

Ibrahim Elsohaby, DVM, MVSc, PhD

550 University Ave, Charlottetown,
PE C1A 4P3, Canada
☎ +1 902 330 1700
✉ ielsohaby@upei.ca

PERSONAL INFORMATION

Name:	Ibrahim Elsohaby
Citizenship:	Canadian
Date of birth:	September 24, 1984
Emails:	ielsohaby@upei.ca ; ielsohaby@gov.pe.ca
Languages:	English, French and Arabic (native).
Home address:	83 Westridge Crescent, Charlottetown, PEI, Canada C1A8P2
LinkedIn:	https://www.linkedin.com/in/ibrahim-elsohaby-b8847b46/
ResearchGate:	https://www.researchgate.net/profile/Ibrahim_Elsohaby

EDUCATION

- 2015 **Doctor of Philosophy (Ph.D.) in Epidemiology**
Atlantic Veterinary College, University of Prince Edward Island, Canada
Area of emphasis: Epidemiological methods and biostatistics
Dissertation title: "*Emerging technologies for the assessment of bovine immunoglobulins in biofluids.*"
Advisor: Dr. Greg Keefe
- 2015 **Graduate Certificate in One Health**
Western College of Veterinary Medicine, University of Saskatchewan, Canada
Area of emphasis: Public health, Epidemiology, One Health
- 2009 **Master of Veterinary Medical Science (MVSc) in Epidemiology**
Faculty of Veterinary Medicine, Zagazig University, Egypt
Area of emphasis: Epidemiology of infectious diseases
Thesis title: "*Epizootiological Studies of Types "A" and "O" Foot and Mouth Disease Virus in Sharkia Province.*"
- 2006 **Bachelor of Veterinary Medical Science (BVSc) with Honors**
Faculty of Veterinary Medicine, Zagazig University, Egypt

PROFESSIONAL EMPLOYMENT

- Mar. 2022 – Present **Assistant Professor**
Department of Infectious Diseases and Public Health, Jockey Club of
Veterinary Medicine and Life Sciences, City University of Hong Kong
▪ Support the overall academic missions of the College and the
Department.

- Facilitate further development of research programmes and teaching activities including delivery of courses in the MSc Programme in Public Health.
- Mar. 2019 – Feb. 2022 **Veterinary Epidemiologist**
Animal Health and Research, Agriculture and Land, Government of Prince Edward Island, Canada
- Support COVID-19 modelling in the province of Prince Edward Island.
 - Design and maintain the on-going, systematic collection, analysis and interpretation of animal health data.
 - Use a validated multi-criterion approach and establish a framework to prioritize diseases.
 - Develop analytical tools for data analysis, including algorithms for identifying the cluster of disease or outbreaks.
 - Merge surveillance data with premises identification geographical information systems data to determine outbreak boundaries.
 - Use specialized epidemiological software to model outbreak spread predictions. Provide veterinary and epidemiological subject matter expertise to multi-sectoral partners.
 - Provide advice, leadership and epidemiological expertise when monitoring the health and welfare status of species and measuring the effectiveness of animal health and welfare programs.
- Feb. 2019 – Present **Research Scientist (causal contract)**
Maritime Quality Milk Laboratory (MQM), Atlantic Veterinary College, Canada
- Investigate the use of matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry as a rapid tool for detecting antimicrobial resistance of mastitis-associated pathogens.
- Oct. 2018 – Present **Adjunct Faculty**
Department of Health Management, University of Prince Edward Island, Canada
- Advising graduate students in conservation medicine with a specialty in epidemiology and biostatistics.
 - Instructing in dairy health related to veterinary medicine, animal health policy and communication, epidemiology, population health, outbreak investigation, and infectious diseases, with an emphasis on antimicrobial resistance.
- July 2018 – Feb. 2019 **Health Information Data Analyst**
Health Information and Performance, Health PEI, Canada
- Develop and deploy required data queries from internal health information systems in response to national, provincial and program requirements.
 - Create data mining architectures, define data coding standards, statistical reporting, and data analysis methodologies.
 - Presentation and sharing of data to help support decision-making and quality improvement.
 - Organize and assist in implementing and using new specialized information software tools and systems.
 - Develop dashboards for health data indicators.
- Sep. 2017 – Aug. 2018 **Mitacs Elevate Postdoctoral Fellow**
Timeless Veterinary System Inc. and University of Prince Edward Island, Canada
- To develop partial least squares regression models for quantifying human milk macronutrients (fat, protein and lactose).

