

Молекуларно-генетичка дијагностика у ветеринарској медицини (5+0)

Планирано је да се студенти ДАС кроз конкретне примере наших истраживања (списак испод) обуче да применом молекуларно-генетичких метода обаве: дијагностику наследних обољења, утврђивање присуства, врсте/генотипа/хаплотипа патогена (PCR), анализу спепена инфекције, процену ефекта лекова/суплемената на патогене, као и експресије гена код животиња под утицајем лекова и патогена (real-time PCR); генотипизацију патогена и домаћина, утврђивање полиморфизама и форензичка испитивања, а уз примену Комет теста одреде и степен оштећења ДНК под утицајем патогена и/или фармака.

1. Stevanovic Jevrosima, Stanimirovic Z, Genersch Elke, Kovacevic R Sanja, Ljubenkovic J, Radakovic Milena, Aleksic Nevenka (2011) Dominance of *Nosema ceranae* in honey bees in the Balkan countries in the absence of symptoms of colony collapse disorder. *Apidologie* 41 (1) 49-58.
2. Stevanov-Pavlovic Marija, Vucicevic Milos, Bosnjak Jasna, Stevanovic Jevrosima, Dimitrijevic Vladimir, Resanovic Radmila, Stanimirovic Zoran (2013) Molecular sex determination of 20 bird species protected in the Republic of Serbia. *Acta Veterinaria*, 63 (1) 45-51.
3. Vucicevic Milos, Stevanov-Pavlovic Marija, Stevanovic Jevrosima, Bosnjak Jasna, Gajic Bojan, Aleksic Nevenka, Stanimirovic Zoran (2013) Sex determination in 58 bird species and evaluation of CHD gene as a universal molecular marker in bird sexing. *Zoo Biology* 32 (3) 269-276.
4. Gajic Bojan, Radulovic Zeljko, Stevanovic Jevrosima, Kulisic Zoran, Vucicevic Milos, Simeunovic Predrag, Stanimirovic Zoran (2013) Variability of the honey bee mite *Varroa destructor* in Serbia based on mtDNA analysis. *Experimental and Applied Acarology* 61 (1) 97-105.
5. Stevanovic Jevrosima, Simeunovic Predrag, Gajic Bojan, Lakic Nada, Radovic Dejan, Fries Ingemar, Stanimirovic Zoran (2013) Characteristics of *Nosema ceranae* infection in Serbian honey bee colonies. *Apidologie* 44 (5) 522-536.
6. Bosnjak Jasna, Stevanov-Pavlovic Marija, Vucicevic Milos, Stevanovic Jevrosima, Simeunovic Predrag, Resanovic Radmila, Stanimirovic Zoran (2013) Feasibility of non-invasive molecular method for sexing of parrots. *Pakistan Journal of Zoology* 45 (3) 715-720.
7. Maletic Milan, Vakanjac Slobodanka, Djelic Ninoslav, Lakic Nada, Pavlovic Milos, Nedic Svetlana, Stanimirovic Zoran (2013) Analysis of lactoferrin gene polymorphism and its assotion to milk quality and mammary gland health in Holstein-Fiesian cows. *Acta Veterinaria-Beograd* 63 (5-6) 487-498
8. Simeunovic Predrag, Stevanovic Jevrosima, Vidanovic Dejan, Nisavic Jakov, Radovic Dejan, Stanisic Ljubodrag, Stanimirovic Zoran (2014) A survey of deformed wing virus and acute bee paralysis virus in honey bee colonies from Serbia using real-time RT-PCR. *Acta Veterinaria* 64 (1) 81-92.

