



Usama Mahmoud, [PhD]

<https://www.purdue.edu/vet/directory/person.php?id=1381>

http://www.aun.edu.eg/membercv.php?M_ID=3047

Associate Professor of Animal Behaviour and Management

Faculty of Veterinary Medicine, Assiut University, Egypt.

Visiting Postdoc Research Scholar, College of Veterinary Medicine, Purdue University, USA (2019-2020)

Former Visiting scholar in Department of Animal Sciences (USDA-ARS Livestock Behavior Research Unit), Purdue University. USA (2013-2015).

usamakomsan5@gmail.com

Birth date 22 May 1983

Married

Asyūt, Egypt

Skills & Activities

Skills

Animal Nutrition, Animal Husbandry, Animal Production, Animal Physiology, Animal Ethics, Poultry Science, Poultry Nutrition, Poultry Management, Poultry Physiology, Poultry Production, Heat Stress, Dietary Supplements, Hematology, Husbandry, Incubation, Animal Biochemistry.

Languages

Arabic, English

Education:

NAME OF INSTITUTION	FIELD OF STUDY	ATTENDED & DATE COMPLETED DATES	DEGREE OBTAINED
Faculty of veterinary medicine, Assiut university	veterinary medicine	2000- 2005	BACHELOR
Faculty of veterinary medicine, Assiut university	veterinary medicine(animal behavior and management)	2007-2010	Master of Veterinary Science, Title " Studies on some behavioural patterns of quails with special reference to effect of heat stress on behaviours, performance and some blood parameters
Faculty of veterinary medicine, Assiut university	veterinary medicine (animal behavior and management)	2011-2015	PhD of Veterinary Medicine Title " Some Behavioral and Physiological Indications of Propolis as Anti-Heat Stressor and Growth Promoting Factor in Broilers"

Field of Specialization: veterinary medicine (Animal Behavior and Management)

Research Experience:

October 2019-

Visiting Postdoc Research Scholar

April 2020

Purdue University, College of Veterinary Medicine, Department of
Comparative Pathobiology, West Lafayette, United States

*May 2015–
September 2020* **Postdoc Researcher, Assiut University**
Faculty of Veterinary Medicine
Asyūt, Egypt

Apr 2013 – Apr2015 **Visiting PhD Research Scholar**
Purdue University, Department of Animal Sciences
West Lafayette, United States

*December 2007 –
January 2012* **Assiut University**
Faculty of Veterinary Medicine
Asyūt, Egypt

Teaching Experience:

Associate Professor of Animal Behaviour and Management

*September 2020– till
now* **Assiut University**
Faculty of Veterinary Medicine
Asyūt, Egypt
Courses includes
1- Animal and poultry behavior
2- Animal and poultry management
3- Fish behavior and management
4- Animal welfare

Lecturer and Lab Lecturer (Assistant professor)

*June 2015 –
September 2020* **Assiut University**
Faculty of Veterinary Medicine
Asyūt, Egypt
Courses includes
1. Animal and poultry behavior
2. Animal and poultry management

3. Fish behavior and management
4. Animal welfare

Assistant Lecturer and Lab Lecturer

December 2005 – **Assiut University**

May 2015 Faculty of Veterinary Medicine

Asyūt, Egypt

" Practical Courses of animal behaviour and management for undergrad student"

Awards & Grants:

- 1- *The best delivery of a research article. 13th scientific conference of the zoological society (14-15 October 2017)*
- 2- Fellowship from the Cultural affairs & Missions sector, _ EGYPT: (2013-2015) Purdue visiting researcher scholar in animal science department.
- 3- Fellowship from the Cultural affairs & Missions sector, _ EGYPT: (2019-2020) Purdue visiting postdoc researcher scholar in College of Veterinary Medicine, Department of Comparative Pathobiology.

Scientific 1) International Society for Applied Ethology (ISAE)

Memberships 2) The zoological society A. R. Egypt

3) Asian council of science editor

Research Interests: Poultry and Animal Welfare, Stress, Behavior , and Management

Publication Highlights:

Poultry research publication

U. T. Mahmoud, M. A. M. Mahmoud, M. Abd-Elkareem, F. A. M. Ahmed, and N. S. A. Khalil, "Prebiotics reduce feather pecking behavior, and improve trace element profile and redox balance in Mule ducks," J. Vet. Behav., vol. 43, pp. 28–38, May 2021, doi: 10.1016/j.jveb.2021.03.001.

