

MUHAMMET KAYA

Associate Professor Dr.

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EDUCATION

PhD Ankara University, Graduate School of Natural and Applied Science./Animal Science (PhD)
PhD Thesis: Determination of Genetic Variation by Using Some Microsatellite Markers in Denizli and Gerze Poultry Populations.
Advisor: Prof. Dr. Mehmet Ali YILDIZ
2003-2008
MSc Ondokuz Mayıs University
1999-2003 Graduate School of Natural and Applied Science./Animal Science (Master)
MSc Thesis: Determination of genetic distance in chicken genotypes by RAPD (Random Amplified Polymorphic DNA) method
Advisor: Doç. Dr. Ahmet OKUMUŞ
BSc Ondokuz Mayıs University
1995-1999 Faculty of Agriculture, Department of Animal Science

Tasks

Assoc. Prof. Dr. 2020-	Eskisehir Osmangazi University, Faculty of Agricultural, Agricultural Biotechnology
Assist. Prof. Dr. 2012 -2020	Eskisehir Osmangazi University, Faculty of Agricultural, Agricultural Biotechnology
Assis. Prof. Dr. 2011-2012	Eskisehir Osmangazi University, Faculty of Agricultural, Animal Science

MSc Thesis (complited as a supervisor)

1. Dilan Deniz İLHAN (2019). Investigation of the New Polymorphisms at the TVB Locus in Denizli and Gerze Native Chicken Breeds, Eskisehir Osmangazi University Graduate School of Natural and Applied Science, Agricultural Biotechnology
2. Mustafa DOĞAN (2019). Investigation of SCID Mutant Allele in Arabian Horses Reared in Some Private Farms of Eskişehir Region, Eskisehir Osmangazi University Graduate School of Natural and Applied Science, Agricultural Biotechnology
3. H.KARADAŞ, Farklı karakterdeki BHK-21 hücrelerinin serumsuz vasattaki büyüme özelliklerinin tek tabaka kültür sisteminde incelenmesi, Yüksek Lisans, 2021
4. M.HAMDAN, Eskişehir yöresinde yetiştirilen ve çoğuz kuzulayan koyunlarda FecB geni mutasyonunun araştırılması., Yüksek Lisans, 2022

- 5 S.ACAR, Çoğuz kuzulayan Orta Anadolu merinosu koyunlarında BMP15 gen polimorfizminin araştırılması, Yüksek Lisans, 2022
- 6 E.GÜL, Türkiye Yerli Tavuk Irklarındaki ALV-E Alt Tiplerinin Belirlenmesi, Yüksek Lisans, 2022
- 7 B.GÖNECİ, Eskişehir'de Yetiştirilen Siyah Alaca Sığırlarda Kolesterol Yetmezliğine Brachyspina Sendromu Mutasyonlarının Araştırılması, Yüksek Lisans, 2023
- 8 İ.ERENGİZGİN, Genetiği Değiştirilmiş Ve Değiştirilmemiş Pamuk Bitkisinde Yüksek Sıcaklık Stresi Altında Isı Şoku Protein Analizleri, Yüksek Lisans, 2023
- 9 E. GÜLAY, Eskişehir Yöresinde Yetiştirilen Siyah Alaca Sığırlarında Boynuzsuzluk (Polled) Geni Varyasyonlarının Belirlenmesi, Yüksek Lisans, 2024

PROJECTS

- 1 Investigation of the New Polymorphisms at the TVB Locus in Denizli and Gerze Native Chicken Breeds, ESOGÜ BAP 2018-1766, Leader: Muhammet KAYA, 30/09/2018 - 20/09/2019
- 2 Investigation of SCID Mutant Allele in Arabian Horses Reared in Some Private Farms of Eskişehir Region, ESOGÜ BAP 2018-2033, Leader: Muhammet KAYA, 04/05/2018 - 05/07/2019
- 3 Determination of the Tumor Virus B Locus in Turkish Native Chicken Breeds, TÜBİTAK TOVAG 214O731, Leader: Muhammet KAYA, 15/03/2015 - 21/11/2016
- 4 Effect of Dietary Omega-3 Fatty Acid on Early Pregnancy in Ewes: Determination of Endometrial Global microRNA Expression Profile, - TÜBİTAK KBAG 112R022, Researcher 15/04/2013 - 15/04/2015
- 5 Identification of Some Genetic Disorders (BLAD, DUMPS, BC ve FXID) using PCR-RFLP in cattle reared in Eskişehir Provincial, ESOGÜ BAP 20122306, Leader: Muhammet KAYA, 02/03/2012 - 17/02/2014
- 6 Improvement of Layer Pure Lines Developed at Ankara Poultry Research Institute and Determining of Various Production Traits and Integrations to Turkey Poultry, TÜBİTAK KAMAG 106G032, Researcher, 15/12/2006 - 15/08/2010
- 7 Determination of Genetic Diversity in Denizli and Gerze Chicken Populations Using Some Microsatellite Markers, TÜBİTAK TOVAG 105O446, Researcher, 01/05/2006 - 01/11/2007
- 8 Genetics Definination in various chicken pure lines, TAGEM-HAYSÜD-01.13.03.30, Leader: Muhammet KAYA, 01/11/2001 - 01/05/2004
- 9 The Effects of Levels of Zinc Addition on Some Performance Characteristics and Hatchability Results of Parent Stocks, TAGEM-HAYSÜD-00-13-03-27, Researcher, 06/05/2001 - 23/02/2003

