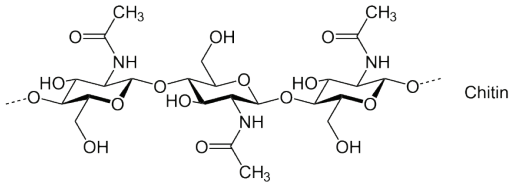


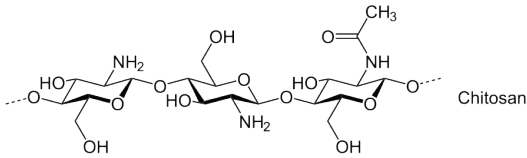
Research (What is it about?)	<b>Wound healing composite</b>
UNN authors	<i>Smirnova L.A., Koryagin A.S., Apryatina K.V., Mochalova A.E.</i>
We find (The result)	We develop a high efficiently hemostatic agent on the chitosan polysaccharide basis. Proposed option of this agent which containing silver nanoparticles has bactericidal action.
Abstract	<p>Hemostatic agent on the modified semi-synthetic chitosan polysaccharide basis with coordinated natural thrombosis components has been developed. It has the following properties:</p> <ul style="list-style-type: none"> <li>✓ high blood clotting time speed (20-40 sec vs 2-3 min for the natural conditions),</li> <li>✓ biocompatibility,</li> <li>✓ biodegradability,</li> <li>✓ wound healing effect,</li> <li>✓ toxicity absent,</li> <li>✓ draining effect,</li> <li>✓ single overlay, dressing is not requiring,</li> <li>✓ anesthetic effect.</li> </ul> <p>The composite of hemostatic agent with silver nanoparticles has been developed as well. The composite exhibits strongly pronounced bactericidal activity against the bacteria which infect wound surface – <i>Pseudomonas aeruginosa</i> and <i>Escherichia coli</i>.</p>

Representative articles 2016-2017, quartiles	1. <i>Apryatina K.V., Gribanova M.V., Markin A.V., Sologubov S.S., Smirnova L.A.</i> Silver nanoparticle–chitosan complexes and properties of their composites. <i>Nanotechnologies in Russia</i> . <b>11</b> (11-12), 766-775 (2016).	–
	2. <i>Koryagin A.S., Mochalova A.E., Smirnova L.A., Apryatina K.V., Grigoryeva E.N.</i> Hemostatic and wound healing agent. Eurasia patent #201500358/28.	
Q-index (Qi) of the result		<b>0</b>

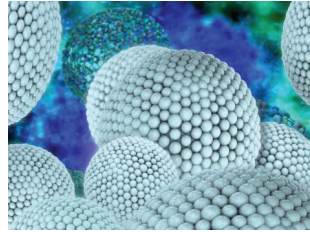
In collaboration	Privolzhsky Research Medical University, Minin&Pozharsky Sq. 10/1, Nizhni Novgorod 603950, Russia
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Chitin-Deacetylase



Forming chitosan by partial deacetylation of chitin



Silver nanoparticles are used for wound healing



Hemostatic and wound healing action of chitosan polysaccharide film under skin transplantation