

# MAHMOUD HASSANEIN AHMED MOHAMED

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**Faculty of Veterinary Med. and Animal Resources**  
**King Faisal University**  
**Saudi Arabia**

Birth Date        1/10/1980  
Sex                Male  
Marital Status    Married have 3 children  
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E.mail             mhmohammad@kfu.edu.sa  
Nationality        Egyptian



## RESEARCH PROFILE

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My principal research interests lie in the field of avian medicine and avian microbiology. I am currently investigating the impact of economically important avian diseases (NDV, AI, MD and IB) on the birds health and to find a best way to prevent and control these diseases. My future plans are to build up a complete strategy for diagnosis and control avian diseases using the recent molecular techniques as recombination, cloning and genomic sequencing and other genetic related techniques.

## EDUCATION

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2006-2009        Doctor of Veterinary Medicine  
Faculty of Veterinary Medicine at Zagazig University  
Anticipated degree date: December, 2009

- In collaboration with Virginia-Maryland Regional collage of Veterinary Medicine my thesis reported the 1<sup>st</sup> complete genome sequence of an avian pathogen (NDV) and registered at gene bank under accession number (GenBank accession number FJ939313).
- Also we succeeded in the production of DNA vaccine that is considered one of the few effective trials all over the world.

- 2003-2006      Master of Veterinary Medicine  
Faculty of Veterinary Medicine at Zagazig University  
Anticipated degree date: September, 2006
- My thesis investigated the current situation of NDV in our region using molecular diagnosis (PCR).
  - Also we assessed the commercial vaccines in overcome the overt clinical signs followed the challenge with high virulent NDV strain.
- 1997-2002      Bachelor of Veterinary Medicine (Very Good Grade)  
Faculty of Veterinary Medicine at Zagazig University  
Anticipated degree date: May, 2002.

## RECENT PUBLICATIONS

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**Mohamed M.H.A., Kumar S., Paldurai A., Megahed M.M., Ghanem I., Lebdah M., Samal S. K., (2009):** Complete genome sequence of a virulent Newcastle disease virus isolated from an outbreak in chickens in Egypt. *Virus Genes* (2009) DOI 10.1007/s 11262-009-0385-7.

**Mohamed M.H.A., Kumar S., Paldurai A., Samal S. K., (2011):** Sequence analysis of fusion protein gene of Newcastle disease virus isolated from outbreaks in Egypt during 2006. *Virol J.* 2011 May 18;8(1):237

**Al-Habeeb M.A., Mohamed M.H.A., Sharawi S. (2013):** Detection and characterization of Newcastle disease virus in clinical samples using real time RT-PCR and melting curve analysis based on matrix and fusion genes amplification. *Vet. World* 6(5): 239-243. doi:10.5455/ vetworld.2013.239-243.

**Ali A.M.A., Mansour S.M.G., Mohamed M.H.A., Ali H. and Shahin A. (2014):** Molecular characterization of thymidine kinase and glycoprotein G genes from a possible vaccine induced infectious laryngotracheitis outbreak in Egypt. *Pak Vet J*, 34(3): 381-385.

**Megahed, M. M. & Mohamed, M. H. (2014):** The in vivo Effect of Oseltamivir against Highly Pathogenic Avian Influenza Virus (H5N1) Isolated from Egypt.. *J. Vet. Adv.*, 4 (7), 634-640. doi:10.5455/jva.20140630011406.

**Al-Hammad Y.M., Afaleq A.I., Mohamed M.H.A. (2014).** Molecular Survey and phylogenic analysis of infectious bronchitis Virus Circulating among Chicken Flocks in Riyadh Province, Saudi Arabia. *Journal of Animal and Veterinary Advances* 13 (16):1002-1008.

**Al-Sultan, Saad I; Abdel-Raheem, Sherief M; El-Ghareeb, Waleed R; Mohamed, M H A. (2016)** Comparative effects of using prebiotic, probiotic, synbiotic and acidifier on growth performance, intestinal microbiology and histomorphology of broiler chicks, *Japanese Journal of Veterinary Research*,64,Supplement 2,S187-S195.

**Mohamed, Mahmoud H. A., Adel M. Abdelaziz, Sachin Kumar, Malik A. Al-Habib & Mohamed M. Megahed; (2016)** Effect of phylogenetic diversity of velogenic Newcastle disease virus challenge on virus shedding post homologous and heterologous DNA vaccination in chickens,*Avian Pathology*,45,2,228-234.

