

## DEVELOPMENT AND EXPERIMENTAL ASSAY OF INACTIVATED *SALMONELLA* AND *E. COLI* VACCINE FOR PIGS

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**Abstract.** Bacteriological investigations reveal that often pig infectious diseases are caused by a mixed pathogenic flora. In most cases it is *Salmonella* and also *E. coli*. Monovalent vaccines against pig bacterial diseases are effective, however they cause stress in animals. A bivalent vaccine was developed in Lithuanian Veterinary Institute. Vaccine was produced from local bacterial strains (*Salmonella enterica* subsp. *enterica* ser. Choleraesuis and *E. coli*), which were isolated from Lithuanian pig farms. Emulsigen (MVP laboratories, Inc.) was used as adjuvant for a better immune response. Experimental vaccine was tested on laboratory animals. The laboratory trial of *Salmonella* and *E. coli* vaccine using rabbits as experimental animals revealed that the potency to *S. enterica* subsp. *enterica* ser. Choleraesuis was 100 % when the vaccine contained  $2 \cdot 10^9$  bacterial cells/ml of *Salmonella* and the same number of *E. coli*. Specific antibody titres in blood sera of vaccinated rabbits were high both for *Salmonella* and *E. coli*. The vaccine had no side effects and was safe.

**Keywords:** vaccine, *Salmonella*, *E. coli*, pigs.