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## Dromedary camels and the transmission of MERS coronavirus (MERS-CoV)

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Middle East Severe Acute Coronavirus (MERS-CoV) is an existential threat to global public health. The virus has been repeatedly detected in dromedary camels (*Camelus dromedaries*). Adult animals in many countries in the Middle East as well as in North and East Africa have high (>90%) sero-prevalence to the virus and dromedaries are a natural host for this virus. MERS-CoV isolated from dromedaries is genetically and phenotypically similar to viruses from humans. Our goal is to summarize relevant aspects of dromedary camel husbandry, animal movements, trade and the use and consumption of camel dairy and meat products in the Middle East that may be relevant to the ecology and epidemiology of MERS. It is important to understand the ecology and epidemiology of MERS so that zoonotic disease can be prevented and epidemic or pandemic threats mitigated. To understand the modes and risk factors of human MERS, it is important to exclude cases that have been acquired from other humans or affected health care facilities and to focus on index cases of the disease. Such cases are presumed to be zoonotic in origin and livestock exposure has been reported in some, but not all or even most cases. In conclusion, transmission of MERS-CoV is complicated and further studies are undergoing to explore this to improve our understanding of the role of the dromedary as a source of human infection.

## **Biography**

Maged Gomaa Hemida received his PhD from University of Guelph, 2009. He pursued his PDF training at the University of British Columbia (James Hogg iCapture Centre). His research area of interest is "One Health Concept" with special emphasis on emerging viruses/host interaction. Currently, he is studying the Molecular Evolution and Pathogenesis of MERSCoV in the Middle East. He published more than 40 original research papers in high impacted journals. Meanwhile, he received several research grants, prestigious honors and scholarship throughout his academic carrier. At present, he is a reviewer of many granting agencies as well as Editorial Board Member of many international journals.

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