**Ismail, Mahmoud M; Alankari Abdulrahman; Mohamed, Mahmoud H. A; Faris Elkhayat (2016)** Molecular Characterization of Newcastle Disease Virus Isolated From Saudi Arabia. *Kafrelsheikh, Vet. Med. J.*, 4th Sci. Congress. 12-14 May 2016, pp. (257-267)

**Ismail, Mahmoud M; Mohamed, Mahmoud HA; El-Sabagh, Ibrahim M; Al-Hammadi, Mohamed A. (2017)** Emergence of new virulent rabbit hemorrhagic disease virus strains in Saudi Arabia,*Tropical animal health and production*,49,2,295-301.

**Mohamed, HA Mahmoud; Mahmoud M Ismail; Ibrahim M El-Sabagh; Al-Ankari, Abdul-Rahman S. (2017)** Molecular characteristics of VP2 gene from wild-type infectious bursal disease viruses (IBDVs) in Saudi Arabia,*The Thai Journal of Veterinary Medicine*,47,1,45.

**Mahmoud H A Mohamed; El-Sabagh, I.M.; Adel, A.; Ahmed, M. Al-Ali; Abdelazeem, M. and Abdul-Rahman S. Al-Ankari (2018).** Molecular Characterization of Fowl Adenoviruses Type D and E associated with inclusion bodies hepatitis in Chickens and Falcons indicates possible cross species transmission. *Avian Pathology* 47(4):384-390.

Ahmed M. Al-Ali; El-Sabagh I.M.; **Mahmoud H. Mohamed**; Ahmed M. Alluwaimi and Ibrahim A. Arif. (2018) Molecular characterization of common respiratory viral infections in broilers in Al-Hassa, Eastern Province, Saudi Arabia. The Thai Journal of Veterinary Medicine 48(2):235-245.

Iman E. El-Araby, Shimaa M.G. Mansour, Haytham Ali, Reham M. ElBakrey, **Mahmoud H.A. Mohamed**, and Amal A.M. Eid (2018) Detection of DNA alterations in Muscovy ducks (*Cairina moschata*) infected with highly pathogenic avian influenza virus H5N1 using RAPD-PCR. Slovenian Veterinary Journal (In press).

### Coming publications

- 1- Complete Genomic sequence of Beak and Feather virus from African grey parrots in Saudi Arabia
- 2 – Molecular characterization and vaccine assessment of fowl adenovirus isolated from chickens

### **GENE BANK SUBMISSIONS**

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- 1 - Newcastle disease virus strain NDV/Chicken/Egypt/1/2005, complete genome GenBank: FJ939313.1
- 2 - Newcastle disease virus strain NDV/chicken/Egypt/4/2006 fusion protein (F) gene, complete cds GenBank: FJ969395.1
- 3 - Newcastle disease virus strain NDV/chicken/Egypt/3/2006 fusion protein (F) gene, complete cds GenBank: FJ969394.1
- 4 - Newcastle disease virus strain NDV/chicken/Egypt/2/2006 fusion protein (F) gene, complete cds, GenBank: FJ969393.1
- 5 - Gallid herpesvirus 2 isolate MDV/2/SA/2013 Meq oncoprotein gene, partial cds GenBank: KJ949618.1
- 6 - Gallid herpesvirus 2 isolate MDV/1/SA/2013 Meq oncoprotein gene, partial cds GenBank: KJ949617.1
- 7 - Rabbit hemorrhagic disease virus isolate RHD/3/SA/2013 capsid structural protein VP60 gene, partial cds GenBank: KJ949621.1

