, T., Arasu, P., and Gibson, G., 2005. Gene expression profiles associated with the transition to parasitism in Ancylostoma caninum larvae. *Molecular and Biochemical Parasitology*, 143 (1), 39–48.

Muir, P., Fox, R., Wu, Q., Baker, T.A., Zitzer, N.C., Hudson, A.P., Manley, P.A., Schaefer, S.L., and Hao, Z., 2010. Seasonal variation in detection of bacterial DNA in arthritic stifle joints of dogs with cranial cruciate ligament rupture using PCR amplification of the 16S rRNA gene. *Veterinary Microbiology*, 141 (1–2), 127–133.

Murphy, C.P., Reid-Smith, R.J., Boerlin, P., Weese J., S., Prescott, J.F., Janecko, N., Hassard, L., and McEwen, S.A., 2010. Escherichia coli and selected veterinary and zoonotic pathogens isolated from environmental sites in companion animal veterinary hospitals in southern Ontario. *Canadian veterinary journal = La revue veterinaire canadienne*, 51 (9), 963–972.

Nabity, M.B., Barnhart, K., Logan, K.S., Santos, R.L., Kessell, A., Melmed, C., and Snowden, K.F., 2006. An atypical case of Trypanosoma cruzi infection in a young English Mastiff. *Veterinary parasitology*, 140 (3–4), 356–361.

Newbury, S., Godhardt-Cooper, J., Poulsen, K.P., Cigel, F., Balanoff, L., and Toohey-Kurth, K., 2016. Prolonged intermittent virus shedding during an outbreak of canine influenza A H3N2 virus infection in dogs in three Chicago area shelters: 16 cases (March to May 2015). *Journal of the American Veterinary Medical Association*, 248 (9), 1022–1026.

Nicholson, W.L., Gordon, R., and Demma, L.J., 2006. Spotted fever group rickettsial infection in dogs from eastern Arizona: How long has it been there? *In*: Hechemy, KE and Oteo, JA and Raoult, DA and Silverman, DJ and Blanco, JR, ed. *Annals of the New York Academy of Sciences*. 519–522.

Nieto, P.D., Boughton, R., Dorn, P.L., Steurer, F., Raychaudhuri, S., Esfandiari, J., GonÃƒ§alves, E., Diaz, J., and Malone, J.B., 2009. Comparison of two immunochromatographic assays and the indirect immunofluorscence antibody test for diagnosis of Trypanosoma cruzi infection in dogs in south central Louisiana. *Veterinary parasitology*, 165 (3–4), 241–247.

Nogales, A., Chauché, C., DeDiego, M.L., Topham, D.J., Parrish, C.R., Murcia, P.R., and Martínez-Sobrido, L., 2017. The K186E amino acid substitution in the canine influenza virus H3N8 NS1 protein restores its ability to inhibit host gene expression. *Journal of Virology*, 91 (22), e00877-17.

O’Connor, T.P., Esty, K.J., Hanscom, J.L., Shields, P., and Philipp, M.T., 2004. Dogs vaccinated with common Lyme disease vaccines do not respond to IR6, the conserved immunodominant region of the VlsE surface protein of Borrelia burgdorferi. *Clinical and diagnostic laboratory immunology*, 11 (3), 458–62.

O’Connor, T.P., Hanscom, J.L., Hegarty, B.C., Groat, R.G., and Breitschwerdt, E.B., 2006. Comparison of an indirect immunofluorescence assay, western blot analysis, and a commercially available ELISA for detection of Ehrlichia canis antibodies in canine sera. *American Journal of Veterinary Research*, 67 (2), 206–210.

O’Keefe, A., Hutton, T.A., Schifferli, D.M., and Rankin, S.C., 2010. First detection of CTX-M and SHV extended-spectrum beta-lactamases in Escherichia coli urinary tract isolates from dogs and cats in the United States. *Antimicrobial agents and chemotherapy*, 54 (8), 3489–3492.

Ogeer-Gyles, J., Mathews, K., Weese, J.S., Prescott, J.F., and Boerlin, P., 2006. Evaluation of catheter-associated urinary tract infections and multi-drug-resistant Escherichia coli isolates from the urine of dogs with indwelling urinary catheters. *Journal of the American Veterinary Medical Association*, 229 (10), 1584–1590.

Oien, N., Mattern, S., Brozowski, J., Teel, J., and Salmon, S., 2012. Cross-reactivity to field isolates of canine influenza virus by a killed canine influenza virus (H3N8, Iowa05) vaccine. *International Journal of Applied Research in Veterinary Medicine*, 10 (1), 14–18.

Oliver, L.D., Earnhart, C.G., Virginia-Rhodes, D., Theisen, M., and Marconi, R.T., 2016. Antibody profiling of canine IgG responses to the OspC protein of the Lyme disease spirochetes supports a multivalent approach in vaccine and diagnostic assay development. *The Veterinary Journal*, 218, 27–33.

Olson, P.E., Kallen, A.J., Bjorneby, J.M., and Creek, J.G., 2000. Canines as sentinels for Lyme disease in San Diego County, California. *Journal of veterinary diagnostic investigation : official publication of the American Association of Veterinary Laboratory Diagnosticians, Inc*, 12 (2), 126–129.

Oluoch, A.O., ChangHyun, K., Weisiger, R.M., HyunYoung, K., Siegel, A.M., Campbell, K.L., Burke, T.J., McKiernan, B.C., and Kakoma, I., 2001. Nonenteric Escherichia coli isolates from dogs: 674 cases (1990-1998). *Journal of the American Veterinary Medical Association*, 218 (2), 381–384.

Ortega-Pacheco, A., Colin-Flores, R.F., Gutierrez-Blanco, E., and Jimenez-Coello, M., n.d. Frequency and Type of Renal Lesions in Dogs Naturally Infected with Leptospira Species. *In*: O.A.E. and M. Sparagano JC and Figueroa, JV, ed.

Ortega-Pacheco, A., Guzmán-Marín, E., Acosta-Viana, K.Y., Vado-Solís, I., Jiménez-Delgadillo, B., Cárdenas-Marrufo, M., Pérez-Osorio, C., Puerto-Solís, M., and Jiménez-Coello, M., 2017. Serological survey of Leptospira interrogans, Toxoplasma gondii and Trypanosoma cruzi in free roaming domestic dogs and cats from a marginated rural area of Yucatan Mexico. *Veterinary Medicine and Science*, 3 (1), 40–47.

Otranto, D., Giannelli, A., Latrofa, M.S., Dantas-Torres, F., Trumble, N.S., Chavkin, M., Kennard, G., Eberhard, M.L., and Bowman, D.D., 2015. Canine infections with Onchocerca lupi nematodes, United States, 2011-2014. *Emerging Infectious Diseases*, 21 (5), 868–871.

Palaniappan, R.U.M., Chang, Y.F., Hassan, F., McDonough, S.P., Pough, M., Barr, S.C., Simpson, K.W., Mohammed, H.O., Shin, S., McDonough, P., Zuerner, R.L., Qu, J., and Roe, B., 2004. Expression of leptospiral immunoglobulin-like protein by Leptospira interrogans and evaluation of its diagnostic potential in a kinetic ELISA. *Journal of Medical Microbiology*, 53 (10), 975–984.

Panciera, R.J., Ewing, S.A., and Confer, A.W., 2001. Ocular histopathology of ehrlichial infections in the dog. *Veterinary Pathology*, 38 (1), 43–46.

Pat-Nah, H., Rodriguez-Vivas, R.I., Bolio-Gonzalez, M.E., Villegas-Perez, S.L., and Reyes-Novelo, E., 2015. Molecular diagnosis of ehrlichia canis in dogs and ticks rhipicephalus sanguineus (Acari: Ixodidae) in Yucatan, Mexico. *Journal of Medical Entomology*, 52 (1), 101–104.

