Curriculum Vitae

Professor

Dr. Ismail A. Abdul-Hassan



| Date of birth | January 3, 1965 |
|------------------------|---|
| Nationality | Iraq |
| Scientific degree | Professor |
| E-mail | ism3165@yahoo.com |
| Work address | Genetic Engineering and Biotechnology Institute, University of Baghdad, Iraq. |
| General Specialization | Animal resources |
| Specialization | reproductive physiology |

| | Qualification |
|---|--|
| 1 | Bachelor inAnimal Production, 1989. College of Agriculture – University of Baghdad, a good graduate (71.76 %). |
| 2 | Master in avian physiology, 1995. College of agriculture – university of Baghdad, a very good graduate (81 %). |
| 3 | Ph.D. in Avian Reproductive Physiology, 2005. College of Agriculture – University of Baghdad, the first at the postgraduate level in the college appreciated in excellence (92.86%). |

| | | Career |
|-----|-----------------|--|
| No. | Period | Position |
| 1 | 1985-1989 | Undergraduate student- Animal ProductionDept., College of Agriculture- University of Baghdad. |
| 2 | 1992-1995 | M. Sc. student - Animal ProductionDept., College of Agriculture- University of Baghdad. |
| 3 | August 21, 1999 | Assistant lecturer - Animal ProductionDept., College of Agriculture- University of Baghdad. |
| 4 | August 21, 2002 | Lecturer - Animal ProductionDept., College of Agriculture- University of Baghdad. |
| 5 | May 25, 2006 | Assistant Professor- Animal ProductionDept., College of Agriculture- University of Baghdad. |
| 6 | May 20, 2007 | Assistant Professor- Genetic Engineering and Biotechnology Institute – University of Baghdad. |
| 7 | June 15, 2013 | Professor- Genetic Engineering and Biotechnology Institute – University of Baghdad. |

| | Administrative positions | | | |
|-----|--|------------------------------------|--|--|
| No. | Position | Period | | |
| 1 | Rapporteur of fingerprinting unit | 16 – 9 – 2007 (for one year) | | |
| 2 | Rapporteur of genetic engineering dept. | 10 – 6 – 2010 till 6 – 4 – 2013 | | |
| 3 | Associate Dean for academic and administrative affairs | 7 – 4 – 2013 till 1 – 10 – 2016 | | |
| 4 | Dean in acting | 20 – 10 – 2013 till 20 – 11 – 2013 | | |

| Thanks and appreciations | | |
|--------------------------|---|--------|
| No. | From | Number |
| 1 | University of Baghdad | 8 |
| 2 | Ministry of Agriculture | 2 |
| 3 | College of Agriculture- University of Baghdad | 3 |
| 4 | Genetic engineering and biotechnology institute - University of Baghdad | 15 |
| 5 | Iraqi poultry science association | 2 |
| 6 | University of Kofa | 1 |
| 7 | Ministry of higher education | 2 |
| 8 | Egyptian association of experimental biology | 1 |
| 9 | College of Science – University of Wasit | 2 |
| 10 | Ministry of Science and technology | 2 |
| 11 | College of Agriculture – Al-Kasem University | 1 |
| 12 | Middle technical University | 1 |
| 13 | Central Organization for Standardization and Quality Control | 1 |
| 14 | Girls College of Science – University of Baghdad | 1 |
| 15 | Higher Institute for the treatment of infertility | 1 |
| 16 | College of Agriculture- University of Basra | 2 |
| 17 | College of Pharmacy - University of Basra | 1 |
| 18 | Head of Al-Nahrain University | 1 |
| 19 | Minister of higher education | 1 |

| | | Courses | |
|-----|--|---|-------------------------|
| No. | Session | Location | Date |
| 1 | Educational qualification (20) for teaching staff. | Development center for new methods of university teaching and training – university of Baghdad. | 2 Oct. – 4 Nov. 1999 |
| 2 | Training of postgraduate students for use of computer. | Advisory office for information systems and computer. | 12- 30 August 2000 |
| 3 | Computer course for scientific promotions. | Computer center- University of Baghdad. | 2-6 September 2000 |

| | Teaching | |
|-----|---|-------------------|
| No. | Course | Students |
| 1 | Gene regulation , principles and advanced | M. Sc. and Ph. D. |
| 2 | Selected subjects in biotechnology | Ph. D. |
| 3 | Molecular endocrinology | Ph. D. |