- Integrate the developed algorithms into user-friendly software.
- Apr. 2016 – Aug. 2017 **Postdoctoral Researcher**
Atlantic Veterinary College, University of Prince Edward Island, Canada
- To investigate the association between colostrum management practices and calf health in Atlantic Canada dairy farms.
 - Validation of infrared-based assay for measurement of bovine, equine and alpaca IgG concentration.
- Jan. 2016 – Present **Assistant Professor – On leave**
Faculty of Veterinary Medicine, Zagazig University, Egypt
- Teaching the calf health component of infectious diseases curriculum for undergraduate students.
 - Taught the laboratory section for the undergraduate infectious diseases course.
 - Organized lectures, and grade reports and laboratory exams for DVM students.
- Jan. 2012 – Oct. 2015 **Research Assistant**
Maritime Quality Milk (MQM) Laboratory, Atlantic Veterinary College, Canada
- Develop models and systems for use in diagnosing, preventing, controlling, eradicating, and surveillance infectious animal diseases.
 - Statistical analyses of data to estimate relevant epidemiological parameters for their use in disease modelling.
 - Liaison with dairy associations, government groups and industries allied to the dairy industry in PEI and Canada.
- Jan. 2009 – June 2009 **Researcher**
Department of Virology, Technical University of Denmark (DTU), Lindholm, Denmark
- Investigate swine vesicular disease (SVD): pathogenesis, virulence, and transmission.
 - Validate the in-house antibody ELISAs for the seven FMDV serotypes set up at Lindholm/DTU.
- May 2007 – Sep. 2008 **Researcher**
Veterinary Serum and Vaccine Research Institute, Cairo, Egypt
- To investigate the use of recombinant 3ABC protein expressed in *E.coli* to differentiate between FMD infected and vaccinated animals.
 - Study the genetic characterization and phylogenetic analysis of serotype O FMDV in Sharkia Province.
- Mar. 2007 – Oct. 2009 **Teaching Assistant**
Faculty of Veterinary Medicine, Zagazig University, Egypt
- Teach and supervise the DVM students during the laboratory sections.
- June 2006 – Feb. 2007 **Field Veterinarian**
DINA Farm, Egypt
- To prevent and control diseases affecting dairy cows. Coordination of official sampling for laboratory testing of antibiotic residuals.
 - Training of dairy farm personnel in quality assurance programs and good management practices for dairy cows.

PUBLICATIONS

Refereed Journal Articles

(* corresponding author)

- 2021 Mahmoud Fayez, Waleed R. El-Gharee, Ahmed Elmoslemany, Saleem J. Alsunaini, Mohamed Alkafafy, Othman M. Alzahrani, Samy F. Mahmoud, **Ibrahim Elsohaby***, Genotyping and antimicrobial susceptibility of *Clostridium perfringens* and *Clostridium difficile* in camel minced meat. *Pathogens*, 10, 1640. doi.org/10.3390/pathogens10121640
- 2021 Abou Elez, R., **Elsohaby, I.***, El-Gazzar, N., Tolba, H., Abdelfatah, E., Abdellatif, S., Mesalam, A., Tahoun, A. Prevalence and antimicrobial resistance of *S. Enteritidis* and *S. Typhimurium* isolated from laying hens, table egg and human: antimicrobial activity of biosynthesized silver nanoparticle on virulence and resistance genes expression. *Animals*, 11, 3554. <https://doi.org/10.3390/ani11123554>
- 2021 **Elsohaby, I.***, Alahadeb, J., Mahmmod, Y., Mweu, M., Ahmed, H., El-Diasty, M., Elgedawy, A., Mahrous, E., El Hofy, F. Estimation of the Sensitivity and Specificity of Three Diagnostic Tests for Bovine Tuberculosis in Egyptian Dairy Cattle Using Bayesian Latent Class Models. *Veterinary Sciences*, 8, 246.
- 2021 **Ibrahim Elsohaby***, Ahmed Elmoslemany, Mohamed El-Sharnouby, Mohamed Alkafafy, Mohammed Alorabi, Wael El-Deeb, Theeb Al-Marri, Ibrahim Qasim, Fanan Alaql, Mahmoud Fayez. Flock Management Risk Factors Associated with Q Fever Infection in Sheep in Saudi Arabia. *Animals*, 11, no. 7: 1948.
- 2021 Asmaa Tahoun, Rasha Abou Elez, **Ibrahim Elsohaby**, Samah Abd Ellatif, Hend Nada, Eman Abdelfatah. Genotypic characterization and antimicrobial resistance of *Vibrio cholerae* and *Vibrio parahaemolyticus* isolated from milk, dairy products, and humans with respect to inhibitory activity of a probiotic *Lactobacillus rhamenosus*. *LWT - Food Science and Technology*, 150, 111930.
- 2021 Hend El Damaty, Elshaima Fawzi, Ahmed Neamat-Allah, **Ibrahim Elsohaby***, Abdelmonem Abdallah, Gamelat Farag, Yousry El-Shazly, Yasser Mahmmod. Characterization of foot and mouth disease virus serotype SAT-2 in swamp water buffaloes (*Bubalus bubalis*) under the Egyptian smallholder production system. *Animals*, 11, no. 6: 1697.
- 2021 El-Deeb W, Fayez M, Alhumam N, **Elsohaby I**, Quadri S, Mkrtychyan H. The effect of staphylococcal mastitis including resistant strains on serum procalcitonin, neopterin, acute phase response and stress biomarkers in Holstein dairy cows. *PeerJ* 9:e11511.
- 2021 Mahmoud Fayez, Ahmed Elmoslemany, Mohammed Alorabi, Mohamed Alkafafy, Ibrahim Qasim, Theeb Al-Marri, **Ibrahim Elsohaby***. Seroprevalence and Risk Factors Associated with *Chlamydia abortus* Infection in Sheep and Goats in Eastern Saudi Arabia. *Pathogens* 10, no. 4: 489.
- 2021 Ahmed Elmoslemany, **Ibrahim Elsohaby***, Mohammed Alorabi, Mohamed Alkafafy, Theeb Al-Marri, Ali Aldoweriej, Fanan A. Alaql, Abdullah Almubarak, Mahmoud Fayez. Diversity and Risk Factors Associated with Multidrug and Methicillin-Resistant Staphylococci Isolated from Cats Admitted to a Veterinary Clinic in Eastern Province, Saudi Arabia. *Antibiotics* 10, 367.
- 2021 **Ibrahim Elsohaby***, Ahmed Samy, Ahmed Elmoslemany, Mohammed Alorabi, Mohamed Alkafafy, Ali Aldoweriej, Theeb Al-Marri, Ayman Elbehiry, Mahmoud Fayez. Migratory wild birds as a potential disseminator of antimicrobial-resistant bacteria around Al-Asfar Lake, Eastern Saudi Arabia. *Antibiotics*. 10, 260.
- 2021 **I. Elsohaby***, J. C. Arango-Sabogal, J. T. McClure, S. Dufour, S. Buczinski, and G. P. Keefe. Accuracy of direct and indirect methods for assessing bovine colostrum quality using

