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Synthesis of 6-substituted 1,2,3-triazolyl derivatives of benzo[*c*]phenanthridine alkaloids and study of their effects on lysosomal proteases activity

© **Sergey E. Laevskiy**,[1+] **Grigoriy V. Avramenko**,[1]* **Maria A. Fomina**,[2] and **Anna M. Kudlaeva**[2]
[1] *Chair of Technology of Chemical-Pharmaceuticals and Cosmetics MUCT named after D.I. Mendeleev. Geroev Panfilovtsev St., 20. Moscow, 125480. Russia.*
Tel.: +7 (495) 495-24-06. E-mail: cosm-pharm@yandex.ru
[2] *Chair of Biological Chemistry. RyazSMU named after I.P. Pavlov. Vysokovoltnaya St., 9. Ryazan, 390026. Russia. Phone: +7 (4912) 46-08-37. E-mail: fdpo_ryazan@mail.ru*

*Supervising author; +Corresponding author

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Abstract

A brief overview on the studies of the biological activity of semi-synthetic derivatives of natural benzo[*c*]phenanthridine alkaloids is presented. According to methods described in literature 6-substituted derivatives of the natural alkaloids sanguinarine and chelerythrine with 1,2,3-triazolyl group at 6-C atom were synthesized and their effects on the lysosomal proteases activity were studied. It is shown that *in vitro* action of the synthesized derivatives on hepatocyte lysosomes leads to an increase of lysosomal cysteine proteases activity accompanied with significant labialization of the lysosomal membrane.