

DEPARTMENT OF OBSTETRICS, REPRODUCTION AND REPRODUCTIVE DISORDERS

HISTORICAL OVERVIEW

Department of Obstetrics, Reproduction and Reproductive Disorders, Faculty of Veterinary Medicine, Trakia University is a successor of the Department of Obstetrics, Gynecology and Andrology established in 1946 year and included in the actualized structure of the Faculty of Veterinary Medicine.

From its establishment different lecturers had been Head of the Department:

📖 Prof. Dr. Petar Minchev - the first Head of Department between 1947 and 1961 year. He published many textbooks and monographies in topic of obstetrics, gynecology and artificial insemination.



📖 Prof. Dr. Atanas Prokoponov - Head of Department between 1961 and 1973 year. He worked in the topic of bovine trichomoniasis, infertility in farm animals, uterine inflammation, bovine mastitis and on the introduction of machine milking in cows.



📖 Prof. Dr. Marin Hubenov - Head of Department between 1974 and 1977 year. He carried out many experiments on the uterine motility in cows during the estrus.



📖 Prof. Dr. Ivan Prandjev - Head of Department between 1977 and 1987 year. He performed numerous investigations connected with dystocia in cattle and created operative techniques for rendering of obstetrics help.



📖 Prof. Dr. Georgi Elezov - Head of Department between 1988 and 1992 year. He had significant contribution for understanding of the reasons for low sperm production in bulls and created new method for turkey artificial insemination.



📖 Prof. DSc. Svetoslav Tsolov - Head of Department between 1992-2000 year. He performed clinical and experimental investigations about prevalence, etiology, treatment and prevention of bovine mastitis.



📖 Prof. DSc. Mityo Dimitrov - Head of Department between 2000-2010 year. He had a lot of investigations on the control of puerperal period in dairy cows and published textbooks and manuals about animal obstetrics, gynecology, andrology and artificial insemination.



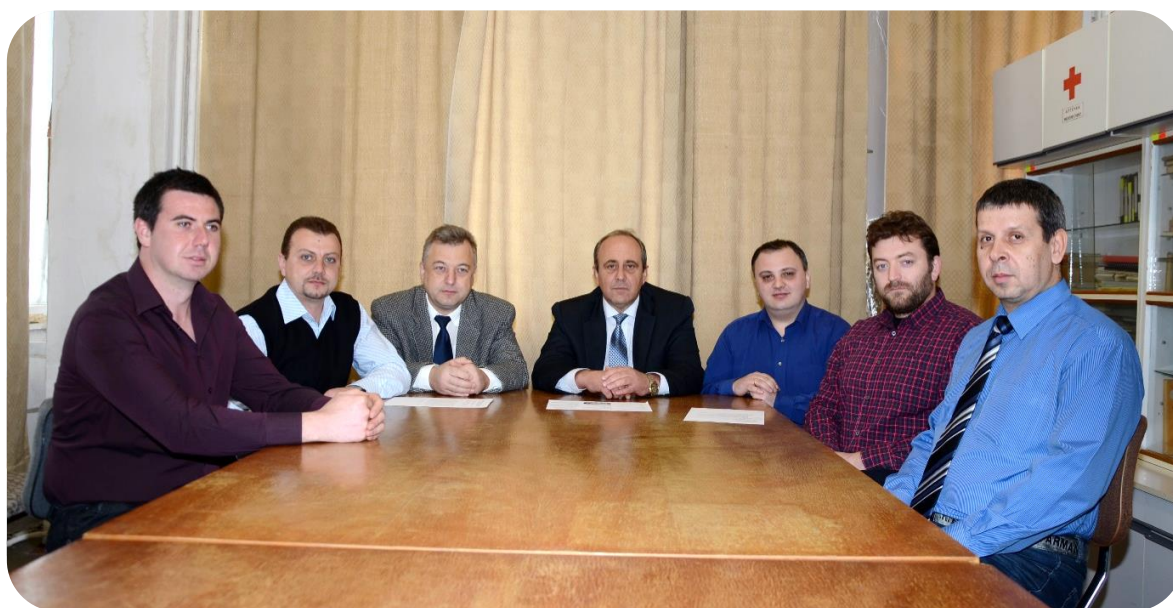
Different lecturers had been working at the department: Academician Kiril Bratanov, Prof. Dr. Georgi Radev, Prof. Dr. Galabin, Galabinov, Dr. Rusko Mechev,



Associate Professor Dr. Todor Marinkov, Dr. Lazar Ivanov, Dr. Kosyo Kosev, Prof. Dr. Parvan Parvanov, Dr. Yordan Petkov, Dr. Delcho Kochankov, Dr. Ivan Ivanov, Dr. Filip Dimitrov and Dr. Evgeni Georgiev. All of them contributed for education of high-qualified veterinary specialists and improvement of our knowledge about animal obstetrics, gynecology, andrology, artificial insemination and udder diseases.

