

Athina Basioura

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During her undergraduate studies in the School of Veterinary Medicine, professor Basioura was inspired by Reproduction and decided to extend her knowledge in this scientific field. After receiving the Veterinary Medicine degree (DVM) from Aristotle University of Thessaloniki, she was a postgraduate veterinarian in the Unit of Biotechnology of Reproduction (UBR), Farm Animals Clinic, Aristotle University of Thessaloniki for the next two years. During her Internship in the UBR, she had the opportunity to be trained in the Assisted Reproduction Technologies and in Clinical Veterinary Practice of Farm Animals Reproduction, to assist on laboratory/clinical courses and to participate in two research projects. This experience was her first opportunity to be involved in research about male/female infertility and made her decide for further PhD studies. During the last months of her internship, her application for a PhD thesis in the scientific field of Biotechnology and Physiopathology of Swine Reproduction was accepted and she continued her PhD studies in the same laboratory supervised by Prof. Ioannis Tsakmakidis. Her PhD thesis' objective was to examine the effect of antioxidant supplementation on the fertilizing capacity of extended and cryopreserved boar semen. It was conducted in collaboration with the Department of Medicine and Animal Surgery, University of Murcia, Murcia, Spain, where she performed part of her thesis experiments supervised by Prof. Inmaculada Parrilla Riera. During her stay in the University of Murcia, she had, also, the opportunity to be further trained in flow cytometric sperm analysis and semen cryopreservation protocols. As a PhD student, she was awarded with a competitive PhD fellowship from the State Scholarships Foundation (IKY), Greece. She defended her PhD dissertation (full accepted with excellent; 10/10), meanwhile she had been granted with a competitive fellowship for Young Researchers from the Greek Government. This project was the occasion for obtaining knowledge in nanomedicine application in swine and small ruminant reproduction. She was a postdoctoral researcher in the UBR participating in a research project about Biomedicine in Animals' Reproduction and she had the opportunity to collaborate with the Department of Physics, Aristotle University of Thessaloniki. During her pre- and post-doctoral career, she has been involved in research projects with private funding (3) or competitive projects (5). In addition, she has been a teaching assistant in laboratory and clinical courses at School of Veterinary Medicine, Aristotle University of Thessaloniki (since the academic year 2012-2013); Faculty of Veterinary Science, University of Thessaly (2 academic years); and International Hellenic University (6 academic years). She has been invited by the Faculty of Veterinary Medicine, University of Lisbon (Lisbon, Portugal) and the College of Veterinary Medicine, Yangzhou University, (Yangzhou, P.R. China) for training, research and teaching activities. Currently, she has been an assistant professor, School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece.

Her research activities have contributed 26 articles in peer-reviewed journals (8 as first author; 4 as second author; one as last author), and 21 abstracts were published in SCI/JCR-indexed journals. She has joined in International Conferences announcing her research findings as oral/poster presentations or as invited speaker. She has been a member of scientific societies [i.e., the European Society for Domestic Animal Reproduction (ESDAR), the Geotechnical Chamber of Greece] and has served as editor and reviewer in international peer-reviewed journals indicating her proactive attitude towards science.

Education

- 22/11/2018 **Doctor of Philosophy (PhD) in Veterinary Medicine. University:** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece. **Phd thesis title:** Effect of astaxanthin on extended and cryopreserved boar semen.
- 26/03/2012 **Degree in Veterinary Medicine (DVM). University:** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece.

Current Position

- Since 08/09/2021 **Assistant professor**, Scientific area: Reproductive Medicine and Ruminants Medicine; School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece.

Previous positions

- 01/02/2012-18/02/2014 **Internship.** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece. Trained in veterinary clinical practice, artificial insemination, techniques for sperm quality and function evaluation, CASA system, proteomics, *in vitro* maturation/fertilization/embryo culture, micro manipulator.
- 19/02/2014-22/11/2018 **PhD Student.** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece.
- 24/06/2018-11/07/2018 **Senior Consultant** (training projects, veterinary services, pig farm management), DANAG AGRITECH CONSULTING (Zhengzhou) CO., LTD, Jinan, China.
- 01/11/2018-20/11/2018 **Veterinary Practitioner**, reproduction services and management of rabbit farm, Cyprus.
- 20/06/2018-25/03/2020 **Young Researcher.** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece. Nanotechnology applications on semen processing. Project title: "Investigation of nanotechnology applications on farm animals' semen processing".
- 30/07/2018-31/03/2021 **Young Researcher.** Geotechnical Chamber of Greece-Branch of West Macedonia and Aristotle University of Thessaloniki, Greece. Biotechnological applications for genetics preservation and protection of autochthonous populations of sheep breed which is under danger of extinction. Project title: "Protection of autochthonous populations Pelagonia Sheep breed in the cross Sheep breed".
- 13/2/2020-20/11/2022 **Post-doctoral Researcher.** School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece. Biomedicine applications, development of possible biomarkers for an objective prognosis of fertilizing capacity. Project title: "Investigation of boar semen fertilizing capacity changes applying biomedical techniques".
- 09/2021-04/2025 **Assistant Professor**, Scientific area: Farm animals' reproduction with emphasis to diagnosis and improvement of fertilizing capacity; Department of Agriculture, School of Agricultural Sciences, University of Western Macedonia, Florina, Greece.