Patel, J.M., Rosypal, A.C., Zimmerman, K.L., Monroe, W.E., Sriranganathan, N., Zajac, A.M., Yabsley, M.J., and Lindsay, D.S., 2012. Isolation, mouse pathogenicity, and genotyping of Trypanosoma cruzi from an English Cocker Spaniel from Virginia, USA. *Veterinary Parasitology*, 187 (3–4), 394–398.

Payungporn, S., Crawford, P.C., Kouo, T.S., Chen, L.M., Pompey, J., Castleman, W.L., Dubovi, E.J., Katz, J.M., and Donis, R.O., 2008. Influenza A virus (H3N8) in dogs with respiratory disease, Florida. *Emerging Infectious Diseases*, 14 (6), 902–908.

Pecoraro, H.L., Bennett, S., Huyvaert, K.P., Spindel, M.E., and Landolt, G.A., 2014. Epidemiology and ecology of h3n8 canine influenza viruses in us shelter dogs. *Journal of Veterinary Internal Medicine*, 28 (2), 311–318.

Pecoraro, H.L., Bennett, S., Spindel, M.E., and Landolt, G.A., 2014. Evolution of the hemagglutinin gene of H3N8 canine influenza virus in dogs. *Virus Genes*, 49 (3), 393–399.

Pecoraro, H.L., Lee, J.S., Achenbach, J., Nelson, S., and Landolt, G.A., 2012. Seroprevalence of canine influenza virus (H3N8) in Iditarod racing sled dogs. *Canadian Veterinary Journal*, 53 (10), 1091–1094.

Pecoraro, H.L., Spindel, M.E., Bennett, S., Lunn, K.F., and Landolt, G.A., 2013. Evaluation of virus isolation, one-step real-time reverse transcription polymerase chain reaction assay, and two rapid influenza diagnostic tests for detecting canine Influenza A virus H3N8 shedding in dogs. *Journal of Veterinary Diagnostic Investigation*, 25 (3), 402–406.

Pena, G., Aguilar Jimenez, F.A., Hallal-Calleros, C., Morales-Montor, J., Hernandez-Velazquez, V.M., Flores-Perez, F.I., Peña, G., Aguilar Jiménez, F.A., Hallal-Calleros, C., Morales-Montor, J., Hernández-Velázquez, V.M., and Flores-Pérez, F.I., 2013. In vitro ovicidal and cestocidal effects of toxins from Bacillus thuringiensis on the canine and human parasite Dipylidium caninum. *BioMed Research International*, 2013, Article ID 174619.

Perry, A., Dangoudoubiyam, S., Bolling, M., and Rodrigues-Hoffmann, A., 2016. Aberrant Ancylostoma sp. in the brain of a dog. *Veterinary Parasitology*, 223, 210–213.

Petermann, S.R., Doetkott, C., and Rust, L., 2001. Elastase deficiency phenotype of Pseudomonas aeruginosa canine otitis externa isolates. *Clinical and diagnostic laboratory immunology*, 8 (3), 632–6.

Petersen, A.D., Walker, R.D., Bowman, M.M., Schott, H.C., and Rosser, E.J., 2002. Frequency of isolation and antimicrobial susceptibility patterns of Staphylococcus intermedius and Pseudomonas aeruginosa isolates from canine skin and ear samples over a 6-year period (1992-1997). *Journal of the American Animal Hospital Association*, 38 (5), 407–413.

Philipp, M.T., Bowers, L.C., Fawcett, P.T., Jacobs, M.B., Liang, F.T., Marques, A.R., Mitchell, P.D., Purcell, J.E., Ratterree, M.S., and Straubinger, R.K., 2001. Antibody response to IR6, a conserved immunodominant region of the VlsE lipoprotein, wanes rapidly after antibiotic treatment of Borrelia burgdorferi infection in experimental animals and in humans. *Journal of Infectious Diseases*, 184 (7), 870–878.

Philippi, M.T., Ling, F.T., Bowers, L.C., Jacobs, M.B., and Purcell, J.E., 2002. New standards for Lyme disease diagnosis: the C6 peptide ELISA for serologic diagnosis of Lyme disease in human and canines. *Proceedings of the North American Veterinary Conference*, 16, 407–410.

Pineda, V., Saldaña, A., Monfante, I., Santamaría, A., Gottdenker, N.L., Yabsley, M.J., Rapoport, G., and Calzada, J.E., 2011. Prevalence of trypanosome infections in dogs from Chagas disease endemic regions in Panama, Central America. *Veterinary Parasitology*, 178 (3–4), 360–363.

Plier, M.L., Breitschwerdt, E.B., Hegarty, B.C., and Kidd, L.B., 2009. Lack of evidence for perinatal transmission of canine granulocytic anaplasmosis from a bitch to her offspring. *Journal of the American Animal Hospital Association*, 45 (5), 232–238.

Poitout, F.M., Shinozaki, J.K., Stockwell, P.J., Holland, C.J., and Shukla, S.K., 2005. Genetic variants of Anaplasma phagocytophilum infecting dogs in western Washington State. *Journal of Clinical Microbiology*, 43 (2), 796–801.

Ponce-Macotela, M., Peralta-Abarca, G.E., and Martínez-Gordillo, M.N., 2005. Giardia intestinalis and other zoonotic parasites: Prevalence in adult dogs from the southern part of Mexico City. *Veterinary Parasitology*, 131 (1–2), 1–4.

Porter, B.F., Ambrus, A., and Storts, R.W., 2006. Immunohistochemical Evaluation of Mx Protein Expression in Canine Encephalitides. *Veterinary pathology*, 43 (6), 981–987.

Powe, J.R. and Castleman, W.L., 2009. Canine influenza virus replicates in alveolar macrophages and induces TNF-α. *Veterinary Pathology*, 46 (6), 1187–1196.

Prescott, J.F., Hanna, W.J.B., Reid-Smith, R., and Drost, K., 2002. Antimicrobial drug use and resistance in dogs. *Canadian Veterinary Journal*, 43 (2), 107–116.

Procter, T.D., Pearl, D.L., Finley, R.L., Leonard, E.K., Janecko, N., Reid-Smith, R.J., Weese, J.S., Peregrine, A.S., and Sargeant, J.M., 2014. A Cross-Sectional Study Examining Campylobacter and Other Zoonotic Enteric Pathogens in Dogs that Frequent Dog Parks in Three Cities in South-Western Ontario and Risk Factors for Shedding of Campylobacter spp. *Zoonoses and Public Health*, 61 (3), 208–218.

Pulczer, A.S., Jones-Bitton, A., Waltner-Toews, D., and Dewey, C.E., 2013. Owned dog demography in Todos Santos Cuchumatán, Guatemala. *Preventive Veterinary Medicine*, 108 (2–3), 209–217.

Purvis, T.J., Krouse, D., Miller, D., Livengood, J., Thirumalapura, N.R., and Tewari, D., 2017. Detection of *Brucella canis* infection in dogs by blood culture and bacterial identification using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. *Journal of Veterinary Diagnostic Investigation*, 29 (4), 104063871770465.

Pye, C.C., Singh, A., and Weese, J.S., 2014. Evaluation of the impact of tromethamine edetate disodium dihydrate on antimicrobial susceptibility of Pseudomonas aeruginosa in biofilm in vitro. *Veterinary Dermatology*, 25 (2), 120-e34.

Pye, C.C., Yu, A.A., and Weese, J.S., 2013. Evaluation of biofilm production by Pseudomonas aeruginosa from canine ears and the impact of biofilm on antimicrobial susceptibility in vitro. *Veterinary Dermatology*, 24 (4), 446-e99.

Qurollo, B.A., Archer, N.R., Schreeg, M.E., Marr, H.S., Birkenheuer, A.J., Haney, K.N., Thomas, B.S., and Breitschwerdt, E.B., 2017. Improved molecular detection of Babesia infections in animals using a novel quantitative real-time PCR diagnostic assay targeting mitochondrial DNA. *Parasites and Vectors*, 10 (1), 128–128.

