

## COMPARATIVE ESTIMATION OF PROLIFERATIVE RESPONSES OF PORCINE MONONUCLEAR CELLS *in vitro* BY MEANS OF BrdU-ELISA AND FLOW CYTOMETRY

R. Freigofas, A. Daugdchies, W. Leibold, A. Joachim, H.-J. Schuberth,

**Summary.** Blastogenesis and proliferation of porcine mononuclear cells (MNC) were measured comparatively by an ELISA system (based on the incorporation of BrdU into DNA and flow cytometrics procedure (standart cell dilution assay). The percentage of blast transformed cells as well as the total number of vital blasts were determined after *in vitro* simulation (for up 6 days). The BrdU-ELISA was largely affected by the time of incubation with the flow cytometrically measured absolute numbers of induced blast transformed cells.

Thus, these two detection systems cannot be employed alternatively for the measurement of porcine MNC blastogenesis and/or proliferation. Since absolute numbers of vital cells and numbers of vital blasts more closely reflect the complex processes of blastogenesis, proliferation and cellular death *in vitro*, flow cytometric procedures may allow for more precise evaluation of cellular kinetics after *in vitro* simulation. The superantigen *Staphylococcus aureus* enterotoxin B (SEB) induced no detectable blastogenesis, though it caused enhanced incorporation of BrdU. This emphasises the value of complementary procedures to assess the *in vitro* proliferation or activation of poMNC.

**Keywords:** mitogen, pig, Brdu-ELISA.