M. A. M. Mahmoud, D. Yahia, D. S. Abdel-Magiud, M. H. A. Darwish, M. Abd-Elkareem, and **U. T. Mahmoud**, "Broiler welfare is preserved by long-term low-dose oral exposure to zinc oxide nanoparticles: preliminary study," Nanotoxicology, pp. 1–16, Apr. 2021, doi: 10.1080/17435390.2021.1905099.

****Usama T. Mahmoud**, Madeha H.A. Darwish, Fatma Abo Zakaib Ali, Omar A. Amen, Manal A.M. Mahmoud, Omar B. Ahmed, Ghada Abd El-Reda, Mohamed A. Osman, Aly A. Othman, Mostafa F.N. Abushahba & Ramadan D. El Shoukary (2021) Zinc Oxide Nanoparticles Prevents Multidrug Resistant Staphylococcus-Induced Footpad Dermatitis in Broilers, Avian Pathology, DOI: 10.1080/03079457.2021.1875123

****Mahmoud UT,** Abdel-Mohsein HS, Mahmoud MAM, et al (2020) Effect of zinc oxide nanoparticles on broilers' performance and health status. Trop Anim Health Prod 1–12. <https://doi.org/10.1007/s11250-020-02229-2>

Fatma M. Mohamed, Aml A.M. Bakheet, Ali A. Othman, **Usama T. Mahmoud**, Omar A. Amen (2020) In vitro effect of zinc oxide nanoparticles on Staphylococcus aureus isolated from Layer Chickens. SVU- International Journal of Veterinary Sciences, 3 (2): 14-25. DOI: 10.21608/svu.2020.28106.1047

Usama T. Mahmoud; Rasha Hassan; Omar Amen; Ghada Abdel-Raheem; Diya Al-Rammamneh (2020) Effect of Prebiotic on the Behavioural Patterns, Performance, Carcass Characteristics, Antibody Titer and Some Blood Parameters of Mule Ducks. SVU- International Journal of Veterinary Sciences, 3 (1): 27-38. DOI: 10.21608/svu.2019.16763.1028

****Farghly, M.F.A., Mahmoud, U.T.,** 2018. "Access to outdoor swimming pond during summer season improved Muscovy duck's performance and health status." Livestock Science. 211, 98–103. doi:10.1016/j.livsci.2018.03.008

****U.T. Mahmoud,** O.A. Amen, T.J. Applegate, H.W. Cheng: Brazilian Propolis Effects on Growth, Productivity Performance, Gut Characteristics and Physiological Changes in Broiler Chickens. International Journal of Poultry Science 04/2017; 16(5):169-179., DOI:10.3923/ijps.2017.169.179

****U.T. MAHMOUD,** H.W. CHENG, T.J. APPLGATE: *Functions of propolis as a natural feed additive in poultry.* World's Poultry Science Journal 01/2016; -1(1):1-12., DOI:10.1017/S0043933915002731

****Usama Taha Mahmoud,** Mootaz Ahmed Mohamed Abdel-Rahman, Madeha Hosni Ahmed Darwish, Todd Jay Applegate, Heng-wei Cheng: *Behavioral changes and feathering score in heat stressed broiler chickens fed diets containing different levels of propolis.* Applied Animal Behaviour Science 03/2015; 166(1)., DOI:10.1016/j.applanim.2015.03.003

Usama T. Mahmoud, Manal A. M. Mahmoud, Hosnia S. Abdel–Mohsein, Omar A. Amen (2018)

AGRIMOS® Prebiotics: Effect on Behavior, Performance, Cecal Microbial Population and Humeral Immunity in Broiler Chickens. Journal of Advanced Veterinary Research, 8,3, 49-59

Sohair M. M. Rageb, Elham A. Abd-Allah, Nasser S. Abou Khalil, Fatma M. Abdel-Maksoud Usama

Mahmoud: Effects of Mannan-oligosaccharide and β -Glucan Prebiotic on the Brain

Oxidant/Antioxidant Balance in Broilers under Natural Egyptian *Summer Conditions.* Egypt. Acad.