Peer-Reviewed Articles

Prof. Basioura **has published 26 papers** that are provided below:

1. Michos I.A., **Basioura A.G.**, Boscós C.M., Tsakmakidis I.A. (2013). Proper use and impact of "Computer Assisted Semen Analysis" technique on semen evaluation of farm animals. *Journal of the Hellenic Veterinary Medical Society* 64 (4), 267-274. DOI: <https://doi.org/10.12681/jhvms.15506>
2. Vasiliki Alexiou, **Athina G. Basioura**, Georgios Tsousis, Eleni D. Tzika, Constantin M. Boscós, Georgios Vatzias, and Ioannis A. Tsakmakidis (2017). The effect of dilution temperature by two extenders with different specifications on boar semen quality. *Veterinarski Arhiv* 87 (2), 197-208.
3. I.A. Tsakmakidis, M. Tsantarliotou, I.A. Michos, **A.G. Basioura**, G. Tsousis, C.M. Boscós (2017). Selected steps of swine ICSI method to overcome seasonal effect and achieve acceptable early embryonic development, a preliminary study. *Polish Journal of Veterinary Sciences* 20 (3), 607-609. DOI: <https://doi.org/10.1515/pjvs-2017-0075>
4. **A. Basioura**, C.M. Boscós, I. Parrilla, G. Tsousis, I.A. Tsakmakidis (2018). Effect of astaxanthin on the quality of boar sperm stored at 17° C, incubated at 37° C or under *in vitro* conditions. *Reproduction in Domestic Animals* 53 (2), 463-471. DOI: <https://doi.org/10.1111/rda.13133>
5. **Athina Basioura**, Georgios Tsousis, Constantin Boscós, Aristotelis Lymberopoulos, Ioannis Tsakmakidis (2019). Method agreement between three different chambers for comparative boar semen computer assisted sperm analysis. *Reproduction in Domestic Animals* 54 (S4), 41-45. DOI: <https://doi.org/10.1111/rda.13494>

