

## **ANNOTATION**

**of report on a pre-diploma practice of a sixth-year student, group BT-61s**

**specialty 7.05140101 - Industrial Biotechnology**

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**on the topic "The technology of the preparation of recombinant interleukin-7 in the form of nasal spray"**

The report on pre-diploma practice is outlined on 23 pages printed text. The report consists of an introduction, four sections, conclusions, a list of references, and contains 3 drawings.

The report on pre-diploma practice describes the production of nasal spray based on the recombinant interleukin-7.

The introduction substantiates the relevance of the chosen topic of research, described

The purpose of pre-diploma practice and its tasks.

The first part of the report is devoted to the history of PrAT "Pharmaceutical firm" Darnitsa ".

The second part of the report provides data on interleukin-7 and its producers.

The third part of the report presents the auxiliary works of production.

The fourth part of the report shows the technological stages of production.

The appendix provides technological and hardware schemes for the production of nasal spray

As a result of the implementation of pre-diploma practice, the following tasks were solved: considered ..., given a description ..., described ..., etc.

As a result of the implementation of pre-diploma practice have been made the following conclusions:

Interleukin 7 is a lymphopoietic growth factor that encodes a human IL7 gene. Interleukin-7 refers briefly to cytokines of the 1st type of the family of hematopoietin. Interleukin 7 has a special position among other cytokines because of its unique function in hematopoiesis, which is not duplicated by other factors.

The lack of functional interleukin 7 may be one of the causes of severe combined immunodeficiency.

Inhalation has several advantages over oral methods:

- Large amount of active substance;
- Imposing to a place of defeat;
- High rate of absorption by mucous membrane;
- It is possible to assimilate through the lungs.

A recombinant interleukin-7 product acts as a strain of CHO cotyledonous hamster cells transformed with a plasmid with the interleukin-7 gene.