- a latent class model fit within a Bayesian framework. *Journal of Dairy Science*, 104 (4), 4703-4714. <https://doi.org/10.3168/jds.2020-19231>
- 2021 **Ibrahim Elsohaby***, Mahmoud Fayez, Mohamed Alkafafy, Mohamed Refaat, Theeb Al-Marri, Fanan A Alaql, Abdulaziz S Al Amer, Abdelmonem Abdallah, Ahmed Elmoslemany. Serological and Molecular Characterization of *Mycobacterium avium* Subsp. *paratuberculosis* (MAP) from Sheep, Goats, Cattle and Camels in the Eastern Province, Saudi Arabia. *Animals*, 11, no. 2: 323. <https://doi.org/10.3390/ani11020323>
- 2021 Abdalla H., Salem S.E., **Elsohaby I.**, Swelum A.A. Likelihood of pregnancy in cows identified with different amounts of anechoic intrauterine fluid at the time of insemination. *Animal Reproduction Science*, 226, 106688.
- 2021 Lisa Gamsjaeger, **Ibrahim Elsohaby**, Jennifer M. Pearson, Michel Levy, Edmond A. Pajor, M. Claire Windeyer. Evaluation of three refractometers to determine transfer of passive immunity in neonatal beef calves. *Journal of Veterinary Internal Medicine*, 35(1):632-643.
- 2021 Heba A. Ahmed, Naglaa F.S.Awad, Marwa I. Abd El-Hamid, Asmaa Shaker, Rehab E. Mohamed, **Ibrahim Elsohaby**. Pet birds as potential reservoirs of virulent and antibiotic resistant zoonotic bacteria. *Comparative Immunology, Microbiology and Infectious Diseases*, 75, 101606. <https://doi.org/10.1016/j.cimid.2020.101606>
- 2020 Ahmed, A., Ras, R., Mahmoud, A., Abdallah F., El-Ghazaly, E., Widmer, G., Dahshan, H., **Elsohaby, I.** Prevalence and bacterial isolation from hydatid cysts in dromedary camels (*Camelus dromedarius*) slaughtered at Sharkia abattoirs, Egypt. *Journal of Parasitic Diseases*. <https://doi.org/10.1007/s12639-020-01300-x>
- 2020 El-Deeb W, Fayez M, **Elsohaby I**, Salem M, Alhaider A, Kandeel M. Investigation of acute-phase proteins and cytokines response in goats with contagious caprine pleuropneumonia with special reference to their diagnostic accuracy. *PeerJ* 8:e10394
- 2020 Wael El-Deeb, Mahmoud Fayez, **Ibrahim Elsohaby**, Hermine Mkrtyang, Abdulrahman Alhaider. Changes in blood biomarkers in Arabian horses with *Clostridium difficile*-induced enterocolitis. *Comparative Immunology, Microbiology and Infectious Diseases*, 73, 101525.
- 2020 Hassanen, E., Anter, R., El-Neshwy, W., **Elsohaby, I.*** Prevalence and Phylogenetic Analysis of *Eimeria* spp. in Sheep and Goats in Sharkia Governorate, Egypt. *Pakistan Veterinary Journal*. 40(4):437-42. DOI: 10.29261/pakvetj/2020.064.
- 2020 **Elsohaby, I.***, Mahmmmod, Y., Mweu, M., Ahmed, H., El-Diasty, M., Elgedawy, A., Mahrous, E., El Hofy, F. Accuracy of PCR, mycobacterial culture and interferon- γ assays for detection of *Mycobacterium bovis* in blood and milk samples from Egyptian dairy cows using Bayesian modelling. *Preventive Veterinary Medicine*, 181, 105054.
- 2020 **Ibrahim Elsohaby***, Heba A. Ahmed, Mohamed M. El-Diasty, Attia A. Elgedawy, Eman Mahrous, Fatma I. El Hofy. Serological and molecular evidence of *Mycobacterium bovis* in dairy cattle and dairy farm workers under the intensive dairy production system in Egypt. *Journal of Applied Microbiology*, 129(5), 1207-1219. <https://doi.org/10.1111/jam.14734>.
- 2020 Lisa Gamsjaeger, **Ibrahim Elsohaby**, Jennifer M. Pearson, Michel Levy, Edmond A. Pajor, Deborah Haines, M. Claire Windeyer. Assessment of Brix refractometry to estimate Immunoglobulin G concentration in beef cattle colostrum. *Journal of Veterinary Internal Medicine*, 34(4), 1662-1673. DOI: <https://doi.org/10.1111/jvim.15805>.
- 2020 Mahmoud Fayez, **Ibrahim Elsohaby***, Theeb Al-Marri, Kamal Zidan, Ali Aldoweriej, Elham El-Sergany, Ahmed Elmoslemany. Genotyping and antimicrobial susceptibility of *Clostridium perfringens* isolated from dromedary camels, pastures and herders. *Comparative Immunology, Microbiology and Infectious Diseases*, 70, 101460.