Rabies in a dog imported from Iraq--New Jersey, June 2008., 2008. *MMWR. Morbidity and mortality weekly report*, 57 (39), 1076–1078.

Radi, Z.A., Styer, E.L., and Frazier, K.S., 2004. Electron microscopic study of canine Babesia gibsoni infection. *Journal of Veterinary Diagnostic Investigation*, 16 (3), 229–233.

Raghavan, M., Glickman, N., Moore, G., Caldanaro, R., Lewis, H., and Glickman, L., 2007. Prevalence of And Risk Factors for Canine Tick Infestation in The United States, 2002–2004. *Vector-Borne and Zoonotic Diseases*, 7 (1), 65–75.

Raghavan, R., Brenner, K., Higgins, J., Van der Merwe, D., and Harkin, K.R., 2011. Evaluations of land cover risk factors for canine leptospirosis: 94 cases (2002-2009). *Preventive veterinary medicine*, 101 (3–4), 241–249.

Raghavan, R.K., Brenner, K.M., Higgins, J.J., Hutchinson, J.M.S., and Harkin, K.R., 2012a. Neighborhood-level socioeconomic and urban land use risk factors of canine leptospirosis: 94 cases (2002-2009). *Preventive veterinary medicine*, 106 (3–4), 324–331.

Raghavan, R.K., Brenner, K.M., Higgins, J.J., Hutchinson, J.M.S., and Harkin, K.R., 2012b. Evaluations of hydrologic risk factors for canine leptospirosis: 94 cases (2002-2009). *Preventive veterinary medicine*, 107 (1–2), 105–109.

Ramirez-Martinez, L.A., Contreras-Luna, M., la Luz, J., Manjarrez, M.E., Rosete, D.P., Rivera-Benitez, J.F., Saavedra-Montanez, M., and Ramirez-Mendoza, H., n.d. Evidence of transmission and risk factors for influenza A virus in household dogs and their owners.

Ramirez, C.V.H., Camacho, S.M.G., Ramirez, I.O., Verdugo, I.E., Campo, N.C. del, and Moreno, H.S.L., 2017. Prevalence and risk factors associated with serovars of Leptospira in dogs from Culiacan, Sinaloa. *Veterinaria Mexico*, 4 (2).

Rehbein, S., Dorr, P., Bowman, D.D., Crafford, D., Kusi, I., Postoli, R., Yoon, S., Chester, S.T., Dollhofer, D., Visser, M., and Larsen, D.L., 2016. Efficacy of afoxolaner plus milbemycin oxime chewable tablets against naturally acquired intestinal nematodes in dogs. *Veterinary parasitology*, 217, 29–35.

Reimschuessel, R., Grabenstein, M., Guag, J., Nemser, S.M., Song, K., Qiu, J., Clothier, K.A., Byrne, B.A., Marks, S.L., Cadmus, K., Pabilonia, K., Sanchez, S., Rajeev, S., Ensley, S., Frana, T.S., Jergens, A.E., Chappell, K.H., Thakur, S., Byrum, B., Cui, J., Zhang, Y., Erdman, M.M., Rankin, S.C., Daly, R., Das, S., Ruesch, L., Lawhon, S.D., Zhang, S., Baszler, T., Diaz-Campos, D., Hartmann, F., and Okwumabua, O., n.d. Multilaboratory Survey To Evaluate Salmonella Prevalence in Diarrheic and Nondiarrheic Dogs and Cats in the United States between 2012 and 2014.

Rhodes, D.V.L., Earnhart, C.G., Mather, T.N., Meeus, P.F.M., and Marconi, R.T., 2013. Identification of Borrelia burgdorferi ospC genotypes in canine tissue following tick infestation: Implications for Lyme disease vaccine and diagnostic assay design. *Veterinary Journal*, 198 (2), 412–418.

Ribotta, M., Fortin, M., Higgins, R., and Beaudin, S., 2000. Canine leptospirosis: serology. *Canadian veterinary journal = La revue vétérinaire canadienne*, 41 (6), 494–495.

Ribotta, M.J., Higgins, R., Gottschalk, M., and Lallier, R., 2000. Development of an indirect enzyme-linked immunosorbent assay for the detection of leptospiral antibodies in dogs. *Canadian Journal of Veterinary Research*, 64 (1), 32–37.

Rissi, D.R. and Brown, C.A., 2014. Diagnostic features in 10 naturally occurring cases of acute fatal canine leptospirosis. *Journal of Veterinary Diagnostic Investigation*, 26 (6), 799–804.

Rivailler, P., Perry, I.A., Jang, Y., Davis, C.T., Chen, L.M., Dubovi, E.J., and Donis, R.O., 2010. Evolution of canine and equine influenza (H3N8) viruses co-circulating between 2005 and 2008. *Virology*, 408 (1), 71–79.

Rocha-Gracia, R.C., Cortes-Cortes, G., Lozano-Zarain, P., Bello, F., Martinez-Laguna, Y., and Torres, C., 2015. Faecal Escherichia coli isolates from healthy dogs harbour CTX-M-15 and CMY-2 beta-lactamases. *Vet J*, 203 (3), 315–319.

Rodriguez-Alarcon, C.A., Lopez-Aguilar, A., Perez-Casio, F., Rivera-Barreno, R., Castillo-Luna, O., and Beristain-Ruiz, D.M., 2016. Dysphagia Secondary to Spirocerca lupi in a German Shepherd Dog. *Acta Scientiae Veterinariae*, 44.

Rodriguez-Morales, O., Ballinas-Verdugo, M.A., Alejandre-Aguilar, R., Reyes, P.A., and Arce-Fonseca, M., n.d. Trypanosoma cruzi Connatal Transmission in Dogs with Chagas Disease: Experimental Case Report.

Rodriguez-Vivas, R.I., Albornoz, R.E.F., and Bolio, G.M.E., 2005. Ehrlichia canis in dogs in Yucatan, Mexico: seroprevalence, prevalence of infection and associated factors. *Veterinary parasitology*, 127 (1), 75–79.

Rogers, C.L., 2011. Rabies vaccination compliance following introduction of the triennial vaccination interval - the Texas experience. *Zoonoses and Public Health*, 58 (4), 229–233.

Rojas, A., Rojas, D., Montenegro, V., Gutiérrez, R., Yasur-Landau, D., and Baneth, G., 2014. Vector-borne pathogens in dogs from Costa Rica: First molecular description of Babesia vogeli and Hepatozoon canis infections with a high prevalence of monocytic ehrlichiosis and the manifestations of co-infection. *Veterinary parasitology*, 199, 121–128.

Rojas, A., Rojas, D., Montenegro, V.M., and Baneth, G., 2015. Detection of Dirofilaria immitis and other arthropod-borne filarioids by an HRM real-time qPCR, blood-concentrating techniques and a serological assay in dogs from Costa Rica. *Parasites & vectors*, 8 (1), 170–170.

Romero, C., Heredia, R., Pineda, J., Serrano, J.A., Mendoza, G.D., Trápala, P., and Cordero, A.M., 2016. Efficacy of fluralaner in 17 dogs with sarcoptic mange. *Veterinary Dermatology*, 27 (5), 353-e88.

Romero, C., Mendoza, G.E., Pineda, M.A., Nava, N., Bautista, L.G., and Heredia, R., 2015. Prevalence of Intestinal Parasites with Zoonotic Potential in Canids in Mexico City. *Acta Scientiae Veterinariae*, 01 (September), 1–6.

Romero, L.E., Meneses, A.I., Salazar, L., Jiménez, M., Romero, J.J., Aguiar, D.M., Labruna, M.B., and Dolz, G., 2011. First isolation and molecular characterization of Ehrlichia canis in Costa Rica, Central America. *Research in veterinary science*, 91 (1), 95–97.

Rondeau, M.P., Walton, R.M., Bissett, S., Drobatz, K.J., and Washabau, R.J., 2005. Suppurative, nonseptic polyarthropathy in dogs. *Journal of Veterinary Internal Medicine*, 19 (5), 654–662.

