

Table 2 Reliable correlation coefficients in the group of rats with IR modeling**Positive (direct) correlation in the group of rats with IR modeling**

Variable	Variable	r_s	p
Glucose content in the somatosensory cortex (day 7)	latent period duration of clumbing (day 7)	$r_s = 0,83$	p<0,05
Glucose content in the somatosensory cortex (day 7)	number of damaged nuclei (karyopyknosis, karyorrhesis) in the hippocampus (day 14)	$r_s = 0,89$	p<0,05
Lactate content in the somatosensory cortex (day 7)	duration of the ambulation episodes in the central squares (day 7)	$r_s = 0,83$	p<0,05
Lactate content in the somatosensory cortex (day 7)	number of the ambulation episodes in the central squares (day 7)	$r_s = 0,82$	p<0,05
Lactate content in the somatosensory cortex (day 7)	intact nuclei number in the somatosensory cortex (day 7)	$r_s = 0,90$	p<0,05
Ratio of lactate/pyruvate content in the somatosensory cortex (day 7)	SUB-G0G1 areas on the DNA histograms – RN1 before the G0G1 peak, which indicates cell nuclei with DNA content < 2s in the hippocampus	$r_s = 0,90$	p<0,05
SDH activity in the somatosensory cortex (day 7)	number of neuron nuclei in 1 mm ² of the CA1 hippocampal zone (day 14)	$r_s = 0,83$	p<0,05
SDH activity in the somatosensory cortex (day 7)	integral fluorescence density of GFAP+astrocytes on the frontal sections of the CA1 hippocampal zone (day 14)	$r_s = 0,90$	p<0,05
SDH activity in the somatosensory cortex (day 7)	SUB-G0G1 areas on DNA histograms – RN1 before the G0G1 peak, which indicates cell nuclei with DNA content < 2s in the somatosensory cortex	$r_s = 0,90$	p<0,05
SOD activity in the somatosensory cortex (day 7)	latent period duration of ambulation in the central squares (day 7)	$r_s = 0,81$	p<0,05
SOD activity in the somatosensory cortex (day 7)	duration of ambulation episodes in the central squares (day 14)	$r_s = 0,84$	p<0,05
Proteins' carbonyl groups in the somatosensory cortex (day 7)	grooming episodes duration (day 14)	$r_s = 0,83$	p<0,05
Proteins' carbonyl groups in the somatosensory cortex (day 7)	percentage ratio of G0G1 phase cells to all cells of a cell cycle in the somatosensory cortex (DNA content = 2s) (day 7)	$r_s = 0,90$	p<0,05
NADPH oxidase activity in the somatosensory cortex (day 7)	damaged nuclei number (karyopyknosis, karyorrhesis) in the somatosensory cortex (day 14)	$r_s = 0,97$	p<0,01
NOS activity in the somatosensory cortex (day 7)	integrated fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (day 14)	$r_s = 0,90$	p<0,05
Protein content in the somatosensory cortex (day 7)	neurological deficit (according to the McGrow Stroke-index scale) (day 7)	$r_s = 0,83$	p<0,05
Protein content in the somatosensory cortex (day 7)	latent period duration of grooming (day 7)	$r_s = 0,89$	p<0,05
Protein content in the somatosensory cortex (day 7)	integrated fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (day 7)	$r_s = 0,90$	p<0,05

Protein content in the somatosensory cortex (day 7)	percentage ratio of G2 + M phase to all cells of a cell cycle in the somatosensory cortex (DNA = 4s) (day 7)	$r_s = 0,90$	$p < 0,05$
Protein content in the somatosensory cortex (day 7)	SUB-G0G1 areas on the DNA histograms - RN1 before the G0G1 peak (which indicates the nuclei of cells with DNA content < 2s in the somatosensory cortex)	$r_s = 0,90$	$p < 0,05$
Glucose content in the hippocampus (day 7)	latent period duration of clumping (day 7)	$r_s = 0,83$	$p < 0,05$
