

THE INFLUENCE OF CISPLATIN ON THE INTERACTION OF DNA  
WITH NUCLEAR PROTEINS HMGB1 AND HMGB2*E. V. Chikhirzhina*<sup>1,\*</sup> *T. Yu. Starkova*<sup>1</sup> *E. I. Kostyleva*<sup>1</sup> *A. M. Polyanchko*<sup>1,2</sup><sup>1</sup> Institute of Cytology RAS, St. Petersburg, 194064, and<sup>2</sup> Faculty of Physics of St. Petersburg State University, St. Petersburg, 199034;

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The interaction of DNA damaged by the antitumor drug cis-dichlorodiammine platinum(II) (cisplatin, cis-DDP) with the nonhistone chromosomal proteins HMGB1 and HMGB2 was studied using circular dichroism spectroscopy. It was shown that the CD spectra of the complexes indicates weak increase of  $\alpha$ -helical content of the protein molecule typical for the binding of the HMGB-domain to native DNA. The presence of cisplatin prevents the formation of the ordered supramolecular structures of DNA in the complexes.

Key words: cisplatin, DNA-proteins interactions, *cis*-diamminedichloroplatinum(II), HMGB1 and HMGB2 proteins, circular dichroism

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