6. **Basioura A.**, [...], Boscós CM (2020). Effect of iron oxide and silver nanoparticles on boar semen CASA motility and kinetics. *Journal of the Hellenic Veterinary Medical Society* 71 (3), 2331-2338. DOI: <https://doi.org/10.12681/jhvms.25084>
7. **A. Basioura**, I.A. Tsakmakidis, E.A. Martinez, J. Roca, J. Li, M.F. Molina, A. Theodoridis, C.M. Boscós, I. Parrilla (2020). Effect of astaxanthin in extenders on sperm quality and functional variables of frozen-thawed boar semen. *Animal Reproduction Science* 218, 106478. DOI: <https://doi.org/10.1016/j.anireprosci.2020.106478>
8. **A. Basioura**, G. Tsousis, C. Boscós, A. Lymberopoulos, I. Tsakmakidis. (2020). Method agreement between three different chambers for comparative bull semen computer assisted sperm motility analysis. *Polish Journal of Veterinary Sciences* 23 (3), 325-331. DOI: <https://doi.org/10.24425/pjvs.2020.133649>
9. I.A. Tsakmakidis, Th. Samaras, S. Anastasiadou, **A. Basioura**, et al. (2020). Iron oxide nanoparticles as an alternative to antibiotics additive on extended boar semen. *Nanomaterials* 10 (8), 1568. DOI: <https://doi.org/10.3390/nano10081568>
10. Panagiotis D. Tassis, Ioannis A. Tsakmakidis, [...], **Athina Basioura** and Dian Schatzmayr (2020). Individual and combined *in vitro* effects of deoxynivalenol and zearalenone on boar semen. *Toxins* 12 (8), 495. DOI: <https://doi.org/10.3390/toxins12080495>
11. Tsakmakidis, I. A., Samaras, T., Anastasiadou, S., **Basioura, A.**, et al. (2021). Toxic and microbiological effects of iron oxide and silver nanoparticles as additives on extended ram semen. *Animals* 11 (4), 1011. DOI: <https://doi.org/10.3390/ani11041011>
12. Ilias Michos, Maria Tsantarliotou, Constantin M. Boscós, Georgios Tsousis, **Athina Basioura**, [...], and Ioannis A. Tsakmakidis (2021). Effect of boar sperm proteins and quality changes on field fertility. *Animals* 11(6), 1813. DOI: <https://doi.org/10.3390/ani11061813>
13. **Athina Basioura**, George Tsousis, Constantin Boscós, Ioannis Tsakmakidis (2021). Efficiency of three boar sperm enrichment techniques. *Reproduction in Domestic Animals* 56(8), 1148–1151. DOI: <https://doi.org/10.1111/rda.13976>
14. Stravogianni, V., Markakis, I. A., **Basioura, A.**, Boscós, C. M., Tsakmakidis, I. A., & Amaras, T. S. (2022). The Use of Triaxial Accelerometers During the Semen Collection Process in Boars. Conference paper in *11th International Conference on Modern Circuits and Systems Technologies (MOCASST)*, 1-4. DOI: 10.1109/MOCASST54814.2022.9837724
15. **Basioura, A.**, Brellou, G. D., Tsakmakidis, I., Vlemmas, I., Boscós, C. M., & Giadinis, N. (2022). Varicocele in an Adult Ram: Histopathological Examination and Sperm Quality Evaluation. *Veterinary Sciences* 9(2), 86. DOI: <https://doi.org/10.3390/vetsci9020086>
16. Stravogianni, V., Samaras, T., Boscós, C. M., Markakis, J., Krystallidou, E., **Basioura, A.**, & Tsakmakidis, I. A. (2022). The use of animal's body, scrotal temperature and motion monitoring in evaluating boar semen production capacity. *Animals* 12(7), 829. DOI: <https://doi.org/10.3390/ani12070829>
17. Tassis, P. D., Reisinger, N., Nagl, V., Tzika, E., Schatzmayr, D., Mittas, N., **Basioura, A.**, Michos, I., & Tsakmakidis, I. A. (2022). Comparative Effects of Deoxynivalenol, Zearalenone and Its Modified Forms De-Epoxy-Deoxynivalenol and Hydrolyzed Zearalenone on Boar Semen In Vitro. *Toxins* 14(7), 497. DOI: <https://doi.org/10.3390/toxins14070497>
18. Stravogianni, V., Samaras, T., Boscós, C. M., **Basioura, A.**, Markakis, I., & Tsakmakidis, I. A. (2022). Investigating Visual Monitoring of the Scrotum as a Supplementary Tool for Boar Semen Quality Evaluation. *Veterinary Sciences* 10(1), 9. DOI: <https://doi.org/10.3390/vetsci10010009>
19. Aikaterini Saratsi, Foteini Samartzi, Ioannis Panagiotidis, **Athina Basioura**, Dimitrios Tsiokos, Christina Ligda and Constantinos A. Rekkas (2023). Post-Thaw Parameters of Buck Semen Quality after Soy Lecithin Extender Supplementation with Fumaric Acid. *Veterinary Sciences* 10(9), 569. DOI: <https://doi.org/10.3390/vetsci10090569>
20. Junwei Li, Wenming Zhao, Jiaqiao Zhu, Shuaibiao Wang, Huiming Ju, Shufang Chen, **Athina Basioura**, Graça Ferreira-Dias and Zongping Liu (2023). Temperature Elevation during Semen Delivery Deteriorates Boar Sperm Quality by Promoting Apoptosis. *Animals* 13, 3203. DOI: <https://doi.org/10.3390/ani13203203>

21. Li, J., Li, J., Wang, S., Ju, H., Chen, S., **Basioura, A.**, ... & Zhu, J. (2024). Post-Thaw Storage Temperature Influenced Boar Sperm Quality and Lifespan through Apoptosis and Lipid Peroxidation. *Animals*, 14(1), 87. <https://doi.org/10.3390/ani14010087>
22. Tsaousioti, A., **Basioura, A.**, Praxitelous, A., & Tsousis, G. (2024). Dystocia in Dairy Cows and Heifers: A Review with a Focus on Future Perspectives. *Dairy*, 5(4), 655-671. <https://doi.org/10.3390/dairy5040049>
23. **Basioura, A.**, Tsakmakidis, I. A., Morrell, J. M., & Ntallaris, T. (2025). Artificial insemination of boar semen doses prepared with a low-density colloid under field conditions. *Frontiers in Veterinary Science*, 12, 1611751. <https://doi.org/10.3389/fvets.2025.1611751>
24. Praxitelous, A., Katsoulos, P. D., Tsaousioti, A., Schmicke, M., **Basioura, A.**, Boscós, C. M., & Tsousis, G. (2025). Metabolic Characteristics of Lame Cows During Puerperium and the Beginning of the Reproductive Period. *Ruminants*, 5(1), 8. <https://doi.org/10.3390/ruminants5010008>
25. Ntallaris, T., **Basioura, A.**, & Tsakmakidis, I. A. (2026). Kid Health Problems in Swedish Goat Herds: A Cross-Sectional Survey of Herd-Level Risk Factors and Preventive Practices. *Animals*, 16(5), 826. <https://doi.org/10.3390/ani16050826>
26. Moutsou, G., Ntallaris, T., Tsousis, G., Li, J., Tsakmakidis, I. A., & **Basioura, A.** (2026). Associations of Management Factors and Environmental Conditions With the Number of Liveborn Piglets in a Commercial Pig Farm: A Retrospective Field Study. *Reproduction in Domestic Animals*, 61(6), e70258. <https://doi.org/10.1111/rda.70258>

