

Dr. (habil.) agr. sci. Revoriy (Vasilevich) Ivanov

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Head of the Laboratory of Horse Breeding
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Research areas

- Horse breeding (Yakut horses), horse husbandry, horse behavior
- Enhancement of the quality of fodder and perennial grasses for horses
- Energy balance, fatty acid exchange
- Horse meat properties, meat quality

Memberships

- Deputy Chairman of the Scientific Council of Yakut Scientific Research Institute of Agriculture
- Member of the Scientific and Technical Council for Livestock Management of the Department of Livestock of the Ministry of Agriculture of the Republic of Sakha (Yakutia)
- Member the Expert Council on the breeding work of the Ministry of Agriculture of the Republic of Sakha (Yakutia)

Policy engagements

- Developer and Leader of all main government regulatory documents on horse husbandry of the recent years, including the Law of the Republic of Sakha (Yakutia) "On Horse Husbandry"
- Co-author of the Sub-Program "Development of Horse band husbandry" of the State Target Program "Socio-economic development of the village in the Republic Sakha (Yakutia) for 2007-2010", in 2007
- Co-author of the Section "Horse husbandry" in the President's Program "Socio-economic development of the village in the Republic Sakha (Yakutia) for 2002-2006", in 2002

Track record: ca. 130 publications

Select publications (in Russian)

1. **Ivanov R.V.**, Khompodoeva U.V., Slobodchikova M.N. Strategy development and horse breeding in the Republic of Sakha (Yakutia). In: Scientific research of the CIS countries: synergy and integration conference proceedings. **2018**. P. 183-190.
2. Slobodchikova M.N., Vasileva, V.T., Vasileva, R.E., **Ivanov, R.V.** The chemical composition of the grass stand with horsetail (*equisetum variegatum*) and its influence on the composition of meat. *Fodder Production* **2017**. 2. P. 14-17.
3. Petrov K.A., Perk A.A., Chepalov V.A., Sofronova V.Ye., Il'in A.N., **Ivanov R.V.** Ecological-physiological and biochemical basis for the formation of green cryocorm in Yakutia. *Agricultural Biology* **2017**. 52(6). P. 1129-1138.
4. Il'in A.N., Khompodoyeva U.V., **Ivanov R.V.** A comparative assessment of the energy and protein values of the aftermath of sowing grass and natural grass in horses of the Yakut breed. *Fodder Production* **2017** 11. P. 45-48.
5. Khompodoyeva U.V., **Ivanov R.V.**, Il'in A.N. Features of the use of nutrients and feed energy in horses of the Yakut breed in winter. *Problems of the biology of productive animals* **2017**. 4. P. 56-64.

6. Vasil'yeva V.T., **Ivanov R.V.**, Slobodchikova M.N., Vasil'yeva R.Ye., Stepanov K.M. Research in the field of processing of secondary raw materials of herd meat horse breeding. *Nutrition Issues* **2015**. 84(s3). P. 92.
7. **Ivanov R.V.**, Permyakova P.F., Ilyin A.N. Protein requirement of pregnant pregnancy Yakut mares. *Biosciences Biotechnology Research Asia* **2015**. 12(1). P. 467-473.
8. Slobodchikova M.N., Vasileva V.T., **Ivanov R.V.**, Vasileva R.E., Stepanov K.M., Permyakova P.F. Possibility of using internal fat of young yakut horse. *Biosciences Biotechnology Research Asia* 2015. 12(2). P. 1281-1285.
9. **Ivanov R.V.**, Permyakova P.F., Il'in A.N. Changes in the supply of exchange energy to the body of horses of the Yakut breed, depending on the temperature of the environment. *Achievements of science and technology of agroindustrial complex* **2014**. 7. P. 42-43.
10. Permyakova P.F., **Ivanov R.V.**, Il'in A.N., Mironov S.M., Osipov V.G., Slobodchikova M.N. Efficiency of using feed additives on the basis of local and synthetic raw materials in rations of mare mares of the Yakut breed. *Achievements of science and technology of agroindustrial complex* **2013**. 1. P. 28-29.

