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# IMPLEMENTATION OF INNOVATIVE EDUCATIONAL TECHNOLOGIES IN PHARMACEUTICAL EDUCATION FOR BIOLOGICAL CHEMISTRY STUDYING

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The introduction of innovative educational technologies in pharmaceutical education should improve the quality of education, training of future specialists and contribute to the development of the pharmaceutical industry. It also helps students better understand complex pharmaceutical concepts and develop the skills needed for a successful career in the field.

Our experience of working under the conditions of the COVID-19 pandemic and martial law in the country has shown that ensuring the quality of training for specialists in the pharmaceutical industry includes:

1. Enhance learning: Innovative educational technologies such as virtual reality and simulations promote a deeper understanding of biological chemistry by providing students with the opportunity to visually and interactively explore complex molecular processes. Using modern technology, it is possible to create interactive learning environments where students can visually and even physically explore the structures of molecules, drugs, and biological processes. This makes learning more visual and understandable.

2. Improving access to education: online courses and mobile programs allow students to study material at a time and place convenient for them, which contributes to the widespread dissemination of education in the field of medicine and pharmacy, in particular in the study of biological chemistry. This may include interactive lessons, tests, simulations and other educational tools.

3. Support personalized learning: innovative technology allows students to choose the pace and methods of learning that meet their needs, which helps them learn more effectively.

4. Opportunities for hands-on experience: simulations and computer modeling allow students to conduct virtual experiments and research, which can be especially useful for studying of biological chemistry, where safety and access to real laboratories may be limited. Using computer programs and simulations to model pharmaceutical processes and research can greatly simplify learning and allow students to experiment without risking patient health.

5. Facilitation of research activities: innovative technologies provide students with access to current research methods and databases, which can stimulate their interest in scientific research and innovation in pharmaceutical biological chemistry.

6. Support collaboration and knowledge sharing: virtual platforms and network resources facilitate the exchange of knowledge and experience between students and teachers, as well as between educational institutions, which contributes to the development of the pharmaceutical educational environment. Through networking platforms, pharmacists and students can exchange knowledge and experience, which certainly contributes to more effective learning and dissemination of innovations in the pharmaceutical field.

7. Industry involvement: collaboration with pharmaceutical companies and research laboratories allows students and faculty to stay abreast of the latest technological research and industry trends.

The introduction of innovative educational technologies in pharmaceutical education can improve the quality of education, prepare future specialists and contribute to the development of the pharmaceutical industry. It will also help students better understand complex pharmaceutical concepts and develop the skills needed for a successful career in this field.

These theses highlight the importance of innovative technologies in pharmaceutical education in the study of biological chemistry and their potential to improve the quality of education and training of future specialists in this field.