

**PERSONAL INFORMATION**



**Madalina Alexandra DAVIDESCU**

📍 Iasi University of Life Sciences-IULS, Iasi  
 Faculty of Food and Animal Sciences,  
 8 Mihail Sadoveanu Alley, 700489, Iasi

☎ office: 004 0232407219

✉ [madalina.davidescu@iuls.ro](mailto:madalina.davidescu@iuls.ro)

**WORK EXPERIENCE**

- 02/2022 - present **Assist. prof. PhD**  
 Iasi University of Life Sciences
  - didactic and research activity*Type of business or sector:* Academic-Research & Development
- 09/2021- 02/2022 **Associate assist. prof. PhD**  
 Iasi University of Life Sciences
  - didactic and research activity*Type of business or sector:* Academic-Research & Development
- 10/2018 - 02/2022 **Researcher**  
 Research and Development Station for Cattle Breeding, Dancu-Iasi, Romania  
*Type of business or sector:* Research & Development
- 07/2016 - 09/2018 **Research assistant**  
 Research and Development Station for Cattle Breeding, Dancu-Iasi, Romania  
*Type of business or sector:* Research & Development

**EDUCATION AND TRAINING**

- 2018-2021 **PhD – Doctor in Genetics**  
 Iasi University of Life Sciences  
 Title of doctoral thesis: „*Phylogenetic relationships and genetic diversity of endangered romanian cattle breeds, Grey Steppe and Pinzgau*”
- 2019-2021 **MSc – Master of science, Master in Molecular Genetics**  
 Alexandru Ioan Cuza University of Iasi, Romania
- 2019-2020 **Pedagogic studies for higher education, level II**  
 University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania
- 2016-2018 **MSc – Master of science, Master in Food Quality and Safety Management**  
 University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania
- 2012-2016 **BSc – Bachelor of science, Engineer in Food Quality Control and Expertise**  
 University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania
- 2012-2015 **Pedagogic studies for higher education, level I**  
 University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania
- 2019-2024 **Workshopuri:**
  1. „The most influential specialist fields in research”
  2. „Modern molecular biology solutions for the study of the genome”
  3. „Enformation training session, Iasi, February 2020”
  4. „Introduction to deontology and research ethics”

- 2023 **Erasmus Teaching Mobility (STA - Staff Teaching Assignment)**  
Universidad de La Laguna, Spania, Facultad de Farmacia/Department Máster Universitario en Seguridad y Calidad de los Alimentos
- 2021 **Graduation certificate Statistics course - "Experimental technique and research in Animal Husbandry"**  
The study of population variability.  
Optimal size of experiments.  
The technique of creating experimental batches.  
Hypotheses and statistical tests. Checking the comparability of the experimental batches. Analysis of variance.  
Experimental design: completely randomized, in blocks, complete, randomized, Latin Square, bifactorial, trifactorial, hierarchical.
- 2021 **Course graduation certificate - "Introduction to Digital Animal Husbandry"**  
The role and implementation of digitization in the field of Animal Husbandry
- 2019 **Certificate of participation Summer School - 3 rd International Summer School: "PROTEOMICS – from Introduction to Clinical Applications"**  
Proteomics-Mass Spectrometry-MALDI  
Molecular Biology - Sequencing, PCR and QF-PCR  
Cell Cultures - Cell Culture Analysis (2D/3D)  
Flow Cytometry - Diagnosis, Data Analysis

**PERSONAL SKILLS AND COMPETENCES**

Mother tongue(s)	Romanian				WRITING
	UNDERSTANDING		SPEAKING		
Other languages	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	B2
French	B1	B2	B1	B1	B1
Spanish	B1	A2	B1	B1	A2

European level: A1/2: Elementary; B1/2: Independent user; C1/2: Proficient user

  

Social skills and competences	<ul style="list-style-type: none"> <li>- public speaking, plenary presentations</li> <li>- adapting the message to the audience to which it is delivered during plenary presentations</li> <li>- cohesion and clarity of speech</li> <li>- integration in different cultural environments and work teams</li> </ul>
Organisational skills and competences	<ul style="list-style-type: none"> <li>- skills in organizing work teams and distributing tasks</li> <li>- initiative</li> <li>- developing research ideas in projects</li> <li>- knowledge of statistical analysis programs</li> <li>- interpretation of experimental data (genomic analysis)</li> </ul>
Other skills and competences	<ul style="list-style-type: none"> <li>- perseverance, punctuality, adaptability</li> <li>- proper time management, responsibility</li> <li>- planning skills</li> <li>- motivation in evolution and continuous professional development</li> <li>- listening and critical thinking, improvement</li> </ul>

