In talk will be presented:

i) Development of the Nuclotron accelerator complex NICA – as base facility for investigation of the mixed phase transition phenomena in strongly interacting nuclear meter at extremely high nuclear densities

ii) Implementation of the DRIBs-III project, including development of the FLNR cyclotron complex, radical extension of the experimental base of the laboratory (new physical facilities), development of accelerator systems in an attempt to increase beam intensity and improve the quality of beams of stable and radioactive nuclides in the energy range from 5 to 100 MeV / nucleon to significantly increase the efficiency of the experiments on synthesis and the study of properties of new superheavy elements and extend the programme of the experiments with the use of beams of radioactive nuclides.