Invited Speaker

1. I.A. Tsakmakidis, T. Samaras, S. Anastasiadou, **A. Basioura**, [...], C.M. Boscós. Effect of iron oxide nanoparticles as alternative to antibiotics on boar semen. The 17th Symposium, Health care, Selection and Reproduction of Swine, Silver Lake Veliko Gradiste Serbia, 30 May-1 June 2019.
2. **Athina Basioura**, Artificial insemination in sheep, Union of Pelagonia sheep, Florina-Greece, June 2022.
3. **A. Basioura**, M. Nikolovski, A. G. Lymperopoulos. Advances and new approaches in ram semen cryopreservation. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 59 (S2), 2-3.
4. **Athina Basioura**, Reproduction & innovative practices in modern pig farming. The 16th Pan Hellenic Veterinary Congress, Thessaloniki, Greece, 30 October-2 November 2025.

Oral Presentations

International Conferences

1. **Basioura A.** Effect of astaxanthin on boar semen stored at 17° C for 48 h and incubated at 37° C or under *in vitro* conditions. The 1st Workshop, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, University of Murcia, Murcia-Spain, December 2016.
2. **Athina Basioura**, Georgios Tsousis, Constantin Boscós, Aristotelis Lymberopoulos, Ioannis Tsakmakidis. Method agreement between three different chambers for comparative boar semen CASA analysis. The 15th International Congress of the Spanish Association for Animal Reproduction (AERA), Toledo, Spain, November 2019. *Reproduction in Domestic Animals*, 2019, 54 (S4), 41-45.
3. Vasiliki Stravogianni, Ioannis-Anestis Markakis, **Athina Basioura**, Constantin M. Boscós, Ioannis A. Tsakmakidis, Theodoros Samaras. The Use of Triaxial Accelerometers During the Semen Collection Process in Boars. The 11th International Conference of Modern Circuits and System Technologies (MOCASST), Bremen, Germany, June 2022. Online proceedings <http://www.ids.uni-bremen.de/conf/mocast2022/papers/78.pdf> (presented by a colleague)
4. M. Nikolovski, **A. Basioura**, A. G. Lymperopoulos, M. Dovenska, D. Bozhinovski, B. Atanasov, F. Popovska-Percinic, V. Petkov, T. Dovenski. Innovative approaches to ram sperm cryopreservation – Exosomes, liposomes, antifreeze proteins, and spermbots. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 2024, 59 (S2), 2. (presented by a colleague)

5. A. Lymperopoulos, **A. Basioura**, M. Nikolovski. Effect of cryopreservation on ram spermatozoa and the role of seminal plasma. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 2024, 59 (S2), 2 (presented by a colleague)