- 2020 Guzmán, V., Reyes-Velez, J., **Elsohaby, I.**, Olivera, M. Short communication: Factors associated with microbiological quality of bovine colostrum in Colombian dairy herds. *International Dairy Journal*, 105, 104670.
- 2020 El-Deeb, W., Fayez, M., Elsohaby, I., Ghoneim, I., Al-Marri, T., Kandeel, M., ElGioushy, M. Isolation and characterization of vaginal *Lactobacillus* spp. in dromedary camels (*Camelus dromedarius*): In vitro evaluation of probiotic potential of selected isolates. *PeerJ*, 8, e8500.
- 2020 El-Deeb, W., **Elsohaby, I.**, Fayez, M., Mkrtychyan, H.V., El-Etriby, D. and ElGioushy, M., Use of procalcitonin, neopterin, haptoglobin, serum amyloid A and proinflammatory cytokines in diagnosis and prognosis of bovine respiratory disease in feedlot calves under field conditions. *Acta Tropica*, 204, 105336.
- 2020 Morsi, A., **Elsohaby, I.***, Abdelmageed, M., Al- Marri, T., Fayez, M. Risk factors associated with *Clostridium difficile* infections in adult horses and foals. *Advances in Animal and Veterinary Sciences*, 7(s2): 169-174.
- 2019 Gharieb, R., Fawzi, E., **Elsohaby, I.*** Antibioqram, virulotyping and genetic diversity of *Escherichia coli* and *Salmonella* serovars isolated from diarrheic calves and calf handlers. *Comparative Immunology, Microbiology and Infectious Diseases*, 67, 101367.
- 2019 Wael El-Deeb, Ibrahim Ghoneim, Mahmoud Fayez, **Elsohaby, I.**, A.K. Alhaider, Magdy ElGioushy. Acute phase proteins, proinflammatory cytokines and oxidative stress biomarkers in aborted sheep, goats and camels with *Coxiella burnetii* infection. *Comparative Immunology, Microbiology and Infectious Diseases*, 67, 101352.
- 2019 Abdalla, H., Elghafghuf, A., **Elsohaby, I.*** Evaluating sire effects on cow fertility: Timed AI and repeat-breeder dairy cows. *Animal Reproductive Science*, 209, 106147.
- 2019 M. I. Abd El-Hamid, M. M. Bendary, A. M. A. Merwad, **I. Elsohaby**, D. Mohammad Ghaith, W. A. Alshareef. What is behind phylogenetic analysis of hospital-, community- and livestock-associated methicillin-resistant *Staphylococcus aureus*? *Transboundary and Emerging Diseases*, 66, 1506– 1517.
- 2019 **Elsohaby, I.***, Mweuc, M., Mahmmod, Y., McClure, J., Keefe, G. Diagnostic performance of direct and indirect methods for assessing failure of transfer of passive immunity in dairy calves using latent class analysis. *Preventive Veterinary Medicine*, 164, 72-77.
- 2019 **Elsohaby, I.***, Cameron, M., Elmoslemany, A., McClure, J., Keefe, G. Effect of Passive Transfer of Immunity on Growth Performance of Pre-weaned Dairy Calves. *Canadian Journal of Veterinary Research*, 83(2), 90-96.
- 2019 **Elsohaby, I.***, Riley, C., McClure, J. T. Usefulness of digital and optical refractometers for the diagnosis of failure of transfer of passive immunity in neonatal foals. *Equine Veterinary Journal*, 51(4), 451-457.
- 2019 Tolba, H., Abou Elez, R. and **Elsohaby, I.*** Risk factors associated with *Chlamydia psittaci* infection in psittacine birds and bird handlers. *Journal of Applied Microbiology*, 126(2), 402-410.
- 2019 **Elsohaby, I.***, McClure, J., Waite, L., Cameron, M., Heider, L. and Keefe, G. Using serum and plasma samples to assess failure of transfer of passive immunity in dairy calves. *Journal of Dairy Science*, 102(1),567-577.
- 2018 **Elsohaby, I.***, McClure, J. T., Riley, C., Bryanton, J., Bigsby, K. and Shaw, R. A. Transmission infrared spectroscopy for rapid quantification of fat, protein and lactose concentrations in human milk. *Journal of Perinatology*, 38, 1685–1693.

