

Curriculum Vitae

Emad Rizkalla Zaki (Zaki, E.R.)

-Chief Researchers - (Professor of Bacteriology)



Contact Information:

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Personal Information:

- * Date of birth: 18/10/1960
- * Nationality : Egyptian
- * Marital Status: Married (Three children)
- * Religion : Christian
- * Work address: Buffalo Diseases Research Department
Animal Health Research Institute(AHRI)
Nadi El- Said Street, Dokki, Giza, Egypt.

Current Job:

- Chief Researcher (Professor Of Bacteriology).
- Biological and chemical committee manager (AHRI).

Teaching Experience:

- * Contributed many training courses as a trainer in the field of bacteriology in AHRI, Dokki, Egypt.
- * Contributed to the annual teaching course of new veterinarians and students from the Faculty of Vet. Med., Cairo University.
- * Contributed to the training for the regional laboratories members for laboratory diagnosis and recent technologies.

- * Contributed to the training in the field of computer (word office, power point and internet courses).
- * Contributed to the training in the field of biosafety in Animal Health Research Institute and regional laboratories members.

Practical Experience:

- * Implementation of many field trips in Egyptian governorates.
- * Diagnosis of field problems and offering the suitable solutions.

Offer:

- * „„ Advice and training for new employee education provider
- * „„ Consultancy services for both policy and practice in bacteriological and safety .
- * „„ Expertise on the implementation of biosafety and biosecurity programmes in bioscience laboratory.
- * „„ Evaluation and technical support for biosecurity program in farms

Education:

- * **PH.D.: Faculty of Veterinary Medicine** 1996 Cairo
University.- Egypt
Title : Virulence factor of Escherichia coli-isolated from diarrhoeic newly born calves.
- * **M.V.SC.: Faculty of Veterinary Medicine** 1991 Cairo
University - Egypt
Title : Mastitis metritisagalactia syndrome in buffaloes.
- * **B.V.SC.: Faculty of Veterinary Medicine** 1983 Cairo University
- Egypt
Title : Virulence factor of Escherichia coli-isolated from diarrhoeic

Key Responsibilities:

- * Chief researcher of microbiology (bacteriology).

- 2 Biosafety officer of animal health research institute responsible for receiving samples and safety waste disposal.
- 3 Coordinate, prepare and ensure the implementation of training programs on biosecurity, cleaning and disinfection to commercial large animal farms (Sectors 1, 2, and 3) and other stakeholders in Egypt.
- 4 Conduct experience sharing workshops for the large animal producers from different sectors to improve application of farm biosecurity.
- 5 Member of committee Safety and Occupational Health.

Publications:

- 1 Streptococcal infection in mares.
- 2 Effect of *Nigella Sativa* extract on fertility of normal and pseudomonas infected rats.
- 3 Study on the effect of Jojoba oil as antibacterial agent and growth promoting factor.
- 4 The use of enzyme immunoassay (EIA) technique for the detection of enteropathogenic *Escherichia coli* from new born buffalo calves.
- 5 Bacteriological studies on oedematous skin disease in buffaloes at El-Minia governorate.
- 6 Prolonged protection of newborn calves against enteropathogenic *E. coli* infection.
- 7 Rapid detection of *Salmonella* using slide latex test.
- 8 Role of enteric bacteria in the aetiology of neonatal buffalo calves diarrhea.
- 9 Bacteria causing liver affection in buffaloes.
- 10 Occurrence of Campylobacteriosis in apparently normal and diarrhoeic buffalo calves
- 11 Bacteriological and pharmacological studies on *Bacillus thuringiensis*.
- 12 Occurrence of campylobacteriosis in apparently normal and diarrhoeic buffalo calves.

- 23 Studies on pasteurella species in buffalo calves.
- 14 Evaluation of the efficacy of some vaccines used for protection of newborn buffalo calves against E.coli K99 by using ELISA.
- 15 Occurrence and detection of Staphylococcus aureus toxins in bovine mastitic milk.
- 16 Immunoprotection of Salmonella typhimurium lipopolysaccharides (LPS) antibodies against some Gram negative bacterial infection in buffalo calves.
- 17 Pharmacological and bacteriological studies on Allium sativum extract on cytogenesis and sexual organs in adult male rats.
- 18 Correlation between Escherichia coli serotypes isolated from buffalo mastitic milk with different virulence patterns
- 19 Feedback of pathogenic bacteria to different antibiotics in relation to sex hormones.
- 20 Assessment of the role played by *Corynebacterium pseudotuberculosis* exotoxin in inducing Oedematous skin diseases in buffaloes.
- 21 Rapid detection of enterotoxigenic E. coli recovered from buffalo meat products using PCR
- 22 Association expression of adhesive K99 antigen and heat stable enterotoxin in Escherichia coli strains isolated from buffalo calves.
- 23 Detection of Methicillin resistant *Staphylococcus aureus* isolated from mastitic buffaloes milk using pulsed- Field Gel Electrophoresis (PFGE).
- 24 Serological and molecular characterizations *Mycobacterium bovis* infection in cattle.
- 25 Bacteria incriminated with environmental mastitis in regard to the biosecurity requirements studies in dairy farms.