J. Biolog. Sci. (B. Zoology), 10(1), 35-46

Usama T. Mahmoud, Nasser Sayed Abou khalil, Marwa S.A. Elsayed: *Behavioral and Physiological Effects of Mannan-oligosaccharide and β -glucan Prebiotic Combination on Heat Stressed Broiler Chickens.* Journal of Advanced Veterinary Research 07/2017; 7(3):81-86.

- U.T. Mahmoud, O.A. Amen, D.H. Saleh, M.A. ABDEL-Rahman: *The Effects of Rayeb Milk On Performance, Behaviour And Cecal Lactobacilli Count In Broiler Chickens During Starter Period*. Assiut Vet. Med. J. (special issue) 17 Sci. Cong. 2016, Fac. Vet. Med., Assiut Univ., Egypt.
- Omar B. Ahmed, Usama T. Mahmoud, Manal A.M. Mahmoud, Mohamed R. Fath El-Bab: *Histomorphological Changes Associated with Different Doses of Chinese Propolis in the Bursa of Fabricius of Chickens*. Journal of Advanced Veterinary Research 01/2016; 6(1):1-6.
- Usama T. Mahmoud, Mohamed R. Fahmey, Mootaz A. Abdel-Rahman, Madeha Hosney A. Darwish: *Effect of Propolis Supplementation on Serum Calcium, Phosphorus and Proteins Concentrations in Heat Stressed Broilers*. Journal of Advanced Veterinary Research 07/2014; 4(3):117-122.
- Manal A.M. Mahmoud, Hosnia S. Abdel-Mohsein, Usama T. Mahmoud: *Effect of Chinese Propolis Supplementation on Ross Broiler Chicks: Microbial Population in Fecal Matter and Litter*. Journal of Advanced Veterinary Research 04/2014; 4(2):77-84.
- Hosnia S. Abdel-Mohsein, Manal A.M. Mahmoud, U.T. Mahmoud: *Influence of Propolis on Intestinal Microflora of Ross Broilers Exposed to Hot Environment*. Advances in Animal and Veterinary Sciences 01/2014; 2(4):204-211.
- Usama T. Mahmoud, Mootaz A.M. Abdel-Rahman, Madeha H.A. Darwish: *Effects of Propolis, Ascorbic Acid and Vitamin E on Thyroid and Corticosterone Hormones in Heat Stressed Broilers*. Journal of Advanced Veterinary Research 01/2014; 4(1):18-27.
- Usama T. Mahmoud, Mootaz Ahmed Abdel-Rahman, Madeha Hosney A. Darwish: *The Effect of Chinese Propolis Supplementation on Ross Broiler Performance and Carcass Characteristics*. Journal of Advanced Veterinary Research 10/2013; 3(4):154-160.
- Usama T. Mahmoud, M. A. M. Abdel-Rahman, Madeha Hosney A. Darwish, G.M. Mossad: *The Effect of Heat Stress on Blood Picture of Japanese Quail*. Journal of Advanced Veterinary Research 04/2013; 3(2):69-76.
- Usama T. Mahmoud: *Silver Nanoparticles in Poultry Production*. 10/2012; 2(4):303-306.
- Usama T. Mahmoud, Mootaz A.M. Abdel-Rahman, Madeha H.A. Darwish, G.M. Mossad: *The Effect of Separate-Sex Rearing of Slaughter Quail on Serum Corticosterone Level*. Journal of Advanced Veterinary Research 07/2012; 2(3):206-207.
- Usama Mahmoud: *Silver Nanoparticles in Poultry Production (Review Article)* Journal of Advanced Veterinary Research. 2/2012: 303-306

Sheep, buffalo and rats research publication

- Ahmed Mohammed; Hayam Hamdy; Ghada Abdelrady; Mahmoud Seliman; Usama Mahmoud (2020) Effect of zinc oxide nanoparticles on anxiety-related behaviors in male rats. SVU- International Journal of Veterinary Sciences, 3 (1): 123-132. DOI: 10.21608/svu.2020.22360.1041