National Conferences

1. I.A. Michos, **A.G. Basioura**, I.A. Tsakmakidis. Proper use and impact of “Computer Assisted Semen Analysis” technique on semen evaluation of farm animals. The 4th Pan-Hellenic Congress: Technology of Animal Production, Thessaloniki-Greece, February 2013. (presented by a colleague)
2. **A.G. Basioura**, I.A. Michos, I.A. Tsakmakidis. Contribution of sperm DNA integrity to boar fertility. The 4th Pan-Hellenic Congress: Technology Animal Production, Thessaloniki-Greece, February 2013.
3. **Basioura A.**, Michos I., Tsousis G., Boscós C., Tsakmakidis I. Comparative study of boar semen enrichment methods. The 13th Pan-Hellenic Veterinary Congress, Athens-Greece, May 2015.
4. Tsakmakidis I.A., Tsandarliotou M., Michos I., **Basioura A.**, Boscós C. ICSI as method to overcome season effect on swine gametes’ quality for *in vitro* embryo production. The 13th Pan-Hellenic Veterinary Congress, Athens-Greece, May 2015. (presented by a colleague)
5. **Basioura A.**, Boscós C., Parrilla I., Tsousis G., Tsakmakidis I. Effect of astaxanthin on boar semen stored at 17° C for 48 h and incubated at 37° C or under *in vitro* conditions. The 4th Pan-Hellenic Congress on Veterinary Science of Farm Animals and Food Hygiene, Volos-Greece, May 2017.
6. **Athina Basioura**, Georgia D. Brellou, Ioannis Tsakmakidis, Ioannis Vlemmas, Constantin Boscós, Nektarios Giadinis. Effect of varicocele on fertility capacity of ram (case report). The 14th Pan-Hellenic Veterinary Congress, Thessaloniki-Greece, May 2018.
7. V. Stravogianni, **A. Basioura**, D. Loukovitis, G. Tsousis, D. Chatziplis, I. Tsakmakidis, A.G. Lymberopoulos. Determination of semen quality and genetic parameters in boars of high and low field fertility. The 7th Pan-Hellenic Congress: Technology of Animal Production, Thessaloniki-Greece, February 2019. (presented by a colleague)
8. **Athina Basioura**, Theodoros Samaras, Sofia Anastasiadou, Aikaterini Ntemka, Ilias Michos, Konstantinos Simeonidis, Isidoros Karagiannis, Georgios Tsousis, Mavroeidis Angelakeris, Constantin Boscós and Ioannis Tsakmakidis. Iron oxide nanoparticles’ use on boar semen as an alternative to antibiotics. The 15th Pan-Hellenic Veterinary Congress, Athens-Greece, November 2022.
9. Elekidou E., **Basioura A.**, Makridis A., Maniotis N., Samaras T., Tsakmakidis I.A., Tsousis G., Ververidis C. Effect of the magnetization of extender water on canine chilled semen quality. The 16th Pan-Hellenic Veterinary Congress, Thessaloniki-Greece, 31 October – 02 November 2025. (presented by a colleague)
10. S. Tsiligianni, **A. Basioura**, T. Samaras, A. Lymberopoulos, I. Tsakmakidis. Development of an artificial intelligence (AI) predictive model for the effectiveness of artificial insemination in sheep. The 16th Pan-Hellenic Veterinary Congress, Thessaloniki-Greece, 31 October – 02 November 2025. (presented by a colleague)

Poster Presentations

International Conferences

1. **A Basioura**, I Michos, G Tsousis, C Boscós, I Tsakmakidis. Comparative study of boar semen enrichment methods. The 17th European Society for Domestic Animal Reproduction (ESDAR) Conference, Bologna, Italy, September 2013. *Reproduction in Domestic Animals*, 48 (S1), 74
2. Tsakmakidis I., Tsantarliotou M., Michos I., **Basioura A.**, Boscós C. ICSI as method to overcome season effect on swine gametes’ quality for *in vitro* embryo production. The 19th International Congress on Biotechnology in Animal Reproduction (ICBAR), Novisad, Serbia, September 2015.
3. **A Basioura**, C Boscós, I Parrilla, G Tsousis, I Tsakmakidis. Effect of astaxanthin on extended boar semen stored at 17° C for 48 h. The 21st European Society for Domestic Animal Reproduction (ESDAR) Conference, Bern, Switzerland, August 2017. *Reproduction in Domestic Animals*, 2017, 52 (S3), 70-71