Supervision on Thesis:

- Incidence and characteristics of E.coli strains in buffaloes and cattle meats with special references to enterohaemorrhagic strains.
- Safety of street vended meat meals exposed to the open environment.

- * Bacterial causes of early mortality in broiler chicken.
- * Virulence determinants of enterotoxigenic *E.coli* and its relation to adhesive antigen K99 associated with diarrhea in newly born calves.
- * A contribution on virulence markers of *Escherichia coli* isolated from newly born calves.
- * Bacteriological status of fish meals at the restaurant level.
- * A study on the use of antibiotics in vitro for some pathogenic enteric bacteria from different sources.
- * Characterization of salmonella types isolated from mesenteric lymph nodes from diseased and healthy buffaloes.
- * Properties of enterotoxigenic *S. aureus* Isolated from mastitic cattle and buffaloes
- * Recent characterization of *Salomonella* strains isolated from buffaloes.
- * Characterization of enterotoxigenic *Staphylococcus aureus* isolated from mastitic buffaloes and cows.
- * Public health importance of enterotoxigenic *Staphylococcus aureus* in Milk and some milk products
- * Containment principal of *Staphylococcus aureus* isolated from mastitic cattle.
- * Advanced study on pathogenic enterobacteriaceae from different sources.
- * Comparative study between traditional and recent techniques for diagnosis of *Corynebacterium pseudotuberculosis* in sheep and goats.
- * Respiratory affections in sheep and goat by *klebsiella* species and other organisms.

Thanks in scientific Thesis:

Assist in the supervision of the thesis :

- * "Studies on the bacteriological and fungal skin infections in buffaloes in Egypt.
- * "Studies on the microbes that cause disease in experimental animals."
- * " Some studies on the bacteriological and mycoplasmal respiratory tract

infection in buffaloes and cows. "

- "Bacteriological and serological studies on mastitis in cows in the closed farms "
- "Studies on some skin diseases in sheep and goats."
- "The impact of hormonal status on the sensitivity of some harmful bacteria to antibiotics."
- "Some studies on respiratory problems and diarrhea in calves".
- "The importance of germicid bacilli in the milk of buffalo of Public Health".
- "Bacteriological problems in broiler farms and their relationship to efficient productivity".
- "Salmonella in the ostriches."
- "Escherichia coli to patients in farm animals: special reference to strains with surface adhesives "
- "Studies on the microbial etiology of mastitis in the buffalo".
- "Some studies on Mycoplasma of avian origin."
- Use some of the techniques vital in the diagnosis of mastitis and bacterial mycoplasmal in cattle and buffalo"

Training Courses:

Lecture

- Lecture titled "virulence factors of E. coli" Animal Health Research Institute in Dokki on 9/4/2003 within the training session, which was held under the Institute of address (recent trends for health care foundations of the Egyptian Buffalo) in the period from 5/4/-16/4 / 2003.
- Lectures in the field of computers under the title "computers and operating system Word XP" "in the period from 32/10/2004 to 11/03/2004 Animal Health Research Institute in Dokki.

- Lectures in the field of computers under the title "of computers and operating system Power point" "in the period from 29/1/2005 until 2/9/2005 Animal Health Research Institute in Dokki.
- Lecture (microbe coli in newborn calves) on 04/06/2005 sub lab in Zagazig and as part of a training session under the title (the modern trends of the foundations of health care for newborn calves) in the period from 04/02/2005 to 13/04/2005.
- Lectures in the field of computers under the title "computers and the use of the international network of information" in the period from 30.04.2005 to 11.05.2005 at the Animal Health Research Institute in Dokki.
- Lecture (diarrhea in newborn calves) on 11.5.2005 as part of a training course under the title (the use of modern technologies (biotechnology) in the diagnosis and resistance to infectious diseases in the Egyptian buffalo) in the period from 07/05/2005 to 18 / 5/2005.
- Lectures in the field of computers under the title "computers and operating system "Word 97 "in the period from 16.07.2005 to 27.07.2005 at the Animal Health Research Institute in Dokki.
- Lectures in the field of computers under the title "of computers and operating system Power point" "in the period from 1/10/2005 to 12/10/2005 Animal Health Research Institute in Dokki.
- Lectures in the field of computers under the title "computers and the use of the international network of information" in the period from 15/10/2005 to 26/10/2005 Animal Health Research Institute in Dokki.
- Lecture entitled (resistance - treatment - control) in buffalo calves and so on 6/12/2005, as part of a training session under the title (the foundations of proper health care for veal calves) in the period from 2/12/2005 until 14/12 / 2005.
- Lectures in the field of computers under the title "computers and the use of the international network of information" at the Animal Health Research Institute in Dokki 2006.