AWARDS and SCHOLARSHIPS

Zootečni Bölüm Birincisi, Ondokuz Mayıs University
Faculty of Agriculture, Department of Animal Science, 1999

PUBLICATIONS

A. Manuscripts printed in international journals

- 9 Muhammet KAYA, Hasan Meydan, Cafer Pish Jang, and Mehmet Ali Yıldız (2020). Genetic Variation at The Tumor Virus B Locus in Turkish and Iranian Native Chicken Breeds. Indian Journal Of Animal Sciences, 90 (1), 44-47.

- 8 Webb A E, Youngworth I A, Kaya Muhammet, Gitter C L, O'hare E A, May B, Cheng H H, Delany M E (2018). Narrowing the wingless-2 mutation to a 227 kb candidate region on chicken chromosome 12. *Poultry Science*, 97(6), 1872-1880., Doi: 10.3382/ps/pey073
- 7 Muhammet KAYA (2018). Determination of the Tumor Virus B Locus in Turkish Native Chicken Breeds. *Kafkas Universitesi Veteriner Fakultesi Dergisi*, 24(2), 239-242., Doi: 10.9775/kvfd.2017.18769
- 6 Muhammet Kaya, Likit Preeyanon, Dodgson Jerry B, Cheng Hans H (2016). Validation of Alternative Transcript Splicing in Chicken Lines that Differ in Genetic Resistance to Marek's Disease. *Animal Biotechnology*, 27(4), 238-244., Doi: 10.1080/10495398.2016.1178139
- 5 Kıyma Zekeriya, Köse Mehmet, Atlı Mehmet Osman, Özel Çağlayan, Hitit Mustafa, Sönmez Gonca, Kaya Muhammet, Kaya Mehmet Salih, Kurar Ercan, Kayış Seyit Ali, Güzeloğlu Aydın (2016). Investigation of interferon tau stimulated genes ISGs simultaneously in the endometrium corpus luteum CL and peripheral blood leukocytes PBLs in the preluteolytic stage of early pregnancy in ewes. *Small Ruminant Research*, 140, 1-6., Doi: 10.1016/j.smallrumres.2016.05.007
- 4 Kaya Muhammet, Meydan Hasan, Kıyma Zekeriya, Alan Muhammet, Yıldız Mehmet Ali (2016). Screening for bovine leukocyte adhesion deficiency deficiency of uridine monophosphate synthase bovine citrullinaemia and factor XI deficiency in Holstein cattle. *Indian Journal Of Animal Sciences*, 86(8), 900-903.
- 3 Kaya Muhammet, Yıldız Mehmet Ali (2008). Genetic Diversity Among Turkish Native Chickens Denizli and Gerze Estimated by Microsatellite Markers. *Biochemical Genetics*, 46(7-8), 480-491., Doi: 10.1007/s10528-008-9164-8
- 2 Kaya Muhammet, Okumuş Ahmet (2005). Genetic similarity by RAPD between pure lines of chickens. *Jour. Biological Sci.*, 5(4), 424-426.
- 1 Durmuş İsmail, Ataşoğlu Cengiz, Mızrak Cengizhan, Süeda Ertaş, Kaya Muhammet (2004). Effect of Increasing Zinc Concentration in the Diets of Brown Parent Stock Layers on Various Production and Hatchability Traits. *Archives Animal Breeding*, 47(5), 483-489., Doi: 10.5194/aab-47-483-2004.

