**Figure S1:** Histogram comparison of mRNA gene expression for the eight candidate genes between normal/mild and moderate/severe groups in all COPD studies including Ning *et al*, Wang *et al*, TPCH test and TPCH training. 4/8 genes had concordant change in gene expression between TPCH and Bhattacharya *et al* dataset. 6/7 (only 7 probes were present in the filtered dataset) genes were concordant between TPCH and Wang *et al* dataset.

**Comparison of expression of candidate genes in COPD studies using lung tissues**

