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## Molecular and serological surveillances of the african horse sickness virus on horses in the eastern and central regions of Saudi Arabia 2014-2016

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African horse sickness (AHSV) is one of the most devastating viral diseases of the family Equidae. The AHSV infection threaten not only the local equine industry but also worldwide. This is due to the high morbidity and mortality rates among the affected horse flocks up to 100%. The world organization for animal health (OIE) listed AHSV among the notifiable disease list, which requires a great attention of all countries to avoid spread of such virus. It also suggested the regular monitoring of the Equine population of such virus at regular interval. The major aim of the current study was to do molecular and serological surveillances among different horses population in eastern and central regions of the kingdom. To achieve our goals, we collected 268 serum samples and 323 nasal and 323 rectal swabs from different horses' population at Al-Ahsa, Damma, Aljubail, ALqateef, Riyadh and Qasseem. We used the commercial ELISA kits to detect the AHSV antibodies in sera of tested animals. Meanwhile, we used the commercial Real Time PCR kits to detect the AHSV nucleic acid in the collected nasal and rectal swabs. Our results clearly demonstrated the absence of any antibodies in sera of tested animals. Furthermore, we failed to detect any viral nucleic acids in the collected swab by RT-PCR. Overall, all the tested samples collected during 2014-2016 from horses population on the indicated regions were negative. This confirm the absence of AHSV among horse's population in the eastern and central region of the kingdom during 2014-2016. We recommend continuous monitoring of AHSV among different horse population across the country. Furthermore, vaccination of animals especially racing horses is highly recommended.

### Biography

Maged Gomaa Hemida has received his PhD from University of Guelph, 2009. He has pursued his PhD training at the the University of British Columbia (James Hogg Capture 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 has published more than 40 original Research papers on high impacted journals. Meanwhile, he received several Research grants, prestigious honors and scholarship throughout his academic carrier. Currently, he is a reviewer of many granting agencies as well as Editorial Board Member of many international journals.

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