

AIKATERINI NTEMKA
Veterinarian - Researcher
Veterinary Research Institute, HAO - DEMETER

PERSONAL INFORMATION

Name: Aikaterini (Katerina)
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Date of birth: 04/05/1989
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RESEARCH INTERESTS

- ◆ Reproductive physiology of farm animals
- ◆ Reproductive pathology of farm animals
- ◆ Ultrasonographic examination of reproductive system in farm animals
- ◆ Assisted reproduction of farm animals
- ◆ Artificial insemination in sheep

DISTINCTIONS-PRIZES

- ◆ Graduated from School of Veterinary Medicine, Aristotle University of Thessaloniki, ranking 7th among 111 graduates (academic year 2013-2014) and 1st among 30 graduates at the 09/04/2014 ceremony, during which I delivered the "Veterinary Medicine Graduate Oath".
- ◆ Selection of the oral presentation entitled "Effects of testicular hemodynamic and echogenicity changes on ram fertilizing ability" among the 10 best and most scientifically sound, to be published as a research paper in the scientific journal «Reproduction in Domestic Animals», during the "Young scientist competition" at the 22nd Congress of the European Society for Domestic Animal Reproduction (ESDAR), 27-29/09/2018, Cordoba, Spain.
- ◆ Prize «Innovator of the year 2023», in the framework of the project «Her Research 2023», for the research proposal/presentation «Investigation of nanotechnology applications in the processing of ram semen», 25/5/2023.

SCHOLARSHIPS

- ◆ Doctoral Scholarship issued by Alexander S. Onassis Public Benefit Foundation, 10/2017-6/2020
- ◆ Erasmus⁺ Placement Traineeship Scholarship issued by State Scholarship Foundation, 10/2019-12/2019

- ◆ Postdoctoral Scholarship issued by Special Account for Research Funds Aristotle, University of Thessaloniki, 11/2022-10/2023

STUDIES-EDUCATION

- ◆ 2024-2025: Master of Science
«Research and Innovation in Health Sciences»
School of Medicine, Faculty of Health Sciences, Democritus University of Thrace
- ◆ 2016-2020: Doctoral Studies
Unit of Biotechnology of Reproduction, Clinic of farm animals, School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki
Title: «Study of the effect of testicular blood flow changes on ram fertilizing ability».
Grade: Excellent
- ◆ 2014-2015: Internship
«Farm Animal Medicine and Surgery»
Clinic of farm animals, School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki
- ◆ 2008-2014: Undergraduate Studies
School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki
Grade: 8.13

FOREIGN LANGUAGES

- ◆ English language: Certificate of Proficiency in English, Michigan University of USA, 2004
- ◆ French language: Diplôme approfondi de langue française, DALF C₁, 2004
- ◆ German language: Goethe-Zertifikat B₂, 2018
- ◆ Spanish language: Knowledge of Spanish language, Level A₂

COMPUTER SKILLS

- ◆ ECDL Certificate: Word, Excel, PowerPoint, Access, Internet Explorer, Outlook, 2019
- ◆ Statistics and Data Analysis: SPSS, 2023

CONTINUING EDUCATION AND TRAINING

- ◆ 10/2019-12/2019: «Erasmus⁺ Placement Trainee», Departamento de Patología Animal, Area de Reproduccion y Obstetricia, Facultad de Veterinaria, Universidad de Zaragoza, España
Field of training: *in vitro* maturation, vitrification, devitrification, staining and evaluation of ovine oocytes, *in vitro* embryo production
- ◆ 22-23/11/2014: Seminar on sheep Artificial Insemination, organized by Clinic of Farm Animals, School of Veterinary Medicine, Aristotle University of Thessaloniki and Zoetis

MEMBERSHIPS

- ◆ Member of Geotechnical Chamber of Greece (GEOTEE)
- ◆ Member of Hellenic Veterinary Association (HVA)
- ◆ Member of Greek Action of Volunteer Veterinarians (EDKE)
- ◆ Member of European Society for Domestic Animal Reproduction (ESDAR)
- ◆ Member of Association of Embryo Technology in Europe (AETE)

WORK EXPERIENCE

- ◆ 8/2020-present: Veterinarian at Vetfarm S.A., Neochorouda, Thessaloniki

RESEARCH EXPERIENCE

- ◆ 2/2024-present: Researcher at Veterinary Research Institute, Hellenic Agricultural Organization-Demeter, Themi, Thessaloniki
Field of specialization: Reproductive physiology and sperm technology of farm animals
- ◆ 9/2022-12/2024: Postdoctoral research entitled «Investigation of nanotechnology applications in ram semen processing», Unit of Biotechnology of Reproduction, Clinic of farm animals, School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki

PARTICIPATION IN RESEARCH PROJECT

Project title: Investigation of nanotechnology applications in farm animal semen processing (MIS5004681)

Role: Semen samples collection, processing and assessment, data collection and processing, contribution to manuscripts preparation

Call: Supporting researchers with an emphasis on young researchers" of "Human Resources Development, Education and Lifelong Learning

Funding: European Social Fund and National resources

Duration: 6/2018-3/2020

TEACHING EXPERIENCE

- ◆ Academic years 2018-2024
Participation in the laboratory and clinical training of the 7th semester students at School of Veterinary Medicine, Aristotle University of Thessaloniki, on "Biotechnology of Reproduction - Handling and evaluation of fresh and cryopreserved semen of farm animals", as well as of the 10th semester students, on "Artificial Insemination of Small Ruminants".
- ◆ 04/2023-06/2023, 03/2024-06/2024, 03/2025-06/2025
Teaching (theory, laboratory, clinics) the 6th semester students at Department of Animal Science, University of Thessaly, on "Reproduction of Farm Animals II".

GUEST EDITOR IN SCIENTIFIC JOURNALS

Scientific Journal: Animals

Special Issue: "Breeding Soundness Examinations of Rams: Semen Collection and Evaluation"

REVIEWER IN INTERNATIONAL SCIENTIFIC JOURNALS

- ◆ Animals
- ◆ Journal of Hellenic Veterinary Medical Society
- ◆ Journal of Veterinary Medicine and Animal Health
- ◆ Reproduction, Fertility and Development
- ◆ Reproduction in Domestic Animals
- ◆ Veterinary Sciences

INVITED SPEAKER

A. Ntemka, Selection and preparation of livestock for the effective reproductive management of sheep farms and AI centers. Workshop on Small Ruminants' Reproduction, organized by Hellenic Veterinary Students' Association of Small Ruminants and International Veterinary Students' Association-Thessaloniki. School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Thessaloniki, 13/5/2023.

ORAL COMMUNICATIONS OR POSTERS IN NATIONAL SCIENTIFIC CONGRESSES & MEETINGS

1. A. Basioura, T. Samaras, S. Anastasiadou, **A. Ntemka**, I. Michos, K. Simeonidis, I. Karagiannis, G. Tsousis, M. Angelakeris, C. Boscós, I. Tsakmakidis. Use of Fe₃O₄ nanoparticles on boar semen as an alternative to antibiotics. 15th Panhellenic Veterinary Congress, Athens, Greece, November 4-6, 2022
2. T. Fais, N. Giadinis, E. Papadopoulos, R. Blaga, G. Brellou, A. Theodoridis, D. Bitchava, **A. Ntemka**, D. Le Roux, V. Djokic, I. Tsakmakidis. Effect of Toxoplasma gondii on ram semen fertilizing capacity after experimental infection. 14th Panhellenic Veterinary Congress, Thessaloniki, Greece, May 11-13, 2018
3. **Ntemka**, E. Kiossis, C. Boscós, A. Theodoridis, G. Kourousekos, I. Tsakmakidis. Effects of testicular hemodynamic and echogenicity changes on ram semen characteristics. 14th Panhellenic Veterinary Congress, Thessaloniki, Greece, May 11-13, 2018
4. **A. Ntemka**, I. Tsakmakidis, E. Kiossis, C. Boscós. Data and advances on ram semen cryopreservation. 6th Panhellenic Congress of Animal Production Technology, Thessaloniki, Greece, February 3, 2017.
5. **A. Ntemka**, G. Tsousis, C. Brozos, E. Kiossis, C. Boscós, I. Tsakmakidis. Comparative study of cryopreserved bull semen of different breeds, in terms of quality and response to thermal and osmotic stress. 13th Panhellenic Veterinary Congress, Athens, Greece, May 8-10, 2015
6. N. Giadinis, D. Psalla, P. Katsoulos, N. Manousakis, **A. Ntemka**, G. Karanikolas. A case study of congenital ichthyosis in a goat farm. 13th Panhellenic Veterinary Congress, Athens, Greece, May 8-10, 2015