4. **A. Basioura**, C Boscós, I Parrilla, G Tsousis, I Tsakmakidis. Effect of astaxanthin on boar semen incubated at 37° C and under *in vitro* conditions for 1 h. The 14th International Congress of the Spanish Association for Animal Reproduction (AERA), Barcelona, Spain, November 2017. *Reproduction in Domestic Animals*, 2017, 52 (S4), 94.
5. **A. Basioura**, I Parrilla, EA Martínez, J Roca, J Li, M Molina, C Boscós, I Tsakmakidis. Effect of astaxanthin on frozen thawed boar semen. A preliminary study. The 22nd European Society for Domestic Animal Reproduction (ESDAR) Conference, Córdoba, Spain, September 2018. *Reproduction in Domestic Animals*, 2018, 53 (S2), 110.
6. **A. Basioura**, I Michos, A Ntemka, I Karagiannis, C Boscós. Effect of iron and silver nanoparticles on boar semen kinetics. The 23rd European Society for Domestic Animal Reproduction (ESDAR) Conference, St. Petersburg, Russia, September 2019. *Reproduction in Domestic Animals*, 2019, 54 (S3), 121.
7. V Stravogianni, **A. Basioura**, D Loukovitis, I Tsakmakidis, G Tsousis, D Chatziplis, A Lymberopoulos. Determination of semen quality and genetic parameters in boars of high and low field fertility. The 23rd European Society for Domestic Animal Reproduction (ESDAR) Conference, St. Petersburg, Russia, September 2019. *Reproduction in Domestic Animals*, 2019, 54 (S3), 80.
8. I. Tsakmakidis, P. Tassis, V. Nagl, N. Reisinger, E. Tzika, G. Schatzmayr, **A. Basioura**, I. Michos, D. Schatzmayr. In vitro effects of de-epoxy deoxynivalenol and hydrolyzed zearalenone on boar. The European Society for Domestic Animal Reproduction (ESDAR) Virtual Conference, October 2021. *Reproduction in Domestic Animals*, 2021, 57 (S1), 47.
9. **A. Basioura**, G. Tsousis, C. Boscós, A. Lymberopoulos, I. Tsakmakidis. A comparative study of three different chambers for bull semen computer assisted sperm motility analysis. The European Society for Domestic Animal Reproduction (ESDAR) Virtual Conference, 11-16 October 2021. *Reproduction in Domestic Animals*, 2021, 57 (S1), 68.
10. V. Stravogianni, T. Samaras, C. Boscós, **A. Basioura**, I. Markakis, E. Krystallidou, I. Tsakmakidis. Efficacy of biomedical techniques on boars' evaluation to produce high quality semen. The 19th International Congress on Animal Reproduction (ICAR), Bologna-Italy, 26-30 June 2022. Abstract book pp 233.
11. V. Stravogianni, T. Samaras, C. Boscós, I. Markakis, E. Krystallidou, **A. Basioura**, A. Lymberopoulos, I. Tsakmakidis. The use of scrotal contractions/relaxations video monitoring in evaluating boar semen production capacity. The 25th European Society for Domestic Animal Reproduction (ESDAR) Conference, Thessaloniki-Greece, 28 September-2 October 2022. *Reproduction in Domestic Animals*, 2022, 57 (S4), 104.
12. A. Lymberopoulos, A. Papanikou, **A. Basioura**, I. Tsakmakidis, D. Roustemis. Phenotypic Characterization of Greek Indigenous Buffalo. The 25th European Society for Domestic Animal Reproduction (ESDAR) Conference, Thessaloniki-Greece, 28 September-2 October 2022. *Reproduction in Domestic Animals*, 2022, 57 (S4), 104.
13. C. Rekkas, A. Saratsi, I. Panagiotidis, F. Samartzi, **A. Basioura**, D. Tsiokos, C. Ligda. Effect of fumaric acid addition to soy lecithin extender on post-thaw parameters of buck semen quality. The 25th European Society for Domestic Animal Reproduction (ESDAR) Conference, Thessaloniki-Greece, 28 September-2 October 2022. *Reproduction in Domestic Animals*, 2022, 57 (S4), 75.
14. **A. Basioura**, K. Potiri, G. Tsousis, I. Tsakmakidis, S. Priskas, S. Lymperi, M. Bazioti, A. Lymberopoulos. Effect of two commercial extenders on quality and function characteristics of ram sperm under storage at 5° C for 24 hours. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 59 (S2), 17.
15. **A. Basioura**, I. Tsakmakidis, J. Morrell, T. Ntallaris. Low density colloid for bacterial removal in boar semen doses. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 59 (S2), 10.
16. E. Elekidou, **A. Basioura**, A. Makridis, N. Maniotis, T. Samaras, I. Tsakmakidis, G. Tsousis, C. Ververidis. Magnetization of extender's water is beneficial for stored canine chilled semen quality: a preliminary study. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 2024, 59 (S2), 18.

17. A. Manassas, T. Samaras, I. Michos, **A. Basioura**, I. Tsakmakidis. The use of deep learning to predict the litter size on the basis of boar sperm properties. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 2024, 59 (S2), 17.
18. I. Fardouli, **A. Basioura**, K. Simeonidis, T. Samaras, A. Lymberopoulos, I. Tsakmakidis. Investigation of SnO₂ nanoparticles' cytotoxicity on frozen-thawed bull semen handling. The 27th European Society for Domestic Animal Reproduction (ESDAR) Conference, Belgrade, Serbia, 12-14 September 2024. *Reproduction in Domestic Animals*, 59 (S2), 6.

