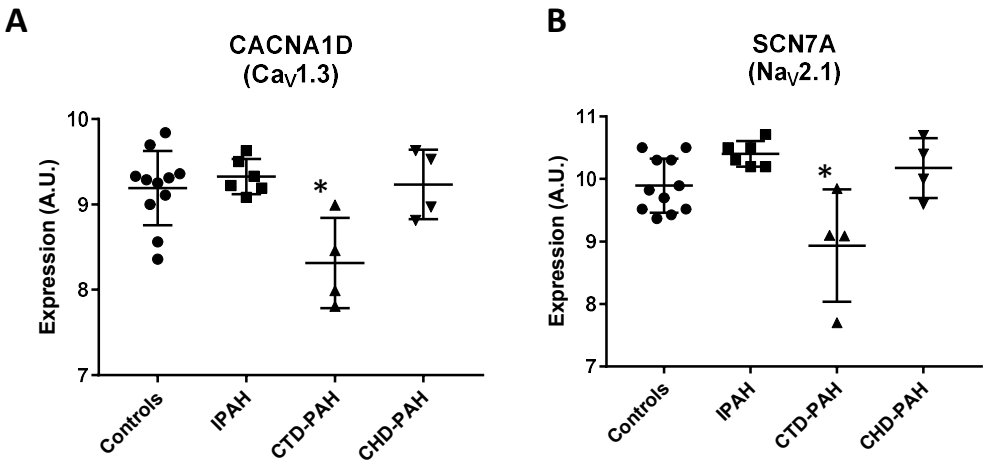
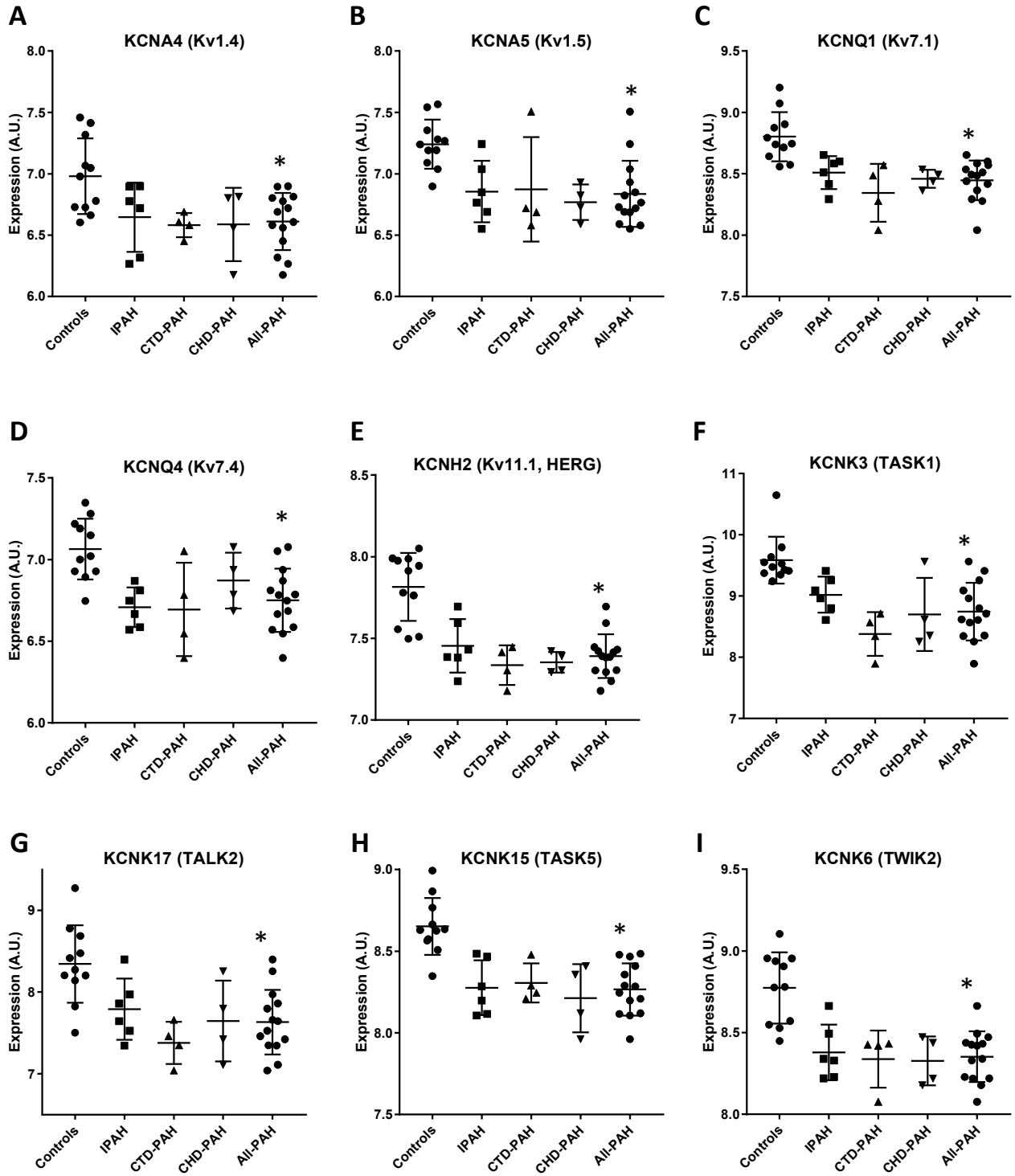
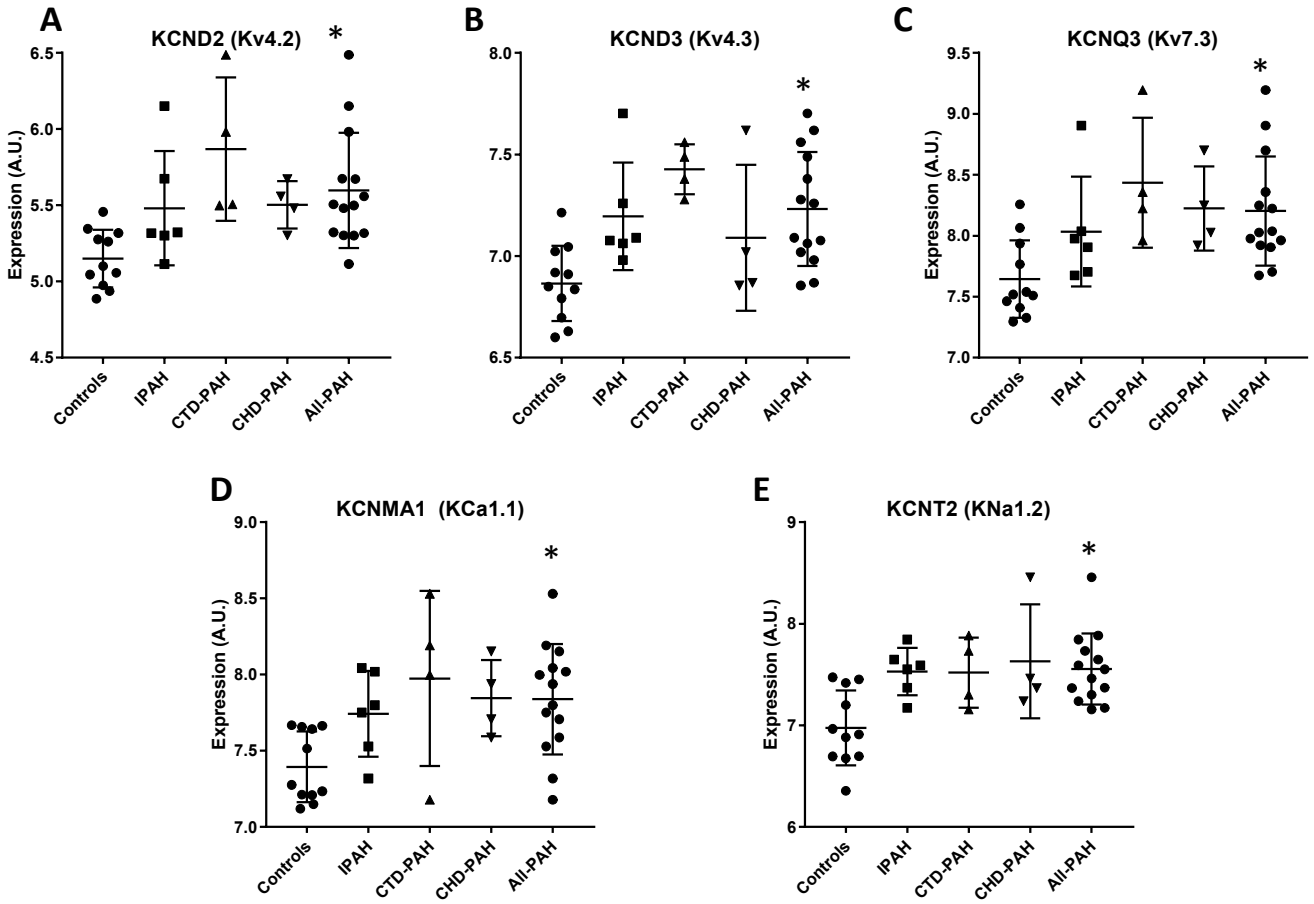


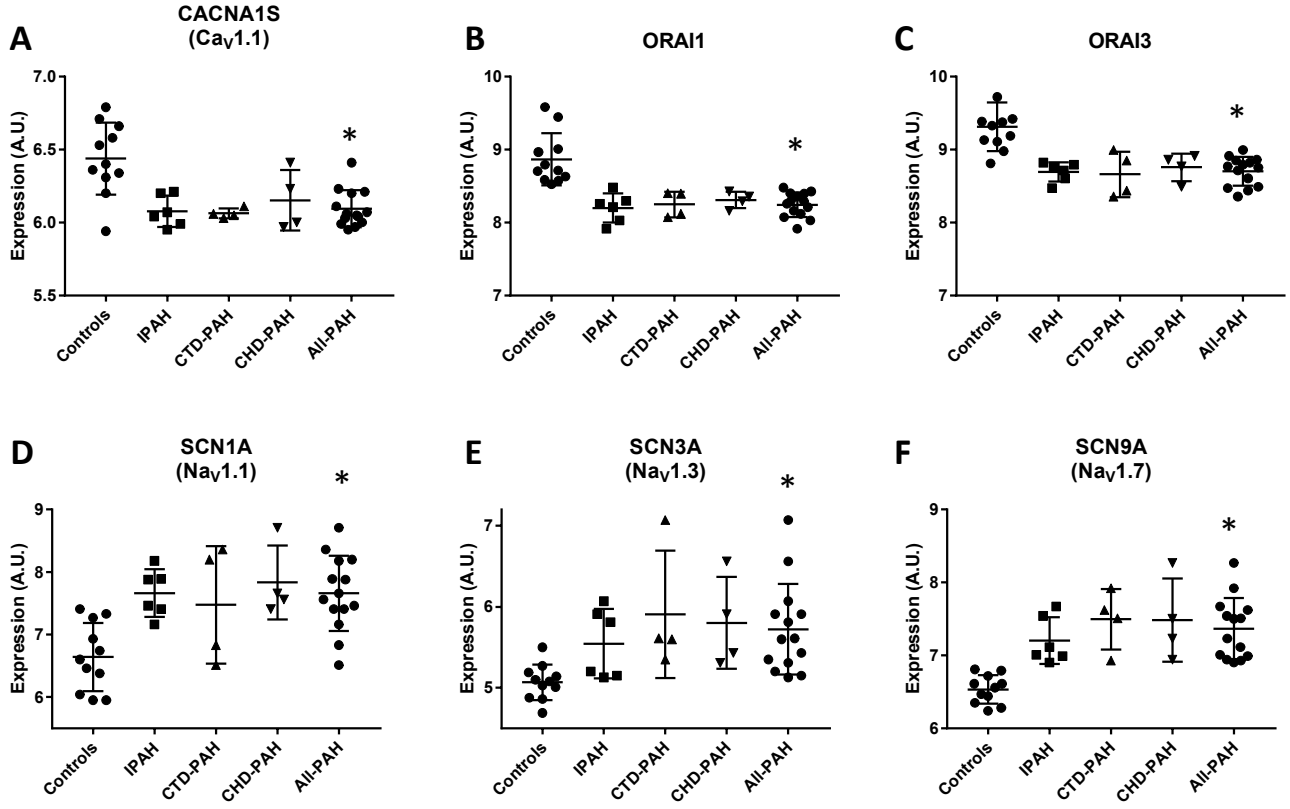
Supplementary figure 1. mRNA expression of CACNA1D and SCN7A genes in controls and patients with idiopathic PAH (IPAH), congestive tissue disease associated PAH (CTD-PAH) and congenital heart disease PAH (CHD-PAH). Results are shown as scatter plot and lines indicate means and SD. P <0.05 vs iPAH and CHD-PAH.