Glucose content in the hippocampus (day 7)	percentage ratio of G0G1 phase cells to all cells of a cell cycle in the somatosensory cortex (DNA content = 2s) (day 7)	$r_s = 0,90$	$p < 0,05$
Glucose content in the hippocampus (day 7)	intact nuclei number in the hippocampus (day 14)	$r_s = 0,91$	$p < 0,05$
Lactate content in the hippocampus (day 7)	grooming episodes' duration (day 14)	$r_s = 0,83$	$p < 0,05$
NADPH oxidase activity in the hippocampus (day 7)	damaged nuclei number (karyopyknosis, karyorrhexis) in the somatosensory cortex (day 14)	$r_s = 0,90$	$p < 0,05$
NOS activity in the hippocampus (day 7)	latent period duration of clumping (day 14)	$r_s = 0,83$	$p < 0,05$
NOS activity in the hippocampus (day 7)	ambulation episodes number through the central squares (day 7)	$r_s = 0,88$	$p < 0,05$
Protein content in the hippocampus (day 7)	neurological deficit (according to the McGrow Stroke-index scale) (day 7)	$r_s = 0,83$	$p < 0,05$
Protein content in the hippocampus (day 7)	duration of the grooming latent period (day 7)	$r_s = 0,89$	$p < 0,05$
Protein content in the hippocampus (day 7)	integrated fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (day 7)	$r_s = 0,90$	$p < 0,05$
Protein content in the hippocampus (day 7)	percentage ratio of the G2 + M phase to all cells of a cell cycle in the somatosensory cortex (DNA = 4s) (day 7)	$r_s = 0,90$	$p < 0,05$
Protein content in the hippocampus (day 7)	SUB-G0G1 areas on the DNA histograms - RN1 before the G0G1 peak (which indicates the nuclei of cells with DNA content < 2s) in the somatosensory cortex	$r_s = 0,90$	$p < 0,05$
Ratio of lactate/pyruvate content in the somatosensory cortex (day 14)	damaged nuclei number (with karyopyknosis, karyorrhexis) in the somatosensory cortex (day 14)	$r_s = 0,90$	$p < 0,05$
SDH activity in the somatosensory cortex (day 14)	integral fluorescence density of Iba+microglia on the frontal sections of the CA1 hippocampal zone (day 7)	$r_s = 0,90$	$p < 0,05$
SOD activity in the somatosensory cortex (day 14)	integral fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (day 7)	$r_s = 0,90$	$p < 0,05$
SOD activity in the somatosensory cortex (day 14)	integral fluorescence density of GFAP+astrocytes on the frontal sections of the CA1 hippocampal zone (day 14)	$r_s = 0,90$	$p < 0,05$
SOD activity in the somatosensory cortex (day 14)	SUB-G0G1 areas on DNA histograms – RN1 before the G0G1 peak, which indicates cell nuclei with DNA content < 2s in the somatosensory cortex	$r_s = 0,90$	$p < 0,05$
Proteins' carbonyl groups in the somatosensory cortex (day 14)	damaged nuclei number (karyopyknosis, karyorrhexis) in the hippocampus (day 7)	$r_s = 0,83$	$p < 0,05$
Proteins' carbonyl groups in the somatosensory cortex (day 14)	S phase of a cell cycle in the hippocampus (the percentage ratio of the DNA synthesis phase to all cells of a cell cycle (DNA content > 2s and < 4s) (day7)	$r_s = 0,90$	$p < 0,05$
NADPH oxidase activity in the somatosensory cortex (day 14)	number of ambulation episodes through peripheral squares (day 14)	$r_s = 0,81$	$p < 0,05$
NOS activity in the somatosensory cortex (day 14)	intact nuclei number in the hippocampus (day 14)	$r_s = 0,88$	$p < 0,05$
Glucose content in the hippocampus (day 14)	latent period duration of clumping (day 14)	$r_s = 0,83$	$p < 0,05$
Lactate content in the hippocampus (day 14)	damaged nuclei number (karyopyknosis, karyorrhexis) in the hippocampus (day 14)	$r_s = 0,83$	$p < 0,05$
NADPH oxidase activity in the hippocampus (day 14)	ambulation episodes' number through the peripheral squares (day 14)	$r_s = 0,83$	$p < 0,05$