- 2018 Tolba, H., Abou Elez, R., **Elsohaby, I.** and Ahmed H. Molecular identification of avian influenza virus subtypes H5N1 and H9N2 in birds from farms and live bird markets and in respiratory patients. *PeerJ* 6:e5473.
- 2018 Mweu, M.M., Mahmmud, Y.S., Abou Elez, R., Tolba, H. and **Elsohaby, I.** Bayesian evaluation of the performance of three diagnostic tests for *Chlamydophila psittaci* in humans. *Journal of Zoonotic Diseases*, 3 (1), 22-32.
- 2018 **Elsohaby, I.***, Windeyer, M. C., Haines, D., Homerosky, E., Pearson, J., McClure, J. T., Keefe, G. P. Application of transmission infrared spectroscopy and partial least squares regression to predict immunoglobulin G concentration in dairy and beef cow colostrum. *Journal of Animal Science*, 96 (2):771-782.
- 2018 **Elsohaby, I.***, McClure, J. T., Riley, C., Bryanton, J., Bigsby, K. and Shaw, R. A. Centrifugal ultrafiltration of human serum for improving immunoglobulin A quantification using attenuated total reflectance infrared spectroscopy. *Journal of Pharmaceutical and Biomedical Analysis*, 150, 413-419.
- 2018 **Elsohaby, I.***, McClure, J. T., Dow, N. and Keefe, G. P. Effect of heat-treatment on accuracy of infrared spectroscopy and digital and optical Brix refractometers for measuring bovine colostrum immunoglobulin G concentration. *Journal of Veterinary Internal Medicine*, 32 (1), 491-496.
- 2017 Fawzi, E. and **Elsohaby, I.** Prevalence of Gastrointestinal Nematodes and the Role of Allicin in Treatment of Cattle in Sharkia Governorate. *Zagazig Veterinary Journal*, 45, 109-117.
- 2017 Tahoun, A., Abou Elez, R., Abdelfatah, E., **Elsohaby, I.***, El-Gedawy, A. and Elmoslemany, A. (2017) *Listeria Monocytogenes* in raw milk, milking equipment and dairy workers: molecular characterization and antimicrobial resistance patterns. *Journal of Global Antimicrobial Resistance*, 10, 264-270.
- 2017 **Elsohaby, I.***, Burns, J.J., Riley, C. B., Shaw, R. A., and McClure, J. T. Application of laboratory and portable attenuated total reflectance infrared spectroscopic approaches for rapid quantification of alpaca serum immunoglobulin G. *PLOS ONE*, 12 (6), e0179644.
- 2017 **Elsohaby, I.***, Burns, J.J., Riley, C. B., and McClure, J. T. Evaluation of transmission infrared spectroscopy, digital and optical refractometers to identify low immunoglobulin G concentrations in alpaca serum. *Canadian Journal of Veterinary Research*, 81 (3), 217-222.
- 2017 Abdalla, H., Elghafghuf, A., **Elsohaby, I.** and Nasr, M. Maternal and non-maternal factors associated with late embryonic and early fetal losses in dairy Cows. *Theriogenology*, 100, 16-23.
- 2017 Abou Elez, R., Hassanen, E., Tolba, H., and **Elsohaby, I.*** Seroprevalence and risk factors associated with *Toxoplasma gondii* infection in domestic rabbits and humans. *Veterinary Parasitology: Regional Studies and Reports*, 8, 133–137.
- 2017 **Elsohaby, I.***, McClure, J.T., Cameron, M. Heider, L.C. and Keefe, G.P. Rapid assessment of bovine colostrum quality: how reliable are transmission infrared spectroscopy, and digital and optical refractometers? *Journal of Dairy Science*, 100 (2):1427–1435.
- 2016 Tahoun, A. B., Ahmed, H. A., Elez, R. M. A., El-Gedawy, A. A., **Elsohaby, I.**, and El-Ghafar, A. E. A. Molecular characterisation, genotyping and survival of *Aeromonas hydrophila* isolated from milk, dairy products and humans in Egypt. *International Dairy Journal*, 63, 52-58.

- 2016 **Elsohaby, I.**, McClure, J. T., Riley, C. B., Shaw, R. A., and Keefe, G. P. Quantification of bovine immunoglobulin G using transmission and attenuated total reflectance infrared spectroscopy. *Journal of Veterinary Diagnostic Investigation*, 28(1): 30-37.
- 2016 **Elsohaby, I.**, McClure, J. T., Hou, S., Riley, C. B., Shaw, R. A., and Keefe, G. P. A novel method for the quantification of bovine colostrum immunoglobulin G using infrared spectroscopy. *International Dairy Journal*, 52:35-41.
- 2015 **Elsohaby, I.**, Hou, S., McClure, J. T., Riley, C. B., Shaw, R. A., and Keefe, G. P. A rapid field test for the measurement of bovine serum immunoglobulin G using attenuated total reflectance infrared spectroscopy. *BMC Veterinary Research*, 11:218.
- 2015 **Elsohaby, I.***, and Keefe, G. P. Preliminary validation of a calf-side test for diagnosis of failure of transfer of passive immunity in dairy calves. *Journal of Dairy Science*, 98(7):4754-61.
- 2015 **Elsohaby, I.***, McClure, J. T., and Keefe, G. P. Evaluation of digital and optical refractometers for assessing failure of transfer of passive immunity in dairy calves. *Journal of Veterinary Internal Medicine*, 29(2): 721-726.
- 2014 **Elsohaby, I.***, Riley, C. B., Hou, S., McClure, J. T., Shaw, R. A., and Keefe, G. P. Measurement of serum immunoglobulin G in dairy cattle using Fourier-transform infrared spectroscopy: A reagent free approach. *The Veterinary Journal*, 202(3), 510-515.

Refereed Journal Articles Submitted

(* corresponding author)

1. H.M. Abdallah, N.al Naiemi, **I. Elsohaby**, E.A. Reuland, B.B. Wintermans, A. Koek, E.H. Mohamed Abdallah F.A. Mahmoud, Abdallah M. Merwad and C.M.J.E. Vandenbroucke-Grauls. Prevalence of extended-spectrum β -lactamase-producing *Enterobacteriaceae* in retail sheep meat from Zagazig, Egypt. *BMC Veterinary Research*. (Under review).
2. Abdou Nagy, Fatma Abdallah, Hend M. El Damaty, Ahmed Tariq, Abdallah M. A. Merwad, **Ibrahim Elsohaby***. Metagenomic characterization of bovine nasal virome with the whole-genome sequence of the first detection bovine parvovirus-3, Egypt. *PlosOne*. (Under review).
3. Rasha Abou Elez, Amira Attia, **Ibrahim Elsohaby**, Hala Tolba, Reham Anter, Molecular Identification, Risk Factors and Antiprotozoal Activity of Biosynthesized Silver Nanoparticles on Viability of *Cryptosporidium parvum* Isolated from Domestic Pigeons, Pigeon Fanciers, and Drinking Water. *Experimental Parasitology* (Under review).
4. Ahmed Elmoslemany, Fahd Alanazi, **Ibrahim Elsohaby***, Mahmoud Fayez, Abdulmohsen Alnaeem, Associations between management factors and seroprevalence of *Mycobacterium avium* subsp. *paratuberculosis* in dromedary camels. *Comparative Immunology, Microbiology and Infectious Diseases* (Under review).
5. **Ibrahim Elsohaby***, Juan Carlos Arango-Sabogal, Abdelfattah Selim, Kotb A. Attia, Roua A. Alsubki, Arif M Mohamed, Ameer Megahed, Bayesian estimation of sensitivity and specificity of fecal culture, fecal PCR and serum ELISA for diagnosis of *Mycobacterium avium* subsp. *paratuberculosis* infections in sheep. *Preventive Veterinary Medicine* (Under review).
6. Wael El-Deeba, Olimpia Iacob, Mahmoud Fayez, Abdulrahman Alhaider, **Ibrahim Elsohaby**, Hermine V Mkrtychyan, Abdelazim Ibrahim, Naser Alhumam, The Use of Blood Biomarkers in the Diagnosis and Prognosis of *Cryptosporidium parvum* Infected Feedlot Calves. *Parasitology* (Under review).

