

Figure 1. Volcano plots illustrating fold change vs FDR (q value).
 (A) Day 55 genes, (B) Day 75 genes. SDE genes are represented by red dots (negative fold changes) and green dots (positive fold changes). Genes not differentially expressed are represented by black dots.

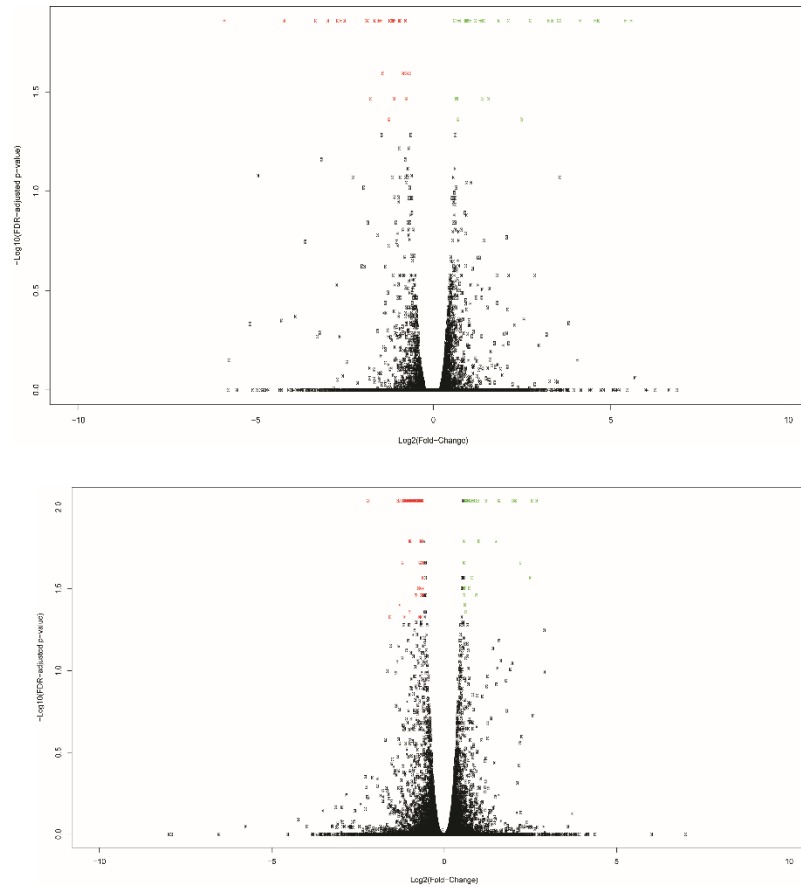


Figure 2. Bland Altman plot comparing Nanostring and RNAseq fold changes

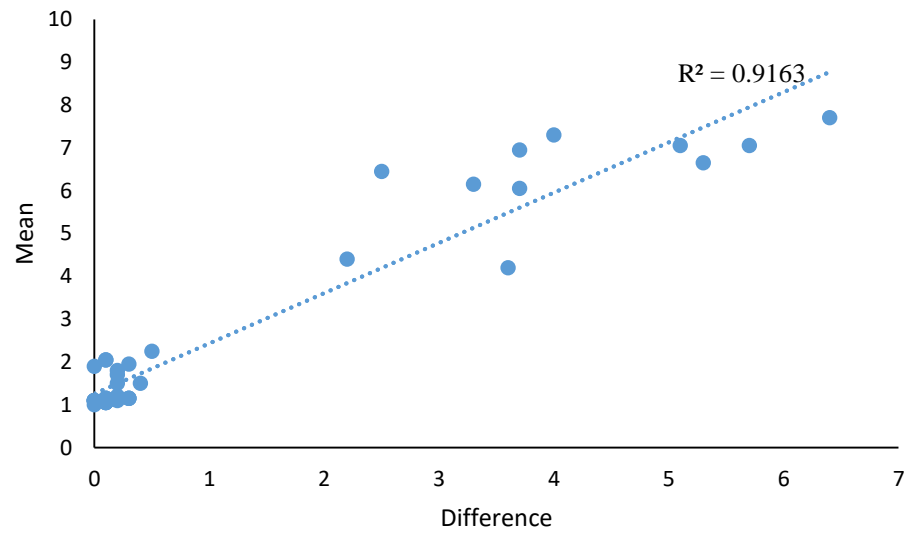


Figure 3. Potential involvement of SDE genes and pathways in NO metabolism. SDE genes *NOS1* (pregranulosa cells) and *PADI6* (germ cells) convert arginine to citrulline and nitric oxide. This reaction is a Ca^{2+} dependent reaction and is facilitated by vitamin C. Up-regulation of genes involved in ion transport and vitamin C metabolism are therefore likely to promote this reaction. The antioxidant properties of vitamin C may mitigate the NO induced DNA oxidative damage in germ cells by neutralizing ROS, thus promoting positive effects of NO

