

Glutamate+++Thrombin+++PAR1-AP++Mpr(Cha)++

**Fig. 2.** (L. R. Gorbacheva et al.) Effect of thrombin on apoptosis of hippocampal neurons 24 h after the incubation of cell culture with 100  $\mu$ M glutamate for 15 min. Results of cell count for living and apoptotic neurons stained with nuclear fluorescent dye Hoechst 33243. Solid arrow shows living cells and dashed arrow shows apoptotic cells. a) Cell fluorescence after the effect of glutamate; b) the same after the effect of glutamate in combination with 10 nM thrombin; c) effect of 10 nM thrombin, 100  $\mu$ M PAR1 agonist (PAR1-AP), and 100  $\mu$ M PAR1 antagonist (Mpr(Cha)) in combination with thrombin on glutamate-induced apoptosis. \* *p* < 0.05 compared to glutamate.





**Fig. 4.** (L. R. Gorbacheva et al.) Effect of FXa on apoptosis of hippocampal neurons 24 h after a 15 min incubation of cell culture with 100  $\mu$ M glutamate. Results of cell count for living and apoptotic neurons stained with nuclear fluorescent dye Hoechst 33243. Solid arrow shows living cells and dashed arrow shows apoptotic cells. a) Cell fluorescence after the effect of glutamate; b) the same after the effect of glutamate in combination with 10 nM FXa; c) effect of 10 nM FXa, 100  $\mu$ M PAR2 agonist (PAR2-AP), and 100  $\mu$ M PAR1 antagonist (Mpr(Cha)) in combination with FXa on glutamate-induced apoptosis. \* p < 0.05 compared to glutamate.