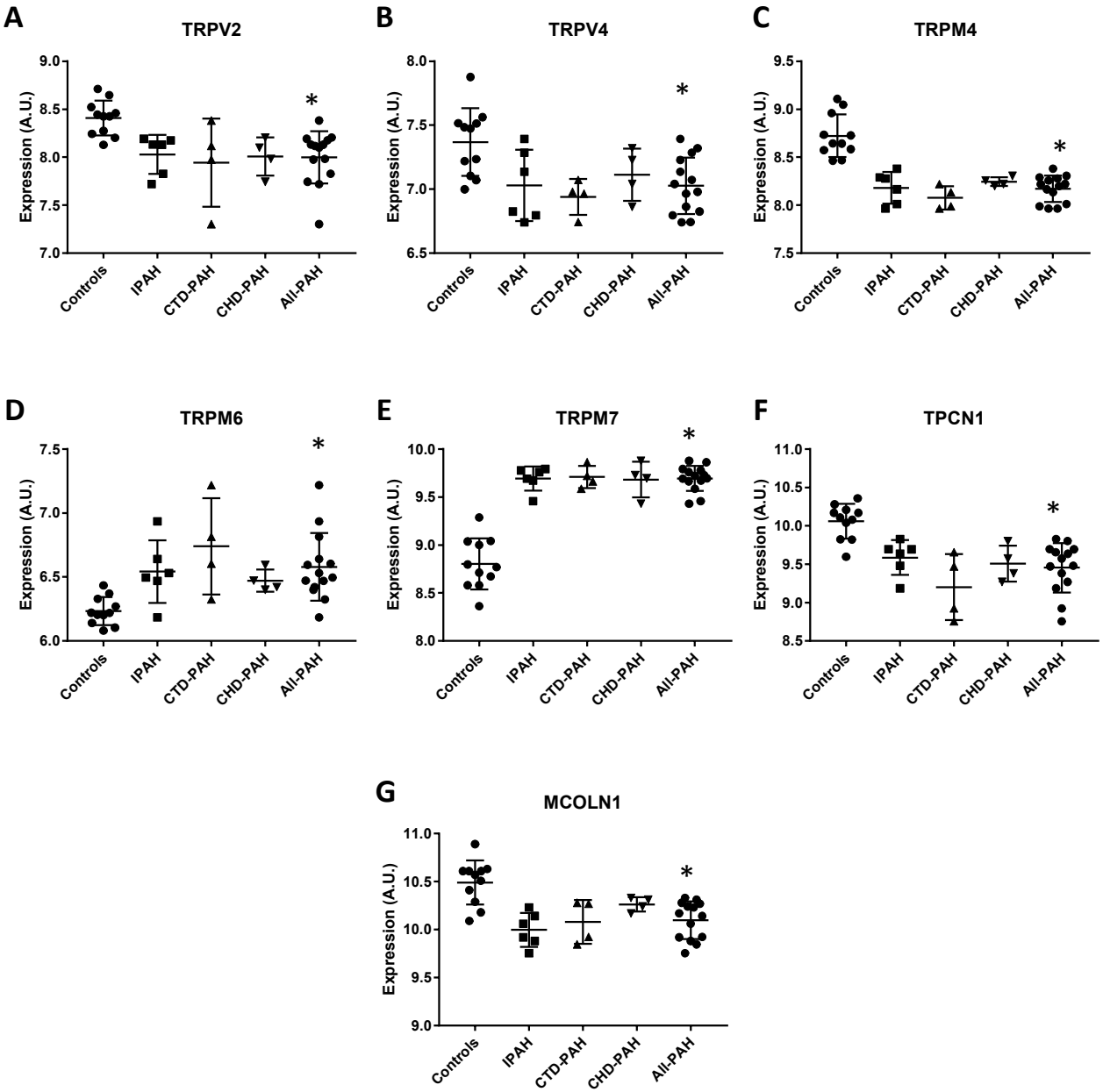
Supplementary figure 2. mRNA expression of K^+ channel genes with a large (> 2 fold) and significant (adjusted $p < 0.05$) downregulation in controls and patients with idiopathic PAH (IPAH), congestive tissue disease associated PAH (CTD-PAH) and congenital heart disease PAH (CHD-PAH). Results are shown as scatter plot and lines indicate means and SD. * Adjusted $p < 0.05$.