B. Other Manuscripts printed in international journals

- 9 Gülay, E., & Kaya, M. (2025). Eskişehir Yöresi Sığırlarında Bazı Boynuzsuzluk Varyantlarının Araştırılması. *Journal of Animal Production*, 66(1), 73-81.
<https://doi.org/10.29185/hayuretim.1619306>
- 8 Göneci, B., & Kaya, M. (2024). Investigation of the genetic defect of Cholesterol deficiency and Brachyspina syndrome in Holstein breed cattle breed in Eskisehir. *Bulletin of Biotechnology*, 5(1), 7-10. <https://doi.org/10.51539/biotech.1408472>
- 7 İhan, D. D., & Kaya, M. (2022). Denizli ve Gerze Yerli Tavuk Irklarında TVB Lokusundaki Polimorfizmlerin Araştırılması. *Erciyes Üniversitesi Veteriner Fakültesi Dergisi*, 19(2), 107-112. <https://doi.org/10.32707/ercivet.1142567>
- 6 Kıyma Zekeriya, Hitit Mustafa, Özel Çağlayan, Şen Gonca, Köse Mehmet, Güzeloğlu Aydın, Kaya Muhammet, Atlı Mehmet Osman, Kurar Ercan, Kayış Seyit Ali, Kaya Mehmet Salih (2015). Expression of hyaluronan system components in the early pregnant ovine endometrium. *Reproduction, Fertility and Development*, 27(1), 93, Doi: 10.1071/RDv27n1abs
- 5 Kıyma Zekeriya, Hitit Mustafa, Özel Çağlayan, Şen Gonca, Köse Mehmet, Güzeloğlu Aydın, Kaya Muhammet, Atlı Mehmet Osman, Kurar Ercan, Kayış Seyit Ali, Kaya Mehmet Salih (2015). Preliminary investigation of microRNAs in ovine endometrium. *Reproduction In Domestic Animals*, 50, 60-60.
- 4 Kıyma Zekeriya, Köse Mehmet, Özel Çağlayan, Hitit Mustafa, Atlı Mehmet Osman, Güzeloğlu Aydın, Kaya Muhammet, Kaya Mehmet Salih, Kurar Ercan, Kayış Seyit Ali (2015). Investigation of Interferon stimulated genes ISGs simultaneously in endometrium corpus

- luteum CL and peripheral blood mononuclear cells PBMCs in early pregnant ewes. *Reproduction In Domestic Animals*, 50, 59-60.
- 3 Atılı Mehmet Osman, Kıyma Zekeriya, Köse Mehmet, Kaya Muhammet, Kaya Mehmet Salih, Yaman Turan, Güzelöğlü Aydın (2015). Expression and localization of Toll like receptor 4 in ovine endometrial and trophoblastic tissues at early pregnancy. *Reproduction In Domestic Animals*, 50(SI), 36-36.
- 2 Hitit Mustafa, Atılı Mehmet Osman, Kurar Ercan, Köse Mehmet, Güzelöğlü Aydın, Kaya Muhammet, Kıyma Zekeriya, Kayış Seyit Ali (2013). Investigation of microRNA biogenesis at mRNA level in bovine corpus luteum and endometrium during the oestrous cycle.. *Reproduction In Domestic Animals*, 48(1), 95-95
- 1 Köse Mehmet, Görgülü Murat, Kaya Muhammet, Kurar Ercan, Kıyma Zekeriya, Güzelöğlü Aydın, Atılı Mehmet Osman (2013). Expression profiles of Interferon-tau Stimulated Genes in milk cells in pregnant dairy cows. *Reproduction In Domestic Animals*, 48(1), 65-66.

