

Mohamed A. Abedal-Majed

Department of Animal Production
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☒ Education

Ph.D. Animal Science (Reproductive Physiology)

University of Nebraska-Lincoln; December, 2017/excellent. Advisor: Dr. Andrea S. Cupp
Dissertation: Effect of postweaning diet, and Excess Androstenedione, on follicular progression in bovine ovarian cortical cultures

M.Sc. Animal Science (Reproductive Physiology)

University of Jordan / Animal Production Department-Amman; May, 2011/ excellent (ranked the 1st).

Advisor: Dr. Mohammad Jihad Tabbaa; Co-advisor: Dr. Mufeed Awni Alnimer

Thesis: Comparison of plasma testosterone, thyroid levels, and semen characteristics of local and cross of improved Awassi strains in Jordan.

B.Sc. Animal Science

University of Jordan / Animal Production Department-Amman; June, 2007/ Grade point Average (GPA) is (3.54 out of 4.00) merit (very good) (ranked the 1st).

☒ Professional Experience:

September, 2021-Present

Assistant Dean for Student's affair/ School of Agriculture/The University of Jordan/Amman-Jordan

April, 2018-Present

Assistant professor at the Department of Animal Production/School of Agriculture/The University of Jordan/Amman-Jordan

January, 2018-March, 2018

Lecturer at the Department of Animal Production/School of Agriculture/ The University of Jordan/Amman-Jordan

January, 2014-December, 2018

Graduate Research Assistant at the Department of Animal Science/Nebraska University/Lincoln, NE

October, 2008- December, 2013

Graduate Research Assistant at the Department of Animal Production/School of Agriculture/ The University of Jordan/Amman-Jordan

☒ Teaching Experience

		Seminar in Animal Production (602491)	Research Skills & Learning (3400101)	Field Training in Animal Production (602499)	Principles of Animal Production (602101)	Reproduction and Artificial Insemination (602451)	Physiology (6033302)	Physiology of Farm Animals (602256)
2017/2018	Spring	10 students						
	Summer	11 students	80 students					
2018/2019	Fall		80 students	78 students	32 students			
	Spring		80 students			19 students	19 students	
	Summer		162 students				35 students	
2019/2020	Fall		91 students	89 students				
	Spring		101 students	119 students		22 students	14 students	
	Summer		500 students		26 students			
2020/2021	Fall		152 students	85 students			43 students	
	Spring		120 students	110 students		34 students	58 students	
	Summer	10 students	120 students	64 students				
2021/2022	Fall		120 students					34 students

Teaching Assistant (TA) at the University of Nebraska-Lincoln for the following courses:

- 1- Physiology of Animal Cells and Tissues (ASCI443/843)/Spring 2017 (approx. 15 students)
- 2- Endocrinology (ASCI442/842)/Fall 2017 (approx. 20-30 students)

Teaching Assistant (TA) at the University of Jordan for the following courses:

- 1- Animal Health (0602231) (approx. 20-30 students)
- 2- Poultry Diseases and Parasites (0602332) (approx. 20-30 students)
- 3- Physiology of Farm Animals (0602256) (approx. 15 students)
- 4- Genetic Improvement of Farm Animals (0602361) (approx. 20-30 students)
- 5- Feed Analysis (0602483)
- 6- Field Training in Animal Production (0602499)

☒ **Research Interests**

Effects of vascular development on follicle progression and ovulation in Animals.

Effect of nutrition on reproductive function in Animals.

Effects of hormones and environment on follicle progression and ovulation in Animals.

Effect of environment factors on reproductive function in Animals.

To understand how different steroidogenic enzymes that expressed in theca, granulosa and corpus luteum affects ovarian folliculogenesis to improve our ability to manipulate ovulation.

☒ **Peer Reviewed Publications**

- ☒ Mohammad J Tabbaa, **Mohamed A. Abedal-Majed**. Factors affecting the characteristics of lactation curve from commercial daily milk production of Awassi ewes in Jordan (Submitted)
- ☒ **Mohamed A. Abedal-Majed**, Mariah L. Hart, Valerie Largent, Manjula PS Magamage, Scott G. Kurz, Kevin M. Sargent, Jeffrey Bergman, Renee M. McFee, Robert A Cushman, John S Davis, Jennifer R Wood and Andrea S Cupp. Ovarian Cortex from High A4 Cows Secretes Excess A4, and Exhibits Increased Fibrosis, and Arrested Follicle Development Which can be Partially Rescued by Angiogenic VEGFA Isoforms (Submitted).