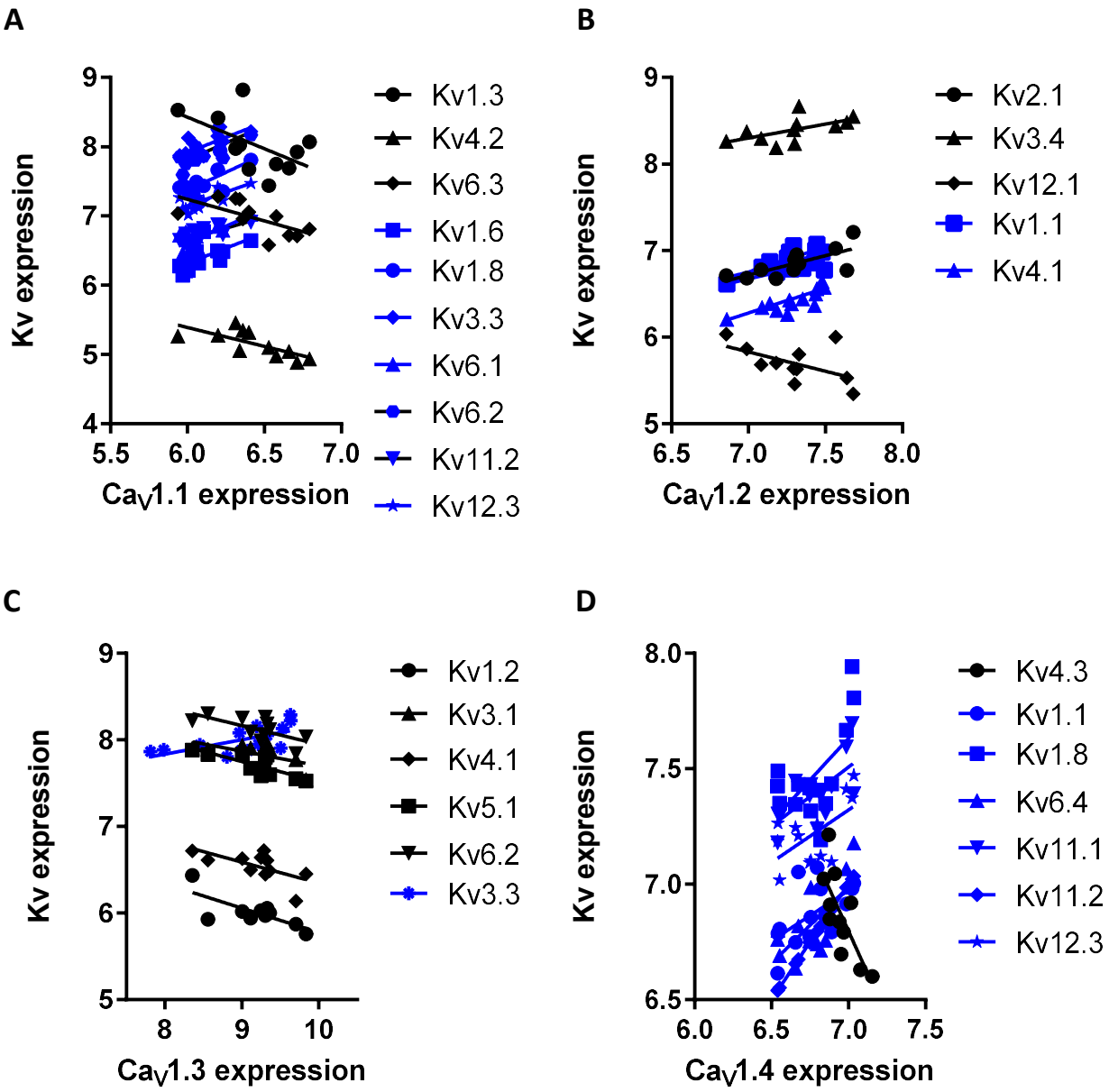
Supplementary figure 3. mRNA expression of K^+ channel genes with a large (> 2 fold) and significant (adjusted $p < 0.05$) upregulation in controls and patients with idiopathic PAH (IPAH), congestive tissue disease associated PAH (CTD-PAH) and congenital heart disease PAH (CHD-PAH). Results are shown as scatter plot and lines indicate means and SD. * Adjusted $p < 0.05$.



Supplementary figure 4. mRNA expression of Ca^{2+} and Na^{+} channel genes with a large (> 2 fold) and significant (adjusted $p < 0.05$) change in controls and patients with idiopathic PAH (IPAH), congestive tissue disease associated PAH (CTD-PAH) and congenital heart disease PAH (CHD-PAH). Results are shown as scatter plot and lines indicate means and SD. * Adjusted $p < 0.05$.



Supplementary figure 5. mRNA expression of TRP channels genes with a large (> 2 fold) and significant (adjusted $p < 0.05$) change in controls and patients with idiopathic PAH (IPAH), congestive tissue disease associated PAH (CTD-PAH) and congenital heart disease PAH (CHD-PAH). Results are shown as scatter plot and lines indicate means and SD. * Adjusted $p < 0.05$.



Supplementary figure 6. Significant correlations of mRNA expression of $Ca_V1.X$ channels with Kv channels in controls (black symbols) and PAH patients (blue symbols).