| | Scientific Conference | ces and Symposi | ums |
|-----|--|----------------------------------|-----------------------|
| No. | Conferences or Symposium | location | Date |
| 1 | Second scientific conference for agricultural research | Ministry of Agriculture- Iraq | 2-3 November 1999 |
| 2 | Third scientific conference for agricultural research | Ministry of Agriculture- Iraq | 9-11 November 2000 |
| 3 | Fourth scientific agricultural conference | Jarash University - Jordan | 24-26 April 2001 |
| 4 | Conferences of modern advances in animal nutrition | Brisbane, Australia | 9-11 July 2001 |
| 5 | Sixth scientific conference for | Ministry of | 29-31 October |

| | agricultural research | Agriculture- Iraq | 2007 |
|----|--|---|--------------------------|
| 6 | World poultry conference (23) | Brisbane - Australia | 29 June – 4 July 2008 |
| 7 | Second annual international conference for pharmacy research | Thailand | 13-14 February 2010 |
| 8 | Second scientific conference for genetic engineering | Genetic engineering institute – Iraq. | 4-5 November 2009 |
| 9 | Scientific symposium on plant tissue culture | Genetic engineering institute – Iraq. | 27 April 2011 |
| 10 | Third scientific conference for Iraqi poultry science association | Kofa University – Iraq. | 28-29 December 2010 |
| 11 | Fourth scientific conference for Iraqi poultry science association | Basra University – Iraq. | 6-7 March 2012 |
| 12 | First international conference for genetic engineering institute. | Genetic engineering institute – Iraq. | 23-24 November 2011 |
| 13 | First annual conference of middle east union for cancer research | Tanta University – Egypt. | 27-28 December 2011 |
| 14 | Workshop (study of the genetic origins in Iraqi society and its juridical applications) | Al-Nahrain Centre for training on juridical fingerprinting | 14 -16 May 2012 |
| 15 | Symposium (the use of DNA in criminal investigations and checking of personal identity) | Genetic engineering and biotech. institute | 11 April 2012 |
| 16 | Symposium (The reality of plant tissue culture in Iraq and their advancement) | Genetic engineering and biotech. institute | 14 November 2012 |
| 17 | Symposium (Nanotechnology | Genetic | 14 December 2012 |

| | applications in genetic | engineering and | |
|----|---|--------------------|------------------|
| | engineering) | biotech. Institute | |
| | engineering) | bioteen: mstrate | |
| 18 | Symposium (fingerprinting | Genetic | 12 March 2013 |
| | techniques in society service) | engineering and | |
| | | biotech. institute | |
| 19 | Symposium (Biofuel production | Genetic | 31 October 2013 |
| | techniques) | engineering and | |
| | | biotech. institute | |
| 20 | First scientific conference (| College of | 10 – 11 November |
| | science and technology of | Agriculture – | 2013 |
| | animal production) – animal | University of | |
| | resources department | Baghdad. | |
| 21 | First international scientific | Zakho University – | 23-25 April 2013 |
| | conference | Kurdistan region – | |
| | | Iraq. | |
| 22 | Symposium (Poultry industry | College of | 14 May 2013 |
| | locally between reality and | Agriculture – | |
| | ambition) | University of | |
| | | Karbala | |
| 23 | Regional workshop on | Tabriz university | 31 August-11 |
| | monoclonal antibody | of medical | September, 2013 |
| | production for researchers. | science- Iran. | |
| 24 | 10 th annual scientific conference | Egypt | 20-25 February |
| | Of Egyptian society for | | 2014 |
| | experimental biology | | |
| 25 | The 2 nd international scientific | Middle technical | 24-26 March 2015 |
| | conference of medical and | university- Iraq. | |
| | health specialties | | |
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| | Scientific activities | |
|---|---|----|
| 1 | Chief and membership of scientific committees | 17 |
| 2 | Chief and membership of administrative committees | 18 |
| 3 | Testing and evaluation of patents | 24 |
| 4 | Scientific evaluation of thesis | 5 |
| 5 | Scientific evaluation of research articles | 41 |
| 6 | Chief and membership of discussion committees | |
| | Higher diploma : | 33 |
| | Master: | 30 |
| | Ph. D. : | 24 |
| 7 | Membership in experts committees | 23 |
| 8 | Membership in Comprehensive exam | 26 |
| 9 | Supervision | |
| | Higher diploma : | 7 |
| | Master: | 11 |
| | Ph. D. : | 7 |