National Conferences

19. **Athina Basioura**, Inmaculada Parrilla, Emilio Martinez, Jordi Roca, Junwei Li, Manuel Molina, Constantin Boscós, Ioannis Tsakmakidis. Effect of astaxanthin on frozen thawed boar semen. A preliminary study. The 14th Pan Hellenic Veterinary Congress, Thessaloniki Greece, May 2018.
20. Katina Mavropoulou, Theologia Menka, Christina-Maria Douga, **Athina Basioura**, Georgios Tsousis, Eleni Tzika, Panagiotis Tassis, Constantin Boscós, Ioannis Tsakmakidis. Season effect in relation with methods of fertilization on the reproductive outcome of a pig farm. The 14th Pan-Hellenic Veterinary Congress, Thessaloniki-Greece, 11-13 May 2018.

Mobility experience

27/09/2016-10/04/2017	Swine biotechnology of reproduction, flow cytometry analysis of sperm parameters, semen cryopreservation Department of Animal Medicine and Surgery (ERASMUS+ Programme for studies). University of Murcia, Murcia, Spain .
24/06/2018-11/07/2018	Senior consultant (training projects, veterinary services, pig farm management), DANAG AGRITECH CONSULTING (Zhengzhou) CO., LTD, Jinan, P.R. China .
01/11/2018-20/11/2018	Veterinary practitioner, reproduction services and management of rabbit farm, Cyprus .
17/01/2022-07/02/2022	Training in molecular biology techniques that were mastered on bull semen and equine endometrium, such as gene and protein analysis (PCR, immunohistochemistry, Western blot analysis, ELISA assay). Faculty of Veterinary Medicine, University of Lisbon, Lisbon, Portugal .
07/10/2023-15/10/2023	Research and teaching activities. Invitation of the College of Veterinary Medicine, Yangzhou University, Yangzhou, P.R. China .

Participation in applied research

1. **Project:** Artificial insemination with boar semen without antibiotics. Participating entity: Swedish University of Agricultural Sciences. Duration: 01/02/2023-31/01/2024.

Participation in industrial innovation

1. **Project:** Comparative study of boar semen enrichment methods. Participating entity: NUEVO S.A. Duration: 06/11/2013-05/11/2014.
2. **Project:** Effect of deoxynivalenol, zearalenone, and fumonisin on boar semen quality parameters. Participating entity: Biomin GmbH. Duration: 20/07/2015-19/07/2018.

Participation in R&D projects funded through competitive calls of public entities

Prof. Basioura has participated in 4 R&D projects, such as:

1. **Project:** Seasonal effect in swine oocyte's efficiency for *in vitro* embryo production by intra-cytoplasmic sperm injection (ICSI). Funding entity: Research Committee of Aristotle University of Thessaloniki. Participating entity: Aristotle University of Thessaloniki. Duration: 01/01/2012-31/03/2013.

2. **Project:** Investigation of nanotechnology applications on farm animals' semen processing. Funding entity: European Social Fund (ESF) and Greek National Resources. Participating entity: Aristotle University of Thessaloniki. Duration: 20/02/2018-25/03/2020.
3. **Project:** Protection of autochthonous populations Pelagonia Sheep breed in the crossSheep breed. Funding entity: European Union and National Funds of Greece. Participating entity: Geotechnical Chamber of Greece-Branch of West Macedonia. Duration: 30/07/2018-31/03/2021.
4. **Project:** Investigation of boar semen fertilizing capacity changes applying biomedical techniques. Funding entity: Hellenic Foundation for Research and Innovation (H.F.R.I.). Participating entity: Aristotle University of Thessaloniki. Duration: 21/01/2020-20/11/2022.
5. **Project:** Impact of the human factor during application of artificial insemination on the reproductive performance of pig farms. Funding entity: Research Committee of Aristotle University of Thessaloniki. Participating entity: Aristotle University of Thessaloniki. Duration: 04/07/2025-31/01/2027.