Patents for selection achievements

1. No 5770. Horses. Prilenskaya breed, 26.01.2010
2. No 5773. Horses. Megezhekskaya breed 26.01.2010
3. No 5771. Horses. Yana type 26.01.2010
4. No 5772. Horses. Kolyma type 26.01.2010

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Research areas

- Preservation of the Yakut cattle breed, genetics

Select publications

1. Pokharel, K.; Weldenegodguad, M.; **Popov, R.**; Honkatukia, M.; Huuki, H.; Lindeberg, H.; Peippo, J.; Reilas, T.; Zarovnyaev, S.; Kantanen, J. *Whole blood transcriptome analysis reveals footprints of cattle adaptation to sub-arctic conditions*, 2018, online: <https://www.biorxiv.org/content/early/2018/08/10/379925>
2. Yurchenko, A.A.; Daetwyler, H.D.; Yudin, N.; Schnabel, R.D.; Vander Jagt, C.J.; Soloshenko, V.; Lhasaranov, B.; **Popov, R.**; Taylor, J.F.; Larkin, D.M. Scans for signatures of selection in Russian cattle breed genomes reveal new candidate genes for environmental adaptation and acclimation. *Scientific reports* **2018**, *8*, 12984.
3. Sermyagin, A.A.; Dotsev, A.V.; Gladyr, E.A.; Traspov, A.A.; Deniskova, T.E.; Kostyunina, O.V.; Reyer, H.; Wimmers, K.; Barbato, M.; Paronyan, I.A.; ...; **Popov, R.G.**; *et al.* Whole-genome SNP analysis elucidates the genetic structure of Russian cattle and its relationship with Eurasian taurine breeds. *Genetics, selection, evolution : GSE* **2018**, *50*, 37.
4. Abramov, A.F.; Popov, R.G.; Stepanov, K.M.; Gavrilov, I.A.; Zarovnyaev, S.I. *Food and biological value of meat, by-products of Yakut cattle*: Novosibirsk, 2018 (collective monograph)
5. Librado, P.; Der Sarkissian, C.; Ermini, L.; Schubert, M.; Jónsson, H.; Albrechtsen, A.; Fumagalli, M.; Yang, M.A.; Gamba, C.; Seguin-Orlando, A.; ... **Popov, R.**; *et al.* Tracking the origins of Yakutian horses and the genetic basis for their fast adaptation to subarctic environments. *Proceedings of the National Academy of Sciences of the United States of America* **2015**, *112*, E6889-97.
6. Tapio, I.; Tapio, M.; Li, M.-H.; **Popov, R.**; Ivanova, Z.; Kantanen, J. Estimation of relatedness among non-pedigreed Yakutian cryo-bank bulls using molecular data: implications for conservation and breed management. *Genetics, selection, evolution: GSE* **2010**, *42*, 28.
7. Li, M.-H.; Tapio, I.; Vilkki, J.; Ivanova, Z.; Kiselyova, T.; Marzanov, N.; Cinkulov, M.; Stojanović, S.; Ammosov, I.; **Popov, R.**; *et al.* The genetic structure of cattle populations (*Bos taurus*) in northern Eurasia and the neighbouring Near Eastern regions: implications for breeding strategies and conservation. *Molecular ecology* **2007**, *16*, 3839–3853.
8. Bennewitz, J.; Kantanen, J.; Tapio, I.; Li, M.; Kalm, E.; Vilkki, J.; Ammosov, I.; Ivanova, Z.; Kiselyova, T.; **Popov, R.**; *et al.* Estimation of breed contributions to present and future genetic diversity of 44 North Eurasian cattle breeds using core set diversity measures. *Genet Sel Evol* **2006**, *38*, 201.