- 8 - Rabbit hemorrhagic disease virus isolate RHD/2/SA/2012 capsid structural protein VP60 gene, partial cd GenBank: KJ949620.1
- 9 - Rabbit hemorrhagic disease virus isolate RHD/1/SA/2012 capsid structural protein VP60 gene, partial cd GenBank: KJ949619.1
- 10 - Infectious bursal disease virus isolate SA-02/14 VP2 gene, partial cds GenBank: KU640388.1
- 11 - Infectious bursal disease virus isolate SA-01/14 VP2 gene, partial cds, GenBank: KU640387.1
- 12 - Infectious Bursal Disease virus isolate SA-02/14 VP2 gene partial cds. (Accession number KU640388)
- 13 - Influenza A virus (A/chicken/Saudi Arabia/16/2015 (H9N2) segment 4 hemagglutinin (HA) gene, partial cds. (Accession number MG051077).
- 14 - Influenza A virus (A/chicken/Saudi Arabia/17/2016 (H9N2) segment 4 hemagglutinin (HA) gene, partial cds. (Accession number MG051078).
- 15 - Influenza A virus (A/chicken/Saudi Arabia/18/2016 (H9N2) segment 4 hemagglutinin (HA) gene, partial cds. (Accession number MG051079).
- 16 - Influenza A virus (A/chicken/Saudi Arabia/1/2016 (H9N2) segment 6 neuraminidase (NA) gene, partial cds. (Accession number MG051080).
- 17 - Influenza A virus (A/chicken/Saudi Arabia/2/2015 (H9N2) segment 6 neuraminidase (NA) gene, partial cds. (Accession number MG051081).
- 18 - Fowl aviadenovirus E isolate SA1 hexon gene, partial cds. (Accession number MG029107).
- 19 - Fowl aviadenovirus D isolate SA3 hexon gene, partial cds. (Accession number MG029108).
- 20 - Fowl aviadenovirus D isolate SA4 hexon gene, partial cds. (Accession number MG029109).
- 21 - Fowl aviadenovirus D isolate SA19 hexon gene, partial cds. (Accession number MG029110)

- 22 - Fowl aviadenovirus D isolate SA20 hexon gene, partial cds. (Accession number MG029111).
- 23 - Fowl aviadenovirus E isolate SA2 hexon gene, partial cds. (Accession number MG029112).
- 24 - Fowl aviadenovirus E isolate SA5 hexon gene, partial cds. (Accession number MG029113).
- 25 - Fowl aviadenovirus D isolate SA21 hexon gene, partial cds. (Accession number MG029114).
- 26 - Avian avulavirus 1 isolate NDV/chicken/1/SA/2015 fusion glycoprotein gene, partial cds. (Accession number MG022111).
- 27 - Avian avulavirus 1 isolate NDV/chicken/2/SA/2016 fusion glycoprotein gene, partial cds. (Accession number MG022112).
- 28 - Avian avulavirus 1 isolate NDV/chicken/3/SA/2016 fusion glycoprotein gene, partial cds. (Accession number MG022113).
- 29 - Avian avulavirus 1 isolate NDV/chicken/4/SA/2015 fusion glycoprotein gene, partial cds. (Accession number MG022114).
- 30 - Infectious bronchitis virus strain IBV/CH/SA/1/2015 spike glycoprotein (S1) gene, complete cds. (Accession number MG022115).
- 31 - Infectious bronchitis virus strain IBV/CH/SA/2/2015 spike glycoprotein (S1) gene, complete cds. (Accession number MG022116).
- 32 - Escherichia coli strain SA1 type 1 fimbrial chaperone protein precursor (fimC) gene, partial cds. (Accession number MG149554).
- 33 - Escherichia coli strain SA1 catechol siderophore receptor (iroN) gene, partial cds. (Accession number MG149555).
- 34 - Escherichia coli strain SA1 OmpT (ompT) gene, partial cds. (Accession number MG149556).
- 35 - Escherichia coli strain SA2 OmpT (ompT) gene, partial cds. (Accession number MG149557).

- 36 - Escherichia coli strain SA1 PhoA alkaline phosphatase (phoA) gene, partial cds. (Accession number MG149558).
- 37 - Mycoplasma Gallisepticum strain MG/Saudi Arabia/1/2016 cytoadhesion (mgc2) gene, partial cds. (Accession number MG149559).
- 38 - Mycoplasma Gallisepticum strain MG/Saudi Arabia/2/2016 cytoadhesion (mgc2) gene, partial cds. (Accession number MG149560).
- 39 - Mycoplasma synoviae strain MS/Saudi Arabia/1/2016 16S ribosomal RNA gene, partial sequence (Accession number MG149561).
- 40 - Ornithobacterium rhinotracheale strain ORT/Saudi Arabia/1/2016 16S ribosomal RNA gene, partial sequence (Accession number MG149562).
- 41 - Ornithobacterium rhinotracheale strain ORT/Saudi Arabia/2/2016 16S ribosomal RNA gene, partial sequence (Accession number MG149563).

