

SYED M. JAMAL

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Interests:

I have experience of working in the area of both classical and molecular epidemiology of trans-boundary animal diseases, diagnosis and vaccinology.

Degrees:

Ph. D. in Microbiology from Quaid-i-Azam University, Islamabad
M. S. in Epidemiology from Utrecht University, the Netherlands
M. Phil in Microbiology from Quaid-i-Azam University, Islamabad
DVM from College of Veterinary Sciences, Lahore

Current position: (May 2013 onwards) **Associate Professor (BPS-20)**, Department of Biotechnology, and **Chairman of the Department** w.e.f. August, 2013 till August, 2017.

I have also been associated with the Food and Agriculture Organization of the United Nations (FAO) on transboundary animal disease diagnosis, surveillance and control under its projects for Pakistan and some Central Asian countries. Working in the area of transboundary animal diseases with financial support from FAO (and European Union) resulted in:

1. Declaration of freedom of Pakistan from Rinderpest by the World Organization for Animal Health (OIE), Paris, France in 2007.
2. Moving forward of Pakistan from stage 0 to stage 2 on the OIE/EuFMD/FAO Progressive Control Pathway for Foot-and-mouth disease (FMD-PCP).
3. Selection of appropriate vaccine strains for incorporation in vaccine against Foot-and-mouth disease.

Principal research areas:

- Diagnosis, surveillance and control of infectious diseases including Foot-and-mouth disease (FMD), Peste des petits ruminants (PPR) and Rinderpest
- Vaccine development for bovine brucellosis
- Vaccine quality testing and evaluation of foot-and-mouth disease
- Classical and molecular epidemiology of foot-and-mouth disease
- Development and application of novel methods (diagnostics)

Key tasks:

- Teaching
- Supervision of scientific staff and BS/M. Phil/PhD students
- Preparation of papers, grant applications and reports, etc.

Achievements:

- About 200 nucleotide sequences submitted to GenBank
- Published more than 20 papers in peer reviewed scientific journals (listed below)

Publications:

1. Ullah A, Jamal SM, Ullah A, **Jamal SM**, Romey A, Gorna K, Kakar MA, Abbas F, Ahmad J, Zientara S, Bakkali Kassimi L. Genetic Characterization of Serotypes A and Asia-1 Foot-and-mouth Disease Viruses in Balochistan, Pakistan, in 2011. *Transboundary and Emerging Diseases*, 2017; 64(5):1569-1578.
2. **Jamal SM**, Belsham GJ. Development and Characterization of Probe-Based Real Time Quantitative RT-PCR Assays for Detection and Serotyping of Foot-And-Mouth Disease Viruses Circulating in West Eurasia. *PLoS One*, 2015, 10(8): e0135559.
3. Ali S, Ali Q, Melzer F, Khan I, Akhter S, Neubauer H, **Jamal SM**. Isolation and identification of bovine Brucella isolates from Pakistan by biochemical tests and PCR. *Tropical Animal Health & Production*, 2014, 46:73-78.
4. **Jamal SM**, Shah SI, Ali Q, Mehmood A, Afzal M, Afzal M, Dekker A. Proper quality control of formulated foot-and-mouth disease vaccines in countries with prophylactic vaccination is necessary. *Transboundary and Emerging Diseases*, 2014, 61 (6):483-489.
5. Brito BP, Perez AM, **Jamal SM**, Belsham GJ, Pauszek SJ, Ahmed Z, Rodriguez L. Foot-and-mouth disease virus serotype O phylodynamics: genetic variability associated to epidemiological factors in Pakistan. *Transboundary and Emerging Diseases*, 2013, 60:516-524.
6. **Jamal SM**, Belsham GJ. Foot-and-mouth disease: past, present and future. *Veterinary Research*, 2013, 44:116.
7. **Jamal SM**, Ferrari G, Hussain M, Nawroz AH, Aslami AA, Khan E, Murvatulloev S, Ahmed S, Belsham GJ. Detection and genetic characterization of foot-and-mouth disease viruses in samples from clinically healthy animals in endemic settings. *Transboundary and Emerging Diseases*, 2012, 59: 429-440.
8. **Jamal SM**, Ferrari G, Ahmed S, Normann P, Belsham GJ. Molecular characterization of serotype Asia-1 foot-and-mouth disease viruses in Pakistan and Afghanistan; emergence of a new genetic Group and evidence for a novel recombinant virus. *Infection, Genetics and Evolution*, 2011, 11: 2049-2062.
9. **Jamal SM**, Ferrari G, S. Ahmed, Normann P, Curry S, Belsham GJ. Evolutionary analysis of serotype A foot-and-mouth disease viruses circulating in Pakistan and Afghanistan during 2002-2009. *Journal of General Virology*, 2011, 92: 2849-2864.