| | Patents |
|---|---|
| 1 | Patent numbered (3226), issued in 2008, entitled (The use of Iraqi method (Uropygialectomy) to improve the percentage of fertility and hatchability in broiler breeder flocks) from the central agency for standardization and quality control- department of industrial property – patents and industrial designs. |
| 2 | Patent numbered (4509), issued in 2016,entitled (new technique for sexing one day old ostrich) from the central agency for standardization and quality control- department of industrial property – patents and industrial designs. |

| | Publications | | |
|----|---|--|--|
| 1 | Al-Bustany, Z.; Al-Athari, A.K. and Abdul-Hassan, I. A. 1998.Plasma alkaline phosphatase and production traits in laying hens as influenced by dietary protein, strain and age. British Poultry Science, 39:568-571. | | |
| 2 | Al-Hassani, D.H. and Abdul-Hassan, I. A. 1999. Fasting versus light intensity effect on the pattern and quantity of feed and water consumption and performance of male broiler reared under cyclic high ambient temperatures. Iraqi J. Agric. (special issue), 4(5):29-41. | | |
| 3 | Al-Hassani, D.H. and Abdul-Hassan, I. A. 1999. Increase of body temperature and its relation with subsequent heat resistance to heat stress in male chickens. Iraqi J. Agric. Sci., 30(1):667-672. | | |
| 4 | Abdul-Hassan, I. A. and Al-Hassani, D.H. 2000. Effects of fasting duration and time upon body temperature of heat-stressed broilers. Iraqi J. Agric., 5(7):146-151. | | |
| 5 | Abdul-Hassan, I. A. 2000. Effect of strain and dietary protein level on productive performance of Iraqi chickens. Iraqi J. Agric. Sci., 31(4):675-680. | | |
| 6 | Abdul-Hassan, I. A. and Al-Hassani, D.H. 2000. Effects of different diurnal times and durations of fasting on the performance of broilers reared under high ambient temperatures. Iraqi J. Agric. (special issue), 5(4):127-132. | | |
| 7 | Razuki, W.M., Hussain, S.H. and Abdul-Hassan, I.A. 2000. Effect of egg position during storage, hatching and storage period on hatchability and performance of broilers. IPA J. Agric. Res., 10(2):90-108. | | |
| 8 | Abdul-Hassan, I.A. and Al-Hassani, D.H. 2001. Effects of different diurnal times and durations of fasting on some physiological traits of broilers reared under high ambient temperature. The proceeding of the fourth Agricultural Conference, Jarash Private University, Faculty of Agriculture and Science, 24-26 April, pp. 54. | | |
| 9 | Abdul-Hassan, I.A., Razuki, W.M. and Hussain, S.H. 2001. Relationship of hemoglobin concentrations in laying hens with respect to certain productive traits, strain and age. Iraqi J. Agric. Sci., 32(3):231-234. | | |
| 10 | Al-Hassani, D.H., Al-Daraji, H. J. and Abdul-Hassan, I.A. 2001. Effects of dietary sodium bicarbonate on some physiological parameters in Hisex Brown layers reared under high environmental temperatures. Proceedings of Recent Advances in Animal Nutrition held in Australia, 13: 32A. | | |
| 11 | Al-Daraji, H. J., Abdul-Hassan, I.A., Abdul-Latif, K.M. and Obaidi, F.A. 2001. An evaluation of dietary nettle (Urticaurens) supplementation on some | | |