Refereed Journal Articles in Preparation

1. **Elsohaby, I.,** McClure, J., Greenwood, S. J. Detection of *Cryptosporidium* sp. and *Giardia* duodenalis in Eastern Oysters (*Crassostrea virginica*) from Prince Edward Island, Canada.
2. **Elsohaby, I.,** Ahmed Elmoslemany, Mahmoud Fayez, Theeb Al-Marri. Seroprevalences of Five Infectious Causes of Abortion in Dromedary Camels (*Camelus dromedarius*) in Saudi Arabia.
3. **Elsohaby, I.,** Mellish, S., Sanford, C. Animal Diseases Prioritization for PEI Surveillance System
4. **Elsohaby, I.,** Ahmed Elmoslemany, Mahmoud Fayez, Theeb Al-Marri. Risk Factors Associated with Extended Spectrum β -lactamase Producing *E. coli* Isolated from Healthy and Diseased Cats Admitted to Veterinary Clinic in Eastern province, Saudi Arabia.

CONFERENCE PRESENTATIONS

- 2020 Development of an epidemiological and genomic strategy to evaluate the impact of calf management practices on cow productivity and longevity in Canadian dairy herds. ASAS-CSAS.
- 2020 A multi-methodological evaluation of Brix refractometer performance for assessment of colostrum quality in beef cows. ACVIM 2020.
- 2018 Diagnostic performance of direct and indirect methods for assessing failure of transfer of passive immunity in dairy calves using latent class analysis. ISVEE 15 Conference, Chiang Mai, Thailand.
- 2018 MALDI-TOF mass spectrometry as a tool to identify mastitis pathogens and determine antimicrobial resistance. National Veterinary Scholars Symposium, Texas A&M University.
- 2016 Evaluation of Mid Infrared Spectroscopy for Quantification of Bovine Serum and Colostrum IgG Concentration. 15th Annual Meeting of the Canadian Animal Health Laboratorians Network (CAHLN), Charlottetown, PE.
- 2015 Effect of Passive Immunity Transfer on Growth Performance of Pre-weaned Dairy Calves. ISVEE 14 Conference, Merida, Yucatan, Mexico.
- 2015 Novel Method for Quantification of Bovine Colostrum Immunoglobulin G Using Infrared Spectroscopy and Multivariate Data Analysis. ISVEE 14 Conference, Merida, Yucatan, Mexico.
- 2014 Evaluation of Digital Brix Refractometer and Fourier-Transform Infrared (FTIR) Spectroscopy for Assessing Failure of Passive Immunity Transfer in Calves. CAVEPM Conference, Charlottetown, PE.
- 2014 Digital Brix Refractometer for Assessment of Failure of Passive Immunity Transfer in Dairy Calves. CAVEPM Conference, Charlottetown, PE.
- 2014 Attenuated Total Reflectance Fourier-Transform Infrared Spectroscopy: A New Approach for Rapid Quantification of Immunoglobulin G Concentration in Dairy Calves. One Health-CREATE ITraP/ Summer School, Saskatoon.

- 2014 Detection of Failure of Passive Immunity Transfer in Dairy Calves Using Fourier-Transform Infrared Spectroscopy.
22nd Annual Graduate Studies and Research Days, Charlottetown, PE.
- 2013 Application of FTIR spectroscopy for the quantification of bovine serum IgG.
4th Annual Graduate Research Recognition Day. Charlottetown, PE.
- 2013 Measurement of Bovine Serum Immunoglobulin G Concentrations Using Fourier-Transform Infrared Spectroscopy.
CAVEPM Conference, Saskatoon, Saskatchewan.
- 2013 Using Fourier Transform Infrared Spectroscopy to Measure Bovine Serum Immunoglobulin G Concentrations.
21st Annual Graduate Studies and Research Days, Charlottetown, PE.
- 2010 Seroprevalence of types "A" and "O" Foot and Mouth Disease Virus in Sharkia Province.
10th Sci. Vet. Med. Zag., Luxor, Egypt.
- 2010 Use of PRIOCHECK® FMDV-NS ELISA and PRIOCHECK® FMDV type O ELISA in Uganda.
Eu-FMD conference, Vienna.

TEACHING AND MENTORING

Teaching

- 2016 Controlling infectious diseases in farm animals. Winter term.
Undergraduate course.
- 2007-2010 Clinical sections of animal infectious diseases course. Fall and winter terms.
Undergraduate course.

Teaching – Instructing

- 2017 Advanced Epidemiology. Teaching assistant: designing and leading tutorials. Fall term.
Graduate students.
- 2016-2018 Veterinary epidemiology. Small group coach. Fall and winter terms.
Graduate students.