10. **Jamal SM**, Ferrari G, Ahmed S, Normann P, Belsham GJ. Genetic diversity of foot-and-mouth disease serotype O viruses from Pakistan and Afghanistan, 1997-2009. *Infection, Genetics and Evolution*, 2011, 11: 1229–1238.
11. Belsham GJ, **Jamal SM**, Tjørnehøj K, Bøtner A. Rescue of pathogenic foot-and-mouth disease virus from preserved viral RNA samples. *PLoS ONE* 6(1): e14621.
12. **Jamal SM**. Ahmed S, Hussain M, Ali Q. Status of Foot-and-mouth disease in Pakistan. *Archives of Virology*, 2010, 155 (9):1487-1491.
13. Ullah W, Abubakar M, Arshed MJ, **Jamal SM**, Ayub N, Ali Q. Differentiation of closely related Vaccinal Strains of *Pasteurella multocida* using Polymerase Chain Reaction (PCR). *Online Veterinary Journal*. 2009, 4 (1) 36.
14. Abubakar M, **Jamal SM**, Khan MA and Ali Q. Pest des petits ruminants outbreak in small ruminants of Northern area of Pakistan. *Research Journal of Veterinary Sciences*. 2008, 1 (1): 56-61.
15. Abubakar M, **Jamal SM**, Arshed MJ, Hussain M, Ali Q. Peste des petits ruminants virus (PPRV) infection; Its association with species, seasonal variations and geography. *Tropical Animal Health & Production*. 2009 41(7):1197-1202.
16. **Jamal SM**, Bouma A, van den Broek J, Stegeman A, Chenard G and Dekker A. Foot-and-mouth disease vaccine potency testing: The influence of method of fractionation, serotype, type of adjuvant, valency and type of virus culture on the dose-response curve in cattle. *Vaccine*, 2008, 26: 6317–6321.
17. Hassan MJ, Chishti MS, **Jamal SM**, Tariq M, Ahmad W. A syndromic form of autosomal recessive microcephaly (Jawad Syndrome) maps to chromosome 18 p^{11.22}-q^{11.2}. *Human Genetics* .2008, 123:77–82.
18. Abubakar M, **Jamal SM**, Hussain M, Ali Q. Incidence of Peste des petits ruminants (PPR) virus in sheep and goats as detected by immunocapture ELISA (icELISA). *Small Ruminant Research*, 2008, 75: 256-259.
19. Ahmad K, **Jamal SM**, Ali Q and Hussain M. An outbreak of Peste des petits ruminants (PPR) in a goat flock in Okara, Pakistan. *Pakistan Veterinary Journal*, 2005, 25 (3): 146-148.
20. **Jamal SM**, Afzal M and Ahmed S. The immune response of guinea pigs and buffalo calves to the locally prepared *Brucella abortus* strain 19 vaccine. *Revue Scientifique et Techniques Office Internationale des Epizooties*, 2003, 22 (3): 893-897.
21. Rafique MA, Ansar M, **Jamal SM**, Malik S, Sohail M, Faiyaz-Ul-Haque M, Haque S, Leal SM and Ahmad W. A locus for hereditary hypotrichosis localized to human chromosome 18q21.1 *European Journal of Human Genetics*, 2003, 11 (8): 623-628).
22. Ansar M, Ramzan M, Pham TL, Yan K, **Jamal SM**, Haque S, Ahmad W and Leal SM. Localization of a novel autosomal recessive non-syndromic hearing impairment locus (DFNB38) to 6q26-q-27 in a consanguineous kindred from Pakistan. *Human Heredity*, 2003, 55: 71-74.
23. **Jamal SM**, Ahmad W, Haque S, Malik S and Ahmad H. Brothers no longer sisters: Case study of pseudohermaphrodites. *The Sciences*, 2001, 1(2): 55-57.