Teaching experience

Academic year 2012/2013 until 2024/2025	Teaching assistant on laboratory and clinical courses (Farm Animals' Reproduction), Farm Animals Clinic, School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Thessaloniki, Greece.
24/06/2018-11/07/2018	Teacher in training courses for pig farm management, DANAG AGRITECH CONSULTING (Zhengzhou) CO., LTD, Jinan, P.R. China.
Academic year 2018/2019 until now	Teaching in Master Science of post-graduate studies, Innovative and sustainable agricultural production systems. Scientific Field: In vitro embryo production, Basic rules of sperm evaluation by CASA system-Relationship of CASA evaluated sperm variables and fertility, Sperm quality and fertilizing capacity evaluation by specialized laboratory assays. International Hellenic University, Thessaloniki, Greece.
Academic year 2021/2022, 2022/2023	Teaching in the program of under-graduate studies (5 th & 6 th semester, Obstetrics and Reproduction I and II), Faculty of Veterinary Science, University of Thessaly.
Academic year 2021/2022, 2022/2023, 2023/2024, 2024/2025	Assistant professor, program of under-graduate studies (Scientific Methodology, 1 st semester; Apiculture, 6 th semester; Farm Animals Reproduction, 7 th semester; Applied Reproduction of Farm Animals, 8 th semester; Farm Animals Pathology and Hygiene, 9 th). Department of Agriculture, School of Agricultural Sciences, University of Western Macedonia, Florina, Greece.
07/10/2023-15/10/2023	Teaching activities for master and PhD students (Sperm Motility Evaluation by CASA System, Artificial Insemination in Swine and Small Ruminants, Specialized Laboratory Techniques for Evaluation of Sperm Quality and Function Variables), College of Veterinary Medicine, Yangzhou University, Yangzhou, P.R. China.
Academic year 2024/2025 until now	Assistant professor, program of under-graduate studies (Propedeutics of Veterinary Medicine, Surgery and Obstetrics, 5 th semester; Obstetrics and Neonatology, 5 th semester; Clinical Training in Farm Animals, 7 th , 8 th , 9 th , and 10 th semester; Animal Reproduction I, 8 th semester; Animal Reproduction II, 9 th semester). School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece.

Fellowships

15/05/2017-14/06/2018	PhD Thesis Scholarship. State Scholarships Foundation (IKY), Greece.
20/06/2018-25/03/2020	Scholarship for Young Researchers. Funding entity: European Social Fund (ESF) and Greek National Resources. Participating entity: Aristotle University of Thessaloniki, Greece.

Professional Courses

2012	Courses: Sperm Class Analyzer® (MICROPTIC S.A., Barcelona, Spain). Aristotle University of Thessaloniki, Greece. (Certified user) Courses: Intra-cytoplasmic sperm injection by micro manipulator. Aristotle University of Thessaloniki, Greece. (Certified user)
2014	Courses: Sheep Artificial Insemination. Aristotle University of Thessaloniki, Greece.
2017	Courses: Flow cytometry/Semen cryopreservation. University of Murcia, Spain. (Certified user)
2021	Course: Good Clinical Practice (GCP) for Veterinary Clinical Trials. Tufts Clinical and Translational Science Institute, United States of America.
2022	Course: Molecular analysis techniques. Faculty of Veterinary Medicine, University of Lisbon, Lisbon, Portugal.

Other Professional Activities

- Member of advisory committees of doctoral dissertations:

1. Member of the three-member advisory committee of two doctoral thesis

- Supervisor of under-graduate students' dissertations:

1. Supervisor of three under-graduate thesis (completed)

- Participation in examination committees of doctoral and postgraduate dissertations:

1. Member of the seven-member examination committee of a doctoral thesis
2. Member of the three-member examination committee of three postgraduate thesis

- **Ad hoc reviewer** for Acta agriculturae Scandinavica. Section A - Animal science (TAYLOR & FRANCIS), Andrology (WILEY), Animal biotechnology (TAYLOR & FRANCIS), Animal Reproduction Science (ELSEVIER), Animals (MPDI), Biosystems Engineering (ELSEVIER), BMC Veterinary Research (SPRINGER), Canadian Journal of Animal Science (CANADIAN SCIENCE PUBLISHING), Cell & Tissue Banking (SPRINGER), Cells (MPDI), Cryobiology (ELSEVIER), Czech Academy of Agricultural Sciences, Journal of Hellenic Veterinary Medical Society, Livestock Science (ELSEVIER), Open Journal of Animal Sciences (Scientific Research Publishing), PLoS computational biology (Public Library of Science), PloS one (Public Library of Science), Reproduction in Domestic Animals (WILEY), Reproduction, fertility, and development (CSIRO Publishing), Scientific reports (NATURE), Small Ruminant Research (ELSEVIER), Systems Biology in Reproductive Medicine (TAYLOR & FRANCIS), Theriogenology (ELSEVIER), Toxicology *in vitro* (ELSEVIER), Tropical Animal Health and Production (SPRINGER), Veterinary Medicine International (Hindawi), Veterinary Research Communications (SPRINGER), Veterinary Sciences (MPDI).

- **Editorial Advisory Board** member of Reproduction in Domestic Animals (WILEY).

- **Editor**, Veterinary Sciences, MDPI Special issue "Sperm Biotechnology in Animals Reproduction". (https://www.mdpi.com/journal/vetsci/special_issues/0TT0NK8A49)

- **Editor**, Animals, MDPI Special issue "Impact of Technological Innovations on Farm Animals' Reproduction Improvement". (https://www.mdpi.com/journal/animals/special_issues/W628IH6SKW)

- Member of European Society for Domestic Animal Reproduction.

- Member of Geotechnical Chamber of Greece.