

# Swine Brucellosis, Epizootological Monitoring, Isolation and Identification of Strains from Pigs and Wild Boars, Antigenic Relation of Isolated Strains in Ukraine

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National Scientific Center «Institute of Experimental and Clinical Veterinary Medicine», Laboratory for study of bovine diseases has been the leading institution in Ukraine on brucellosis problems since the thirties of XX century. Main direction of work is conducting and perfection of the system of epizootological monitoring, diagnostics and prophylaxis of brucellosis of farm animals, in particular swine brucellosis.



Ukraine is free from brucellosis since 1975. Vaccination against brucellosis is forbidden since 1982. Up to 1985 there were registered some sporadic cases of brucellosis in cattle and pigs. There were conducted serological and bacteriological investigations of wild animals (elks, roes, wild boars). Brucellosis was registered only among wild boars in the South and Central regions of Ukraine.

Researchers of the National Scientific Center «Institute of Experimental and Clinical Veterinary Medicine» have conducted epizootological analysis concerning brucellosis of farm animals since 1949 to 2008. 126 epizootic brucella strains are kept in the Museum of the National Scientific Center, including 71 strains *B. abortus*, 4 strains *B. melitensis*, 15 strains *B. suis*, 36 strains *B. ovis*.

Now control of epizootic safety concerning brucellosis in Ukraine is conducted with participation of the researchers of the National Scientific Center by the way of annual screening tests of parental population of all animal species. Researchers of the Center have developed national system for diagnosis refinement at the detection of false-positive results of serological reactions at investigation concerning brucellosis, which safely ensures detection of brucellosis infection areas and epizootic safety without vaccination of animals. Role of *Yersinia enterocolitica* in the etiology of false-positive reactions in pigs and other animals has been studied. There was proposed to use serological methods of diagnostics with yersinia antigene (SAT). There were isolated and identified cultures *B. suis* biovar 2 and also *Yersinia enterocolitica*. Ukrainian and foreign samples of ELISA test system for the detection of brucella antibodies have been tested.