## TEACHING/VETERINARY WORK EXPERIENCE

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September 2012	Assistant Professor King Faisal University
August, 2010	Avian Disease Specialist Riyadh Veterinary Diagnostic Lab, KSA.
February, 2010	Lecturer of Avian and Rabbit Diseases (Hall Representative) Faculty of Veterinary Medicine, Zagazig University, Egypt
Feb. to May 2009	Training at Dr. Samal's Lab Virginia-Maryland Regional College of Vet. Medicine University of Maryland, College Park, MD 20742, USA RT-PCR, Genomic Sequencing and DNA vaccines Construction
2006-2010	Assistant Lecturer of Avian and Rabbit Diseases Faculty of Veterinary Medicine, Zagazig University, Egypt.
2002-2006	Demonstrator of Avian and Rabbit Diseases Faculty of Veterinary Medicine, Zagazig University, Egypt.

## COMMUNITY SERVICE

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- Participated in the national campaign to combat Avian Flu
- Participated in the national medical veterinary convoys.
- Trainer for veterinarians and Assistants in Al-HASA agriculture development center, KSA
- Presenter in ARASCO 2<sup>nd</sup> and 3<sup>rd</sup> poultry diseases meetings.
- Consultant for poultry companies

## MEMBERSHIP IN SCIENTIFIC and PROFESSIONAL COMMITTEES:

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- 1- Member of the Egyptian poultry Association (Since 2004).
- 2- Member of the world poultry association (Since 2010).
- 3- Associate Member of the American Association of Avian Pathologists (Under Approval).

## PROFESSIONAL AND PRACTICAL SKILLS AND EXPERIENCE

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1. Handling and Securing wild birds and falcons.
2. Assessment and monitoring anesthesia in birds.
3. Samples collection, preparation and processing.
4. Avian necropsy
5. Common avian medicine practice
6. Classical virological techniques such as viruses' isolation and identification.
7. Conventional PCR and real-time PCR techniques.
8. Construction of DNA vaccines and gene expression.
9. *In vivo* work on birds.
10. Making primary cell line from embryos.
11. Measuring and evaluating innate, cell-immediate and humoral immune response.
12. Working on DNA sequencing and bioinformatics analysis programs.



## GENERAL SKILLS

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Language	Very good writing, reading and speaking of English language. Very good writing, reading and speaking of Arabic language.
Computer	I used most of the windows, Office and I deal with the internet search systems.
Communications	Able to communicate effectively with a wide range of people and colleagues, by showing interest, carefully listening to needs and appropriately adjusting my message, dealing with distraught animal's owners needs all the interpersonal skills that I can find. Strong presentation skills and confidence demonstrated by experience of delivering presentations in different situations to groups of five to fifty. Excellent ability to plan and manage time effectively. Excellent teamwork skills.

## WORKSHOPS

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- Effective communication skills in different education methods.
- Conference and symposium preparation
- Effective thinking, presentation and education skills
- Research tools
- Quality assurance in education
- The use of recent technology in education
- Reference management using REFWORKS
- Blackboard skills
- Strategic planning in higher education institutes
- Managing research teams
- Education technology
- Learning Outcomes and Methods of Measurement
- Problem-Solving Learning
- Skills of successful assessment
- Course design

## GRANTS AND PROJECTS

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- 1 – Team member in Quality assurance and accreditation unit, faculty of veterinary medicine, Zagazig University, Egypt. (2002 – 2009).
- 2 – PAOWN grant for 6 months at Virginia-Maryland Regional collage of Veterinary medicine, USA
- 3 – Team member in research projects (Fac. of Veterinary Med., Zagazig University, Egypt)
  - Diagnosis and control of avian Influenza virus (prof. Mohamed Mahrous Meghed). (2008)
  - Status of IBV at Sharkia Province, Egypt (Prof. Mohamed A. Lebdah). (2009)
  - Genetic characterization of influenza A viruses (H5N1) and generation of DNA vector vaccine encoding H5 gene (Prof. Amal Anis Mahdi Eid) (2010)
- 4 – Principal investigator for the following research projects funded from Dean of Scientific Research King Faisal University, Saudi Arabia
  - Molecular detection and characterization of infectious bursal diseases virus (IBDV) in the Kingdom of Saudi Arabia. Grant # 150047
  - Molecular detection and characterization of infectious bursal diseases virus (IBDV) in the Kingdom of Saudi Arabia. Grant # 170006
  - Molecular epidemiological analysis of inclusion bodies hepatitis viruses and formulation of inactivated autogenous vaccine. Grant # 180043

## REFERENCES

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### **Prof. Siba K Samal**

Professor of virology  
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