ACADEMIC STAFF

Academic staff of the department consists of one professor, two associated professors, three chief assistant professors and one assistant professor - from right to the left: Associate Professor Dr. Stanimir Yotov (Head of department), Chief assistant professor Dr. Anatoli Atanasov, Chief assistant professor Dr. Ivan Fasulkov, Professor Dr. Nasko Vasilev, Associate Professor Dr. Plamen Georgiev, Chief assistant professor Dr. Anton Antonov and Assistant Professor Dr. Manol Karadaev.



EDUCATION

Fundamental mission of the Department of Obstetrics, Reproduction and Reproductive Disorders is to provide education for students of Veterinary Medicine. According to the newest educational plan of the FVM the followed courses are taught: Mandatory courses - Animal reproduction, Obstetrics, Non-infectious diseases in

productive animals - obstetrics, reproduction and reproductive disorders, Non-infectious diseases of small animals - obstetrics, reproduction and reproductive disorders, Non-infectious diseases of equine animals – obstetrics, reproduction and reproductive disorders and Mobile clinic; Elective courses - Diseases of newborn animals and Assisted reproductive technologies in farm animals and Modules of the multidisciplinary courses: Radiology, Dermatology and Herd health management.

The lectures are held in lecture halls at the Faculty of Veterinary Medicine, Trakia University. The practical training is held at practical training rooms of Obstetrics, Gynaecology and Reproduction at the University Clinical and Diagnostic Complex, farms of the University Training Experimental Farms and private animal farms that have contract with FVM.



In 2017 year was created Section of Reproduction and Control of Reproductive Health of the Animals (SRCRHA) as a part of the Clinical and Diagnostic University Complex. In this unit teachers, PhD students, researchers and students carry out their training and research work. The SRCRHA disposes with demonstration hall, seminar

hall, room for practical training with students, manipulation room, ART laboratory and other facilities. The up-to-date equipment provides opportunities for computer assisted semen analysis and semen cryopreservation, artificial insemination and ultrasound examination of reproductive system of different animal species and diagnostics of udder diseases.



The department develops active out-class practical work with students who take an interest in physiology and pathology of animal reproduction and scientific area.



Also it provides education of PhD students in doctoral program Animal Obstetrics, Gynecology and Newborn diseases, short and long term courses and specializations in relation with continuing education.



A set of textbooks, manuals and monographies of veterinary medicine have published by the lecturers:

