Color Plate 9

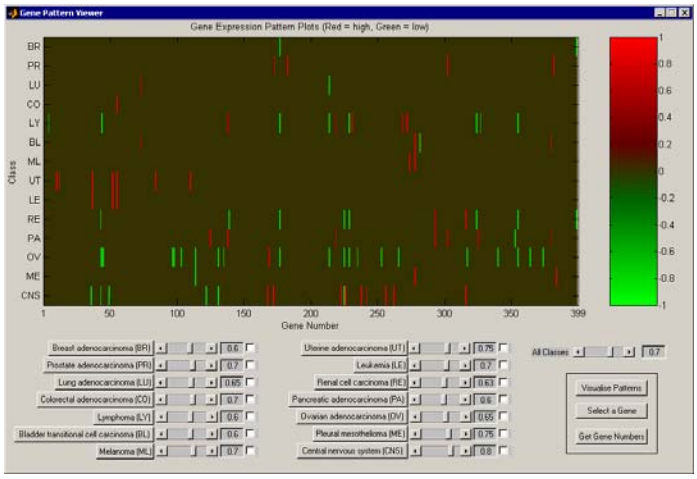

Fig. 7.5. Class profiles of 14 types of cancer extracted from a trained EFuNN on 399 inputs (gene expression values) and 14 outputs using data from (Ramaswamy et al. 2001). The profiles of each class can be modified through a threshold tuned for each individual class that defines the membership degree above which a gene should be either over-expressed (lighter sign) or under-expressed (darker sign) in all rules of this class in order for this gene to appear in the profile. The last profile is of the CNS cancer

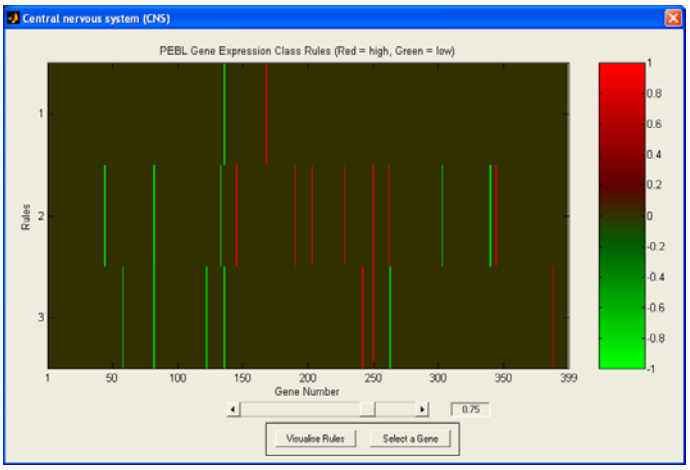

Fig. 7.6. Among the CNS cancer group there are 3 clusters that have different gene expression profiles, as detected by an EFuNN ECOS trained system from Fig. 7.5. The highly expressed genes (lighter lines) in cluster 1, 2 and 3 of CNS cancer data are different