1. **Mohamed Ayoub Abedal-Majed**, Hosam Hani Titi, Mohmmad Al-Qaisi Mohannad Abuajamieh, Mufeed Awni Alnimer, Anas Abdelqader. Effects of Supplementing Rumen Protected Methionine on Performance of Primiparous Dairy Cows during Presynch-Ovsynch Protocol. *Agrociencia*. 2021. 55(10): 149-176.
2. Nafziger SR, Tenley SC, Summers AF, **Abedal-Majed MA**, Hart M, Bergman JW, Kurz SG, Davis JS, Wood JR, Cupp AS. Attainment and Maintenance of Pubertal Cyclicity May Predict Reproductive Longevity in Beef Heifers. *Biol Reprod*. 2021. 1-13 doi: 10.1093/biolre/ioab044. Epub ahead of print. PMID: 33709137.
3. Courtney M. Sutton, Shelby A. Springman, **Mohamed A. Abedal-Majed** and Andrea S. Cupp. Bovine Ovarian Cortex Tissue Culture. *Journal of Visualized Experiment*. 2021. 167: 1-19.
4. Hayajneh, F.M.F., A. Abdelqader, M.A. Alnimer, **M.A. Abedal-Majed**, J. Al-Khazaleh. 2020. The role of high-grade Bentonite powder in coccidiosis and its effects on feed conversion ratio and blood parameters in broiler chicken. *Polish Journal of Veterinary Sciences*. 23(1) :97–107.
5. **Mohamed A. Abedal-Majed**, Sarah, John S Davis and Andrea S Cupp. 2019. Perturbations in Lineage Specification of Granulosa and Theca Cells May Alter Corpus Luteum Formation and Function. *Frontiers in Endocrinology*. 10:1-16.
6. **Mohamed A. Abedal-Majed**, Scott G. Kurz, Shelby A. Springman, Anthony K. McNeel, Harvey C. Freetly, Valerie Largen, Manjula Magamage, Kevin M. Sargent, Jennifer R. Wood, Robert A Cushman, Andrea S. Cupp. 2019. Vascular Endothelial Growth Factor A isoforms modulate follicle fate independent of diet through diverse signal transduction pathways. *Biology of Reproduction*. 5: 1-13.
7. **Mohamed A. Abedal-Majed** and Andrea S Cupp. 2019. Livestock animals to study infertility in women. *Animal Frontiers*. 9(3): 28-33.
8. Mufeed A. Alnimer, **Mohamed A. Abedal-Majed**, and Ahmad I. Shamoun. 2019. Effect Of Two Prostaglandin Injections On Day 5 And 6 In a Timed AI Protocol After Estrus Expression On Pregnancy Outcomes In Dairy Cows During Cold Or Hot Seasons Of The Year. *Arch. Anim. Breed*. 62: 161-170.
9. **Mohamed A. Abedal-Majed**, Tabbaa MJ, Alnimer MA and Ababneh MM. 2013. Comparison of plasma testosterone, thyroid levels, and semen characteristics of local and cross of improved Awassi strains in Jordan. *Journal of Faculty of Veterinary Medicine, Istanbul University*. 39(1):103-112.
10. Katie Griger, Sarah Romereim, Renata Spuri-Gomes, **Mohamed A. Abedal-Majed**, Mariah Hart, Scott Kurz, Robert A. Cushman, John S. Davis, Jennifer R. Wood, Andrea S. Cupp. The Effects of Androgens on Bovine and Human Granulosa cells. (2016). UCARE Research Products. Paper 55.
11. Renata Spuri-Gomes, Sarah C Tenley, **Mohamed A. Abedal-Majed**, Scott G. Kurz, Jeff Bergman, Jennifer R. Wood, Andrea S. Cupp. Cows with Excess Androgen are Anovulatory and Have a differing patterns of progesterone secretion. *Nebraska beef report* 2016.