- 📖 Diseases of sexual organs in bitch and cat (Kochankov, D., N. Vasilev, P. Parvanov), „Aria”, 1998.
- 📖 Diseases in cat (Nikolov, Y., I. Borisov, D. Georgieva, N. Vasilev), 1999.
- 📖 Practical manual on veterinary obstetrics, gynecology and artificial insemination (Tsolov, S., M. Dimitrov, N. Vasilev, P. Georgiev, I. Ivanov, S. Yotov), 2000.
- 📖 Proceeding with tests on veterinary obstetrics, andrology and artificial insemination (Dimitrov, M., N. Vasilev, P. Georgiev, I. Ivanov, S. Yotov), Macros – 2001, 2000.
- 📖 Veterinary obstetrics and gynecology (Dimitrov, M., G. Elezov, I. Prandjev, S. Tsolov), 2003.
- 📖 Album - Echographic investigations of genital organs in female animals (Dimitrov, M., N. Vasilev, P. Georgiev, I. Ivanov, S. Yotov, F. Dimitrov), Con-Car-Universe, 2004.
- 📖 Practical manual on veterinary obstetrics, gynecology, andrology and artificial insemination (Dimitrov, M., N. Vasilev, P. Georgiev, S. Yotov), 2004.
- 📖 Veterinary dermatology of small animals (Nikolov, Y., D. Georgieva, P. Petkov, I. Borisov, D. Stoikov, N. Vasilev, R. Mutafchieva, G. Mihailov), IK „Enyovche”, 2007.
- 📖 Andrology and artificial insemination in animals (Dimitrov, M.), 2008.
- 📖 Practical manual on veterinary obstetrics, gynecology, andrology and artificial insemination (Dimitrov, M., N. Vasilev, P. Georgiev, S. Yotov, F. Dimitrov), IK „Enyovche”, 2007.
- 📖 Manual for good practice in dairy cattle farms (Todorov, N., J. Mitev, N. Vasilev, V. Dimova), SD „Kontast”, 2009.
- 📖 Attention mastitis. Manual for good veterinary practice. (Vasilev, N., J. Mitev, L. Tims), SD „Kontast”, 2009.
- 📖 Application of two dimensional (B-mode) echography in sheep reproduction. (Yotov, S.), „Kota design”, 2011.
- 📖 Non-infectious diseases in productive animals (Nikolov, Y., I. Borisov, N. Vasilev), „Kota”, 2012.
- 📖 Pregnancy and parturition in animals (Vasilev, N.), SD „Kontast”, 2013.
- 📖 Practical manual on veterinary obstetrics, reproduction and mammary gland diseases (Vasilev, N., P. Georgiev, S. Yotov, A. Antonov, A. Atanasov, I. Fasulkov), „Kota“, 2015.

SCIENTIFIC ACTIVITY

The scientific activity is focused on reproduction in large and small ruminants, equine reproduction, contraception and prophylaxis of genital tract diseases in bitch and cat, prevention and treatment of udder diseases.

The available modern equipment gives a possibility for theoretical and applied investigations performance as the obtained results have been presenting of national and international scientific events.

The Department of Obstetrics, Reproduction and Reproductive Disorders is a leader in the topic of ultrasound diagnostics of animal reproductive system and udder diseases in our country. In the laboratories there are opportunities for hormonal analysis, PAG determination, computer assisted semen analysis and cytologic investigation of samples from different biological fluids.

The students and PhD students realize their research activity by including in scientific projects. They present their results in scientific conferences, congresses, symposiums and/or publish in national and international journals.



Dissertations for PhD degree:

- 📖 Study of sexual activity and infertility in buffaloes, *Prof. Ivan Petrov Prandjev*, 1960.
- 📖 Study of some biological and technological aspects in turkey artificial insemination, *Prof. Georgi Hristov Elezov*, 1979.
- 📖 Clinical and experimental investigations on blood supply of soft birth canal in the cow, *Prof. Svetoslav Tsolov Ivanov*, 1978.
- 📖 Studies and attempts for management of puerperal period in cows, housed in different technologies, *Prof. Mityo Andreev Dimitrov*, 1982.

- 📖 Incidence, treatment and prophylaxis of some cyclic disturbances in cows, housed in industrial circumstances, *Assoc. Prof. Todor Nikolov Marinkov*, 1986.
- 📖 Studies of some changes in milk and blood composition in sheep during different periods of lactation and in mammary gland inflammation, *Dr. Mitana Kircheva Dimitrova*, 1990.
- 📖 Studies of the incidence, etiopathogenesis, therapy and prophylaxis of sheep from mastitis, *Dr. Mariana Jeliazkova Koleva*, 1998.
- 📖 Study of reproductive process in sheep with chronic influence by lead and cadmium, *Prof. Nasko Yovchev Vasilev*, 2003.
- 📖 Studies about the application of progesterone-receptor blocker Aglepristone in the cat, *Assoc. Prof. Plamen Ivanchev Georgiev*, 2007.
- 📖 Early pregnancy diagnosis and fetal number and sex determination in sheep, *Assoc. Prof. Stanimir Angelov Yotov*, 2008.
- 📖 Ultrasonographic studies of mammary gland physiology and pathology in the goat, *Chief Assist. Prof. Dr. Ivan Rosenov Fasulkov*, 2014.
- 📖 Study of values and dynamics of some vaginal parameters in bitches, *Chief Assist. Prof. Dr. Anton Lazarinov Antonov*, 2015.
- 📖 Reproductive response of buffaloes with ovarian hypofunction after application of hormonal therapy depending on season and number of parturition, *Chief Assist. Prof. Dr. Anatoli Stefanov Atanasov*, 2015.
- 📖 Diagnostics and monitoring of pregnancy in local goats, *Assist. Prof. Dr. Manol Petkov Karadaev*, 2015.