| | physiological traits of broilers. The Veterinarian, 11(1):14-26. |
|----|--|
| 12 | Al-Daraji, H. J., Abdul-Hassan, I.A., Abdul-Latif, K.M. and Naji, S.A. 2001. Effect of dietary Saccharomyces cerevisiae supplementation on some physiological traits of broilers. Biotechnology Research J., 3 (2): 59-70. |
| 13 | Al-Daraji, H. J., Salih, H.H.; Ahmed, I.S.; Abdul-Hassan, I.A. and Razuki, R.H. 2005. The inclusion of certain grape components into semen diluents to suppress the effect of lipid peroxidation during in vitro storage of roosters' semen. Iraqi J. Agric. Sci. 36 (6):161-172. |
| 14 | Al-Daraji, H. J.; Al-Hassani, D.H.; Ahmed, I.S.; Abdul-Hassan, I.A.; Al-Mashadani, H.A. and Al-Hadithi, N.I. 2005. Enhancing the reproductive performance of roosters by addition garlic powder to the diet. Iraqi J. Agric. Sci. 36 (6): 173-180. |
| 15 | Abdul-Hassan, I.A. 2006. Effect of alfalfa meal or wheat bran replacement of soybean meal in triticale-based diets of laying hens on some productive parameters and egg quality traits. Iraqi J. Agric. Sci. 37 (1): 149-156. |
| 16 | Al-Daraji, H. J., Abdul-Hassan, I.A.; Ahmed, I.S.; Al-Mashadani, H.A.; Naji, S.A.; Al-Hadithi, N.I. and Razuki, R.H. 2006. Effect of uropygialectomy at two different ages on semen quality of white leghorn males. Iraqi J. Agric. Sci. 37 (1):213-218. |
| 17 | Abdul-Hassan, I.A.; Naji, S.A. and Al-Hassani, D.H. 2007. Effect of uropygialectomy on testosterone concentrations and some blood constituents in broiler breeder males. Iraqi J. Agric. (special issue) 12 (3): 163-174. |
| 18 | Abdul-Hassan, I.A.; Al-Hassani, D.H. and Naji, S.A. 2006. Effect of uropygialectomy (Iraqi method) versus spiking of broiler breeder males on fertility and hatchability. Iraqi Poultry Science J. 1 (1): 14-26. |
| 19 | Al-Daraji, H. J.; Abdul-Hassan, I.A.; Ahmed, I.S.; Ibrahim, B.M.; Naji, S.A.; Al-Hadithi, N.I. and Al-Mashadani, H.A. 2006. Improving semen quality characteristics by Iraqi probiotic roosters diet supplementation. Iraqi J. Agric. Sci. 37 (3): 189-194. |
| 20 | Al-Daraji, H. J.; Razuki, R.H.; Abdul-Hassan, I.A. and Ahmed, I.S. 2007. The relationship between the diluent provision of green tea infusion and lipid peroxidation during in vitro storage of roosters' semen. Iraqi J. Agric. Sci. 38 (2): 141-147. |
| 21 | Al-Daraji, H. J.; Razuki, R.H.; Ahmed, I.S. and Abdul-Hassan, I.A. 2006. Improving the quality of stored fowl semen by adding orange juice to Al-Daraji 2 extender. Iraqi J. Agric. Sci. 37(3): 195-200. |