☒ Grants

<u>Title</u>	<u>People</u>	<u>Grantor</u>	<u>Period</u>	<u>Amount (JD)</u>
Impact of prolactin concentration and days in milk on the pregnancy rate at first AI postpartum using Ovsynch protocol in lactating dairy cows during summer and winter seasons	Mufeed A. Alnimer Mohamed A. Abedal-Majed Ahmad I. Shamoun	JU Dean of Scientific Research	30/5/2018 to 30/5/2020	12000
Effect of different energy levels post-weaning on ovine intestinal health and ovarian follicular development <i>in vivo</i> and <i>in vitro</i>	Mohamed A. Abedal-Majed Mufeed A. Alnimer Hosam H. Titi Mohannad Abuajamieh	JU Dean of Scientific Research	29/11/2018 to 29/6/2022	20000
Effect of organic zinc on the ovine performance, gut integrity and ovarian follicular development <i>in vivo</i> and <i>in vitro</i>	Mohamed A. Abedal-Majed Mohannad Abuajamieh Hosam H. Titi Mufeed A. Alnimer Anas Abdelqader Mohammad Alqaisi	JU Dean of Scientific Research	26/12/2019 to 26/6/2023	20000
Effects of dietary betaine supplementation on performance, inflammatory biomarkers, and intestinal integrity during feed restriction in sheep	Mohammad Al-Qaisi Mohannad Abuajamieh Anas Abdelqader Abdur-Rhman Al-Fataftah Hosam H. Titi Mohamed A. Abedal-Majed	JU Dean of Scientific Research	5/11/2020 to 5/11/2022	20000

☒ Awards and Honors

1. Excellent teaching award for Physiology course. University of Jordan. July 2020.
2. Trainee Poster Award Presentation. The 14th Annual Gilbert S Greenwald Symposium on Reproduction and Regenerative Medicine in Kansas City Oct. 19-20, 2017.
3. Trainee Travel Award (\$160) to attend the 14th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine in Kansas City Oct. 19-20, 2017.
4. Trainee Travel Award (\$140) to attend the 13th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine in Kansas City Sept. 22-23, 2016.
5. Beadle Center, Center for Biotechnology/ UNL. The Milton E. Mohr Fellowship Award (\$1000). 2016-2017.
6. Larry Ewing Memorial Trainee Travel Fund award (\$120). Society for the Study of Reproduction (SSR) Annual Meeting; San Diego, CA 2016.
7. Whitmore Memorial Travel Fellowship (\$500). UNL, Department of Animal Science; 2015.
8. Larry Ewing Memorial Trainee Travel Fund award (\$200). SSR; San Juan, Puerto Rico, 2015.
9. Scholarship from the University of Jordan to complete the Ph.D. degree at the University of Nebraska-Lincoln, 2014-2018.
10. Scholarship from the University of Jordan to complete the M.Sc. degree at the University of Jordan-Amman, 2008-2011.

☒ Platform Presentations

1. **Mohamed A. Abedal-Majed.** High A4 Cow Ovarian Cortex Secretes Excess A4, Increased Primordial Follicles And Greater Response To VEGFA Isoforms. MMOD Work in Progress – Feb 2017

2. **Mohamed A. Abedal-Majed**, Manjula Magamage, Rebecca Vinton, Scott Kurz, Anthony K. McNeel, Harvey C. Freetly, Robert A Cushman, Jennifer R. Wood, Andrea S. Cupp. Effect of diet on ability of Vascular Endothelial Growth Factor A (VEGFA) isoforms to alter follicular progression in bovine ovarian cortical cultures. Beef Group meeting ARDC. May 10-11, 2016.
3. **Mohamed A. Abedal-Majed**, Manjula Magamage, Rebecca Vinton, Scott Kurz, Anthony K. McNeel, Harvey C. Freetly, Robert A Cushman, Jennifer R. Wood, Andrea S. Cupp. Effect of diet on ability of Vascular Endothelial Growth Factor A (VEGFA) isoforms to alter follicular progression in bovine ovarian cortical cultures. Rocky Mountain Reproductive Sciences Symposium. 9th Annual Rocky Mountain Reproductive Sciences Symposium, April 22, 2016. Loveland, CO.