C. Papers presented and printed in the proceedings of international scientific meetings

- 14 İlhan Dilan Deniz, Kaya Muhammet (2019). Investigation of the New Polymorphisms at the TVB Locus in Denizli and Gerze Native Chicken Breeds. 5. International Agriculture Congress-IAC 2019
- 13 Kaya Muhammet, Yıldız Tuğba, Günvar Elif, Taş Metin (2017). Investigation of Lavender Foal Syndrome in Turkish Arabian Horses in Eskisehir Region. 8th International Balkan Animal Science Conference (BALNIMALCON 2017)
- 12 Kaya Muhammet, Kıyma Zekeriya (2016). Quantitative Determination of Sunflower in Mixed Concentrate Feeds by Real Time PCR. 19 Sunflower Conference
- 11 Kaya Muhammet, Ayşegül Arıkan Asan, Şafak Başiaçık Karakoç (2015). Determination of the amount of chicken and beef in meat products using commercial kits. International Helal and Healthy Food Congress (Poster)
- 10 Hitit Mustafa, Kıyma Zekeriya, Özel Çağlayan, Şen Gonca, Güzelöğlü Aydın, Kurar Ercan, Kayış Seyit Ali, Kaya Muhammet, Köse Mehmet, Atılı Mehmet Osman (2014). Investigation of expressions of hypoxia-inducible Factors (HIF1 HIF2 HIF3) in sheep endometrium. Small Ruminant Congress.
- 9 Kıyma Zekeriya, Küçükyılmaz Kamil, Kaya Muhammet, Kayış Seyit Ali, Akbulut Mehmet (2014). The effects of different fats added to feed on some meat quality criteria in Anatolian Merino sheep. Small Ruminant Congress
- 8 Özel Çağlayan, Kıyma Zekeriya, Hitit Mustafa, Şen Gonca, Güzelöğlü Aydın, Kurar Ercan, Kayış Seyit Ali, Kaya Muhammet, Köse Mehmet, Atılı Mehmet Osman (2014). Investigation of expressions of Toll Like receptors (TLR 3 TLR 7 TLR 8 TLR 9) in early estrus cycle in sheep endometrium. Small Ruminant Congress
- 7 Şen Gonca, Kıyma Zekeriya, Özel Çağlayan, Hitit Mustafa, Güzelöğlü Aydın, Kurar Ercan, Kayış Seyit Ali, Kaya Muhammet, Köse Mehmet, Atılı Mehmet Osman (2014). Investigation of ISG 15 and MX 1 expressions in sheep endometrium in early pregnancy and oestrus cycle. Small Ruminant Congress
- 6 Kaya Muhammet, Kıyma Zekeriya, Alan Muhammet, Meydan Hasan, Yıldız Mehmet Ali (2014). Molecular Definition of the BLAD DUMPS BC and FXID in Holstein Cattle Reared in Eskisehir Region. Dairy Cattle Symposium With International Participation.
- 5 Kıyma Zekeriya, Alan Muhammet, Kaya Muhammet, Cinli Harun (2012). Nutritional Factors Effecting Fertility in Dairy Cattle. 23 rd International Scientific-Experts Congress on Agriculture and Food Industry
- 4 Kaya Muhammet, Preyanon L, Dodgson J, HH Cheng (2013). Alternative Transcript Splicing in Response to Marek Disease Virus Infection in Chicken. Plant and Animal Genome XXI Conference (Poster)
- 3 Alan Muhammet, Kıyma Zekeriya, Kaya Muhammet (2012). Estrus Cycle and Endocrine Pattern of It in the Mare. International Animal Science Congress of Turkish and Relatives Communities

- 2 Webb AE, Kaya Muhammet, Cheng HH, Delany ME (2009). Expression Analysis Of The Candidate Gene TSEN 2 In Wingless 2 Chicken Embryos. Plant Animal Genomes XVII Conference (Poster)
- 1 Kaya Muhammet, Okumuş Ahmet (2003). Genetic Similarity By Pcr Rapd Between Pure Lines Of Chickens. 3rd European Poultry Genetics Symposium (Poster)

D. Manuscripts printed in national journals (in Turkish)

- 7 Kaya Muhammet, Konucuk Samed (2019). Gender Determination of Ten Days Chick Embryo by PCR. Journal of Poultry Research, 16(1), 19-22., Doi: 10.34233/jpr.481680
- 6 Kaya Muhammet, Başiaçık Karakoç Şafak, Arıkan Asan Ayşegül (2019). Determination The Proportion of Chicken and Beef In Meat Products Using Some Commercial Kits. Süleyman Demirel University Journal of Natural and Applied Sciences, 23(1), 52-58., Doi: 10.19113/sdufenbed.442199
- 5 Kaya Muhammet, Yıldız Mehmet Ali (2014). Chicken Domestication and Indigenous Chicken Breeds of Turkey. Journal of Poultry Research, 11(2), 28-35
- 4 Kıyma Zekeriya, Alan Muhammet, Kaya Muhammet, Cinli Harun (2013). Nutritional factors effecting fertility in dairy cattle. Ege Üniversitesi Ziraat Fakültesi Dergisi, 50(1), 201-206
- 3 Kaya Muhammet, Ayşegül Arıkan Asan, Şafak Başiaçık Karakoç, Ayşegül Erensayın Yaşınok, Olanca Burcu (2010). Genetically Modified Organisms and Analysis Methods. Journal of National Food Reference Laboratory, 1(1), 21-29.
- 2 Durmuş İsmail, Cengizhan Mızrak, Süeda Ertaş, Kaya Muhammet (2004). The effect levels of zinc in diet on testis weight and spermatozoa concentration in Parent Stock Cocks. Journal of Poultry Research, 5(1), 20-24.
- 1 Okumuş Ahmet, Kaya Muhammet, Önder Hasan (2000). A Study on pairing Models of Meiotic Chromosome in *Loticum Festuca Secale Nicotiana and Triticum*. OMU Journal of the Faculty of Agriculture, 15(1), 72-75.

