CARDIOWORKBENCH is based on target screening and validation of molecular targets and addresses cardiovascular diseases (CADs), which are multifactorial and are characterized by complex synergies between genetic and environmental factors which makes target screening and validation extremely difficult. The main aim of the project is to optimize drug design for CADs. Specifically, expected end project results are the identification of new molecular targets involved in atherosclerosis and related CADs, the improvement of target screening and validation and the selection, synthesis and test of new drug candidates for treatment. Other objectives are the development of mathematical models for the prediction of the effects of drugs on the behavior of cardiovascular cells.

Figure 1 - Project flowchart

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Project Results: On the basis of a patient panel the project has originated in an integrative bioinformatics database system. The application of computational tools has singled out new target, and chemical entities related to this target have therefore been considered. In addition, further results achieve and very end of the project have highlighted some new potential targets. It is intended to focus on these potential targets setting up a new research project. This involves some of the partners of Cardioworkbench.