

## **SUMMARY**

Diabetes mellitus is the name for the group of chronic diseases, which are manifested as malfunction metabolism of saccharides. It's one of the oldest global disease. 200 millions people, both sexes and all age bracket suffer from it. Diabetes is dividing in DM I.type, which attack 7% of patients, and DM II.type, which rises from a lot of stress, unhealthy food and absence of sport activities. The objective of diabetes treatment is early diagnosis, which can prevent the expansion of severe insulin deficiency, resistance of insulin and other metabolic disorders.

Diabetic treatment includes pharmacology treatment - with insulin and peroral antidiabetics, and unpharmacology treatment, which cooperate with drugs in reducing morbidity and mortality. My dissertation specializes in new types, new production technology and new styles of application insulin to the body. It's also targeted the description of new groups of peroral antidiabetics, especially their development and clinical testing. Treatment of diabetes also involves transplantation of pancreas and therapy by stem-cells, which is still only in phase of clinical trials. To good compensation of DM contribute phytoterapy, diabetic diet and recommended sport activities.