



**TAGEM**  
R&D AND INNOVATION

## Necati Esener, BEng, MSc, PhD Agricultural Genetic Engineer

### EDUCATION

- PhD** 2017-2021 University of Nottingham  
Veterinary, Medicine & Science
- MSc** 2015-2016 Aberystwyth University  
Livestock Science
- Bachelor's Degree** 2008-2013 Ege University  
Bioengineering

**LANGUAGE** English 95 (YDS, 2022-1) /  
6.5 (IELTS, 2015)

### CAREER

- 2022- ... Researcher, Bahri Dagdas International  
Agricultural Research Institute - Konya- TURKEY
- 2014-2015 Data Preparation and Control Operator,  
Ministry of Interior- Ankara- TURKEY
- 07.2012-09.2012 Intern (IAESTE), Alba Thyment Sp.,  
Poznan- POLAND

### ABOUT ME

He was born in 1990. He completed his primary and high school education in Didim. In 2008, he moved to Izmir to carry out his engineering degree. During his bachelor's degree, he also studied at Poland Politechnika Bydgoska University as an Erasmus exchange student. He, then, won the YLSY scholarship and obtained his master's degree at Aberystwyth University, Wales. With the same scholarship, he earned his PhD degree at the University of Nottingham

He is interested in bioinformatics, data science, machine learning and biostatistics in agricultural sciences as well as antimicrobial resistance, bovine mastitis and other bacterial diseases. For any questions and collaborations please feel free to contact from the email address below.

### CONTACT

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## Agricultural Genetic Engineer



### ■ **PUBLICATIONS**

#### ■ **INTERNATIONAL ARTICLES AND PAPERS**

##### ■ **Articles Published in International Journals**

1. Esener, N., Guerra, A. M., Giebel, K., Lea, D., Green, M. J., Bradley, A. J. and Dottorini, T. (2021) 'Mass spectrometry and machine learning for the accurate diagnosis of benzylpenicillin and multidrug resistance of Staphylococcus aureus in bovine mastitis', PLOS Computational Biology, 17(6), pp. e1009108. <https://doi.org/10.1371/journal.pcbi.1009108>.
2. Esener, N., Maciel-Guerra, A., Giebel, K., Lea, D., Green, M. J., Bradley, A. J. and Dottorini, T. (2021) 'Prediction of Streptococcus uberis clinical mastitis treatment success in dairy herds by means of mass spectrometry and machine-learning', Scientific Reports, 11(1), pp. 7736. <https://doi.org/10.1038/s41598-021-87300-0>.
3. Esener, N., Green, M. J., Emes, R. D., Jowett, B., Davies, P. L., Bradley, A. J. and Dottorini, T. (2018) 'Discrimination of contagious and environmental strains of Streptococcus uberis in dairy herds by means of mass spectrometry and machine-learning', Scientific Reports, 8(1), pp. 17517. <https://doi.org/10.1038/s41598-018-35867-6>.

##### ■ **International Papers, Seminars, Conferences, etc.**

1. **2020** World Milk Day Conference (Oral Presentation), University of Nariño, Nariño, Colombia. 'Discrimination of contagious and environmental strains of Streptococcus uberis in dairy herds by means of mass spectrometry and machine-learning', Scientific Reports, 8(1), pp. 17517. <https://doi.org/10.1038/s41598-018-35867-6>.
2. **2020** British Society of Animal Science (BSAS). 'Discrimination of contagious and environmental strains of Streptococcus uberis in dairy herds by means of mass spectrometry and machine-learning', Scientific Reports, 8(1), pp. 17517. <https://doi.org/10.1038/s41598-018-35867-6>.
3. **2019** PGR Symposium (Oral Presentation), University of Nottingham, Nottingham, UK. 'The Use of MALDI-TOF to Differentiate Phenotypic Profiles of Esherichia coli Isolates'.
4. **2018** Genome Science Conference (Poster Presentation), University of Nottingham, Nottingham, UK. 'Discrimination of contagious and environmental strains of Streptococcus uberis in dairy herds by means of mass spectrometry and machine-learning', Scientific Reports, 8(1), pp. 17517. <https://doi.org/10.1038/s41598-018-35867-6>.
5. **2018** PGR Symposium (Oral Presentation), University of Nottingham, Nottingham, UK. 'Implementation of machine learning for the evaluation of mastitis'.



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### ▪ **OTHER PUBLICATIONS**

#### ▪ **Ph.D. Thesis, Master Thesis, Reports, Books etc.**

1. Esener, Necati (2021). *Implementation of machine learning for the evaluation of mastitis and antimicrobial resistance in dairy cows*. PhD thesis, University of Nottingham.  
<http://eprints.nottingham.ac.uk/66056/>
2. Esener, Necati (2016). *Identification of signatures of tissue-specific gene expression in Bos Taurus*. Master thesis, Aberystwyth University.
3. Esener, Necati (2008). *Ecotoxicology of human pharmaceuticals*. Undergraduate thesis, Ege University.



## Necati Esener, BEng, MSc, PhD Agricultural Genetic Engineer



### ▪ Courses and Conferences Attended

**April, 2021.** Welcome Sanger Institute, Bacterial Genomes: Disease, Outbreaks and Antimicrobial Resistance.

**April, 2021.** Welcome Sanger Institute, Bacterial Genomes: Comparative Genomics using Artemis Comparison Tool (ACT).

**April, 2021.** Welcome Sanger Institute, Bacterial Genomes: From DNA to Protein Function Using Bioinformatics.

**April, 2021.** Welcome Sanger Institute, Bacterial Genomes: Antimicrobial Resistance in Bacterial Pathogens.

**April, 2021.** British Society of Animal Science 2021 Annual Conference.

**November, 2020.** Global Antibiotic Research & Development Partnership, Discovery of new antimicrobials using artificial intelligence (computational chemoinformatics).

**November, 2020.** Nature Masterclasses, Scientific Writing and Publishing.

**October, 2020.** Global Antibiotic Research & Development Partnership, Building better breakpoints: data and methods needed to determine breakpoints for new agents.

**October, 2020.** Center for English Language Education, Academic Vocabulary Skills.

**August 2020.** Bioinformatics from Algorithms to Applications Conference.

**June, 2020.** University of Cambridge, An Introduction to Machine Learning.

**April, 2020.** NCBI Webinars, NCBI's ALFA: allele frequency data for variant analysis and interpretation.

**March, 2020.** University of Nottingham, Introduction to MATLAB for Engineers.

**February, 2020.** University of Nottingham, Academic Writing Workshops: Managing and Citing References.

**February, 2020.** University of Nottingham, Academic Writing Workshops: Reviewing Literature.

**January, 2020.** University of Nottingham, UK Data Service Event.

**November, 2019.** University of Dundee, 3D RNA-seq Application.

**November, 2019.** The James Hutton Institute, Accurate and fast quantification of transcriptomes using RNA-seq.

**September, 2019.** University of Nottingham, Statistics and Design for Bioscientists.

**May, 2019.** University of Nottingham, Post-genomics and Bioinformatics.

**August, 2017.** University of East Anglia, Genome 10K and Genome Science Conference.

**May, 2017.** University of Cambridge, An Introduction to MATLAB for biologists.

**April, 2016.** British Society of Animal Science for a Sustainable Future Annual Conference.