Rosa, F.B., Older, C.E., Meason-Smith, C., Suchodolski, J.S., Lingsweiler, S., Mansell, J.E., and Hoffmann, A.R., 2018. Analysis of Bacterial and Fungal Nucleic Acid in Canine Sterile Granulomatous and Pyogranulomatous Dermatitis and Panniculitis. *Veterinary Pathology*, 55 (1), 124–132.

Rosas, C., Van de Walle, G.R., Metzger, S.M., Hoelzer, K., Dubovi, E.J., Kim, S.G., Parrish, C.R., and Osterrieder, N., 2008. Evaluation of a vectored equine herpesvirus type 1 (EHV-1) vaccine expressing H3 haemagglutinin in the protection of dogs against canine influenza. *Vaccine*, 26 (19), 2335–2343.

Ross, L., Jakowski, R., Bolin, C., and Kiupel, M., n.d. Retrospective Immunohistochemical Detection of Leptospira in Dogs with Renal Pathology.

Rosypal, A.C., Gogal Jr., R.M., Zajac, A.M., Troy, G.C., and Lindsay, D.S., 2005. Flow cytometric analysis of cellular immune responses in dogs experimentally infected with a North American isolate of Leishmania infantum. *Veterinary Parasitology*, 131 (1–2), 45–51.

Rosypal, A.C., Hall, J.E., Bakunova, S., Patrick, D.A., Bakunov, S., Stephens, C.E., Kumar, A., Boykin, D.W., and Tidwell, R.R., 2007. In vitro activity of dicationic compounds against a North American foxhound isolate of Leishmania infantum. *Veterinary Parasitology*, 145 (3–4), 207–216.

Rosypal, A.C., Hill, R., Lewis, S., Barr, S.C., Valadas, S., Gennari, S.M., and Lindsay, D.S., 2011. Evaluation of a Rapid Immunochromatographic Dipstick Test for Detection of Antibodies to Trypanosoma cruzi in Dogs Experimentally Infected with Isolates Obtained from Opossums (Didelphis virginiana), Armadillos (Dasypus novemcinctus), and Dogs (Canis fami. *Journal of Parasitology*, 97 (1), 140–143.

Rosypal, A.C., Hill, R., Lewis, S., Braxton, K., Zajac, A.M., and Lindsay, D.S., 2010. Toxoplasma gondii and Trypanosoma cruzi antibodies in dogs from Virginia. *Zoonoses and Public Health*, 57 (7–8), e76–e80.

Rosypal, A.C., Pick, L.D., Hernandez, J.O.E., Lindsay, D.S., Esquivel Hernandez, J.O., and Lindsay, D.S., 2014. Evaluation of a novel dried blood spot collection device (HemaSpot¢) to test blood samples collected from dogs for antibodies to Leishmania infantum. *Veterinary parasitology*, 205 (1/2), 338–342.

Rosypal, A.C., Tripp, S., Kinlaw, C., Sharma, R.N., Stone, D., and Dubey, J.P., 2010. Seroprevalence of canine leishmaniasis and American trypanosomiasis in dogs from Grenada, West Indies. *Journal of Parasitology*, 96 (1), 228–229.

Rosypal, A.C., Troy, G.C., Duncan, R.B., Zajac, A.M., and Lindsay, D.S., 2005. Utility of diagnostic tests used in diagnosis of infection in dogs experimentally inoculated with a North American isolate of Leishmania infantum infantum. *Journal of Veterinary Internal Medicine*, 19 (6), 802–809.

Rosypal, A.C., Troy, G.C., Zajac, A.M., Duncan, R.B., Waki, K., Chang, K.P., and Lindsay, D.S., 2003. Emergence of zoonotic canine leishmaniasis in the United States: isolation and immunohistochemical detection of Leishmania infantum from foxhounds from Virginia. *J Eukaryot Microbiol*, 50 Suppl, 691–693.

Rosypal, A.C., Troy, G.C., Zajac, A.M., Frank, G., and Lindsay, D.S., 2005. Transplacental Transmission of a North American Isolate of Leishmania infantum in an Experimentally Infected Beagle. *Journal of Parasitology*, 91 (4), 970–972.

Rowland, M.E., Maloney, J., Cohen, S., Yabsley, M.J., Huang, J., Kranz, M., Green, A., Dunn, J.R., Carpenter, L.R., Jones, T.F., and Moncayo, A.C., 2010. Factors Associated with Trypanosoma cruzi Exposure Among Domestic Canines in Tennessee. *Journal of Parasitology*, 96 (3), 547–551.

Rubin, J., Walker, R.D., Blickenstaff, K., Bodeis-jones, S., and Zhao, S., 2008. Antimicrobial resistance and genetic characterization of fluoroquinolone resistance of Pseudomonas aeruginosa isolated from canine infections. *Veterinary microbiology*, 131 (1–2), 164–172.

Rupprecht, C.E., Hanlon, C.A., Blanton, J., Manangan, J., Morrill, P., Murphy, S., Niezgoda, M., Orciari, L.A., Schumacher, C.L., and Dietzschold, B., 2005. Oral vaccination of dogs with recombinant rabies virus vaccines. *Virus Research*, 111 (1), 101–105.

Russell, K.E., Barnhart, K.F., Fryer, J.S., and Craig, T.M., n.d. Buffy coat smear from a puppy - Trypanosomiasis.

Sahin, O., Burrough, E.R., Pavlovic, N., Frana, T.S., Madson, D.M., and Zhang, Q., 2014. Campylobacter jejuni as a cause of canine abortions in the United States. *Journal of Veterinary Diagnostic Investigation*, 26 (5), 699–704.

Saldana, A., Calzada, J.E., Pineda, V., Perea, M., Rigg, C., Gonzalez, K., Santamaria, A.M., Gottdenker, N.L., and Chaves, L.F., 2015. Risk factors associated with Trypanosoma cruzi exposure in domestic dogs from a rural community in Panama. *Memorias Do Instituto Oswaldo Cruz*, 110 (7), 936–944.

Saldarriaga, O.A., Travi, B.L., Park, W., Perez, L.E., and Melby, P.C., 2006. Immunogenicity of a multicomponent DNA vaccine against visceral leishmaniasis in dogs. *Vaccine*, 24 (11), 1928–1940.

Salinas-Meléndez, J.A., Villavicencio-Pedraza, R., Tamez-Hernández, B. V, Hernández-Escareño, J.J., Avalos-Ramírez, R., Zarate-Ramos, J.J., Picón-Rubio, F.J., and Riojas-Valdés, V.M., 2014. Prevalence of anti-Anaplasma phagocytophilum antibodies among dogs from Monterrey, Mexico. *African Journal of Microbiology Research*, 8 (8), 825–829.

Salmon, S., Oien, N., Mattern, S., King, V., and Garcia-Tapia, D., 2012. Clinical safety and efficacy after in vivo challenge of a killed, monovalent canine influenza virus (H3N8, Iowa05 strain) vaccine. *International Journal of Applied Research in Veterinary Medicine*, 10 (1), 19–30.

Sandoval, L.O.F., García, M. de L.C., Hernández, G.R., Moreno García, M.A., and Cardoso, E.J., 2012. Molecular similarities and differences between Trichinella spp., isolated from canine skeletal muscle in Zacatecas, Mexico. *Experimental parasitology*, 131 (2), 148–152.

Sannes, M.R., Kuskowski, M.A., and Johnson, J.R., 2004. Antimicrobial resistance of Escherichia coli strains isolated from urine of women with cystitis or pyelonephritis and feces of dogs and healthy humans. *J.Am.Vet.Med.Assoc.*, 225 (0003-1488 (Print)), 368–373.