Dr. vet. sc. Yana (Lavrent'evna) Shadrina

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Date of birth: 12.01.1982

Short biography

Since 2018	Head of Laboratory of immuno-genetic and molecular-genetic research and expertise, YSRIA
2013-2015	External Lecturer at the Yakut State Agricultural Academy, Chair of Parasitology and Epizootology (courses held: "Regional epizootology" and "Veterinary and sanitary examination")
2011-2018	Research Associate at the Laboratory of preservation of the gene pool of the Yakut cattle, YSRIA
2010-2011	Specialist at the Science Department, YSRIA
2005-2010	Doctoral student at the YSRIA, Cand. vet. sc., thesis title: "Strains of bacteria <i>Bacillus subtilis</i> TNP-3 and <i>Bacillus subtilis</i> TNP-5 in the prevention and treatment of diarrheal diseases of silver-black foxes" (in 2010)
2008-2010	Management Assistant, YSRIA
2005	Graduation from the Yakut State Agricultural Academy, Faculty of Veterinary Medicine (Qualification: Veterinarian)

Research areas

- Study of the characteristics of the allele pool of the Yakut cattle using microsatellites
- Gene polymorphism of horses of the Yakut breed
- Development of measures to control, prevent and treat infectious diseases of fur animals

Scholarships and grants

2011	Scholarship at the Centre of Molecular Genetics and Biotechnology of Animals, All-Russia Research and Development Institute for Livestock Husbandry named after Academy Member L.K. Ernst in Dubrovitsy, Podolsk Region, Moscow Province Carried out a research project on " <i>Studying the features of the allele pool of Yakut cattle using microsatellite markers</i> " within the Federal Target Program "Scientific and Scientific Pedagogical Staff of Innovative Russia for 2009-2013"
2006	Grant of the President of the Republic Sakha (Yakutia) for Young Scientists and Students

Select publications (in Russian)

1. Protodyakonova, G.P., Maksimova, A.N., Zakharova, O.I., **Shadrina, Ya.L.** Epizootical state of economies of Yakutia. In: *Agricultural Science*, **2018**, 5, pp. 26-28.
2. **Shadrina, Ya.L.**, Zarovnyaev S.I., Maksimova, A.N. Milk productivity of the Yakut cattle. In: The interaction of science and society: Problems and prospects: Proceedings of the International Scientific Conference, Kazan, 22.02.**2018**, Vol. 1. Sterlitamak: AMI.
3. **Shadrina, Ya.L.** Application of probiotics to silver-black foxes. In: Reshetnikov, A.D. et al. Innovative approaches to problems and prospects for the development of the agro-industrial complex in the Republic of Sakha (Yakutia), Yakutsk: Izdat-Print. **2017**.

4. Abramov, A.F., Neustroev, M.P., Tarabukina, N.P., Maksimova, A.H., **Shadrina, Ya.L.**, Alekseeva, N.M., Filippov, G.G. Black-silver fox farming. Monography. Novosibirsk. **2011**.
5. Gladyr', E.A., **Shadrina, Ya.L.**, Gorelov, P.V., Davaahuu, L., Popov, R.G., Matyukov, V.S., Agyshova, A.K., Zinovieva, N.A. The characteristics of allele pool of Yakut cattle using microsatellites. In: *Agricultural Biology*, **2011**, 6, pp. 65-69.
6. Neustroev, M.P., Fedorova, M.P., **Shadrina, Ya.L.** Epizootical situation on infectious diseases of fur animals in the Republic of Sakha (Yakutia). Conference proceedings. **2009**, p. 499-500.
7. Neustroev, M.P., Tarabukina, N.P., Maksimova, A.N., **Shadrina, Ya.L.** Application of probiotics in cage farming of Yakutia. In: *Gastroenterology*. St.-Petersburg, **2009**, 4.
8. Neustroev, M.P., **Shadrina, Ya.L.**, Maksimova, A.N. Problem of feed quality in cage farming of Yakutia. In: *Veterinary and Feeding*. Moscow. **2008**, 5, pp. 28-30.

Other publications

- Tarabukina, N.P., Neustroev, M.P., Fedorova, M.P., **Shadrina, Ya.L.**, Maksimova, A.N. Prevention of the diseases of the digestive tract in cage farming. Methodical guidelines. **2008**. Yakutsk.

Patents of Invention (Russian Federation)

- No. 2391880 Neustroev, M.P., Tarabukina, N.P., **Shadrina, Ya.L.**, Fedorova, M.P. Method for disinfecting of feeding of fur-bearers. 22.08.2008.