E. Papers presented and printed in the proceedings of national scientific meetings (in turkish)

- 8 Kaya Muhammet, Topuz Nurgül (2016). Determination of Tumor B viral locus in Turkey native Chicken Breeds. I. Ulusal Tarımsal Biyoteknoloji Kongresi
- 7 Kaya Muhammet, Kıyma Zekeriya (2015). Determination of Soybean Amount in Mixed Feeds by Real Time PCR. 18. Biyoteknoloji Kongresi
- 6 Kaya Muhammet (2013). Some Molecular Genetic Techniques Applied in Poultry. 8. Ulusal Zootečni Bilim Kongresi (Poster)
- 5 Kıyma Zekeriya, Kaya Muhammet, Alan Muhammet (2013). The use of gene transfer technologies in livestock and feed industry. 8. Ulusal Zootečni Bilim Kongresi
- 4 Kaya Muhammet, Özdil Fulya, Yıldız Mehmet Ali (2009). Determination of Genetic variation in some chicken populations reared in Turkey using SSR. 6. Ulusal Zootečni Bilim Kongresi
- 3 Taşkesen H O, Gedik Aydoğdu Yasemin, Meydan Hasan, Kaya Muhammet, Özdil Fulya, Yıldız Mehmet Ali (2009). Determination of FecB gene Polymorphisms in Norduz Karabas and Awassi sheep reared in Turkey Using PCR-RFLP method. 6. Ulusal Zootečni Bilim Kongresi
- 2 Meydan Hasan, Özdil Fulya, Kaya Muhammet, Gedik Aydoğdu Yasemin, Yıldız Mehmet Ali (2009). Some important genetic disorders in Cattle. 6. Ulusal Zootečni Bilim Kongresi.
- 1 Kaya Muhammet, Özdil Fulya, Meydan Hasan, Gedik Aydoğdu Yasemin, Yıldız Mehmet Ali (2007). Determination of genetic variation in Denizli and Gerze Chicken breeds using microsatellite. 5. Ulusal Zootečni Bilim Kongresi

Courses

- 1 TURKLAB, Kimyasal ve Mikrobiyolojik Analizlerde Metod Validasyonu-İç Kalite Kontrol ve Ölçüm Belirsizliği (Sertifika No:2010/4-107), Ankara UGRL, Kurs, 28.07.2010 -30.07.2010 (Ulusal)
- 2 TURKLAB, TS EN ISO 19011 / 17025 Denetçi Eğitimi, Ölçüm Belirsizliği (Sertifika No:2010/3-51, Ankara, UGRL, Kurs, 24.05.2010 -25.05.2010 (Ulusal)
- 3 JRC-IHCP ve TÜBİTAK MAM-GDO Analizleri, Gıda ve Yem Örneklerinde Genetiği Değiştirilmiş Organizmaların Tespit ve Miktar Tayini Analizi, TÜBİTAK MAM, Kurs, 12.04.2010 -16.04.2010 (International)
- 4 CONGEN Biotechnologie ve UGRL, Real-Time PCR ile GDO ve Et Tür Tayini Analizi, Ankara UGRL, Kurs, 24.03.2010 -25.03.2010 (International)
- 5 Eurofins GeneScan ve UGRL, GMO Analysis with Real Time PCR, Ankara, UGRL, 07.12.2009 -08.12.2009 (International)
- 6 Bio-Rad, Real-Time PCR Uygulamaları, Budapeşte, BioRad, Kurs, 16.11.2009 -20.11.2009 (International)
- 7 Koruma ve Kontrol Gn Müd, a)Laboratuvar yönetimine giriş, b)GDO ve moleküler mikrobiyoloji, c)17025 Kalite sisteminin esasları, Ankara, UGRL, Kurs, 01.09.2008 -26.12.2008 (International)
- 8 TÜBİTAK M.A.M, Molecular Biology/Mutagenese/Genom, TÜBİTAK M.A.M, 15.05.2000 - 26.05.2000

Fellowships

- 1 Postdoc research, Tavuklarda Marek hastalığı ile ilişkili olabilecek genlerde alternatif splicing görülen genlerin araştırılması., MSU ve USDA ADOL, 14.11.2011 -14.07.2012
- 2 MFA fellowship, Investigation of gene that determine the wingless-2 mutation in chickens, MSU, USDA –ADOL, USA, 25.12.2006 -26.06.2007
- 3 JICA Fellowship, Application of Biotechnology in Agriculture, Kobe Uni, Kobe, Japan, JICA, 11.03.2002 -23.08.2002