- Lectures in the field of computers under the title "word and power point" in the period from 30.07.2007 to 11.08.2008 at the Animal Health Research Institute in Dokki.
- Lecture in the field of biosafety on laboratories (2009).
- Lectures on the agriculture research center (ARC) entitled " biosecurity as a control measures of diseases in large animal farms (2009)
- Lectures on the Al-Zahraa farms entitled " biosecurity in horse farms (2009)
- Organizing the 1st workshop of the Egyptian Biosafety Association entitled: Strengthen Biosafety and Biosecurity in bioscience laboratories through National Association during 22-23 Oct, 2010.
- Attend and lecture the scientific forum held December 2010 at the Institute of Animal Health Research

Entitled: to shed light on the role of bio-security associations for the safety of citizens and the environment.

- Attend and lecture on the workshop held at the Animal Health Research Institute in October 2011 entitled "Application of bio-security specification 15793 Risk Management"
- Attend and participate in the international exhibition of agricultural and livestock production (Agrina) in 2012 to announce the Assembly activity and encourage researchers and practitioners in biological laboratories to participate in the Assembly
- Attend and organize workshop including 60 researchers in biological and chemical field from various ministries held in January 2013 entitled "Management of risk and how to develop a policy for the protection of workers labs and the application of standard procedures for bio-security in laboratories"
- Attend and lectures workshop in coincidence with the National Center for Research in the period of 8-9 April 2013 under the title of "bio-security role in protecting the environment from biological and chemical pollution".

- African Biological Society Annual Conference, Casablanca, Morocco, 24-25 March 2015. Presenter

Attend training courses:

- Participate in the training of new doctors at the Institute of Animal Health Research as well as final year students of the Faculty of Veterinary Medicine (Cairo University).
- Participate in seminars relating to veterinary problems.
- Training Courses in Computer skills, CEMARB, the Canadian Project (Egypt/ Canada).
- Attend a training course in the field of "Computer and the use of the international network of information" from 18/5/2002 until 29/5/2002.
- Attend a training course under the title "modern techniques for the diagnosis of viral diseases of animals using ELISA test PCR." In the period from 22/2/2003 until 5/3/2003.
- Attend a training course entitled "The use of modern techniques for the diagnosis of bacterial diseases in ruminants" in the period from 6/9/2003 until 17/9/2003.
- Attend a workshop on (using scientific technology in diagnosis) 2004.
- Attend a workshop under the title (an overview of bacterial diseases in farm animals) on 14/4/2004.
- Attend the scientific symposium guidance on "Use of the International Network for Information in the field of research" on 19/10/2004.
- Attend a workshop under the title (HACCP "risk analysis and follow-up to control the critical points) on 18/5/2004.
- Attend a workshop under the title (an overview of the use of scientific technology (biotechnology), Japan) on 29/9/2004.
- Attend a seminar guiding scientific about "bird flu", dated 26/12/2005.
- Attend the training course on "bird flu", dated 16/2/2006.
- Attend the training courses on biosafety and biosecurity (AHRI, 2007).
- Attend the training courses on biosafety and biosecurity in laboratories

(Sandia Laboratory, United State of America)(2008).

- Attend the workshop in biosafety and biosecurity (2009).

- Attend the workshop on ISO 17025 (2010).

- Attend and Organizing the 1st workshop of the Egyptian Biosafety Association entitled: Strengthen Biosafety and Biosecurity in bioscience laboratories through National Association during 22-23 Oct, 2010.

- Attend and lecture the scientific forum held December 2010 at the Institute of Animal Health Research

Entitled: to shed light on the role of bio-security associations for the safety of citizens and the environment.

