



Curriculum vitae

Dr. Reza Talebi

Personal Information

Name: Reza

Surname: Talebi

Gender: Male

Nationality: Iranian

Occupation: Faculty member, Assistant professor

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Introduction

I am Reza Talebi, a faculty member at the Agricultural Biotechnology Research Institute of Iran (ABRII), specializing in livestock genetic breeding. My research focuses on improving genetic traits in sheep, particularly genes associated with hypermuscularity and prolificacy, through genomic and transcriptomic approaches. During my Ph.D., I investigated the transcriptome of ovarian granulosa cells across the ewe estrous cycle, which strengthened my expertise in molecular genetics and functional genomics. I have extensive experience in PCR, qPCR, RNA-seq, population genetics, GWAS, selection signatures, QTL mapping, and bioinformatics. Since 2018, I have contributed to ABRII's research programs while also collaborating with the GenPhySE (Genetics, Physiology, and Breeding Systems) department at INRAE, France. My work integrates advanced molecular tools and computational analyses to drive innovation in livestock breeding and genetic improvement.

Education

1. PhD in Animal Genetics & Breeding
(Molecular genetics-Transcriptomics)
Bu-Ali Sina University, Hamedan, IRAN
Obtained PhD degree

September 2012 — September 2017

2. MSc in Animal Genetics & Breeding
(Molecular genetics)
University of Guilan, Gilan, Rasht, IRAN
Obtained MSc degree

September 2009 — September 2011

3. BSc in Animal Science
University of Guilan, Gilan, Rasht, IRAN
Obtained BSc degree

September 2006 — July 2009

Interests and Research Area

- Animal Science (small ruminant)
- Animal Genetics and Breeding
- Population Genetics
- Reproductive Biology, Ovarian Follicular Dynamics, Ovarian Function (Oocyte and Somatic Cells)
- WGS (Whole Genome Sequencing), Signature of Selection (Runs of Homozygosity)
- RNA-seq, Transcriptomics
- Genomics and Genome Wide Association Analysis (GWAS)
- Gene Polymorphisms
- Bioinformatics
- Novel Protocols for DNA and RNA Purification, and Ovarian Cell Media Culture
- Molecular Biology, Meiotic Recombination and DNA Repair
- Statistical genetics

Work Experiences

Agricultural Biotechnology Research Institute of Iran (ABRII),
Rasht, Gilan, Iran

**(Assistant Professor, Faculty member, head of
department)**

April 2024—Present

Country: Iran

Agricultural Biotechnology Research Institute of Iran (ABRII),
Karaj, Alborz, Iran

(Research assistant)

June 2020— April 2024

Country: Iran

Agricultural Biotechnology Research Institute of Iran (ABRII)-
North branch, Rasht, Gilan, Iran

(Research collaborator)

December 2018 —2019

Country: Iran

INRAe - French National Institute for Agricultural Research

(Visiting scientist)

January 2016 — January 2017

Country: France

Animal Science Research Institute of IRAN
(ASRII)

(Research student)