NADPH oxidase activity in the hippocampus (day 14)	intact nuclei number in the hippocampus (day 7)	$r_s = 0,84$	p<0,05
NOS activity in the hippocampus (day 14)	ambulation episodes' duration through the peripheral squares (day 14)	$r_s = 0,99$	p<0,001
Negative (or inverse) correlation in the group of rats with IR modeling			
Variable	Variable	r_s	p
Glucose content in the somatosensory cortex (day 7)	latent period duration of ambulation in the central squares (day 14)	$r_s = -0,88$	p<0,05
Glucose content in the somatosensory cortex (day 7)	integral fluorescence density of RECA-1 positive blood vessels in CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05
Pyruvate content in the somatosensory cortex (day 7)	SUB-G0G1 regions on DNA histograms – RN1 before the G0G1 peak, which indicates nuclei of cells with DNA content < 2s in the hippocampus	$r_s = -0,90$	p<0,05
MDA content in the somatosensory cortex (day 7)	number of grooming episodes (day7)	$r_s = -0,83$	p<0,05
MDA content in the somatosensory cortex (day 7)	duration of ambulation episodes in the central squares (day 14)	$r_s = -0,93$	p<0,05
SDH activity in the somatosensory cortex (day 7)	latent period duration of clumping (day 7)	$r_s = -0,89$	p<0,05
SOD activity in the somatosensory cortex (day 7)	number of damaged nuclei (having karyopyknosis, karyorrhexis) in the hippocampus (day 14)	$r_s = -0,89$	p<0,05
Proteins' carbonyl groups in the somatosensory cortex (day 7)	latent period duration of ambulation in the central squares (day 14)	$r_s = -0,82$	p<0,05
Proteins' carbonyl groups in the somatosensory cortex (day 7)	S phase of a cell cycle in the somatosensory cortex (the percentage ratio of the DNA synthesis phase to all cells of a cell cycle (DNA content > 2s and < 4s) (day 7)	$r_s = -0,90$	p<0,05
Proteins' carbonyl groups in the somatosensory cortex (day 7)	integrated fluorescence density of Iba+microglia on frontal sections of the CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05
NOS activity in the somatosensory cortex (day 7)	integrated fluorescence density of Iba+microglia on the frontal sections of the CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05
Glucose content in the hippocampus (day 7)	S phase of a cell cycle in the somatosensory cortex (the percentage ratio of the DNA synthesis phase to all cells of a cell cycle (DNA content > 2s and < 4s) (day 7)	$r_s = -0,90$	p<0,05
Lactate content in the hippocampus (day 7)	intact nuclei number in the somatosensory cortex (day 7)	$r_s = -0,90$	p<0,05
Lactate content in the hippocampus (day 7)	integral density fluorescence of NeuN+ neurons on the frontal sections of the CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05
NADPH oxidase activity in the hippocampus (day 7)	integral fluorescence density of Iba+microglia on the frontal sections of the CA1 hippocampal zone (days 7)	$r_s = -0,90$	p<0,05
NADPH oxidase activity in the hippocampus (day 7)	integral fluorescence density of Iba+microglia on the frontal sections of the CA1 hippocampal zone (days 14)	$r_s = -0,90$	p<0,05
NOS activity in the hippocampus (day 7)	S phase of a cell cycle in the hippocampus (the percentage ratio of the phase of DNA synthesis to all cells of a cell cycle (DNA content > 2s and < 4s) (day 7)	$r_s = -0,90$	p<0,05
Glucose content in the somatosensory cortex (day 14)	integral fluorescence density of NeuN+ neurons in the frontal slices of CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05