****Ahmed Ibrahim, Usama T. Mahmoud, Nasser S. Abou Khalil, Hussein A. Hussein, Magda M. Ali: A pilot study on surgical trimming impact on severely overgrown claws in sheep: Behavioral, physiological, and ruminal function aspects. Journal of Veterinary Behavior Clinical Applications and Research 01/2018; 23:66 - 75., DOI:10.1016/j.jveb.2017.10.011**

****Omar Bauomy Ahmed, Usama Taha Mahmoud, Sara Elganady, Allam Mohamed Nafady, Salah Mohamed Hassan Afifi: Immunomodulatory effect of gelatin-coated silver nanoparticles in mice: Ultrastructural evaluation. Ultrastructural Pathology 10/2016; 40(6).**

****Arafat Khalphallah, Ashraf M. Abu-Seida, Mohammed Abdelhakiem, Enas Elmeligy, Usama T. Mahmoud: Laboratory, Radiographic and Ultrasonographic Findings of Acute Traumatic Reticuloperitonitis in Buffaloes (*Bubalus bubalis*). Asian Journal of Animal and Veterinary Advances 10/2016; 11(11)., DOI:10.3923/ajava.2016.675.683**

****Usama T. Mahmoud, Nasser S. Abou Khalil, Marwa S. A. El-Sayed: Acute behavioral and biochemical responses of sheep to S/C ivermectin injection. Acta fytotechn zootechn, 22, 2019(1): 1–6 DOI:10.15414/afz.2019.22.01.1-6**

Arafat Khalphallah, Enas Elmeligy, Al-Lethie A Al-Lethie, Bahaa Eldin A. Abdellaah, Ahmed Hafez, Usama T. Mahmoud, Mustafa Shukry: Effect of Epidural Washout with Saline on Reversing Epidural Anesthesia with Lidocaine 2% with or without Adrenaline in Dogs. Advances in Animal and Veterinary Sciences 06/2018; 6(5)., DOI:10.17582/journal.aavs/2018/6.5.207.212

Usama Taha Mahmoud, Madeha H.A. Darwish: Effect of Pair Housing Versus Individual and Group Housing on Behavioural Patterns of Buffalo Calves. Journal of Advanced Veterinary Research 01/2018; 8(1):12-15.

Al-Lethie A Al-Lethie, Sayed F El-Hawari, Khaled A S El-Khabaz, Enas Elmeligy, Arafat Khalphallah, Usama T Mahmoud: Evaluation Of Clinical Recovery And Healing Of Oral Lesions By 3 Different Therapeutic Regimens In Cattle With Foot And Mouth Disease (FMD). Assiut Veterinary Medical Journal 1/2018, (156): 89-95

Arafat Khalphallah, Enas Elmeligy, Sayed F. El-Hawari, Usama T. Mahmoud: Clinical, laboratory and ultrasonographic findings in Egyptian buffalo (*Bubalus bubalis*) with caecal and colonic dilatation. 11/2016; 4(1)., DOI:10.1016/j.ijvsm.2016.10.001

Conference Proceedings

Usama T. Mahmoud, Manal A.M. Mahmoud: The acute effect of Maize waste smoke on the behavioral and blood indicators in broiler chickens. The second international conference on multidisciplinary research (ICMR). Hurgada, Egypt.1/2018

Usama Mahmoud, Rasha I. Hassan, Ghada Sh. Abdel-Raheem: Effect of prebiotic on the behavioral patterns of Mallard ducks. The 13th scientific conference of the zoological society A. R. Egypt; 10/2017

Usama Mahmoud, O. A. Amen, D.H. Saleh, M.A. Abdel-Rahman: *The effects of Rayeb milk on performance, behaviour and cecal lactobacilli count in broiler chickens during starter period*. Faculty of Veterinary Medicine, Assiut University, The 17th Scientific Congress "The Role of Scientific Research in The Livestock Development and Food Safety ", Faculty of Veterinary Medicine, Assiut University; 12/2016

Usama Mahmoud, M.A. Abdel-Rahman, M. H.A. Darwish, T. J. Applegate, H. W. Cheng: *Effect of propolis supplementations on behavioral activities of heat stressed broiler chickens*. 2015 International Poultry Scientific Forum, Georgia World Congress Center, Atlanta, Georgia; 01/2015