June 2010 — September 2011

Country: Iran

Journal Publications

1. **Reza Talebi ***, Fatemeh Zere, Ramin Abdoli, Seyyede Azadeh Javadi Taklimi, Morteza Fardi Seighalani, Ramin Seighalani, Mohammad Reza Ghaffari. Machine learning in animal breeding: a review. (*Editing*)*
2. Ahmad Ahmadi, **Reza Talebi ***, Leyla Eskandari, Tomasz Szmatoła, Mohammad Reza Ghaffari, Seyyede Azadeh Javadi Taklimi, Fatemeh Zare, Masoumeh Naserkhei. Genetic diversity and selection signatures in Mehraban sheep from two Iranian breeding systems. (*Editing*)*
3. Mehrbanoo Kazemi Alamouti, Mohammad Majdi, **Reza Talebi**, Mehdi Dastranj, Aziz Sheikhiharjan, Mohsen Mardi, Alireza Bandani, Zahra Ghorbanzadeh, Ghasem Hossini Salekdeh, Mohammad Reza Ghaffari. Exploration of neuropeptides to identify potential target for regulating feeding behavior and development in *Eurygaster integriceps*. *Plos One* (*Under review*)* Public Library of Science. IF = 2.6. Q1
4. Payam Potki, Seyyede Azadeh Javadi Taklimi, Ramin Seighalani, **Reza Talebi**. Study on two SNPs in Calpastatin gene and their association with weight traits among Iranian indigenous sheep breeds. *Iranian Journal of Applied Animal Science* 2025. Islamic Azad University. IF = 0.62. Q3
5. **Reza Talebi ***, Mohsen Mardi, Mehrshad Zeinalabedini, Tomasz Szmatoła, Seyyede Azadeh Javadi Taklimi, Mohammad Reza Ghaffari. Genomic architecture of purebred and crossbred Moghani lambs with Texel and Booroola sheep. *Scientific Reports* 2025. Nature. IF = 3.9. Q1
6. Roghayeh Habibi, Idin Zibae, **Reza Talebi**, Javad Behravan, Saeed Tarighi, Asker Brejnrod, Annelise Kjølner, Søren Johannes Sørensen, and Jonas Stenlørkke Madsen. L-asparaginase-driven antibiosis in *Pseudomonas fluorescens* EK007: A promising biocontrol strategy against fire blight. *International Journal of Biological Macromolecules* 2024. Elsevier. IF = 8.5. Q1
7. **Reza Talebi ***, Mohsen Mardi, Mehrshad Zeinalabedini, Mehrbano Kazemi Alamouti, Stéphane Fabre, Mohammad Reza Ghaffari. Assessing the performance of Moghani crossbred lambs derived from different mating systems with Texel and Booroola sheep. *Plos One* 2024. Public Library of Science. IF = 2.6. Q1
8. Babak Arefnejad, Mehrshad Zeinalabedini, **Reza Talebi**, Mohsen Mardi, Mohammad Reza Ghaffari, Mohammad Farhad Vahidi, Mojtaba Khayam Nekouei, Tomasz Szmatoła, Ghasem Hosseini Salekdeh. Unveiling the population genetic structure of Iranian horses breeds by whole-genome resequencing analysis. *Mammalian Genome* 2024. Springer Nature. IF= 2.7. Q1
9. Fatima Zahra Belharfi, Samia Kdidi, Nacéra Tabet-Aoul, Abdelkader Ameer Ameer, Amal Djaout, Mohamed Hammadi, Julien Sarry, Florent Woloszyn, Stéphane Fabre, **Reza Talebi**, Touhami Khorchani, Mohamed Habib Yahyaoui, Suheil Semir Bechir Gaouar Segregation of the InDel mutation in IRF2BP2 discriminating fleece type in North

African sheep breeds. *Iranian Journal of Applied Animal Science* 2024. Islamic Azad University. IF = 0.62. Q3

