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Effect of zinc on carp (*Cyprinus carpio*) erythrocytes *in vitro*

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Treatment with zinc ions caused stress effect and cell damage (enhanced hemolysis) in carp erythrocytes *in vitro*. An increase of the Zn^{2+} concentration (10-1000 μ M) led to a decrease in the antioxidant enzyme activity (glutathione peroxidase, total peroxidase, catalase) except that of superoxide dismutase and to slight changes in lipid peroxidation. Interaction of Zn^{2+} with carp red blood cells brought about a decrease in the erythrocyte thiol group content and induced changes in the glucose transport across the red cell membrane.