9. Glavinic Uros, Stevanovic Jevrosima, Gajic Bojan, Simeunovic Predrag, Đuric Spomenka, Vejnovic Branislav, Stanimirovic Zoran (2014) *Nosema ceranae* DNA in honey bee haemolymph and honey bee mite *Varroa destructor*. *Acta Veterinaria* 64 (3) 349-357.
10. Gajic Bojan, Bogunovic Danica, Stevanovic Jevrosima, Kulišić Zoran, Simeunovic Predrag, Stanimirovic Zoran (2014) Canine and feline thelaziosis caused by *Thelazia callipaeda* in Serbia. *Acta Veterinaria* 64 (4) 447-455.
11. Simeunovic Predrag, Stevanovic Jevrosima, Cirkovic Dragan, Radojicic Sonja, Lakic Nada, Stanisic Ljubodrag, Stanimirovic Zoran (2014) *Nosema ceranae* and queen age influence the reproduction and productivity of the honey bee colony. *Journal of Apicultural Research* 53 (5) 545-554.
12. Davitkov Darko, Vucicevic Milos, Stevanovic Jevrosima, Krstic Vanja, Tomanovic Snezana, Glavinic Uros, Stanimirovic Zoran (2015) Clinical babesiosis and molecular identification of *Babesia canis* and *Babesia gibsoni* infections in dogs from Serbia. *Acta Veterinaria Hungarica* 63 (2) 199–208.
13. Özvegy József, Marinković Darko, Vučićević Miloš, Gajić Bojan, Stevanović Jevrosima, Krnjaić Dejan, Aleksic-Kovacevic Sanja (2015) Cytological and molecular identification of *Haemogregarina stepanowi* in blood samples of European pond turtle (*Emys orbicularis*) from quarantine at Belgrade zoo. *Acta Veterinaria* 65 (4) 525-533.
14. Davitkov Darko, Vucicevic Milos, Stevanovic Jevrosima, Krstic Vanja, Slijepcevic Dajana, Glavinic Uros, Stanimirovic Zoran (2016) Molecular detection and prevalence of *Theileria equi* and *Babesia caballi* in horses of central Balkan. *Acta Parasitologica* 61 (2) 337-342.
15. Vucicevic Milos, Slijepcevic Dajana, Davitkov Darko, Avdalovic Vladimir, Aleksic Kovacevic Sanja, Stevanovic Jevrosima, Stanimirovic Zoran (2016) First report of Polycystic kidney disease occurrence in Persian cats in Serbia. *Veterinaria Italiana* 52 (1) 51-56.
16. Stevanovic Jevrosima, Schwarz Ryan S, Vejnovic Branislav, Evans Jay D, Irwin Rebecca E, Glavinic Uros, Stanimirovic Zoran (2016) Species-specific diagnostics of *Apis mellifera* trypanosomatids: a nine-year survey (2007-2015) for trypanosomatids and microsporidians in Serbian honey bees, *Journal of Invertebrate Pathology* 139, 6-11.
17. Gajić Bojan, Stevanovic Jevrosima, Radulović Željko, Kulišić Zoran, Vejnović Branislav, Glavinčić Uroš, Stanimirović Zoran (2016) Haplotype identification and detection of mitochondrial DNA heteroplasmy in *Varroa destructor* mites using ARMS and PCR–RFLP methods. *Experimental and Applied Acarology* 70, 287–297.
18. Radakovic Milena, Davitkov Darko, Borozan Sunčica, Stojanovic Srdjan, Stevanovic Jevrosima, Krstic Vanja, Stanimirovic Zoran (2016) Oxidative stress and DNA damage in horses naturally infected with *Theileria equi*. *The Veterinary Journal* 217, 112–118.

19. Davitkov Dajana, Davitkov Darko, Vucicevic Milos, Stanisic Ljubodrag, Radakovic Milena, Glavinic Uros, Stanimirovic Zoran (2017) A molecular and hematological study of *Theileria equi* in Balkan donkeys. *Acta Veterinaria Hungarica* 65 (2) 234–241.
20. Davitkov Dajana, Glavinić Uroš, Nešić Ksenija, Davitkov Darko, Vučićević Miloš, Nešić Vladimir, Stanimirović Zoran (2017) Improved DNA-based identification of Cervidae species in forensic investigations. *Acta Veterinaria* 67 (4) 449-458.
21. Glavinic Uros, Stankovic Biljana, Draskovic Vladimir, Stevanovic Jevrosima, Petrovic Tamas, Lacic Nada, Stanimirovic Zoran (2017) Dietary amino acid and vitamin complex protects honey bee from immunosuppression caused by *Nosema ceranae*. *PLoS ONE* 12 (11) e0187726.
22. Vejnovic Branislav, Stevanovic Jevrosima, Schwarz Ryan S, Aleksic Nevenka, Mirilovic Milorad, Jovanovic Nemanja M, Stanimirovic Zoran (2018) Quantitative PCR assessment of *Lotmaria passim* in *Apis mellifera* colonies co-infected naturally with *Nosema ceranae*. *Journal of Invertebrate Pathology*, 151, 76-81.
23. Vucicevic Milos, Vucicevic Ivana, Davitkov Darko, Davitkov Dajana, Stevanovic Jevrosima, Resanovic Radmila, Stanimirovic Zoran (2018) Detection and analysis of new psittacine beak and feather disease virus (PBFDv) nucleotide sequences. *Journal of the Hellenic Veterinary Medical Society* 68 (4) 653-660.
24. Draskovic Vladimir, Bosnjak-Neumüller Jasna, Vasiljevic Marko, Petrujkic Branko, Aleksic Nevenka, Kukolj Vladimir, Stanimirovic Zoran (2018) Influence of phytogenic feed additive on *Lawsonia intracellularis* infection in pigs. *Preventive Veterinary Medicine* 151, 46-51.
25. Ristanic Marko, Stanisic Ljubodrag, Maletic Milan, Glavinic, Uros, Draskovic Vladimir, Aleksic Nevenka, Stanimirovic Zoran (2018) Bovine foetal sex determination—Different DNA extraction and amplification approaches for efficient livestock production. *Reproduction in Domestic Animals* 53 (4) 947-954.
26. Taric Elmin, Glavinic Uros, Stevanovic Jevrosima, Vejnovic Branislav, Aleksic Nevenka, Dimitrijevic Vladimir, Stanimirovic Zoran (2019) Occurrence of honey bee (*Apis mellifera* L.) pathogens in commercial and traditional hives. *Journal of Apicultural Research* 58 (3) 433-443.
27. Cirkovic Dragan, Stevanovic Jevrosima, Glavinic Uros, Aleksic Nevenka, Djuric Spomenka, Aleksic Jelena, Stanimirovic Zoran (2018) Honey bee viruses in Serbian colonies of different strength. *PeerJ* 6:e5887.
28. Glavinic Uros, Tesovnik Tanja, Stevanovic Jevrosima, Zorc Minja, Cizelj Ivanka, Stanimirovic Zoran, Narat Mojca (2019) Response of adult honey bees treated in larval stage with prochloraz to infection with *Nosema ceranae*. *PeerJ* 7:e6325.

