IMOZYMASE, A NEW HIGHLY EFFICIENT PREPARATION FOR TREATING PURULENT-INFLAMMATORY DISEASES IN ANIMALS AND MAN

**Description**
A simple technology adapted to local raws and domestic facilities has been developed for obtaining IMOZYMASE, a complex of bacterial proteases immobilized on a water-soluble polymer. IMOZYMASE is a liquid medical preparation of high proteolytic activity ensuring removal of devitalized tissues damaged by a pathologic process from wound surfaces by means of selective elimination of nonviable proteins. The preparation creates favorable conditions for regeneration, growth of granulation tissue and epithelization. The technology is based on radiation modification of bacterial proteases by polyethyleneoxide.

**Technical appraisal and economic benefits**
Compared to such proteolytic enzyme preparations as trypsin and hemotrypsin traditionally used in medicine and veterinary practice, IMOZYMASE is nontoxic and hypoallergenic and has the following advantages:

- high efficiency within the pH range 6.0 - 10.0;
- thermal stability in the presence of substrate (up to 80°C);
- resistance to endogenous proteolysis inhibitors;
- painlessness;
- reduced healing time as compared to traditional curing methods (by a factor of 1.5-2);
- rapid hydrolyzation of denatured proteins with different amino-acid sequences, including fibrin and collagen.

**Application areas**
Medicine and veterinary:
- for surgery in curing trophic ulcers, abscesses, phlegmons, osteomyelitides and other purulent-inflammatory processes;
- for dentistry (caries, pulpitis, periodontitis, parodontosis and its complications);
- as a mucolitic preparation for treating various forms of pneumonia and bronchite (inhalation) in pulmonology;
- for treating various purulent diseases (mastitis, endometritis, necrobacteriosis, bronchopulmonary diseases).

**Development stage**
Pilot production.

**Patent situation**
Patent pending. License for the use in veterinary in RF.

**Commercial offers**
Investment contract on organization of production to suit the requirements of the Ministry of Health.
*Estimated cost*
To be negotiated.

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