10. Mehrbano Kazemi Alamouti, Mohammad Majdi, **Reza Talebi**, Mehdi Dastranj, Alireza Bandani, Ghasem Hossini Salekdeh, Mohammad Reza Ghaffari Transcriptome wide identification of neuropeptides and G-protein coupled receptors (GPCRs) in Sunn pest, *Eurygaster integriceps* Puton. *Gene* 2024. Elsevier IF= 3.91. Q2
11. **Reza Talebi ***, Ahmad Ahmadi, Zahra Hajiloei, Mohammad Reza Ghaffari, Mehrshad Zeinalabedini, Ali Asghar Saki, Mohsen Mardi Association of ovine follistatin gene polymorphisms with body measurements, fat-tail traits and morphometric of head in Iranian Mehraban sheep. *Small Ruminant Research* 2023. Elsevier IF = 1.6. Q2
12. **Reza Talebi ***, Mohammad Reza Ghaffari, Mohsen Mardi, Mehrbanou Kazemi Alamouti Comparison of the growth performance between pure Moghani sheep and crosses with Texel or Booroola sheep carrying major genes contributing to muscularity and prolificacy. *Animal Biotechnology* 2023. Taylor & Francis IF= 1.8. Q2
13. Farjad Rafeie, Ramin Abdoli, Navid Ghavi Hossein-Zadeh, **Reza Talebi**, Tomasz Szmatoła Interaction networks and pathway analysis of genetic resistance to gastrointestinal nematodes in sheep. *Tropical Animal Health and Production* 2023. Springer. IF= 1.893. Q2
14. **Reza Talebi ***, Mohammad Reza Ghaffari, Mehrshad Zeinalabedini, Ramin Abdoli, Mohsen Mardi. Genetic basis of muscle-related traits in sheep: A review. *Animal Genetics* 2022. Wiley. IF= 2.884. Q1
15. Mokhtari, Zahra; Ahmadi, Ahmad; Zamani, Pouya; **Reza Talebi**; Ghaffari, Mohamad Reza Association of novel polymorphisms in follicle stimulating hormone beta (FSH β) gene with litter size in Mehraban sheep. *Journal of Livestock Science and Technologies* 2021. Shahid Bahonar University of Kerman and the Iranian Society of Animal Science. IF =0.4. Q3
16. **Reza Talebi ***; Szmatoła, Tomasz; Mészáros, Gábor; Qanbari, Saber. Runs of Homozygosity in Modern Chicken Revealed by Sequence Data. *G3: Genes, Genomes, Genetics* 2020. Oxford IF= 2.2. Q1
17. **Talebi, Reza ***; Seighalani, Ramin; Qanbari, Saber A handmade DNA extraction kit using laundry powder; insights on simplicity, cost-efficiency, rapidity, safety and the quality of purified DNA. *Animal Biotechnology* 2019. Taylor & Francis. IF= 1.8 Q2
18. Majd, Sadreddin Anvari; Ahmadi, Ahmad; **Reza Talebi**; Koohi, Pezhman Mahmoodi; Fabre, Stéphane; Qanbari, Saber; Polymorphism identification in ovine KISS1R/GPR54 gene among pure and crossbreeds of Iranian sheep. *Small Ruminant Research* 2019. Elsevier IF= 1.4. Q2

19. **Reza Talebi**; Ahmadi, Ahmad; Afraz, Fazlollah; Sarry, Julien; Plisson-Petit, Florence; Genêt, Carine; Fabre, Stéphane; Transcriptome analysis of ovine granulosa cells reveals differences between small antral follicles collected during the follicular and luteal phases. *Theriogenology* 2018. Elsevier. IF= 2.5. Q1
20. **Reza Talebi**; Ahmadi, Ahmad; Afraz, Fazlollah; Sarry, Julien; Woloszyn, Florent; Fabre, Stéphane; Detection of single nucleotide polymorphisms at major prolificacy genes in the Mehraban sheep and association with litter size. *Annals of Animal Science* 2018. Sciendo - De Gruyter. IF= 2.2. Q2
21. **Reza Talebi**; Ahmadi, Ahmad; Afraz, Fazlollah; Construction of protein-protein interaction network based on transcriptome profiling of ovine granulosa cells during the sheep's anestrus phase. *Frontiers in Biology (Frontiers of Biology in China)* 2018. Higher Education Press - Springer Cite score=1.06. Q4
22. **Reza Talebi**; Ahmadi, Ahmad; Afraz, Fazlollah; Analysis of protein-protein interaction network based on transcriptome profiling of ovine granulosa cells identifies candidate genes in cyclic recruitment of ovarian follicles. *Journal of animal science and technology* 2018. BioMed Central IF= 2.225. Q1
23. Ahmadi, A; Afraz, F; **Reza Talebi**; Farahavar, A; Vahidi, SMF; Investigation of GDF9 and BMP15 polymorphisms in Mehraban sheep to find the missenses as impact on protein. *Iranian Journal of Applied Animal Science* 2016. Islamic Azad University Cite score= 0.62. Q3
24. **Reza Talebi**; Ahmadi, A; Afraz, F; Abdoli, R; Parkinson's disease and lactoferrin: analysis of dependent protein networks. *Gene Reports* 2016. Elsevier. IF = 1. Q4
25. **Reza Talebi**; Ahmadi, Ahmad; Afraz, Fazlollah; Mirhoseini, Seyed Ziaeding; In Silico Analysis of Cytochrome P-450 between the Human and Camel for Resistivity to Hypertension and Environmental Toxins. *GENETICS IN THE 3RD MILLENNIUM* 2014. Iranian Neurogenetics Society. Cite score= 0.3. Q4