Dissertations for DSc. degree:

- 📖 Clinical and experimental studies on incidence, etiology and pharmacological therapy in cow with mastitis, *Prof. DSc. Svetoslav Tsolov Ivanov*, 1989.
- 📖 Clinical and experimental studies on restoration and control of puerperal period in cows, *Prof. DSc. Mityo Andreev Dimitrov*, 2003.

The collective of the department has successfully performed a numerous scientific projects in topic of bovine, buffaloes, ovine, caprine, equine, canine and feline reproduction:

- 📖 Study of chronic influence of lead and cadmium compounds on the reproductive process performance in sheep, MU-E3-10-95.
- 📖 Testing of Alizine as a drug for abortus induction in cats, 2001.

- 📖 Studies about the application of progesterone antagonist Aglepristone (Alizine) as a drug for abortus induction in cats during the mild gestational phase, 2002.
- 📖 Study of the early embryonal mortality in dairy cows, 2004.
- 📖 Termination of the last pregnancy in cats by administration of progesterone antagonist Aglepristone, 2004.
- 📖 Early pregnancy diagnosis in sheep. Comparative studies between transrectal and transabdominal echography, 2004.
- 📖 Early pregnancy termination in cats by administration of progesterone antagonist Aglepristone, 2005.
- 📖 Information system for incidence of etiology and treatment of mastitis in cows, 2005.
- 📖 Determination of fetal number and sex in sheep, 2007.
- 📖 Management of reproductive process in equine species (*Equus asinus*), 2008.
- 📖 Establishment of Extension service in direction dairy animal husbandry, 2009-2011, with financial support of foundation „America for Bulgaria“.
- 📖 Ultrasound investigation of mammary gland in the goat, 2009.
- 📖 Application of implant containing Gn-RH agonist in female and male cats. Contract between Department of Obstetrics, Reproduction and Reproductive Disorders, FVM, Trakia university and Klinik für Geburtshilfe, Gynäkologie und Andrologie der Groß- und Kleintiere mit Tierärztlicher Ambulanz (Prof. Axel Wehrend), FVM, Justus-Liebig-Universität Gießen, 2010.
- 📖 Dynamics of some vaginal parameters in bitches after genital and extragenital influences, 2011.
- 📖 Echographic diagnosis of mammary gland inflammation in the goat, 2011.
- 📖 Echographic studies on the udder damage grade after experimentally induced clinical mastitis in goats, 2012.
- 📖 Investigations of ovarian activity after calving and attempts for cyclicity resumption in buffaloes with inactive ovaries, 2012.
- 📖 Comparative investigations of different methods for early pregnancy diagnosis in a local goat breeds, 2013.
- 📖 Comparative investigations of some up-to-date methods for ultrasound examination (2-D, 3-D, color Doppler, power Doppler) of mammary gland in cows and goats during lactation, 2015.

- 📖 Optimization of reproductive process in buffaloes by hormonal intervention in early postpartum period, 2015.
- 📖 Application of color Doppler and three-dimensional (3D) ultrasonography for investigation of embryo-fetal development in goats, 2016.
- 📖 Transvaginal ultrasound diagnosis of early pregnancy and determination of fetal numbers in goats, 2017.

The Department of Obstetrics, Reproduction and Reproductive Disorders keeps collaborations with similar units at veterinary faculties from other countries. A long term specialization at FVM, Justus-Liebig-Universität, Giessen, Germany - Assoc. Prof. Plamen Georgiev and Assist. Prof. Anatoli Atanasov. Two weekly training about oocyte collection and in vitro fertilization at University of Veterinary and Pharmaceutical Sciences, Brno, Czech Republic - Prof. Nasko Vasilev and Assist. Prof. Anatoli Atanasov. Five monthly education by the Faculty Exchange Program (FEP), USDA at Texas A&M University, USA - Assoc. Prof. Stanimir Yotov. Two weekly training about functioning of Extension service in dairy cattle at Iowa State University, USA - Prof. Nasko Vasilev.

