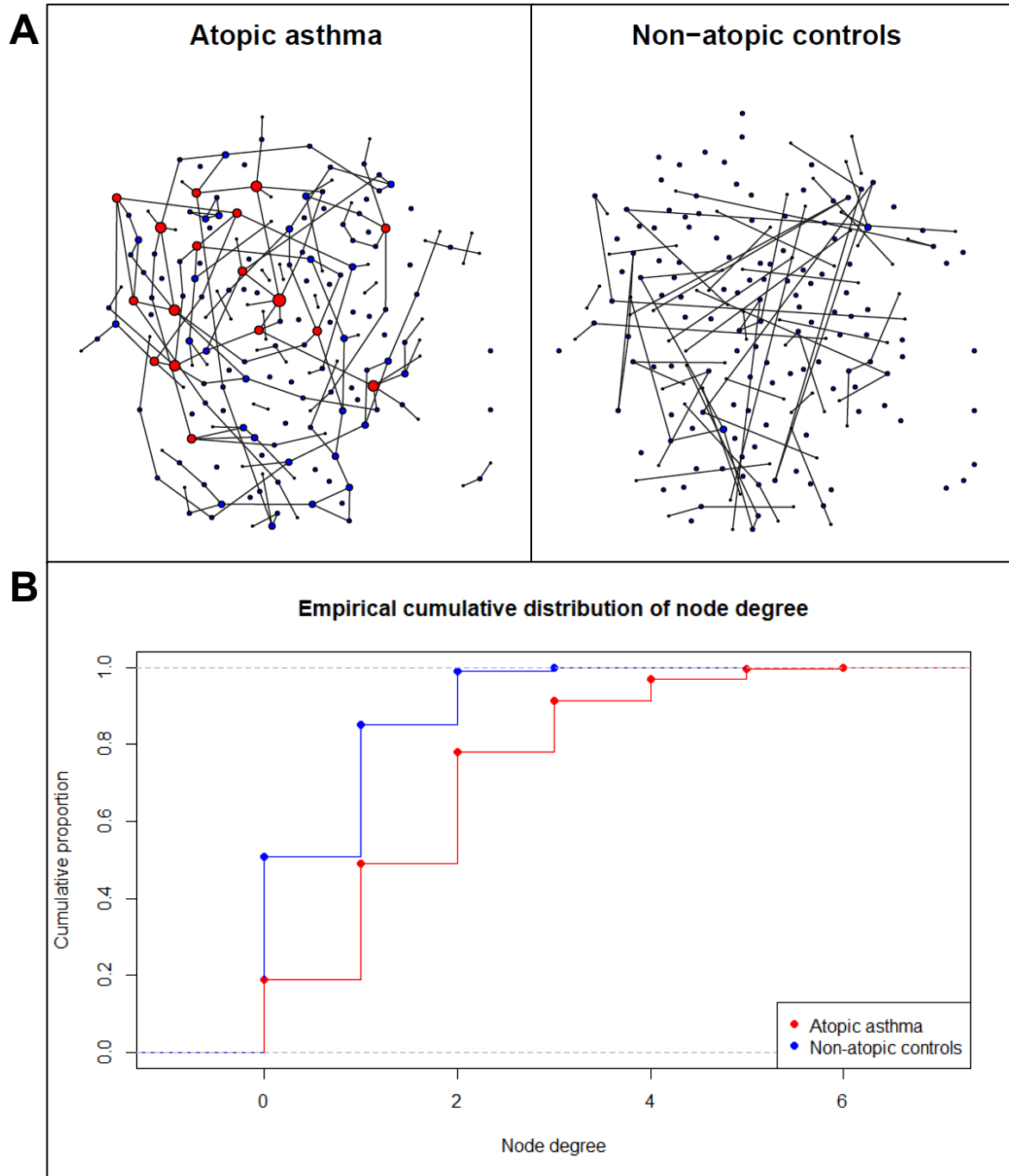


Figure E4 – Network analysis of differentially expressed genes



A) Gene networks in subjects with atopic asthma and in controls using the top 200 DEGs. Not only did the genes show different gene expression levels between the groups, but their connections (co-expression or conditional dependence, shown in red) also were widely different in each group. Hub genes (those with ≥ 4 connections to other genes) are shown in red. **B)** Distribution of degrees of connectivity (DC) for the top 200 DEGs among cases and controls. In controls, close to 100% of the genes had a DC ≤ 2 (i.e. ≤ 2 connections to other co-expressed genes), and none had DC > 3 . Cases had 17 hub genes

with $DC \geq 4$. The DC distribution was significantly different in cases and controls (Kolmogorov-Smirnov P-value = 5.23×10^{-14}).