

Supplemental Data Figure S2: Scatter plots of *in vivo* pineal gene expression data. Data are from experiment C (see Experimental Procedures). Density contours (10% intervals; 90% of probe sets are within the outermost contour line) are shown for all 31,099 probe sets on the Rat230_2 microarray. **A. Night vs Day** Gene expression intensity at night (Y-axis) versus day (X-axis), normalized by median intensity, averaged over 4 replicates in each condition. Symbols represent probe sets with greater than 2-fold or less than 1/2 Night/Day expression levels. Overall, there are 866 probe sets with 2-fold or greater change in either direction, have FDR < 0.20 and are called "present" in 3 out of 4 replicates of either group. **B. NE/Control vs Night/Day** Gene expression intensity in cultured pineal glands following treatment with norepinephrine (NE) as ratio of control (NE/C) compared to night/day expression ratio for freshly prepared pineal glands sampled at mid-day and mid-night. Only probe sets with greater than 2-fold night/day change, FDR < 0.20 and called "present" in 3 out of 4 replicates of either group are shown. Regression on these points shows a significant, positive slope (0.58 ± 0.02 , $p < 0.0001$). **C. DBcAMP/Control vs NE/Control** Gene expression intensity in cultured pineal glands following treatment with DBcAMP as ratio of control (DBcAMP/Control) compared to NE/Control ratio (see Panel B above). The probe sets shown have a greater than 2-fold or 1/2 change in the NE/Control ratio, FDR < 0.20 and been called "present" in at least 2 out of 3 replicates of either group. These points are fit with regression line, showing a significant slope (0.71 ± 0.02 , $p < 0.0001$).

