

<b>Name of the project, IRN</b>	<b>AP15473201</b> «Film dosage forms based on functional biopolymers for local drug delivery»
<b>Terms of implementation</b>	07.10.2022 - 31.12.2024
<b>Project manager</b>	Abilova Guzel – PhD
<b>Abstract</b>	<p>An alternative approach to traditional dosage forms is a new drug delivery tool known as thin polymer films. Polymer films provide a quick, local or systemic effect. This gives them excellent prospects for use as effective matrices in systems with controlled release of drugs to sensitive areas which cannot be achieved with tablets or liquid formulations.</p> <p>The main idea of the project is aimed at creating new dosage forms in the form of mucoadhesive films based on functional polyelectrolyte and non-ionic biopolymers and their mixtures for use as highly effective ophthalmic, vaginal and buccal drug delivery systems with antimicrobial, antiviral and/anesthetic drugs.</p>
<b>Goal</b>	<p>One of the problems of pharmaceutical technology is the creation of such dosage forms, in which the therapeutic effect is maximally manifested, the side effect is minimal, and which are convenient for patients to use.</p> <p>In this regard, the aim of the project is to create new film materials based on hydrophilic polymers and their mixtures with antimicrobial and/or analgesic effects for application on mucous tissues with a predictable release profile and long-term drug action.</p>
<b>Expected Results</b>	<p>Film materials with drugs will be prepared and their physicochemical, mechanical, mucoadhesive and antimicrobial properties, as well as the kinetics of drug release from polymer matrices, will be studied.</p> <p>The results of scientific research carried out within the framework of the proposed Project will be published by the postdoctoral student as the first author:</p> <ul style="list-style-type: none"> <li>- at least 2 (two) articles in journals from the first three quartiles by impact factor in the Web of Science database or with a CiteScore percentile in the Scopus database of at least 50.</li> <li>- at least 1 (one) article or review in a peer-reviewed foreign or domestic publication recommended by CQAES.</li> </ul>
<b>Research Group</b>	<p><i>Scientific Supervisor:</i> Abilova Guzel is a specialist in the field of chemistry and physics of polymer composite materials, biomedical polymers, docent, PhD. Hirsch index h=2 (Author ID в Scopus – 57208254425; ORCID - <a href="https://orcid.org/0000-0002-0028-4598">0000-0002-0028-4598</a>). <a href="https://www.scopus.com/authid/detail.uri?authorId=57208254425">https://www.scopus.com/authid/detail.uri?authorId=57208254425</a></p> <p>Irmukhametova Galiya Serikbayevna (maiden Azhgozhinova) - c.ch.sc. in the specialty "Chemistry of macromolecular compounds", docent, Leading Supervisor, Hirsch index h=7 (Author ID в Scopus – 22979722000; ORCID - <a href="https://orcid.org/0000-0002-1264-7974">0000-0002-1264-7974</a>). <a href="https://www.scopus.com/authid/detail.uri?authorId=22979722000">https://www.scopus.com/authid/detail.uri?authorId=22979722000</a></p>