Results. We mention that homeopathy is a concept for the manufacture and use of various highly diluted products to treat diseases, which was created in 1796 by Samuel Hahnemann. His doctrine was based on 'like cures like', whereby a substance that causes a symptom is used to treat the same symptom in illness. A second central principle is the 'law of infinitesimals', which involves a process of serial dilution and shaking that is asserted to increase potency. According to State Nomenclature of Medicines, the homeopathic pharmaceutical forms are presented in the top for tropane alkaloids: *Belladonnae folia* (Dentokind, Guna Dermo, Bronhalis Hell, Tonsilotren); followed by indole alkaloids: *Strichni semina* (Eubioflor, Guna Addict, Guna Bowel, Guna Digest, Nux-Vomica, Mucosa compositum) and isoquinoline alkaloids: *Berberidis folia* (Discus Compositum, Reneel, Guna Diur) and *Chelidonii herba* (Hepeel, Hepar Compositum, Guna Addict). Pyrrolizidene, quinolizidine and acyclic alkaloids are presented with a smaller number of homeopathic products that those with indole alkaloids.
Conclusions. Alkaloids have approximately 50 homeopathic pharmaceutical products after State Nomenclature of Medicines from Republic of Moldova, mostly in tablets, oral and injectable solutions.
Key words: alkaloids, homeopathic medicinal products.

429. ANTIOXIDANT NANOPARTICLES FOR PATHOLOGICAL ANGIOGENESIS INHIBITION: OBTAINING AND IN VIVO CAM MODEL EVALUATION

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Introduction. With an increasing incidence among young people, cancer is a disease that affects millions of people worldwide. Lately, many studies have been conducted to investigate the connection between antioxidants and pathological angiogenesis. In this context, the use of antioxidants in the form of nanoparticles could improve the efficiency of this therapy due to specific surface area of nanostructures, thereby ensuring a better contact with cells which would increase the chances of pathological angiogenesis inhibition.
Aim of the study. In addition to the existing results, the purpose of the present work is to develop new nanoparticles based on chitosan low molecular weight derivatives for cancer therapy, taking into account not only their role as carriers but their action itself: the antioxidant potential which is benefical in inhibiting angiogenesis, as discussed above.
Materials and methods. As a continuation of previous studies, carried out on chitosan, this paper purpose has as starting point the use of four previously obtained chitosan derivatives, note here with CLA, CLB, CLC and CLD, to obtain innovative nanoparticles formulations by ionic reticulation using as cross-linking agent sodium tri-polyphosphate (STPP). The infrared measurements were acquired with a Bruker ALPHA FT-IR spectrophotometer, in the spectral region of 4000-500 cm-1. For biological evaluation, in vivo CAM model was used, to assess the antiangiogenetic activity of chitosan derivatives nanoparticles.
Results. In the spectrum of chitosan nanoparticles as well as that of its functionalized derivatives (CLA-CLD), the characteristic bands have been identified. In connection with biological evaluation, all four types of nanoparticles resulted in reduced angiogenesis, but the

maximum effect was observed in CLC and CLD cases, with significant decrease of vascular support.

Conclusions. Our results demonstrate that chitosan derivatives nanoparticles strongly enhances the therapeutic effect of chitosan and the use of appropriate nanostructures, capable of overcoming biological barriers, could be an important strategy for future antitumor therapy.

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Key words: Angiogenesis, nanoparticles, chitosan derivatives, chorioallantoic membrane, cancer therapy.