Color Plate 6

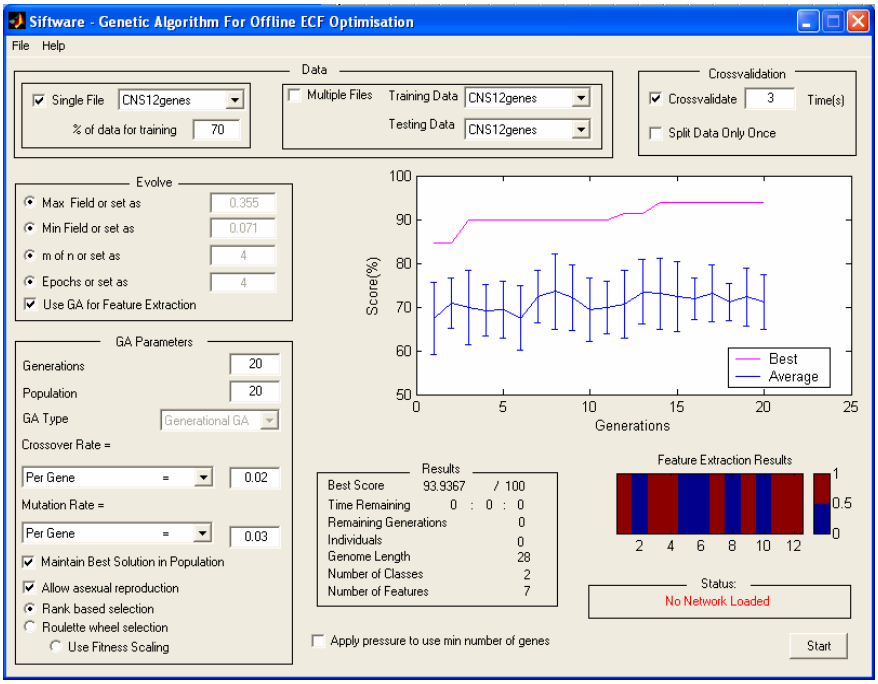

Fig. 6.3. GA optimization of the parameters and the set of input variables (features) of an ECOS model for classification of CNS cancer samples into two classes - class of survivals and a class of non-responding to treatment (see (Pomeroy et al. 2002)). The best ECOS model, after 20 generations of populations of 20 individuals, has an accuracy of almost 94% when tested in a 3-fold cross validation procedure. The model has the following input variables: 1, 3, 4, 7, 9, 11, 12,(represented in lighter color) and variables 2, 5, 6, 8 and 10 are not used (represented in a darker color). Optimal values of the ECF parameters (R_{max}, R_{min}, *m* of *n*, epochs) are shown in the figure