- Attend and lecture on the workshop held at the Animal Health Research Institute in October 2011 entitled "Application of bio-security specification 15793 Risk Management"

- Attend and participate in the international exhibition of agricultural and livestock production (Agrina) in 2012 to announce the Assembly activity and encourage researchers and practitioners in biological laboratories to participate in the Assembly

Attend workshop for members of the Board of Directors in November 2012

Entitled "Risk Management guidance and discuss the work of the Egyptian Society of bio-safety"

- Attend and organize workshop including 60 researchers in biological and chemical field from various ministries held in January 2013 entitled "Management of risk and how to develop a policy for the protection of workers labs and the application of standard procedures for bio-security in laboratories"

- Attend and lectures workshop in coincidence with the National Center for Research in the period of 8-9 April 2013 under the title of "bio-security role in protecting the environment from biological and chemical pollution"

- Recognition of attending and participating in the second international

conference on biotechnology and environmental safety (May 6-8-2014)
National Research Center -Cairo - Egypt

- Participate in the(**Biorisk management trainer development program**) in Sandia national laboratories from 8-12 September 2014 (Albuquerque , new Mexico USA).

- Attend and organized the first conference of Egyptian biosafety association (1st EGBSA BIOLOGICAL SAFETY CONFERENCE) 8-12 February 2015 , Cairo-Egypt.

- African Biological Safety Annual Conference, Casablanca, Morocco, 24-25 March 2015. Presenter.

Scientific Activities:

Conferences and seminars:

Conferences:

- ❖ Participation in Scientific Conference of the coefficient of the second subparagraph (Research Institute of Animal Health) in the period from September 7 to 10, 2003.
- ❖ Pharmacological and bacteriological to plant garlic extract and its effect on cellular genetics and fertility in adult male rats.
- ❖ Participation in the Seventh Scientific conference 7 to 9 December 2003 (Assiut University) (Egyptian Society for cattle diseases) with the number two searches
 - Occurrence and detection of Staphylococcus aureus toxins in bovine mastitic milk.
 - Immunoprotection of Salmonella Typhimurium Lipopolysaccharide (LPS) antibodies against some Gram negative bacterial infection in buffalo calves.
- ❖ Participate in a working paper of the Conference of the Arab Society for the optimal use of antimicrobials in the period from 25 to 27 March 2004 under the title: Susceptibility of pathogenic bacteria to different antibiotics in relation to sex hormones.

- ❖ Scientific conferences VIII (Biotechnology and Livestock Development) 17-19 / 4/2005 (College of Veterinary Medicine - Cairo University).
- ❖ Detection Methicillin Resistant Staphylococcus aureus isolated from mastitic buffaloes milk using pulsed- Field Gel Electrophoresis (PFGE)
- ❖ Attend a scientific symposium under the title (food poisoning disease, recent history (hamburger disease) E. coli (O157: H7) on 8/12/2003 and the University of Assiut in the 7th Scientific Conference for diseases of livestock.
- ❖ Attend a scientific symposium under the title (The care and prevention methods in buffalo calves "to revive the project veal", dated 10/1/2005, Faculty of Veterinary Medicine - Cairo University.
- ❖ Attend a scientific symposium under the title (Campylobacter infection in animals and their relationship to public health) "on 9/4/2005 at the Institute of Animal Health Research.
- ❖ Attend a scientific symposium under the title (resistance to respiratory diseases in the newborn buffalo calves (environmental factors - shelter) "on 7/5/2005 at the Institute of Animal Health Research.
- ❖ Attend a scientific symposium under the title (HACCP system and means of its applications in the field of food) on 30/5/2005 at the Institute of Animal Health Research.
- ❖ Attend the 13th Annual Conference of the European Biosafety Association (EBSA) in Ljubljana, Slovenia. The pre-conference classes and meeting will take place from June 21-23, 2010.
- * Television interview as part of the VIII scientific conference (Biotechnology and Livestock Development) program has been broadcast channel of scientific research.

PC - Skills :

Microsoft Power Point.

Microsoft Word 2000.

Microsoft Excel 2000.
Internet Applications.

Memberships:

- Treasure of Egyptian biosafety association.
- Egyptian Society of Veterinary Medicine, Cairo, Egypt.
- Egyptian Society of Cattle Diseases, Assiut, Egypt.
- Society of wild animals Cairo-Egypt.
- Egyptian Society of Pathology and Clinical Pathology Cairo, Egypt.
- Agriculture Research Center Association.

Awards:

- The prize of the second scientific conference of regional laboratories , 2003,.
- The prize of the 7th scientific conference, 2003, Assiut, Egypt,

Languages:

- Arabic Mother Tongue
- English Very Good

References:

Prof.Dr. Mohamed Khalifa (professor of virology)

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Prof.Dr. Emad Mokhtar Riad (professor of Bacteriology)

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Notes: All references can be provided upon request.