

**Figure 3. Unsupervised MOCA algorithm.** MOCA was applied to (A, E, I) simulation data where base classifiers predictions are conditionally independent, (B, F, J) predictions by teams participating in the DREAM2 BCL6 Transcription factor target prediction challenge, (C, G, K) simulation data where base classifier predictions are conditionally dependent, and (D,H,L) predictions by teams participating in the DREAM 9.5 Prostate Cancer Prediction Challenge. For each data set we demonstrate MOCA's ability to infer MOCA weight,  $w_i$ , i = 1,2,...,M; measure the AUC in relation to the wisdom of crowd ensemble (Woc), and the best individual method (Best\_BC); and measure the empirical conditional covariance matrix C. The error-bars represent S.E.M computed from 5 fold cross-validation.