Glucose content in the somatosensory cortex (day 14)	integrated fluorescence density of GFAP+astrocytes on the frontal sections of the CA1 hippocampal zone (day 14)	$r_s = -0,90$	p<0,05
Glucose content in the somatosensory cortex (day 14)	SUB-G0G1 regions on DNA histograms – RN1 before the G0G1 peak, which indicates cell nuclei with DNA content < 2s in the somatosensory cortex	$r_s = -0,90$	p<0,05
Lactate content in the somatosensory cortex (day 14)	intact nuclei number in the somatosensory cortex (day 7)	$r_s = -0,97$	p<0,01
Ratio of lactate/pyruvate content in the somatosensory cortex (day 14)	integral fluorescence densities of Iba+microglia on frontal sections of the CA1 hippocampal zone (day 7)	$r_s = -0,90$	p<0,05

Ratio of lactate/pyruvate content in the somatosensory cortex (day 14)	integral fluorescence densities of Iba+microglia on frontal sections of the CA1 hippocampal zone (day 14)	$r_s = -0,90$	$p < 0,05$
MDA content in the somatosensory cortex (day 14)	integral fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (day 7)	$r_s = -0,90$	$p < 0,05$
MDA content in the somatosensory cortex (day 14)	integrated fluorescence density of GFAP+astrocytes on the frontal sections of the CA1 hippocampal zone (day 14)	$r_s = -0,90$	$p < 0,05$
MDA content in the somatosensory cortex (day 14)	SUB-G0G1 regions on DNA histograms – RN1 before the G0G1 peak, which indicates cell nuclei with DNA content < 2s in the somatosensory cortex	$r_s = -0,90$	$p < 0,05$
SDH activity in the somatosensory cortex (day 14)	integral fluorescence density of NeuN+ neurons on the frontal slices of the CA1 hippocampal zone (experimental day 14)	$r_s = -0,90$	$p < 0,05$
Proteins' carbonyl groups in the somatosensory cortex (day 14)	the duration of ambulation episodes through peripheral squares (day 7)	$r_s = -0,83$	$p < 0,05$
NOS activity in the somatosensory cortex (day 14)	number of ambulation episodes through the central squares (day 7)	$r_s = -0,82$	$p < 0,05$
NOS activity in the somatosensory cortex (day 14)	duration of ambulation episodes through the central squares (day 7)	$r_s = -0,94$	$p < 0,01$
Glucose content in the hippocampus (day 14)	duration of the ambulation latent period in the central squares (day 7)	$r_s = -0,81$	$p < 0,05$
Glucose content in the hippocampus (day 14)	percentage ratio of the G2 + M phase cells to all cells of a cell cycle in the somatosensory cortex (DNA = 4s) (day 7)	$r_s = -0,90$	$p < 0,05$
Glucose content in the hippocampus (day 14)	SUB-G0G1 areas on the DNA histograms - RN1 before the G0G1 peak (which indicates the cell nuclei with DNA content < 2s in the somatosensory cortex)	$r_s = -0,90$	$p < 0,05$
Glucose content in the hippocampus (day 14)	damaged nuclei number (karyopyknosis, karyorrhexis) in the somatosensory cortex (day 7)	$r_s = -0,97$	$p < 0,01$
Lactate content in the hippocampus (day 14)	ambulation episodes duration through the peripheral squares (day 7)	$r_s = -0,83$	$p < 0,05$
Lactate content in the hippocampus (day 14)	number of ambulation episodes through the central squares (day 7)	$r_s = -0,88$	$p < 0,05$
Lactate content in the hippocampus (day 14)	duration of ambulation episodes through the central squares (day 7)	$r_s = -0,89$	$p < 0,05$
Lactate content in the hippocampus (day 14)	integral fluorescence density of RECA-1 positive blood vessels in the CA1 hippocampal zone (day 7)	$r_s = -0,90$	$p < 0,05$
NOS activity in the hippocampus (day 14)	SUB-G0G1 areas on DNA histograms – RN1 before the G0G1 peak (which indicates cell nuclei with DNA content < 2s) in the hippocampus	$r_s = -0,90$	$p < 0,05$