Teaching – Formal Training

- 2017 Instructional skills workshop. University of Prince Edward Island.
- 2016 Effective teaching workshop. Zagazig University.
- 2010 Preparation of university lecturer. Zagazig University.
- 2008 Introduction to university credit hours system. Zagazig University.

Mentoring

- 2021 - **Master student (Supervisory Committee Member)**
Present Megan Ross
Department of Health Management, Atlantic Veterinary College
Project title: Identifying common horse housing practices on Prince Edward Island and the motivators and barriers to owners maintaining horses within the recommended body conditioning score.
- 2020 - **Master student (Supervisory Committee Member)**
Present Molly Mills

- Department of Health Management, Atlantic Veterinary College
Project title: Improving Horse Welfare in Prince Edward Island Farms Through Assessment and Benchmarking.
- 2020 **Undergraduate Student (Summer Internship)**
Felicia Gauthier
Department of Health Management, Atlantic Veterinary College
Project title: MALDI-TOF Mass Spectrometry as a Tool to Identify Mastitis Pathogens and Determine Antimicrobial Resistance.
- 2019-
Present **Doctoral student (Supervisory Committee Member)**
Elizah McFarland
Department of Health Management, Atlantic Veterinary College
Project title: Extending Cow Longevity on Dairy Farms by Improving Calf Management Practices in the First Year of Life.
- 2017 **Master's student (Research Advisor)**
Victor Manuel Guzman
Facultad de Ciencias Agrarias, Universidad de Antioquia, Colombia.
Project title: Failure of Transfer of Passive Immunity and Associated Management Practices on Colombian Dairy Herds.
- 2018 **Undergraduate Student (Summer Internship)**
Carly Josephine Lilley
Department of Health Management, Atlantic Veterinary College
Project title: MALDI-TOF Mass Spectrometry as a Tool to Identify Mastitis Pathogens and Determine Antimicrobial Resistance.
- 2015 **Undergraduate Student (Summer Internship)**
Lauren Ariel Waite
Department of Health Management, Atlantic Veterinary College
Project title: Using Serum and Plasma Samples to Assess Failure of Transfer of Passive Immunity in Dairy Calves.
- 2015 **Undergraduate Student (Summer Internship)**
Natalie Dow
Department of Health Management, Atlantic Veterinary College
Project title: Effect of Heat-treatment on Accuracy of Infrared Spectroscopy and Digital and Optical Brix Refractometers for Measuring Immunoglobulin G Concentration in Bovine Colostrum.

RESEARCH FUNDING

- 2021 **Role: Co-investigator**
Title: Assessment and improvement of horse welfare on Prince Edward Island through benchmarking and a better understanding of horse caretakers' decision-making
Principal investigator: Dr. Caroline Ritter
Agency: The Sir James Dunn Animal Welfare Centre (SJDAWC) / UPEI
Date(s): 2021/5 – 2023/4
Amount: 35,347 \$CAN
- 2020 **Role: Principal investigator**
Title: Improving Horse Welfare on PEI Farms through Development of an On-Farm Assessment Tool and a Better Understanding of Horse Owners' Attitudes Toward Welfare

Principal investigator: Dr. Ibrahim Elsohaby
Agency: The Canadian Agriculture Partnership (CAP) / PEI Government
Date(s): 2020/6 – 2023/3
Amount: 94,783 \$CAN

2019 **Role: Principal investigator**

Title: Animal Diseases Prioritization for PEI Surveillance System.
Principal investigator: Dr. Ibrahim Elsohaby
Agency: The Canadian Agriculture Partnership (CAP) / PEI Government
Date(s): 2019/9 – 2020/3
Amount: 7,825 \$CAN

2018 **Role: Co-investigator**

Title: Extending Cow Longevity on Dairy Farms by Improving Calf Management Practices in the First Year of Life.
Principal investigator: Dr. Greg Keefe
Agency: Dairy Research Cluster 3 - Dairy Canada Farm's
Date(s): 2018/8 – 2023/7
Amount: 269,100 \$CAN

2018 **Role: Co-investigator**

Title: Evaluation of MALDI-TOF MS for Prediction of Antimicrobial Resistance in Mastitis Associated Bacterial Species.
Principal investigator: Dr. Greg Keefe
Agency: Dairy Research Cluster 3 - Dairy Canada Farm's
Date(s): 2018/8 – 2020/7
Amount: 125,000 \$CAN

2016 **Role: Collaborator**

Title: Care of the Dairy Calf: Investigations into the Welfare and Health of Calves in the Maritime Provinces of Canada.
Principal investigator: Dr. Luke Heider
Agency: Sir James Dunn Animal Welfare Center
Date(s): 2016/2 – 2018/2
Amount: 38,200 \$CAN

2014 **Role: Collaborator**

Title: Health Intelligence Data Collection and Knowledge Transfer for Improving Dairy Calf Health in Nova Scotia.
Principal investigator: Dr. Luke Heider
Agency: Zoetis Investment in Innovation Fund
Date(s): 2014/2 – 2016/2
Amount: 25,783 \$CAN

SELECTED AWARDS AND SCHOLARSHIPS

2017 **Mitacs Elevate Postdoctoral Fellowship (CA\$120,000)**
Mitacs, Canada

2016,2017, 2018,2019 **Prize of Scientific Excellence for Publication in Peer-Reviewed Journals (CA\$2,000)**
Zagazig University, Egypt.

2015 **Paper Presentation Bronze Prize, 23rd Annual GSR Days (CA\$200)**
University of Prince Edward Island, Canada.