ORAL COMMUNICATIONS OR POSTERS IN INTERNATIONAL SCIENTIFIC CONGRESSES & MEETINGS

1. Saratsi, F. Samartzi, P. Theodosios-Nobelos, E. Theodosiadou, **A. Ntemka**, E. Rekka, D. Tsiokos, G. Kourousekos, C. Rekkas. Supplementation of ram freezing extenders with a caffeic acid antioxidant derivative (CAAD)-Preliminary results. Poster, 27th Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 12-14 September 2024, Belgrade, Serbia.
2. **A. Ntemka**, S. Chaintoutis, G. Tsousis, K. Simeonidis, T. Samaras, I. Tsakmakidis. Cytotoxic effect of antibacterial bismuth and tin-bismuth oxide nanoparticles on ram semen motility and kinematics. Poster, 27th Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 12-14 September 2024, Belgrade, Serbia.
3. **A. Ntemka**, S. Chaintoutis, G. Tsousis, K. Simeonidis, T. Samaras, I. Tsakmakidis. Effect of tin oxide nanoparticles on ram semen motility and kinematics. Poster, 1st European Symposium on Animal Reproduction (ESAR), 21-23 September 2023, Nantes, France.
4. E. Dovolou, A. Fytsilli, T. Giannoulis, I. Nanas, **A. Ntemka**, I. Kateri, K. Moutou, Z. Mamuris, G. Amiridis. Zinc sulfate attenuates the negative effects of Roundup[®] on *in vitro* bovine oocyte maturation. Poster, 39th Annual Meeting of Association of Embryo Technology in Europe (A.E.T.E.), 7-8 September 2023, Herakleion, Greece.
5. S. Priskas, I. Tsakmakidis, G. Valergakis, A. Lymperopoulos, **A. Ntemka**, G. Arsenos. Effect of ram semen quality on the success of cervical insemination in dairy ewes. Poster, 24th Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 11-16 October 2021, Virtual Congress.
6. **Ntemka**, E. Kiossis, C. Boscós, A. Theodoridis, M. Patsikas, G. Kourousekos, I. Tsakmakidis. Impact of age, season and ejaculation on Chios ram testicular vascularity and echotexture. Poster, 24th Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 11-16 October 2021, Virtual Congress.
7. **Ntemka**, E. Kiossis, C. Boscós, A. Theodoridis, G. Kourousekos, I. Tsakmakidis. Impact of season and age on Chios ram semen quality characteristics. Poster, 23rd Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 19-22 September 2019, Saint Petersburg, Russia.
8. A. Basioura, I. Michos, **A. Ntemka**, I. Karagiannis, C. Boscós. Effect of iron and silver nanoparticles on boar semen kinetics. Poster, 23rd Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 19-22 September 2019, Saint Petersburg, Russia.
9. Tsakmakidis, T. Samaras, S. Anastasiadou, A. Basioura, **A. Ntemka**, I. Michos, K. Simeonidis, I. Karagiannis, G. Tsousis, M. Angelakeris, C. Boscós. Effect of iron oxide nanoparticles as alternative to antibiotics on boar semen. Oral presentation, 17th Symposium Health care, selection and reproduction of swine, 30 May - 1 June 2019, Srebrno Jezero-Veliko Gradište, Serbia.

10. **Ntemka**, E. Kiossis, C. Boscós, A. Theodoridis, G. Kourousekos, I. Tsakmakidis. Effects of testicular hemodynamic and echogenicity changes on ram fertilizing ability. Oral presentation, 22nd Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 27-29 September 2018, Cordoba, Spain.
11. T. Fais, N. Giadinis, E. Papadopoulos, R. Blaga, G. Brellou, A. Theodoridis, D. Bitchava, **A. Ntemka**, D. Le Roux, V. Djokic, I. Tsakmakidis. Effect of *Toxoplasma gondii* on ram semen fertilizing capacity after experimental infection. Poster, 22nd Annual European Society for Domestic Animal Reproduction (ESDAR) Conference, 27-29 September 2018, Cordoba, Spain.
12. **Ntemka**, I. Tsakmakidis, C. Boscós, A. Theodoridis, E. Kiossis. Blood flow and echotexture changes in dairy ewe's healthy or with subclinical mastitis udder just before/during dry period and at the beginning of lactation period. Poster, 2018 International Bovine Mastitis Conference (NMC), 11-13 June 2018, Milan, Italy.
13. **A. Ntemka**, I. Tsakmakidis, C. Boscós, A. Theodoridis, E. Kiossis. The effect of subclinical mastitis in blood flow of ewe's udder one week before, during dry period and at the beginning of the subsequent lactation. Oral presentation, Annual Meeting of European College of Small Ruminants Health Management (ECSRHM), 12 May 2018, Thessaloniki, Greece.
14. E. Dovolou, **A. Ntemka**, F. Krania, I. Tsakmakidis, G. Amiridis. Effects of short exposure of bull semen to Roundup[®] on sperm kinetics and on *in vitro* embryo production. Poster, 33rd Annual Meeting of Association of Embryo Technology in Europe (A.E.T.E.), 8-9 September 2017, Bath, United Kingdom.
15. **A. Ntemka**, G. Tsousis, C. Brozos, E. Kiossis, C. Boscós, I. Tsakmakidis. Breed differences in quality characteristics of bull frozen-thawed semen. Poster, 19th International Congress on Biotechnology in Animal Reproduction (ICBAR), 9-11 September 2015, Novi Sad, Serbia.