| 22 | Al-Daraji, H. J.; Abdul-Hassan, I.A.; Ahmed, I.S. and Razuki, R.H. 2006. Improving |
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| | sperm characteristics during in vitro storage of roosters' semen by |
| | supplementing semen diluent with tomato juice. Iraqi J. Agric. Sci. 37 (4): |
| | 165-171. |
| 23 | Razuki, R.H.; Al-Hilali, A.H.; Al-Daraji, H. J; Naji, S.A.; Abdul-Hassan, I.A. and |
| | Wali, A.T. 2006. Effect of uropygialectomy on productive traits of Japanese |
| | quail. Iraqi J. Agric. Sci. 37 (2):121-130. |
| 24 | Al-Hassani, D.H.; Abdul-Hassan, I.A. and Naji, S.A. 2008. Effect of |
| | uropygialectomy on some semen traits of broiler breeder males. |
| | Proceeding of World's Poultry Congress (23), Brisbane, Australia. |
| 25 | Nader, M. I. ;Al-Thwaini, A. N.; Abdul-Hassan, I.A. and Ali, A.W. 2010.Effect of |
| | Nigella sativa(black seed),Salvadorapersica(siwak) and aluminum |
| | potassium sulphate(alum) aqueous extracts on isolated bateria from teeth |
| | root canal. Iraqi J. Bioteh 9(1):99-104. |
| 26 | Ramahi, I. J., Al-Faisal, A.M., Abdul-Hassan, I.A. and Barusrux, S. 2010. Study of |
| | thyroid hormones among female Iraqi thyroid disorders. The 2 nd Annual |
| | International conference of Northeast Pharmay Research, Mahasarakham |
| | University, MahaSarakham, Thailand. |
| 27 | Abdul-Hassan, I.A. 2012. Evaluation of hormonal disturbance and DNA damage |
| | in azoospermic patients. Journal of Biotechnology Research Centre, |
| | 6(2):29-33. |
| 28 | Al-Ramahi,I.J.; A.H.M.Al-Faisal; <mark>I.A.Abdul-Hassan</mark> ;R.Al-Atar and S.Barusrux |
| | 2012.Screening of g.IVS5+1G to a mutation of TG gene and thyroid |
| | hormone level among Iraqi thyroid disorders. Journal of Medical Genetics |
| | and Genomics, 4(1):1-5. |
| 29 | Al-Faisal,A.H.M.; Al-Ramahi,I.J.; <mark>I.A.Abdul-Hassan</mark> ;A.T.Hamdan and S. Barusrux. |
| | 2012.Detection of heterozygous c.1708C>T and c.1978C>G thyroid |
| | peroxidase (TPO) mutations in Iraqi patients with toxic and nontoxic |
| | goiter. Comparative Clinical Pathology: 1572-1579. |
| 30 | Abdul-Hassan, I.A. and J.A.Tauma, 2012.Identification of different meat samples |
| | from animal species using PCR and multiplex PCR of mitochondrial |
| | cytochrome b gene. Iraqi Poultry Science Journal, 7(1): |
| 31 | Al-Faisal,A.H.M.; Al-Ramahi,I.J.and <mark>l.A.Abdul-Hassan</mark> , 2012.Micronucleus |
| | frequency among Iraqi thyroid disorder patients. Comparative Clinical |
| | Pathology: 1671-1677. |
| 122 | |
| 32 | Al-Faisal, A.H.M.; Al-Ramahi, I.J. and I.A. Abdul-Hassan. 2012. Detection of |
| 32 | Al-Faisal,A.H.M.; Al-Ramahi,I.J.and <mark>I.A.Abdul-Hassan</mark> , 2012. Detection of homozygous a.IVS5+1G>A. a.IVS34-1G>C and c.886C>T mutations among |
| 32 | Al-Faisal,A.H.M.; Al-Ramahi,I.J.and <mark>I.A.Abdul-Hassan</mark> , 2012. Detection of homozygous g.IVS5+1G>A, g.IVS34-1G>C and c.886C>T mutations among toxic goiter and thyroid cancer patients in Iraq. Iraqi Journal of |

| | Biotechnology, 11(2):414-421. |
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| 33 | I.A.Abdul-Hassan, Al-Ramahi,I.J.and Al-Faisal,A.H.M. 2013. Detection of TG and TPO genes compound mutations associated with thyroid carcinoma ,toxic goiter and hypothyroidism in Iraqi patients. J. Med. Sci., 13(8):676-683. |
| 34 | Al-Faisal,A.H.M.; I.A.Abdul-Hassan; Al-Ramahi,I.J. and S. Barusrux, 2013. Screening of TPO gene c.1708C>T and c.1978C>G mutations in Iraqi patients with hypothyroidism and thyroid cancer.(conference of Zakho university, April,2013). |
| 35 | Abdul-Hassan, I.A., Al-Daraji, H. J. and Al-Hassani, D.H., 2006. Some physiological traits of Hisex Brown layers fed with supplemental sodium bicarbonate during heat stress. The Iraqi Journal of Agricultural Sciences, 37(4):159-164. |
| 36 | Abdul-Hassan, I.A. and J.A.Tauma, 2013. PCR-based detection of chicken and cattle meat targeting cytochrome b gene as affected by heating and mixing of meat(conference of Zakho university, April,2013). |
| 37 | Abdul-Hassan, I.A. and Al-Aqeeli, G.J. (2013). PCR-RFLP analysis of mitochondrial 12S r RNA gene for identification of meat and meat products in some avian species. International J. of Current Research, 5(9): 2430-2433. |
| 38 | Abdul-Hassan, I. A., Khalid, M.M. and Saihood, Y. D. (2014). Association of some calpain-10 gene polymorphisms with the incidence of type 2 diabetes mellitus in Iraq. International J. of Current Research, 6(3): 5337-5342. |
| 39 | Abdul-Hassan ,I.A. , Al-Ramahy, G.A. and Jassim, A.B., (2014). Molecular versus conventional diagnosis of Neisseria gonorrhoeae infection and study its role in AZF locus microdeletions. International J. of Current Research, 6(5): 6714-6718. |
| 40 | Mahdy, O. A. and Abdul-Hassan, I. A. (2014). Alteration of the copy number of mitochondrial COXI gene in the sperms of Iraqi asthenozoospermic patients. International J. of Current Research, 6(5): 6730-6735. |
| 41 | Mahdy, O. A. and Abdul-Hassan, I. A. (2014). Novel mutations (8899C>T and 8907C>T) of the mitochondrial ATPase 6 gene in Iraqi asthenozoospermic patients. International J. of Current Research, 6(6): 7094-7098. |
| 42 | Abdul-Hassan, I.A., Saad, S.A. and Khalid, M.M.(2015).Promoter -318C >T and exon-1 +49A>G polymorphisms of CTLA-4 gene confer susceptibility to Graves' disease in Iraqi population.World Journal of Pharmaceutical Research,Volume 4, Issue 3, 141-155. |
| 43 | Abdul-Hassan, I.A. and Hameed, (2014). Screening for some mutations in mitochondrial ND1 gene associated with T2DM in Iraqi population. World |