Book List

Authors	Title	ISBN	Year	Publisher
Reza Talebi * , Ramin Abdoli, Mohammad Reza Ghaffari, Mehrshad Zeinalabedini, Mohsen Mardi	Genetic Aspects of Ovarian Function in Sheep	978-600-308-198-7	2022	DaneshNegar Publication

Funds/Awards

Grant for the production and commercialization of the DNA extraction kit "Iran National Innovation Fund". (IRR 1,720,000,000)

Role: **Project manager**

Employer: **Agricultural Biotechnology Research Institute of Iran (ABRII), Karaj, Iran**

Conference Proceedings

1. **Reza Talebi** *, Mohsen Mardi, Mehrshad Zeinalabedini, Mehrbano Kazemi Alamouti, Stéphane Fabre, Mohammad Reza Ghaffari. Sheep Genomic Breeding Program in Iran: A success story of prolificacy and muscle hypertrophy in Moghani Sheep. 6th International & 18th Iranian Genetics Congress - GC2024. Islamic Republic of Iran.
2. **Reza Talebi** *, Mohammad Reza Ghaffari, Mehrshad Zeinalabedini, Mehrbano Kazemi Alamouti, Mohsen Mardi, Stéphane Fabre. Revolutionizing Sheep Breeding Programs through Systems Biology Approaches: Improving of selection strategies through molecular markers, genomic data and phenotype. 5th International and 13th National Biotechnology Congress of Islamic Republic of Iran.
3. **Reza Talebi** *, Mohammad Reza Ghaffari, Stéphane Fabre, Saber Qanbari: Comparison of the growth performance traits in F1 crossbred lambs between two strains Booroola Merino× Moghani and Booroola Romney× Moghani. 12th National And 4th International Biotechnology Congress of Islamic Republic of Iran; 2021/8/22

4. **Reza Talebi** *, Ahmad Ahmadi, Fazlollah Afraz: Global gene expression of Mehraban ewe ovaries in the anestrus phase. . 2nd International and 10th National Biotechnology Congress of Islamic Republic of Iran., Seed and plant improvement institute, Karaj, Iran; 08/2017
5. **Reza Talebi** *, Ahmad Ahmadi, Fazlollah Afraz: Variation of blood biochemical parameters of ewe to identify biomarker in the breeding season. 2nd International and 10th National Biotechnology Congress of Islamic Republic of Iran., Seed and plant improvement institute, Karaj, Iran; 08/2017
6. **Reza Talebi** *, Fazlollah Afraz, Ahmad Ahmadi, Seyed-Mohammad Farhad Vahidi: Study on protein interaction networks of Parkinson's disease based on association to putative lactoferrin..1st International & 9th National Biotechnology Congress of Islamic Republic of Iran. Shahid Beheshti University, Tehran, Iran. 24-26 May, 2015.
7. **Reza Talebi** *, Fazlollah Afraz, Ahmad Ahmadi, Seyed Ziaeddin Mirhoseini; Homology measurement of cytochrome P-450 between human and camel in order resistance against blood pressure and environmental toxics. 1st International & 13th Iranian Genetics Congress. Shahid Beheshti University, Tehran, Iran. 24-26 May, 2014.
8. Ahmad Ahmadi, Seyed Reza Miraei Ashtiani, Hassan Mehrabani Yeganeh, **Reza Talebi**, Christian Bendixen: Single nucleotide polymorphisms detection by multiplex sequencing method in Japanese quail genome.. 6th Animal Science Congress of Islamic Republic of Iran, University of Tabriz, Tabriz, Iran.; 08/2014
9. Afraz F, Mirhosseini SZ, **Talebi R**, Dalirsefat B, Banabazi MH, Asadzadeh N, Asadi N, Razavi K, Ghanbari A.: Application of New World Camelidae and one humped camels microsatellite primers for study on genetic diversity Iranian two humped camels. First National Congress of Camel in Iran., Mashhad, Iran, 17-18 April.; 04/2012