## SCIENTIFIC/ADMINISTRATIVE ACTIVITY

Published papers **Total no.:** 75 scientific papers, 20 scientific papers published in ISI/ISI proceedings journals; 40 BDI indexed papers, 15 papers published in volumes of national/international conferences

### List of representative scientific papers:

1. **Mădălina Alexandra DAVIDESCU**, Claudia Pânzaru, Alexandru Usturoi, Răzvan-Mihail Radu-Rusu, and Șteofil Creangă, **2023** - *An Appropriate Genetic Approach to Endangered Podolian Grey Cattle in the Context of Preserving Biodiversity and Sustainable Conservation of Genetic Resources*. Agriculture 13, no. 12: 2255. WOS:001136057400001. **cotată ISI I.F. 3.6.**
2. **Mădălina Alexandra DAVIDESCU**, Claudia Panzaru, Daniel Simeanu, Andrei Ciobanu, Bianca Maria Madescu, Ioana Porosnicu, Șteofil Creanga, **2023** - *The effectiveness of heat treatment processes applied to sour cream for the production of butter, validated by enzymatic methods*. Scientific Papers. Series D. Animal Science, Vol. 66, Issue2, pp. 459-464. WOS:001133092700078, **cotată ISI I.F. 0.3.**
3. **Mădălina Alexandra DAVIDESCU**, Simeanu Daniel, Gorgan Dragos-Lucian, Ciorpac Mitica, Creanga Șteofil, **2022** - *Analysis of Phylogeny and Genetic Diversity of Endangered Romanian Grey Steppe Cattle Breed, a Reservoir of Valuable Genes to Preserve Biodiversity*. Agriculture, 12(2), 2059. WOS: 000900172100001. **cotată ISI I.F.3.6.**
4. **Madalina Alexandra DAVIDESCU**, Simeanu D., Simeanu C., Ivancia M., Creanga Șt., **2022** - *Testing the effectiveness of two methods of extracting DNA from blood samples from cows*. Scientific Papers. Series D. Animal Science, Vol. LXV, No. 1, pp. 40-45. WOS:000834534200004. **cotată ISI I.F. 0.3.**
5. **Mădălina Alexandra DAVIDESCU**, Bianca Mădescu, Mitică Ciorpac, Lucian Dascălu, Teodor Bugeac, Andrei Matei, Ioana Poroșnicu, Șteofil Creangă, **2021** - *Genetic diversity of Pinzgau cattle breed: A systematic review*. Scientific Papers. Series D. Animal Science, Vol. LXIV, Nr. 2, p. 40-44, **Indexată ISI**. ISSN 2285-5750. International Conference "Agriculture for Life, Life for Agriculture", USAMV, București, 2021. WOS:000737352500003.
6. **Madalina Alexandra DAVIDESCU**, Mitică Ciorpac, Șteofil Creanga, **2021** - *Highly effective method of DNA extraction from blood: a first step for analysis of genetic diversity of indigenous cattle breeds*. Scientific Papers. Series D. Animal Science, Vol. LXIV, Nr. 2, p. 35-39, **Indexată ISI**. ISSN 2285-5750. International Conference "Agriculture for Life, Life for Agriculture", USAMV, București 2021. WOS:000737352500002.
7. **Mădălina Alexandra DAVIDESCU**, Andrei C. Grădinaru, Constantin Pascal, Daniel Simeanu, Vasile Maciuc, Mihaela Ivancia, Șteofil Creanga, **2021** - *Analysis of the Mitochondrial Genome in Podolian Cattle Breeds*. Scientific Papers Animal Science and Biotechnologies. Vol. 54 (2), pp. 55-59. ISSN 2344 – 4576.
8. **Madalina Alexandra DAVIDESCU**, Mitică Ciorpac, Bianca Maria Mădescu, Ioana Poroșnicu, Șteofil Creangă, **2021** - *Analysis of the Genetic Diversity of Endangered Cattle Breeds Based on Studies of Genetic Markers*. Scientific Papers Animal Science and Biotechnologies Vol. 54 (2), pp. 60-63. ISSN 2344 – 4576.
9. **Madalina Alexandra DAVIDESCU**, Bianca M. Mădescu, Andrei C. Matei, Ioana Poroșnicu, Andra S. Neculai-Văleanu, Mitică Ciorpac, Șteofil Creangă, **2020** - *Genetic Markers Used in Molecular Phylogeny Studies, Research on Endangered Cattle Breeds*. Scientific Papers Animal Science and Biotechnologies, Vol 53 (2), p. 84-87. ISSN 2344 – 4576.
10. **Mădălina-Alexandra DAVIDESCU**, Grădinaru A.C., Creangă Șt., **2019** - *Endangered Romanian Cattle Breeds – Between Traditional Breeding and Genetic Conservation*. Scientific Papers-Animal Science Series: Lucrări Științifice - Seria Zootehnie, vol. 75, p. 66-75. ISSN 2067-2330. **ISI Proceedings** of the International Scientific Congress-Life Sciences, A Challenge for the Future, p. 339-349. WOS:000747623800057.