O.A. Amen, U. T. Mahmoud, M.A. Abdel-Rahman, M. H.A. Darwish, T. J. Applegate, H. W. Cheng: *The effect of Brazilian propolis on serum thyroid hormones in broilers reared under chronic heat stress*. 2015 International Poultry Scientific Forum, Georgia World Congress Center, Atlanta, Georgia; 01/2015

Usama Mahmoud, M.A. Abdel-Rahman, M. H.A. Darwish, T. J. Applegate, H. W. Cheng: *The effect of Brazilian Propolis on leg health in broilers reared under heat stress*. 2015 International Poultry Scientific Forum, Georgia World Congress Center, Atlanta, Georgia; 01/2015

Susan D. Eicher, H.W. Cheng, Usama T. Mahmoud: *Propolis Reduces Expression of Cell Surface CD14 in Phagocytic Cells in Chickens during Heat Stress*. 2014 Annual Joint Meeting of Society for Leukocyte Biology & International Endotoxin and Innate Immunity Society, Salt Lake City, Utah, USA.; 10/2014

Usama Mahmoud, M. A. Abdel-Rahman, M. H. A. Darwish, T. J. Applegate, M. H. Rostagno, H. W. Cheng: *The effect of Brazilian propolis on body weight, weight gain, and gut microflora in broilers reared under heat stress*. Poultry Science Association 2014 Annual Meeting, Corpus Christi, Texas, USA; 07/2014

Under publication

Prebiotics effects on feather pecking behavior, biochemical indicators and brain histology in mule ducks
(Journal of Veterinary Behavior Clinical Applications and Research)

Touching the pregnant woman belly by a familiar person induced her own dog aggression (Written and will be submitted soon to Applied Animal Behavior Journal)

Supervision of graduate students

<u>Degree</u>	<u>Student name</u>	<u>Thesis title</u>	<u>Start date- End date</u>
Master	Mona Ahmed Mahmoud El sayed	Effect of Mannan-Oligosaccharides and β -Glucans Combination on Behaviour, Performance and Some Blood Parameters of Broiler Chickens Exposed to Heat Stress	2015- 2017 Finished

Master	Gehad Ali	Effect of date syrup on behavior, performance and biochemical indicators in broiler chicken raised under summer condition	Started October 2017. Preliminary exam (passed)- experiment (done) – working on writing her first paper
Master	Ahmed abo-haron	Not determine yet	Started April -2020
PhD	Rofida fwaz	Zinc oxide nanoparticles as feed additives in prevention of necrotic enteritis	Started October 2017. Preliminary exam (passed)- experiment (done) – working on writing her first paper

Training and Workshops:

- 1- Teacher preparation course. Training Section of the General Administration of Graduate Studies and Research .Assiut university 13-24 april 2008
- 2- Research Ethics. Faculty and Leadership Development Center (FLDC)- Assiut university 28-30 April, 2008.
- 3- Code of Ethics. Faculty and Leadership Development Center (FLDC)-Assiut University, 17-19/ May, 2008
- 4- Credit hour system. Faculty and Leadership Development Center (FLDC)-Assiut university 28-30 march, 2009.
- 5- How to compete for a research fund. Faculty and Leadership Development Center (FLDC)--Assiut university 11-13 April, 2009
- 6- International publishing of research. Faculty and Leadership Development Center (FLDC)-Assiut University 23-25 may, 2009.
- 7- Research team management. Faculty and Leadership Development Center (FLDC)-Assiut University 20-22 June, 2009.
- 8- The security and safety of laboratory, Maintenance of scientific instruments unit, Assiut univerisity.. 21-30 March 2011.
- 9- E- Learning, Faculty and Leadership Development Center (FLDC)-Assiut University. 12-20 June , 2011
- 10- Time and Conference Management. Faculty and Leadership Development Center (FLDC)-Assiut University. 25-27 June , 2011
- 11- Materials science and nanotechnology. Training and continuous learning unit. Faculty of science. Assiut University (31/03/2012)
- 12- E- Learning (advanced). Faculty and Leadership Development Center (FLDC)-Assiut University. 15-16 August 2015.

13- Publication of research in international journals. Faculty and Leadership Development Center (FLDC)-Assiut University, 14-15 May 2017.