☒ Abstracts and Scientific Meetings

1. **Mohamed A. Abedal-Majed**, Shelby A. Springman, Hanan Jafar, Brooke Bell, Scott G. Kurz, Kyle Wilson, and Andrea S. Cupp. High A4 Females Are Present in Other Herds and have Naturally Occurring Androgen Excess Similar to Women Diagnosed with Polycystic Ovary Syndrome. The 54th Annual Meeting of the Society for the Study of Reproduction. December 15-18, **2021** in St. Louis, MO. (ID 3234).
2. Alexandria P. Snider, Renata S. Gomes, Adam F. Summers, **Mohamed A. Abedal-Majed**, Sarah C. Tenley, Renee M. McFee, Jennifer R. Wood, John S. Davis, Andrea S. Cupp. Lipids Involved In Pro And Anti-Inflammatory Responses Are Altered In Follicular Fluid And Plasma Of Cows Administered A Low Dose FSH Treatment And May Be Used As Markers Of Ovulation In Beef Cows. The 53th Annual Meeting of the Society for the Study of Reproduction. July 8-12, **2020**.
3. Jessica Keane, Sarah Nafziger, **Mohamed Abedal-Majed**, Sarah Tenley, Mariah Hart, Jeff Bergman, Scott Kurz, Jennifer Wood, Adam Summers, Andrea Cupp. Early Reduced Growth Rates Predict Delayed or Altered Puberty and May Adversely Affect Reproductive Longevity in Beef Heifers. The 52th Annual Meeting of the Society for the Study of Reproduction. July 18-21, **2019** | San Jose McEnergy Convention Center.
4. Shelby Springman, Sarah Nafziger, **Mohamed Abdel-Majed**, Alex Snider, Kerri Bochantin, Jeff Bergman, Renee McFee, John Davis, Jennifer Wood, Andrea Cupp. Follicle Stimulating Hormone Stimulation Restores Ovarian Microenvironment of Beef Heifers with Androgen Excess to Reduce Inflammation. The 52th Annual Meeting of the Society for the Study of Reproduction. July 18-21, **2019** | San Jose McEnergy Convention Center.
5. **Mohamed A. Abedal-Majed**, Mariah L. Hart, Valerie Largen, Manjula PS Magamage, Scott G. Kurz, Kevin M. Sargent, Jeffrey Bergman, Renee M. McFee, Robert A Cushman, John S Davis, Jennifer R Wood and Andrea S Cupp. Ovarian Cortex from High A4 Cows Secretes Excess A4, and Exhibits Increased Oxidative Stress, and Arrested Follicle Development Which can be Partially Rescued by Angiogenic VEGFA Isoforms. The 14th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine. 19-20 October **2017**. Kansas City, Kansas, USA.
6. **Mohamed A. Abedal-Majed**, Mariah L. Hart, Valerie Largen, Manjula PS Magamage, Scott G. Kurz, Kevin M. Sargent, Jeffrey Bergman, Renee M. McFee, Robert A Cushman, John S Davis, Jennifer R Wood and Andrea S Cupp. Ovarian Cortex from High A4 Cows Secretes Excess A4, and Exhibits Increased Oxidative Stress, Macrophage Markers and Arrested Follicle Development Which can be Partially Rescued by Angiogenic VEGFA Isoforms. The *50th Annual Meeting of the Society for the Study of Reproduction* 13–16 July 2017 Washington D.C. USA. (ID # 385).
7. Sarah Nafziger, **Mohamed A. Abedal-Majed**, Sarah Tenley, Adam Summers, Mariah L. Hart, Gavin Harsh, Jeff Bergman, , Scott G. Kurz, Jennifer R Wood, Robert A Cushman, and Andrea S Cupp. Endocrine Profiles During Attainment of Puberty may Predict Reproductive Lonevity in Heifers. The *50th Annual Meeting of the Society for the Study of Reproduction* 13–16 July 2017 Washington D.C. USA. (ID # 281).

