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## Isolation and characteristics identification of bovine rotaviruses from vaccinated dairy calves in Morocco

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Group A Rotaviruses (RVA) are the main cause of neonatal calve diarrhea and are known to infect most commonly 0-3 months old pre-weaned dairy calves causing major losses in the dairy and beef production/industry worldwide. In Morocco, very little reports exist as regards to this infection. The present study aims to isolate and characterize the Rotavirus in three Moroccan dairy sectors where all dams are immunized against RVA (ROTAVEC-CORONA; G10P[11] and G6P[5]) in order to control the spread of RVA disease in Morocco. This isolation process constitutes a first step toward vaccine development. In total, 212 clinical samples from neonates' diarrhea calves were registered and tested for RVA infection basing on fecal immune chromatographic rapid test and further evaluated for their hemagglutination (HA) activity. RVA isolation was carried out on MA104 cells after activation of the virus with different concentrations of trypsin TPCK. All RVA isolates were confirmed by LSI VetMAX<sup>TM</sup> Triplex Ruminant Rotavirus and Coronavirus real-time PCR kit. G and P typing were determined by direct sequencing of the VP4 and VP7 amplicons. The proportion of RVA positive samples genotyped as G10P[14] was relatively high with 24% prevalence even with the establishment of prophylactic measures. This finding might be associated with impaired colostrum feeding and uncompleted active immunity. To our knowledge, this is the first study in Morocco which reports the circulation of G10P[14] in calve dairies. Our study constitutes a crucial and a necessary step to develop a vaccine against this infection which allow preventive and veterinary medicine to support RVA disease controls in the country.

## Biography

Ennima Imane is currently a PhD Student from the Faculty of science, University Mohammed V of Rabat, Morocco. She is a Young Researcher on Virology and Molecular Biology, especially on isolation of bovine Rotavirus strains which will be used for the development of Vaccines against Rotavirus in Morocco. She contributes to the optimization of a new protocol of RVA isolation and carried out the molecular characterization in order to develop a vaccine using the local strain representing the dominant serotype in Morocco and this in collaboration with the Society Biopharma, Rabat, Morocco. She has published 2 papers in reputed journals and communicated her studies in many national and international congresses.

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