14- Scientific Researches funding and grants. Faculty and Leadership Development Center (FLDC)- Assiut University, 21-22 May 2017.

15- Financial aspects in university environment. Faculty and Leadership Development Center (FLDC)- Assiut University, 22-23 August 2017.

Additional Training in Other Countries

Field of Study	Dates	Language/Place of Instruction
Basic Training Program for Animal Users	August 20, 2014	English/IACUC (online), USA
Globally Harmonized System (GHS)	May 2014	English/ Livestock Behavior Research Unit (LBRU), Purdue University, USA
Lab safety training	April 2013	English/ Livestock Behavior Research Unit (LBRU), Purdue University, USA
Animal Biosafety , 1 - Biosafety/Biosecurity.	8/10/2019.	Collaborative institutional training program CITI Program, Purdue University
Working with Mice in Research Settings, Working with Mice in Research, 1 - Lab Animal Research	9/10/2019.	Collaborative institutional training program CITI Program, Purdue University .
Principal Investigators and IBC Members, Biosafety for Principal Investigators, Lab Personnel, and IBC Members, 1 - Biosafety/Biosecurity	10/10/2019.	Collaborative institutional training program CITI Program, Purdue University .
Responsible Conduct of Research, Responsible Conduct of Research (RCR) Training - Faculty, Postdoctoral, and Graduate Students, 1 - Basic Course.	11/10/2019.	Collaborative institutional training program CITI Program, Purdue University .
Working with the IACUC, Investigators, Staff and Students, 1 - Lab Animal Research.	13/10/2019.	Collaborative institutional training program CITI Program, Purdue University
Human Research, Group 1.Biomedical Research Investigators and Key Personnel, 1 - Basic Course.	16/10/2019.	Collaborative institutional training program CITI Program, Purdue University .

Funded projects

<u>Source</u>	<u>Project title</u>	<u>Amount of fund</u>
Assiut university	The effect of Dietary zinc oxide and Silver Nanoparticles on Growth Performance , health status and meat quality of Broilers	100,000 LE

References:

<u>Name</u>	<u>Affiliation</u>	<u>Contact</u>
<i>Mohamed Seleem, Professor of Microbiology</i>	<i>Department of Comparative Pathobiology Purdue University College of Veterinary Medicine</i>	Email: mseleem@purdue.edu Telephone: (+1) 765.494.0763
<i>Mootaz A. Abdel-Rahman, Professor of Animal behaviour and management</i>	<i>Department of Animal Hygiene Faculty of Veterinary Medicine Almina University , Egypt</i>	mootazabdelrahman@yahoo.com Phone: (+2)01005626002
<i>Heng-Wei Cheng, Neurophysiologist Research scientist</i>	<i>USDA - livestock behavior research unit Purdue University</i>	<i>Heng-Wei.Cheng@ars.usda.gov Telephone: (+1) 765.494.8022 Fax: 765.496.1993</i>
<i>Todd J Applegate, Professor of Animal Sciences</i>	<i>Department of poultry Sciences, Gorgia University</i>	applegt@uga.edu Telephone: (+1) 765.496.7769
<i>Manal A.M. Mahmoud, Associate Professor of Animal hygiene</i>	<i>Department of Animal Hygiene, Faculty of Veterinary Medicine Assiut University, 71526, Egypt</i>	<i>egymanal@gmail.com Phone: (+2) 01091691219</i>
<i>Donald C Lay Jr, Professor of Animal Sciences</i>	<i>Research Leader, USDA-ARS Livestock Behavior Research Unit Purdue University</i>	<i>Don.Lay@ars.usda.gov Phone: (+1) 765.496.7750 Fax: 765.496.1993</i>

<i>Hosnia S. Abdel-Mohsein, Associate Professor of Animal hygiene</i>	<i>Department of Animal Hygiene, Faculty of Veterinary Medicine Assiut University, 71526, Egypt</i>	<i>hosnia18@yahoo.com Phone: (+2) 01009064514</i>
<i>Diya AL-Ramamneh, PhD, Animal Ecology, Behavior</i>	<i>Post Doctorate Researcher Purdue University, West Lafayette · Department of Animal science</i>	<i>Dsa0410@gmail.com Dal-ram@gwdg.de</i>