Santamaria, A., Calzada, J.E., Saldaña, A., Yabsley, M.J., and Gottdenker, N.L., 2014. Molecular Diagnosis and Species Identification of *Ehrlichia* and *Anaplasma* Infections in Dogs from Panama, Central America. *Vector-Borne and Zoonotic Diseases*, 14 (5), 368–370.

Santoro, D. and Maddox, C.W., 2014. Canine antimicrobial peptides are effective against resistant bacteria and yeasts. *Veterinary Dermatology*, 25 (1), 35-e12.

Santos, T.M.A., Ledbetter, E.C., Caixeta, L.S., Bicalho, M.L.S., and Bicalho, R.C., 2011. Isolation and characterization of two bacteriophages with strong in vitro antimicrobial activity against Pseudomonas aeruginosa isolated from dogs with ocular infections. *American Journal of Veterinary Research*, 72 (8), 1079–1086.

Schaefer, J.J., Kahn, J., Needham, G.R., Rikihisa, Y., Ewing, S.A., and Stich, R.W., 2008. Antibiotic clearance of Ehrlichia canis from dogs infected by intravenous inoculation of carrier blood. *Annals of the New York Academy of Sciences*, 1149, 263–269.

Schatzberg, S.J., Haley, N.J., Barr, S.C., deLahunta, A., Olby, N., Munana, K., and Sharp, N.J.H., 2003. Use of a multiplex polymerase chain reaction assay in the antemortem diagnosis of toxoplasmosis and neosporosis in the central nervous system of cats and dogs. *American Journal of Veterinary Research*, 64 (12), 1507–1513.

Schaut, R.G., Grinnage-Pulley, T.L., Esch, K.J., Toepp, A.J., Duthie, M.S., Howard, R.F., Reed, S.G., and Petersen, C.A., 2016. Recovery of antigen-specific T cell responses from dogs infected with Leishmania (L.) infantum by use of vaccine associated TLR-agonist adjuvant. *Vaccine*, 34 (44), 5225–5234.

Schick, A.E., Angus, J.C., and Coyner, K.S., 2007. Variability of laboratory identification and antibiotic susceptibility reporting of Pseudomonas spp. isolates from dogs with chronic otitis externa. *Veterinary Dermatology*, 18 (2), 120–126.

Schildecker, S., Millien, M., Blanton, J.D., Boone, J., Emery, A., Ludder, F., Fenelon, N., Crowdis, K., Destine, A., Etheart, M., and Wallace, R.M., 2017. Dog Ecology and Barriers to Canine Rabies Control in the Republic of Haiti, 2014-2015. *Transboundary and Emerging Diseases*, 64 (5), 1433–1442.

Schumann, R.J., Morgan, M.S., Glass, R., and Arlian, L.G., 2001. Characterization of house dust mite and scabies mite allergens by use of canine serum antibodies. *American journal of veterinary research*, 62 (9), 1344–1348.

Schurer, J.M., Hill, J.E., Fernando, C., and Jenkins, E.J., 2012. Sentinel surveillance for zoonotic parasites in companion animals in indigenous communities of Saskatchewan. *American Journal of Tropical Medicine and Hygiene*, 87 (3), 495–498.

Schurer, J.M., Ndao, M., Skinner, S., Irvine, J., Elmore, S.A., Epp, T., and Jenkins, E.J., 2013. Parasitic zoonoses: One Health surveillance in Northern Saskatchewan. *PLoS Neglected Tropical Diseases*, 7 (3).

Schwenkenbecher, J.M. and Kaplan, R.M., 2007. Development and characterization of microsatellite markers for the canine hookworm, Ancylostoma caninum. *Parasitology research*, 100 (5), 1015–1021.

Scorpio, D.G., Dumler, J.S., Barat, N.C., Cook, J.A., Barat, C.E., Stillman, B.A., DeBisceglie, K.C., Beall, M.J., and Chandrashekar, R., 2011. Comparative Strain Analysis of *Anaplasma phagocytophilum* Infection and Clinical Outcomes in a Canine Model of Granulocytic Anaplasmosis. *Vector-Borne and Zoonotic Diseases*, 11 (3), 223–229.

Scorpio, D.G., Wachtman, L.M., Tunin, R.S., Barat, N.C., Garyu, J.W., and Dumler, J.S., 2008. Retrospective clinical and molecular analysis of conditioned laboratory dogs (Canis familiaris) with serologic reactions to Ehrlichia canis, Borrelia burgdorferi, and Rickettsia rickettsii. *Journal of the American Association for Laboratory Animal Science*, 47 (5), 23–28.

Secrest, S.A. and Sharma, A., 2016. Thoracic radiographic characteristics of canine influenza virus in six dogs. *Veterinary Radiology and Ultrasound*, 57 (5), 462–466.

Seepersadsingh, N. and Adesiyun, A., 2004. Prevalence and Antimicrobial Resistance of Salmonella spp. in Non‐diarrhoeic Dogs in Trinidad. *Journal of Veterinary*.

Seguin, M.A., Vaden, S.L., Altier, C., Stone, E., and Levine, J.F., 2003. Persistent urinary tract infections and reinfections in 100 dogs (1989-1999). *Journal of Veterinary Internal Medicine*, 17 (5), 622–631.

Shadomy, S. V, Waring, S.C., and Chappell, C.L., 2004. Combined Use of Enzyme-Linked Immunosorbent Assay and Flow Cytometry To Detect Antibodies to Trypanosoma cruzi in Domestic Canines in Texas. *Clinical and diagnostic laboratory immunology*, 11 (2), 313–319.

Shaheen, B.W., Boothe, D.M., Oyarzabal, O.A., and Smaha, T., 2010. Antimicrobial Resistance Profiles and Clonal Relatedness of Canine and Feline Escherichia coli Pathogens Expressing Multidrug Resistance in the United States. *Journal of veterinary internal medicine*, 24 (2), 323–330.

Shanks, D.J., McTier, T.L., Behan, S., Pengo, G., Genchi, C., Bowman, D.D., Holbert, M.S., Smith, D.G., Jernigan, A.D., and Rowan, T.G., 2000. The efficacy of selamectin in the treatment of naturally acquired infestations of sarcoptes scabiei on dogs. *Veterinary parasitology*, 91 (3–4), 269–281.

Sheets, J.T., Rossi, C.A., Kearney, B.J., and Moore, G.E., 2000. Evaluation of a commercial enzyme-linked immunosorbent assay for detection of Borrelia burgdorferi exposure in dogs. *Journal of the American Veterinary Medical Association*, 216 (9), 1418–1422.

Silva, A.B., Canseco, S.P., Mdel, P.G. de la T., Silva, A.M., Mayoral, M.A., Mayoral, L.P.-C., Martinez, J.L., and Perez-Campos, E., 2014. [Asymptomatic human infection from contact with dogs: a case of human ehrlichiosis]. *Gac Med Mex*, 150 (2), 171–174.

Silva, C.B. da, Santos, H.A., Navarrete, M.G., Ribeiro, C.C.D.U., Gonzalez, B.C., Zaldivar, M.F., Pires, M.S., Peckle, M., Costa, R.L. da, Vitari, G.L.V., and Massard, C.L., 2016. Molecular detection and characterization of Anaplasma platys in dogs and ticks in Cuba. *Ticks and Tick-borne Diseases*, 7, 938–944.

Sinclair, J.R., Washburn, F., Fox, S., and Lankau, E.W., 2015. Dogs Entering the United States from Rabies-Endemic Countries, 2011-2012. *Zoonoses and Public Health*, 62 (5), 393–400.

Singu, V., Peddireddi, L., Sirigireddy, K.R., Cheng, C., Munderloh, U., and Ganta, R.R., 2006. Unique macrophage and tick cell-specific protein expression from the p28/ p30-outer membrane protein multigene locus in Ehrlichia chaffeensis and Ehrlichia canis. *Cellular Microbiology*, 8 (9), 1475–1487.

Sleeper, M.M., Bissett, S., and Craig, L., 2006. Canine trichinosis presenting with syncope and AV conduction disturbance. *Journal of Veterinary Internal Medicine*, 20 (5), 1228–1231.