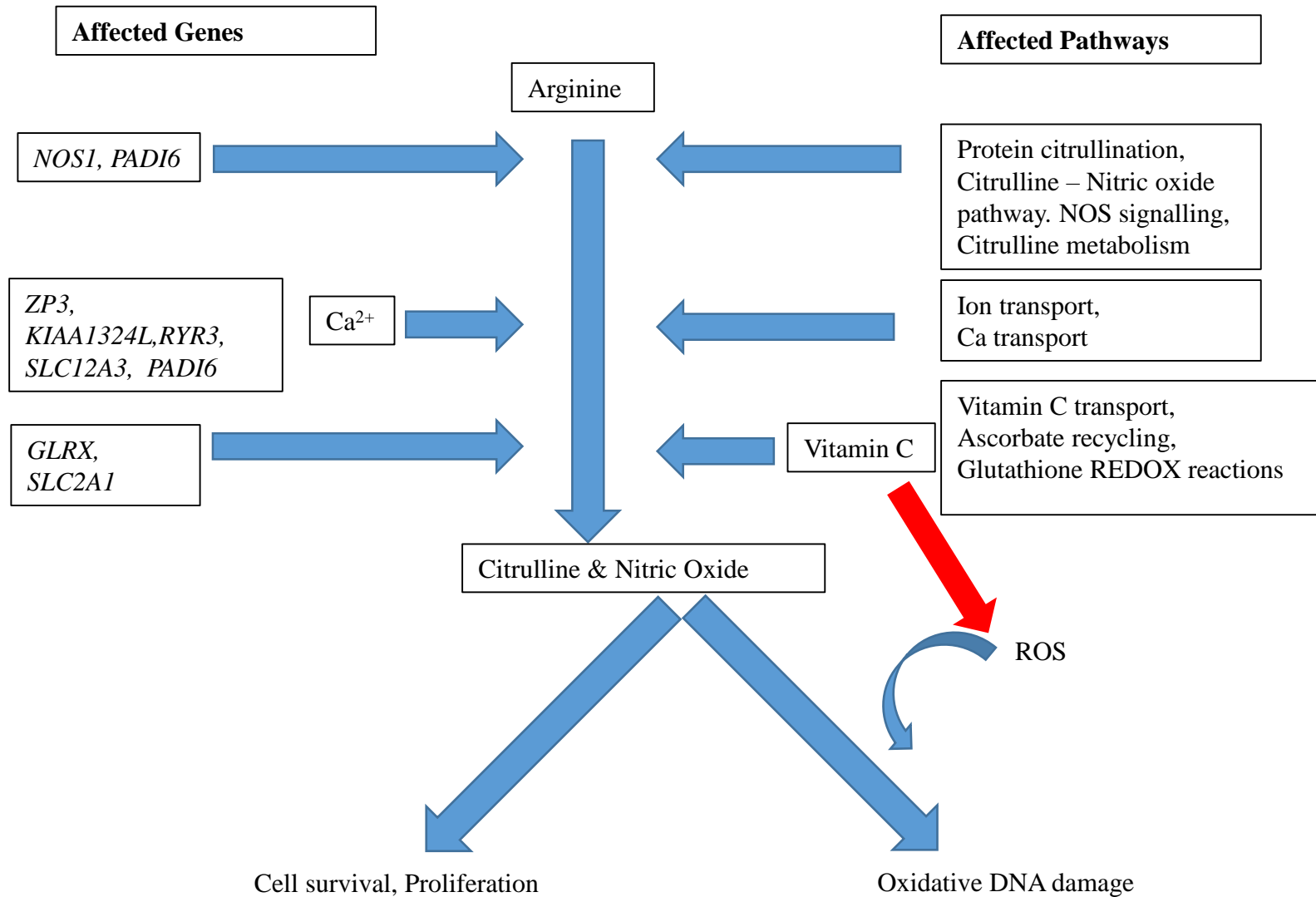


Figure 4. Potential involvement of SDE protease inhibitor genes in germ cell development. SDE of protease inhibitors at both day 55 and day 75 of gestation is a feature of this dataset. Proteases (ATG4, Cathepsins, Calpains, Caspases and Serine Proteases) play critical roles in both survival (autophagy) and death (apoptosis) of germ cells. Protease inhibitors have been shown to affect both autophagy and apoptosis in a compound specific manner. While yet to be determined for the specific protease inhibitors SDE in this study, the potential exists for these compounds to contribute to the regulation of germ cell autophagy and/or apoptosis, and thus establishment of the ovarian reserve.