The department has traditionally good collaborations with the Institute of Biology and Immunology of Reproduction “Acad. Kiril Bratanov”, Bulgarian Academy of Sciences, Sofia and Agriculture institutes in Stara Zagora and Shumen, Agriculture Academy, Bulgaria. The benefit from abovementioned co-operations is an exchange of experience and ideas, teamwork in different projects and publishing of papers in high quality scientific journals.



Members from the department take part in editorial and review boards of different journals - Asian Pacific Journal of Reproduction, Asian Journal of Animal Research, Animal Science (BG) (Assoc. Prof. S. Yotov), Trakia Journal of Sciences and Bulgarian Journal of Veterinary Medicine (Prof. N. Vasilev).

The lecturers are reviewers of over 90 projects, reports and research papers in scientific journals as Trakia Journal of Sciences, Bulgarian Journal of Veterinary Medicine, Agricultural Science and Technology, Animal Science, Reproduction in Domestic Animals, Placenta, Tierärztliche praxis, Animal Reproduction Science, Iranian Journal of Applied Animal Science, African Journal of Biotechnology, Theriogenology Insight, Journal of Animal and Veterinary Advance Research ect.

CLINICAL AND DIAGNOSTIC ACTIVITY

The clinical activity is mainly performed at the divisions of Clinical and Diagnostic University Complex – the clinics for small, productive animals and equines and SRCRHA. It has direct connection with the practical training of students, PhD students and post graduate students. Other forms of clinical education are farm-based exercises during the semester, mobile clinics and field training with students, post graduate students and PhD students. Additionally, some lecturers are mentors of students involved in the program “Student internships and practices” part of operational program “Science and Education for Smart growth”.





CONSULTATIVE, EXPERT AND PUBLIC ACTIVITY

The academic staff of department has very good collaborations with veterinary practitioners, Bulgarian veterinary chamber and other institutions associated with veterinary medicine. Members of the department participate in professional meetings, seminars, workshops, symposiums and expert commissions. Their expertise is used in preparing of strategies for improving of reproduction and reducing of udder diseases. Often teachers are inviting guest-lecturers of different events, organized by veterinary business.

ADMINISTRATIVE ACTIVITY AND MEMBERSHIP OF ACADEMIC, SCIENTIFIC AND NON-PROFITABLE COMMUNITIES

Prof. Dr. Nasko Vassilev:

- ❖ Head of Productive animal clinic - 2006-2007 year;
- ❖ Vice Dean of Clinical internships and practices, Faculty of Veterinary Medicine - 2007-2011 year;
- ❖ Head of Department of Obstetrics, Reproduction and Reproductive Disorders - 2010-2015 year;
- ❖ Vice Rector of Administrative, economical and information activity, Trakia University - from 2015 year to present time;
- ❖ Member of Academic counsel at Trakia University and Faculty counsel at Faculty of Veterinary Medicine;
- ❖ Member of Extension service in direction dairy cattle at Trakia University.



Assoc. Prof. Dr. Plamen Georgiev:

- ❖ Head of Productive animal clinic - 2007-2011 year;
- ❖ Vice Dean of Scientific Research Activity, Faculty of Veterinary Medicine, from 2012 to present time;
- ❖ Member of Faculty counsel at Faculty of Veterinary Medicine;
- ❖ Member of Union of Scientists in Bulgaria.

Assoc. Prof. Dr. Stanimir Yotov:

- ❖ Head of the Department of Obstetrics, Reproduction and Reproductive Disorders - from 2016 to present time;
- ❖ Member of Faculty counsel at Faculty of Veterinary Medicine;
- ❖ Member of Union of Scientists in Bulgaria;
- ❖ Member of European Society for Domestic Animal Reproduction (ESDAR country representative).

Chief Assist. Prof. Dr. Anton Antonov:

- ❖ Member of Academic counsel at Trakia University.

Chief Assist. Prof. Dr. Anatoli Atanasov:

- ❖ Head of Productive animal clinic - from 2016 to present time;
- ❖ Member of Faculty counsel at Faculty of Veterinary Medicine.

Chief Assist. Prof. Dr. Ivan Fasulkov:

- ❖ Member of Union of Scientists in Bulgaria;
- ❖ Member of European Society for Domestic Animal Reproduction.