Smith, T.G., Millien, M., Vos, A., Fracciterne, F.A., Crowdis, K., Chirodea, C., Medley, A., and Chipman, R., 2017. Evaluation of immune responses in dogs to oral rabies vaccine under field conditions. *Vaccine*.

Sokolow, S.H., Rand, C., Marks, S.L., Drazenovich, N.L., Kather, E.J., and Foley, J.E., 2005. Epidemiologic evaluation of diarrhea in dogs in an animal shelter. *American Journal of Veterinary Research*, 66 (6), 1018–1024.

Solc, M.K., Weese, J.S., and Jazic, E., 2018. The *in vitro* antibacterial activity of incomplete iron salt of polyacrylic acid against *Pseudomonas aeruginosa* , meticillin-resistant *Staphylococcus pseudintermedius* and meticillin-resistant *S. aureus*. *Veterinary Dermatology*, 29 (1), 3-e2.

Solis-Hernandez, A., Ivan Rodriguez-Vivas, R., Dolores Esteve-Gasent, M., and Luz Villegas-Perez, S., n.d. Detection of Borrelia burgdorferi sensu lato in dogs and its ticks in rural communities of Yucatan, Mexico.

Sosa-Jurado, F., Zumaquero-Ríos, J.L., Reyes, P.A., Cruz-García, A., Guzmán-Bracho, C., and Monteón, V.M., 2004. Biotic and abiotic determinants of seroprevalence of antibodies against Trypanosoma cruzi in Palmar de Bravo, Puebla, Mexico. *Salud Pública de México*, 46 (1), 39–48.

Souza, C.P., Torres, S.M.F., Koch, S.N., Rendahl, A., and Verocai, G.G., 2016. Can immunosuppressive therapy facilitate the diagnosis and affect the clinical signs of canine scabies? A retrospective study of 79 cases. *Veterinary Dermatology*, 27 (3), 160-e40.

Starkey, L.A., Newton, K., Brunker, J., Crowdis, K., Edourad, E.J.P., Meneus, P., and Little, S.E., 2016. Prevalence of vector-borne pathogens in dogs from Haiti. *Veterinary Parasitology*, 224, 7–12.

Stegemann, M.R., Passmore, C.A., Sherington, J., Lindeman, C.J., Papp, G., Weigel, D.J., and Skogerboe, T.L., 2006. Antimicrobial activity and spectrum of cefovecin, a new extended-spectrum cephalosporin, against pathogens collected from dogs and cats in Europe and North America. *Antimicrobial Agents and Chemotherapy*, 50 (7), 2286–2292.

Stenske, K.A., Bemis, D.A., Gillespie, B.E., D’Souza, D.H., Oliver, S.P., Draughon, F.A., Matteson, K.J., and Bartges, J.W., 2009. Comparison of clonal relatedness and antimicrobial susceptibility of fecal Escherichia coli from healthy dogs and their owners. *American Journal of Veterinary Research*, 70 (9), 1108–1116.

Stich, R.W., Rikihisa, Y., Ewing, S.A., Needham, G.R., Grover, D.L., and Jittapalapong, S., 2002. Detection of Ehrlichia canis in canine carrier blood and in individual experimentally infected ticks with a p30-based PCR assay. *Journal of clinical microbiology*, 40 (2), 540–546.

Stoffel, R.T., McClure, J.C., Butcher, M.M., Johnson, G.C., Roland, W., Cheng, C., Sirigireddy, K.R., Ganta, R., Boughan, K., Ewing, S.A., and Stich, R.W., 2014. Experimental infection of Rhipicephalus sanguineus with Ehrlichia chaffeensis. *Veterinary Microbiology*, 172 (1–2), 334–338.

Stokes, J.E., Kaneene, J.B., Schall, W.D., Kruger, J.M., Miller, R., Kaiser, L., and Bolin, C.A., 2007. Prevalence of serum antibodies against six *Leptospira* serovars in healthy dogs. *Journal of the American Veterinary Medical Association*, 230 (11), 1657–1664.

Straubinger, R.K., 2000. PCR-based quantification of Borrelia burgdorferi organisms in canine tissues over a 500-day postinfection period. *Journal of Clinical Microbiology*, 38 (6), 2191–2199.

Strauss, T.B., McKeever, T.M., and McKeever, P.J., 2005. The efficacy of an acidified sodium chlorite solution to treat canine Pseudomonas aeruginosa otitis externa. *Veterinary Medicine*, 100 (1), 55–64.

Suchodolski, J.S., Xenoulis, P.G., Paddock, C.G., Steiner, J.M., and Jergens, A.E., 2010. Molecular analysis of the bacterial microbiota in duodenal biopsies from dogs with idiopathic inflammatory bowel disease. *Veterinary microbiology*, 142 (3–4), 394–400.

Suepaul, S.M., Carrington, C., Campbell, M., Borde, G., and Adesiyun, A.A., 2015. Antimicrobial susceptibility of leptospira isolates from dogs and rats to 12 antimicrobial agents. *Tropical Biomedicine*, 32 (1), 1–10.

Suepaul, S.M., Carrington, C. V., Campbell, M., Borde, G., and Adesiyun, A.A., 2014. Seroepidemiology of leptospirosis in dogs and rats in Trinidad. *Tropical biomedicine*, 31 (4), 853–861.

Suepaul, S.M., Carrington, C.V.F., Campbell, M., Borde, G., and Adesiyun, A.A., 2010. Serovars of Leptospira isolated from dogs and rodents. *Epidemiology and Infection*, 138 (7), 1059–1070.

Sumner, J.W., Storch, G.A., Buller, R.S., Liddell, A.M., Stockham, S.L., Rikihisa, Y., Messenger, S., and Paddock, C.D., 2000. PCR amplification and phylogenetic analysis of groESL operon sequences from Ehrlichia ewingii and Ehrlichia muris. *Journal of Clinical Microbiology*, 38 (7), 2746–2749.

Susta, L., Uhl, E.W., Grosenbaugh, D.A., and Krimer, P.M., 2012. Synovial Lesions in Experimental Canine Lyme Borreliosis. *Veterinary Pathology*, 49 (3), 453–461.

Suzan, G. and Ceballos, G., 2005. The role of feral mammals on wildlife infectious disease prevalence in two nature reserves within Mexico City limits. *Journal of zoo and wildlife medicine : official publication of the American Association of Zoo Veterinarians*, 36 (3), 479–484.

Swinger, R.L., Schmidt, K.A., and Dubielzig, R.R., 2009. Keratoconjunctivitis associated with Toxoplasma gondii in a dog. *Veterinary Ophthalmology*, 12 (1), 56–60.

Tenney, T.D., Curtis-Robles, R., Snowden, K.F., and Hamer, S.A., 2014. Shelter dogs as sentinels for Trypanosoma cruzi transmission across Texas, USA. *Emerging Infectious Diseases*, 20 (8), 1323–1326.

Thirumalapura, N.R., Morton, R.J., Ramachandran, A., and Malayer, J.R., 2005. Lipopolysaccharide microarrays for the detection of antibodies. *Journal of Immunological Methods*, 298 (1–2), 73–81.

Tinoco-Gracia, L., Quiroz-Romero, H., Quintero-Martinez, M.T., Renteria-Evangelista, T.B., Barreras-Serrano, A., Hori-Oshima, S., Lopez-Valencia, G., Tamayo-Sosa, A.R., Medina-Basulto, G., Haro-Alvarez, P., Moro, M., and Vinasco, J., 2009. Prevalence and risk factors for Borrelia burgdorferi infection in dogs of animal control centers from Mexicali, Baja California: a Mexico-US border city. *Journal of Animal and Veterinary Advances*, 8 (2), 251–254.

Torres, S., Clayton, J.B., Danzeisen, J.L., Ward, T., Huang, H., Knights, D., and Johnson, T.J., 2017. Diverse bacterial communities exist on canine skin and are impacted by cohabitation and time. *PeerJ*, 5 (3075), e3075.