- 2013, 2014 **Integrated Training Program in Infectious Diseases, Food Safety and Public Policy**
University of Saskatchewan, Canada.
- 2013 **Innovation PEI Graduate Student and Post-Doctoral Fellowship (CA\$90,000)**
Innovation PEI, Canada.
- 2013 **NSERC Graduate Residual Fund Travel Supplement Award (CA\$950)**
University of Prince Edward Island, Canada.
- 2011 **International Graduate Student Award (CA\$3,500)**
University of Prince Edward Island, Canada.
- 2010 **Egyptian Government Mission Program (MHESR)**
Ministry of Higher Education and Scientific Research, Egypt.
- 2010 **Merit Scholarship Programme for High Technology (MSP)**
Islamic Developed Bank (IDB), Saadia Arabia.
- 2008 **The Partnership and Ownership Initiative (ParOwn) Scholarship (CA\$15,000)**
Ministry of Higher Education and Scientific Research, Egypt.
- 2006 **Undergraduate Scientific Excellence**
Zagazig University, Egypt.

PROFESSIONAL DEVELOPMENT

Graduate courses

Ph.D. (2011-2015)	Epidemiology I	Grade: A
	Epidemiology II	Grade: A-
	Veterinary Biostatistics	Grade: A-
	Advanced Vet Biostatistics	Not graded
	Selected Topics Biostatistics Epidemiology (Multivariate Data Analysis)	Not graded
	Biomedical Research Principles	Grade: B
	Recent Advances in Immunology	Grade: B+
Grad. Certificate (One health 2014- 2015)	Approach to Mitigating Disease	Not graded
	Infectious Diseases, Food Safe	Not graded
	Introduction to Ethics and Integrity	Not graded

Workshops

- 2020 ArcGIS Pro: Essential Workflows, Esri Canada, June 2020.
- 2018 Introduction to Multilevel Modelling. Workshop. University of Prince Edward Island. 11-15 June 2018.
- 2018 Multivariate Visualization and Analysis. Workshop. University of Prince Edward Island. 18-22 June 2018.
- 2018 Project Management. Workshop. Mitacs. January 2018.
- 2017 Presentation Skills Workshop. Mitacs. December 2017.
- 2017 Practical Tips for Growing Your Network. Workshop. Mitacs. October 2017.
- 2017 Time Management. Workshop. Mitacs. October 2017.
- 2014 Observational Studies in the Era of Bioinformatics. Workshop. University of Prince Edward Island. June 2014.

- 2014 Version Control and How Can That be Used in Veterinary Epidemiology Research. Workshop. University of Prince Edward Island. June 2014.
2014 Canadian Excellence Research Chairs (CERC) Scientific Writing Workshop, Spring 2014.
2014 Bias in observational studies. Workshop. University of Prince Edward Island. June 2014.
2012 Diagnostic test evaluation with emphasis on latent class analysis. Workshop. University of Prince Edward Island. June 2012.

SERVICE TO THE PROFESSION

Professional Memberships

- 2011 – Present Centre for Veterinary Epidemiological Research (CVER).
2012 – Present American Dairy Science Association (ADSA).
2012 – Present American Association of Bovine Practitioners (AABP).
2012 – Present Canadian Association of Veterinary Epidemiology and Preventive Medicine (CAVEPM).
2014 – Present American Association of Veterinary Laboratory Diagnosticians (AAVLD).
2014 – Present Canadian Animal Health Laboratorians Network (CAHLN).

Peer-review

- Journal of Dairy Science: 6 papers
Journal of Veterinary Internal Medicine: 4 papers
Preventive Veterinary Medicine: 2 papers
Animal Science: 1 paper
Frontiers Microbiology: 1 paper
Translational Animal Science: 1 paper
Access Microbiology: 1 paper
Animals: 8 papers
Small Ruminant Research: 1 paper

Research Collaboration

- Dr. Claire Windeyer** Faculty of Veterinary Medicine, University of Calgary
Project: Assessment of Beef Cow Colostrum Quality in Alberta
- Dr. Deborah Haines** Saskatoon Colostrum Inc.
Project: Validation of Infrared Spectroscopic Assay for Colostrum Quality Control.
- Dr. Heba Ahmed** Faculty of Veterinary Medicine, Zagazig University, Egypt
Project: Pet birds: Potential source of antibiotic drug-resistant zoonotic bacteria.
- Dr. Mahmoud Fayze** Veterinary Diagnostic Laboratory, Ministry of Agriculture, Saudi Arabia
Project: Farm animal infectious diseases in Saudi Arabia.
- Dr. Wael M. El-Deeb** College of Veterinary Medicine, King Feisal University, Saudi Arabia
Project: Use of acute-phase proteins, proinflammatory cytokines and oxidative stress biomarkers for diagnosis of infectious diseases.
- Dr. Martha Olivera Angel** Facultad de Ciencias Agrarias, Universidad de Antioquia, Colombia
Project: Failure of Transfer of Passive Immunity and Associated Management Practices on Colombian Dairy Herds.

REFERENCES

Dr. Greg Keefe

PhD and Postdoctoral Fellow
Advisor

Professor of Epidemiology and Dairy Production Medicine
Dean
Atlantic Veterinary College
University of Prince Edward Island
Email: gkeefe@upei.ca
Tel.: +1 (902) 566-0825

Dr. J Trenton McClure

PhD Committee Member
Postdoctoral Fellow Advisor

Professor of Large Animal Medicine
Department of Health Management
Atlantic Veterinary College
University of Prince Edward Island
Email: jmccclure@upei.ca
Tel.: +1 (902) 566-0717

Dr. Christopher Riley

PhD Committee Member

Professor of Equine Clinical Studies
School of Veterinary Sciences
Massey University
Email: C.B.Riley@massey.ac.nz
Tel.: +64 (06) 356-9099 ext. 85164