29. Djuric Milos, Milcic-Matic Natalija, Davitkov Darko, Glavinic Uros, Davitkov Dajana, Vejnovic Branislav, Stanimirovic Zoran (2019) Efficacy of oral fluralaner for the treatment of canine generalized demodicosis: a molecular-level confirmation. *Parasites & Vectors* 12 (1) 270.
30. Taric Elmin, Glavinic Uros, Vejnovic Branislav, Stanojkovic Aleksandar, Aleksic Nevenka, Dimitrijevic Vladimir, Stanimirovic Zoran (2020) Oxidative stress, endoparasite prevalence and social immunity in bee colonies kept traditionally vs. those kept for commercial purposes. *Insects* 11 (5) 266.
31. Zikic Biljana, Aleksic Nevenka, Ristanic Marko, Glavinic Uros, Vejnovic Branislav, Krnjaic Igor, Stanimirovic Zoran (2020) Anti-varroa efficiency of coumaphos and its influence on oxidative stress and survival of honey bees. *Acta Veterinaria-Beograd* 70 (3) 355-373.
32. Vučićević Miloš, Vučićević Ivana, Došenović Milan, Ristić Marko, Aleksić Nevenka, Resanović Radmila, Stanimirović Zoran (2020) Is PBFSD symptomatology species specific rather than strain specific?—A case of 8 lovebirds. *Acta Veterinaria-Beograd* 70 (3) 386-394.
33. Ristanic Marko, Glavinic Uros, Vejnovic Branislav, Maletic Milan, Kirovski Danijela, Teodorovic Vlado, Stanimirovic Zoran (2020) Beta-casein gene polymorphism in Serbian Holstein-Friesian cows and its relationship with milk production traits. *Acta Veterinaria-Beograd* 70 (4) 497-510.
34. Petrović Slobodan, Maletić Milan, Lakić Nada, Aleksić Nevenka, Maletić Jelena, Ristić Marko, Stanimirović Zoran (2020) The effects of antioxidants provided with feed on certain quality parameters of bull semen under heat stress conditions. *Acta Veterinaria-Beograd* 70 (4) 453-470.
35. Glavinic Uros, Stevanovic Jevrosima, Ristanic Marko, Rajkovic Milan, Davitkov Dajana, Lakić Nada, Stanimirovic Zoran (2021) Potential of fumagillin and *Agaricus blazei* mushroom extract to reduce *Nosema ceranae* in honey bees. *Insects* 12, 282.
36. Davitkov Dajana, Vucicevic Milos, Glavinic Uros, Skadric Ivan, Nestic Vladimir, Stevanovic Jevrosima, Stanimirovic Zoran (2021) Potential of inter- and intra-species variability of CHD1 gene in birds as a forensic tool. *Acta Veterinaria-Beograd* 71 (2) 147-157.