Townsend, W.M., Stiles, J., and Krohne, S.G., 2006. Leptospirosis and panuveitis in a dog. *Veterinary Ophthalmology*, 9 (3), 169–173.

Travi, B.L., Osorio, E.Y., Saldarriaga, O.A., Cadena, H., Tabares, C.J., Peniche, A., Lee, S., and Melby, P.C., 2009. Clinical, Parasitologic, and Immunologic Evolution in Dogs Experimentally Infected with Sand Fly-Derived Leishmania chagasi Promastigotes. *American Journal of Tropical Medicine and Hygiene*, 81 (6), 994–1003.

Tron, E.A.M., Wilke, H.L., Petermann, S.R., and Rust, L., 2004. Pseudomonas aeruginosa from canine otitis externa exhibit a quorum sensing deficiency. *Veterinary microbiology*, (99), 121–129.

Tupler, T., Levy, J.K., Sabshin, S.J., Tucker, S.J., Greiner, E.C., and Leutenegger, C.M., 2012. Enteropathogens identified in dogs entering a Florida animal shelter with normal feces or diarrhea. *Journal of the American Veterinary Medical Association*, 241 (3), 338–343.

Tzipory, N., Crawford, P.C., and Levy, J.K., 2010. Prevalence of *Dirofilaria immitis*, *Ehrlichia canis*, and *Borrelia burgdorferi* in pet dogs, racing greyhounds, and shelter dogs in Florida. *Veterinary Parasitology*, 171 (1–2), 136–139.

Unver, A., Huang, H., and Rikihisa, Y., 2006. Cytokine gene expression by peripheral blood leukocytes in dogs experimentally infected with a new virulent strain of Ehrlichia canis. *Annals of the New York Academy of Sciences*, 1078, 482–486.

Unver, A., Ohashi, N., Tajima, T., Stich, R.W., Grover, D., and Rikihisa, Y., 2001. Unver Ahmet, Transcriptional analysis of p30 major outer membrane multigene family of Ehrlichia canis in dogs, ticks, and cell culture at different temperatures,.pdf. *Infection and immunity*, 69 (10), 6172–6178.

Unver, A., Rikihisa, Y., Stich, R.W., Ohashi, N., and Felek, S., 2002. The omp-1 major outer membrane multigene family of Ehrlichia chaffeensis is differentially expressed in canine and tick hosts. *Infection and Immunity*, 70 (8), 4701–4704.

Valli, J.L., Williamson, A., Sharif, S., Rice, J., and Shewen, P.E., 2010. In vitro cytokine responses of peripheral blood mononuclear cells from healthy dogs to distemper virus, Malassezia and Toxocara. *Veterinary Immunology and Immunopathology*, 134 (3), 218–229.

Varanat, M., Maggi, R.G., Linder, K.E., and Breitschwerdt, E.B., 2011. Molecular Prevalence of Bartonella, Babesia, and Hemotropic Mycoplasma sp. in Dogs with Splenic Disease. *Journal of Veterinary Internal Medicine*, 25 (6), 1284–1291.

Vargas-Pino, F., Gutiérrez-Cedillo, V., Canales-Vargas, E.J., Gress-Ortega, L.R., Miller, L.A., Rupprecht, C.E., Bender, S.C., García-Reyna, P., Ocampo-LÓpez, J., and Slate, D., 2013. Concomitant administration of GonaCon¢ and rabies vaccine in female dogs (Canis familiaris) in Mexico. *Vaccine*, 31, 4442–4447.

Velasco-Villa, A., Orciari, L.A., Souza, V., Juárez-Islas, V., Gomez-Sierra, M., Castillo, A., Flisser, A., and Rupprecht, C.E., 2005. Molecular epizootiology of rabies associated with terrestrial carnivores in Mexico. *Virus Research*, 111 (1), 13–27.

Velasco-Villa, A., Reeder, S.A., Orciari, L.A., Yager, P.A., Franka, R., Blanton, J.D., Zuckero, L., Hunt, P., Oertli, E.H., Robinson, L.E., and Rupprecht, C.E., 2008. Enzootic rabies elimination from dogs and reemergence in wild terrestrial carnivores, United States. *Emerging Infectious Diseases*, 14 (12), 1849–1854.

Vélez-Hernández, L., Reyes-Barrera, K.L., Rojas-Almaráz, D., Calderón-Oropeza, M.A., Cruz-Vázquez, J.K., Arcos-García, J.L., Velez-Hernandez, L., Reyes-Barrera, K.L., Rojas-Almaraz, D., Calderon-Oropeza, M.A., Cruz-Vazquez, J.K., and Arcos-Garcia, J.L., 2014. Potential hazard of zoonotic parasites present in canine feces in Puerto Escondido, Oaxaca. *Salud Pública de México*, 56 (6), 625–630.

Verocai, G.G., Conboy, G., Lejeune, M., Marron, F., Hanna, P., MacDonald, E., Skorobohach, B., Wilcock, B., Kutz, S.J., and Gilleard, J.S., 2016. Onchocerca lupi Nematodes in Dogs Exported from the United States into Canada. *Emerging infectious diseases*, 22 (8), 1477–1479.

Víctor M. Montenegro, M.C.B., Darwin Kaminsky, J.J.R.-Z., and Susanne Siebert, K., 2017. Serological detection of antibodies to Anaplasma spp., Borrelia burgdorferi sensu lato and Ehrlichia canis and of Dirofilaria immitis antigen in dogs from Costa Rica. *Veterinary parasitology*, 236, 97–107.

Vida, B., Toepp, A., Schaut, R.G., Esch, K.J., Juelsgaard, R., Shimak, R.M., and Petersen, C.A., 2016. Immunologic progression of canine leishmaniosis following vertical transmission in United States dogs. *Veterinary Immunology and Immunopathology*, 169, 34–38.

Vitt, J.P., Saunders, A.B., O’Brien, M.T., Mansell, J., Ajithdoss, D.K., and Hamer, S.A., 2016. Diagnostic Features of Acute Chagas Myocarditis with Sudden Death in a Family of Boxer Dogs. *Journal of veterinary internal medicine*, 30 (4), 1210–1215.

Wagner, B. and Erb, H.N., 2012. Dogs and horses with antibodies to outer-surface protein C as on-time sentinels for ticks infected with Borrelia burgdorferi in New York State in 2011. *Preventive Veterinary Medicine*, 107 (3–4), 275–279.

Wagner, K. a, Hartmann, F. a, and Trepanier, L. a, 2007. Bacterial Culture Results from Liver, Gallbladder, or Bile in 248 ogs and Cats Evaluated for Hepatobiliary Disease: 1998 – 2003. *Journal of Veterinary Internal Medicine*, 21 (3), 417–424.

Wallace, R., Etheart, M., Ludder, F., Augustin, P., Fenelon, N., Franka, R., Crowdis, K., Dely, P., Adrien, P., Pierre-Louis, J., Osinubi, M., Orciari, L., Vigilato, M., Blanton, J., Patel, R., Lowrance, D., Liverdieu, A., Coetzer, A., Boone, J., Lindenmayer, J., and Millien, M., 2017. The Health Impact of Rabies in Haiti and Recent Developments on the Path Toward Elimination, 2010-2015. *The American journal of tropical medicine and hygiene*, 97 (4\_Suppl), 76–83.

Waner, T., Leykin, I., Shinitsky, M., Sharabani, E., Buch, H., Keysary, A., Bark, H., and Harrus, S., 2000. Detection of platelet-bound antibodies in beagle dog after artificial infection with Ehrlichia canis. *Veterinary immunology and immunopathology*, 77 (1/2), 145–150.

Ward, M.P., 2002a. Clustering of reported cases of leptospirosis among dogs in the United States and Canada. *Preventive Veterinary Medicine*, 56 (3), 215–226.