| | Journal of Pharmaceutical Research, Volume 3, Issue 10, 164-171. |
|----|---|
| 44 | Abdul-Hassan, I.A., Al-Tamimi, M.T. and Al-Dujaily, S.S. (2014). The association of HHEX gene polymorphisms with the incidence of polycystic ovary syndrome (PCOS) in Iraq. World Journal of Pharmaceutical Research, Volume 3, Issue 10, 287-298. |
| 45 | Al-Tamimi, M.T., Abdul-Hassan, I.A., Al-Dujaily, S.S. and Al-Musawi, B.J.M. (2015). Impact of the transcription factor 7-like2 (TCF7L2) gene polymorphisms on the risk of polycystic ovary syndrome in Iraqi patients. World Journal of Pharmaceutical Research, Volume 4, Issue 2, 13931404. |
| 46 | Abdul-Hassan, I.A., Al-Ramahy, G.A. and Jassim, A.B. 2015. Diagnosis of N. gonorrhea infection by traditional methods and PCR technique from some Iraqi men. Proceeding of the 2 nd international scientific conference of medical and health specialties – Iraq-2015. |
| 47 | Al-Hassani, A.S., Al-Hassani, D.H. and Abdul-Hassan, I.A. 2015. Association of Insulin-Like Growth Factor-1 Gene Polymorphism at 279 Position of the 5'UTR Region with Body Weight Traits in Broiler Chicken. Asian Journal of Poultry Science, 2015. |
| 48 | Shehab, M.J. and Abdul-hassan, I.A. 2015. The association of interleukin-6 gene polymorphism at -174G>C SNP in Iraqi patients with type 2 diabetes mellitus. Elixir international journal, 88: 36372-36376. |
| 49 | Hade, I.M. and Abdul-hassan, I.A., 2016. Protamine genes polymorphisms and their relationship with the incidence of oligozoospermia and asthenozoospermia in Iraqi patients. (in publication) |
| 50 | Al-Hassani, A.S. Abdul-Hassan, I.A. Al-Hassani, D.H. 2016. The effect of single nucleotide polymorphisms in the 5' flanking region of IGF-1 gene on some biochemical traits in Hubbard F-15 and Cobb500 broiler lines. (In publication). |
| 51 | Al-Faham, M. F. and Abdul-Hassan, I.A. 2016. Association of androgen receptor gene polymorphisms at three SNPs and their haplotypes with severe oligozoospermia risk in Iraqi patients. Iraqi J. Bioteh (accepted for publication). |
| 52 | Thajeel, J.A. and Abdul-Hassan, I.A. 2017. Association of hspa1b and hspa1l genes polymorphisms with risk of severe oligozoospermia in sample of Iraqi patients. Elixir international journal |
| 53 | Joody, A.A., Abdul-Hassan, I.A. and Al-Hassani, D.H., 2016. Association of Ghrelin gene polymorphisms and expression with some Growth traits in broiler chickens. (In publication). |

Joody, A.A., Abdul-Hassan, I.A. and Al-Hassani, D.H., 2016. Association of Ghrelin gene polymorphisms and expression with some biochemical traits in broiler chickens. (In publication).