8. R. Spuri Gomes, S. C. Tenley, S. Romereim, **M. A. Abedal-Majed**, A. F. Summers, S. Kurz, J. Bergman, R. M. McFee, J.C. Gomes Neto, R. A. Cushman, J. S. Davis, J. R. Wood, A. S. Cupp. Cows with Follicular Fluid Androgen Excess Exhibit Anovulation and Have Altered Circulating Sex Hormone Binding Globulin, Gonadotropin Secretion and Plasma and Follicular Fluid Composition. MWAS for 115 preparation.
9. Sarah Romereim, Sarah Tenley, **Mohamed A. Abedal-Majed**, Jeffrey Bergman, Scott Kurz, John S. Davis, Jennifer R. Wood, Andrea S. Cupp. Aromatase Inhibition during Bovine Dominant Follicle Development Delays Ovulation But Does Not Create a Persistent Follicle. The 13th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine. 22–23 September 2016. Kansas City, Kansas, USA.
10. **Mohamed A. Abedal-Majed**, Manjula Magamage, Rebecca Vinton, Scott Kurz, Anthony K. McNeel, Harvey C. Freetly, Robert A Cushman, Jennifer R. Wood, Andrea S. Cupp. Effect of diet on ability of Vascular Endothelial Growth Factor A (VEGFA) isoforms to alter follicular progression in bovine ovarian cortical cultures. 13th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine. 22–23 September 2016. Kansas City, Kansas, USA.
11. Robert A. Cushman, Émerson M. Soares, **Mohamed A. Abedal-Majed**, Andrea S. Cupp, George A. Perry, Harvey C. Freetly. Fetal and postnatal nutritional programming of reproductive performance in ruminants. *Journal of Animal Science* 94 (supplement2):151 January 2016.
12. **Mohamed A. Abedal-Majed**, Manjula Magamage, Rebecca Vinton, Scott Kurz, Anthony K. McNeel, Harvey C. Freetly, Robert A Cushman, Jennifer R. Wood, Andrea S. Cupp. Effect of diet on ability of Vascular Endothelial Growth Factor A (VEGFA) isoforms to alter follicular progression in bovine ovarian cortical cultures. *The 49th Annual Meeting of the Society for the Study of Reproduction* 16–20 July 2016 San Diego, California, USA. (ID # 336).
13. Sarah Tenley, Adam Summers, Renata Spuri-Gomes, **Mohamed A. Abedal-Majed**, Jeff Bergman, Scott Kurz, Jennifer Wood, Robert Cushman, Andrea S Cupp. A portion of heifers attaining “Early Puberty” do not display estrus, are anovulatory and have altered sex hormone binding globulin concentrations. *The 49th Annual Meeting of the Society for the Study of Reproduction* 16–20 July 2016 San Diego, California, USA. (ID # 318).
14. Sarah Tenley, Renata Spuri-Gomes, **Mohamed A. Abedal-Majed**, Jeff Bergman, Scott Kurz, Jennifer Wood, Robert Cushman, Andrea S Cupp. A Portion of Heifers Attaining “Early Puberty” do not display estrus, are anovulatory and have reduced Sex Hormone Binding Globulin concentrations. 12th Annual Gilbert S. Greenwald Symposium on Reproduction and Regenerative Medicine. 22–23 October 2015. Kansas City, Kansas, USA.
15. Renata Spuri-Gomes, Sarah C Tenley, **Mohamed A Abedal-majed**, Scott G. Kurz, Jeff Bergman, Jennifer R. Wood, Andrea S. Cupp. Cows with Intrafollicular Androgen Excess have Lower Sex Hormone Binding Globulin and appear to be Chronic or Sporadic Anovulatory. SSR 2015 (ID #629).
16. **Mohamed A Abedal-majed**, Manjula Magamage, Rebecca Vinton, Robert A Cushman, Anthony K. McNeel, Harvey C. Freetly, Jennifer R. Wood, Andrea S. Cupp. Vascular Endothelial Growth Factor A 165 (VEGFA165), Angiogenic Isoform, promotes while VEGFA165b antagonizes VEGFA165 stimulated follicular progression in bovine ovarian cortical pieces cultured from pre-pubertal heifers. SSR 2015 (ID #619).
17. Rebecca J. Vinton, Brizett D. Cole, Manjula Magamage, **Mohamed A Abedal-majed**, Adam F. Summers William E. Pohlmeier, Scott G. Kurz, Renee M. McFee, Robert A. Cushman, Jennifer R. Wood, Andrea S. Cupp. Effect of VEGFA Isoforms on Heifer Follicular Development Bovine Cortical Ovarian Cultures. University of Nebraska-Lincoln and UCARE. 2014. (Poster)

☒ Professional Membership

Society for the Study of Reproduction (2014-present)

Jordanian Agricultural Engineering Association (2007-present)

Gamma Sigma Delta, University of Nebraska (2016-present)

☒ Community activities

1- Coordinator for Expert Consultation Meeting on: Livestock Activities in the Peri-urban Areas and Their Impacts on Environment in the Oriental Near East. 14-16 June 2011 Amman / Jordan.

2- Coordinator for Milk Chain from Stable to Table. FAO/Faculty of Agriculture – University of Jordan, November 2008, Amman, Jordan.

☒ Language

Arabic (Mother tongue)

English (Excellent in reading, writing, and speaking)