THESIS

Ntemka A. Study of the effect of testicular blood flow changes on ram fertilizing ability. Doctoral Thesis, School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Thessaloniki, Greece, 2020. 137 p.

PUBLICATIONS IN SCIENTIFIC JOURNALS

1. Dovolou E., Nanas I., Giannoulis T., Fytsilli A., **Ntemka A.**, Anifandis G., Tsakmakidis I., Amiridis G.S. The effects of a glyphosate-based herbicide on the bovine gametes during an *in vitro* embryo production model. *Environmental Pollution*, 2024, 350, 123967. <https://doi.org/10.1016/j.envpol.2024.123967>
2. **Ntemka A.**, Tsakmakidis I., Boscós C., Theodoridis A., Kiossis E. The Role of Ewes' Udder Health on Echotexture and Blood Flow Changes during the Dry and Lactation Periods. *Animals*, 2022, 12, 2230. <https://doi.org/10.3390/ani12172230>.

3. **Ntemka A.**, Kiossis E., Boscós C., Theodoridis A., Patsikas M., Tsakmakidis I. Chios ram testicular blood flow and echotexture changes depending on age, season and ejaculation process. Polish Journal of Veterinary Sciences, 2021, 24, 579-587. <https://doi.org/10.24425/pjvs.2021.139983>
4. Tsakmakidis I., Samaras T., Anastasiadou S., Basioura A., **Ntemka A.**, Michos I., Simeonidis K., Karagiannis I., Tsousis G., Angelakeris M., Boscós C. Toxic and Microbiological Effects of Iron Oxide and Silver Nanoparticles as Additives on Extended Ram Semen. Animals, 2021, 11, 1011. <https://doi.org/10.3390/ani11041011>.
5. Basioura A., Michos I., **Ntemka A.**, Karagiannis I., Boscós C. Effect of iron oxide and silver nanoparticles on boar semen CASA motility and kinetics. Journal of Hellenic Veterinary Medical Society, 2020, 71, 2331-2338. <https://doi.org/10.12681/jhvms.25084>.
6. Fais T., Giadinis N., Papadopoulos E., Brellou G., Theodoridis A., Blaga R., Le Roux D., Bitchava D., **Ntemka A.**, Boscós C., Tsakmakidis I. Effect of *Toxoplasma gondii* on ram sperm quality after experimental infection. Pathogens, 2020, 9, 1004. <https://doi.org/10.3390/pathogens9121004>.
7. Tsakmakidis I., Samaras T., Anastasiadou S., Basioura A., **Ntemka A.**, Michos I., Simeonidis K., Karagiannis I., Tsousis G., Angelakeris M., Boscós C. Iron oxide nanoparticles as an alternative to antibiotics additive on extended boar semen. Nanomaterials, 2020, 10, 1568. <https://doi.org/10.3390/nano10081568>.
8. **Ntemka A.**, Kiossis E., Boscós C., Theodoridis A., Kourousekos G., Tsakmakidis I. Impact of old age and season on Chios ram semen quality. Small Ruminant Research, 2019, 178, 15-17. <https://doi.org/10.1016/j.smallrumres.2019.07.004>.
9. **Ntemka A.**, Kiossis E., Boscós C., Theodoridis A., Kourousekos G., Tsakmakidis I. Effects of testicular hemodynamic and echogenicity changes on ram semen characteristics. Reproduction in Domestic Animals, 2018, 53 (Suppl. 2), 50-55. <https://doi.org/10.1111/rda.13279>.
10. **Ntemka A.**, Tsakmakidis I., Kiossis E., Milovanović A., Boscós C. Current status and advances in ram semen cryopreservation. Journal of Hellenic Veterinary Medical Society, 2018, 69, 911-924. <https://doi.org/10.12681/jhvms.18014>.
11. **Ntemka A.**, Tsousis G., Brozos C., Kiossis E., Constantin B., Tsakmakidis I. Breed Differences of Bull Frozen-Thawed Semen. Reproduction in Domestic Animals, 2016, 51, 945-952. <https://doi.org/10.1111/rda.12769>