**Hmwk Questions**

A. 6570 distinct genes

B.   
for HlL60 cells, the most correlated time points are: 4hrsand24hrs

for U937 cells, the most correlated time points are: 0and30min

for NB4 cells, the most correlated time points are:0and72hrs

for Jurkat cells, the most correlated time points are: 4hrsand24hrs

C. Observed over a period of 24 hours, Cell types HL60andU937 are the most similar. The median value of each of these cell types over time points that were in a 24 hour range were taken to come to this answer. The cell types with the smallest differences in median values were called the “most similar.” NB4 cell data was used only for time points 0,5.5 hrs, and 24 hrs; however, for all other cells, readings were taken at the same intervals (0,30 min, 4hrs, 24 hrs)

D.

**Top 10 Genes for Calibration**

"No cluster in current Unigene and no Genbank entry for M95586 (qualifier M95586\_r\_i)

"PCCB Propionyl Coenzyme A carboxylase, beta polypeptide" X73424\_i

"ESTs" R94219

"GIPR Gastric inhibitory polypeptide receptor"

"Homeodomain protein (Prox 1) mRNA"

"GRIA2 Glutamate receptor, ionotropic, AMPA 2"

"ESTs" 'R39006'

"L-arginine:glycine amidinotransferase"

" PLP Proteolipid protein (Pelizaeus-Merzbacher disease, spastic paraplegia 2, uncomplicated)”

"ESTs, Highly similar to HLA CLASS I HISTOCOMPATIBILITY ANTIGEN, A-32(AW-19) ALPHA CHAIN PRECURSOR [Homo sapiens]”

E. Yes (See HL60.csv, U937.csv, NB4.csv, Jurkat.csv)

F. See downreg.csv

G. The GO terms: BP\_Fat, CC\_Fat, and MF\_Fat appear to be enriched.   
list used was list.csv