Ward, M.P., 2002b. Seasonality of canine leptospirosis in the United States and Canada and its association with rainfall. *Preventive veterinary medicine*, 56 (3), 203–213.

Ward, M.P., Guptill, L.F., Prahl, A., and Ching Wu, C., 2004. Serovar-specific prevalence and risk factors for leptospirosis among dogs: 90 cases (1997–2002). *Journal of the American Veterinary Medical Association*, 224 (12), 1958–1963.

Ward, M.P., Guptill, L.F., and Wu, C.C., 2004. Evaluation of environmental risk factors for leptospirosis in dogs: 36 cases (1997–2002). *Journal of the American Veterinary Medical Association*, 225 (1), 72–77.

Watson, C.E., Bell, C., and Toohey-Kurth, K., 2017. H3N2 canine influenza virus infection in a dog. *Veterinary Pathology*, 54 (3), 527–530.

Wei, L., Kelly, P., Ackerson, K., Zhang, J., El-Mahallawy, H.S., Kaltenboeck, B., Wang, C., LanJing, W., Kelly, P., Ackerson, K., JiLei, Z., El-Mahallawy, H.S., Kaltenboeck, B., and ChengMing, W., 2014. First report of Babesia gibsoni in Central America and survey for vector-borne infections in dogs from Nicaragua. *Parasites and Vectors*, 7 (126), (25 March 2014).

Wells, J.E., Bartges, J.W., Kania, S.A., Bemis, D.A., and Gluhak, T., 2013. Association between presence of urovirulence factors, phylogenetic class, and antimicrobial resistance patterns in 159 uropathogenic Escherichia coli samples isolated from dogs. *Open Journal of Veterinary Medicine*, 3 (2), 199–203.

Wild, C.J., Greenlee, J.J., Bolin, C.A., Barnett, J.K., Haake, D.A., and Cheville, N.F., 2002. An improved immunohistochemical diagnostic technique for canine leptospirosis using antileptospiral antibodies on renal tissue. *Journal of Veterinary Diagnostic Investigation*, 14 (1), 20–24.

Wiley, C.A., Ottoson, M.C., Garcia, M.M., Wiley, L.E., and Otto, C.M., 2013. The seroprevalence of canine influenza virus H3N8 in dogs participating in a flyball tournament in pennsylvania in 2010: A follow-up study. *Journal of Veterinary Internal Medicine*, 27 (2), 367–370.

Wilkerson, M.J., Black, K.E., Lanza-Perea, M., Sharma, B., Gibson, K., Stone, D.M., George, A., Nair, A.D.S., and Ganta, R.R., 2017. Initial development and preliminary evaluation of a multiplex bead assay to detect antibodies to Ehrlichia canis, Anaplasma platys, and Ehrlichia chaffeensis outer membrane peptides in naturally infected dogs from Grenada, West Indies. *Journal of Veterinary Diagnostic Investigation*, 29 (1), 109–114.

Williamson, A.L., Lecchi, P., Turk, B.E., Choe, Y.C., Hotez, P.J., McKerrow, J.H., Cantley, L.C., Sajid, M., Craik, C.S., and Loukas, A., 2004. A multi-enzyme cascade of hemoglobin proteolysis in the intestine of blood-feeding hookworms. *Journal of Biological Chemistry*, 279 (34), 35950–35957.

Windsor, R.C., Sturges, B.K., Vernau, K.M., and Vernau, W., 2009. .\_Cerebrospinal Fluid Eosinophilia in Dogs.pdf, 275–281.

Winter, R.L., Gordon, S.G., Zhang, S., Hariu, C.D., and Miller, M.W., 2014. Mural Endocarditis Caused by Corynebacterium mustelae in a Dog With a VSD. *Journal of the American Animal Hospital Association*, 50 (5), 366–72.

Wong, C., Epstein, S.E., and Westropp, J.L., 2015. Antimicrobial Susceptibility Patterns in Urinary Tract Infections in Dogs (2010-2013). *Journal of veterinary internal medicine / American College of Veterinary Internal Medicine*, 29 (4), 1045–52.

Xiong, Q., Bao, W., Ge, Y., and Rikihisa, Y., 2008. Ehrlichia ewingii infection delays spontaneous neutrophil apoptosis through stabilization of mitochondria. *The Journal of infectious diseases*, 197 (8), 1110–1118.

Xu, C., Loftis, A., Ahluwalia, S.K., Gao, D., Verma, A., Wang, C., and Kaltenboeck, B., 2014. Diagnosis of canine leptospirosis by a highly sensitive FRET-PCR targeting the lig genes. *PLoS ONE*, 9 (2), e89507.

Yancey, C.B., Hegarty, B.C., Qurollo, B.A., Levy, M.G., Birkenheuer, A.J., Weber, D.J., Diniz, P.P.V.P., and Breitschwerdt, E.B., 2014. Regional Seroreactivity and Vector-Borne Disease Co-Exposures in Dogs in the United States from 2004–2010: Utility of Canine Surveillance. *Vector-Borne and Zoonotic Diseases*, 14 (10), 724–732.

Yang, Y., Wang, Y., Poulsen, E., Ransburgh, R., Liu, X.M., An, B.Y., Lu, N.Y., Anderson, G., Wang, C.M., and Bai, J.F., 2017. Genotyping Brucella canis isolates using a highly discriminatory multilocus variable-number tandem-repeat analysis (MLVA) assay. *Scientific Reports*, 7.

Yao, P.J., Stephenson, N., Foley, J.E., Toussieng, C.R., Farver, T.B., Sykes, J.E., and Fleer, K.A., 2015. Incidence rates and risk factors for owner-reported adverse events following vaccination of dogs that did or did not receive a *Leptospira* vaccine. *Journal of the American Veterinary Medical Association*, 247 (10), 1139–1145.

Ye, C.L., Yan, W.W., Xiang, H., He, H.X., Yang, M.S., Ijaz, M., Useh, N., Hsieh, C.L., McDonough, P.L., McDonough, S.P., Mohamed, H., ZhiBang, Y., and Chang, Y.F., 2014. Recombinant antigens rLipL21, rLoa22, rLipL32 and rLigACon4-8 for serological diagnosis of leptospirosis by enzyme-linked immunosorbent assays in dogs. *PLoS ONE*, 9 (12), e111367.

Yeagley, T.J., Reichard, M. V., Hempstead, J.E., Allen, K.E., Parsons, L.M., White, M.A., Little, S.E., and Meinkoth, J.H., 2009. Detection of *Babesia gibsoni* and the canine small *Babesia* ‘Spanish isolate’ in blood samples obtained from dogs confiscated from dogfighting operations. *Journal of the American Veterinary Medical Association*, 235 (5), 535–539.

Yu, X.J., McBride, J.W., Diaz, C.M., and Walker, D.H., 2000. Molecular cloning and characterization of the 120-kilodalton protein gene of Ehrlichia canis and application of the recombinant 120-kilodalton protein for serodiagnosis of canine ehrlichiosis. *Journal of clinical microbiology*, 38 (1), 369–374.

Zhan, B., Gupta, R., Wong, S.P.Y., Bier, S., Jiang, D., Goud, G., and Hotez, P., 2008. Molecular cloning and characterization of Ac-TMP-2, a tissue inhibitor of metalloproteinase secreted by adult Ancylostoma caninum. *Molecular and Biochemical Parasitology*, 162 (2), 142–148.

Zhang, G. and Fu, Z.F., 2012. Complete genome sequence of a street rabies virus from Mexico. *Journal of virology*, 86 (19), 10892–10893.

Zhang, P.L.C., Shen, X., Chalmers, G., Reid-Smith, R.J., Slavic, D., Dick, H., and Boerlin, P., 2018. Prevalence and mechanisms of extended-spectrum cephalosporin resistance in clinical and fecal Enterobacteriaceae isolates from dogs in Ontario, Canada. *Veterinary Microbiology*, 213, 82–88.