### Books and book chapters

#### **2 book chapters:**

1. **Davidescu, M.-A.**; Simeanu, D.; Gorgan, D.-L.; Ciorpac, M.; Creanga, S. Analysis of Phylogeny and Genetic Diversity of Endangered Romanian Grey Steppe Cattle Breed, a Reservoir of Valuable Genes to Preserve Biodiversity. *Agriculture* **2022**, 12, 2059, Animal Nutrition and Productions MDPI, <https://doi.org/10.3390/agriculture12122059>, ISBN 978-3-0365-8010-4 (Hbk); ISBN 978-3-0365-8011-1 (PDF).
2. **Davidescu, M.-A.**; Pânzaru, C.; Usturoi, A.; Radu-Rusu, R.-M.; and Șteofil Creangă. An Appropriate Genetic Approach to Endangered Podolian Grey Cattle in the Context of Preserving Biodiversity and Sustainable Conservation of Genetic Resources. *Agriculture* 13, no. 12: 2255. <https://doi.org/10.3390/agriculture13122255> (*in curs de publicare*).

### Grants and research projects

**Total no.: 4**

#### **List of research grants and contracts:**

1. Contract AG. EC. NR. 16924/30.09.2021, "*Cercetări privind optimizarea alimentației taurinelor pentru carne*", Perioada derulare: 2021-2022, USV Iași.
2. Program sectorial ADER 2015-2018, Contract nr. 5.2.2./30.10.2015 (2015-2018), "*Conservarea și prezervarea taurinelor pe cale de dispariție, respectiv rasa Sură de stepă în vederea asigurării biodiversității resurselor genetice a populațiilor de animale*", Coordonator S.C.D.C.B. Dancu, Partener USAMV Iași;
3. Program sectorial ADER 2015-2018, Contract 5.3.2./03.11.2015 (2015-2018), "*Cercetări privind intensivizarea procesului de reproducție la taurine prin biotehnologii de reproductive*", Coordonator S.C.D.C.B. Dancu;
4. Program sectorial ADER 2015-2018, Contract ADER nr. 7.2.1./03.11.2015 (2015-2018), "*Îmbunătățire a potențialului productiv în fermele de vaci pentru lapte din N-E României prin producerea de embrioni in vitro folosind donatoare de ovocite înalt productive și material seminal (sexat și nesexat) provenit de la tauri testați*", Coordonator S.C.D.C.B. Dancu.

### Scientometrics data

[Google Scholar](#) / [Scopus](#) / [Web of Science](#) / [ORCID-ID](#)

### Didactic areas

- Genetics
- Genetically modified organisms
- Food quality control
- General and applied biotechnologies
- General animal technologies

### Research fields

- Molecular genetics
- Genetic diversity
- Phylogeny and molecular phylogeography
- Genetic engineering
- Biotechnologies

### Membership in scientific and professional organizations

1. Romanian Society of Animal Husbandry - SRZ - member since 2021
2. Romanian Association of Food Industry Specialists in Education, Research and Production – ASIAR – member since 2021
3. European Federation of Animal Science (EAAP) - member since 2021
4. European Federation of Biotechnology (EFB) - member since 2021
5. Association Française de Zootechnie member since 2023
6. World's Poultry Science Association, Romania - member since 2024