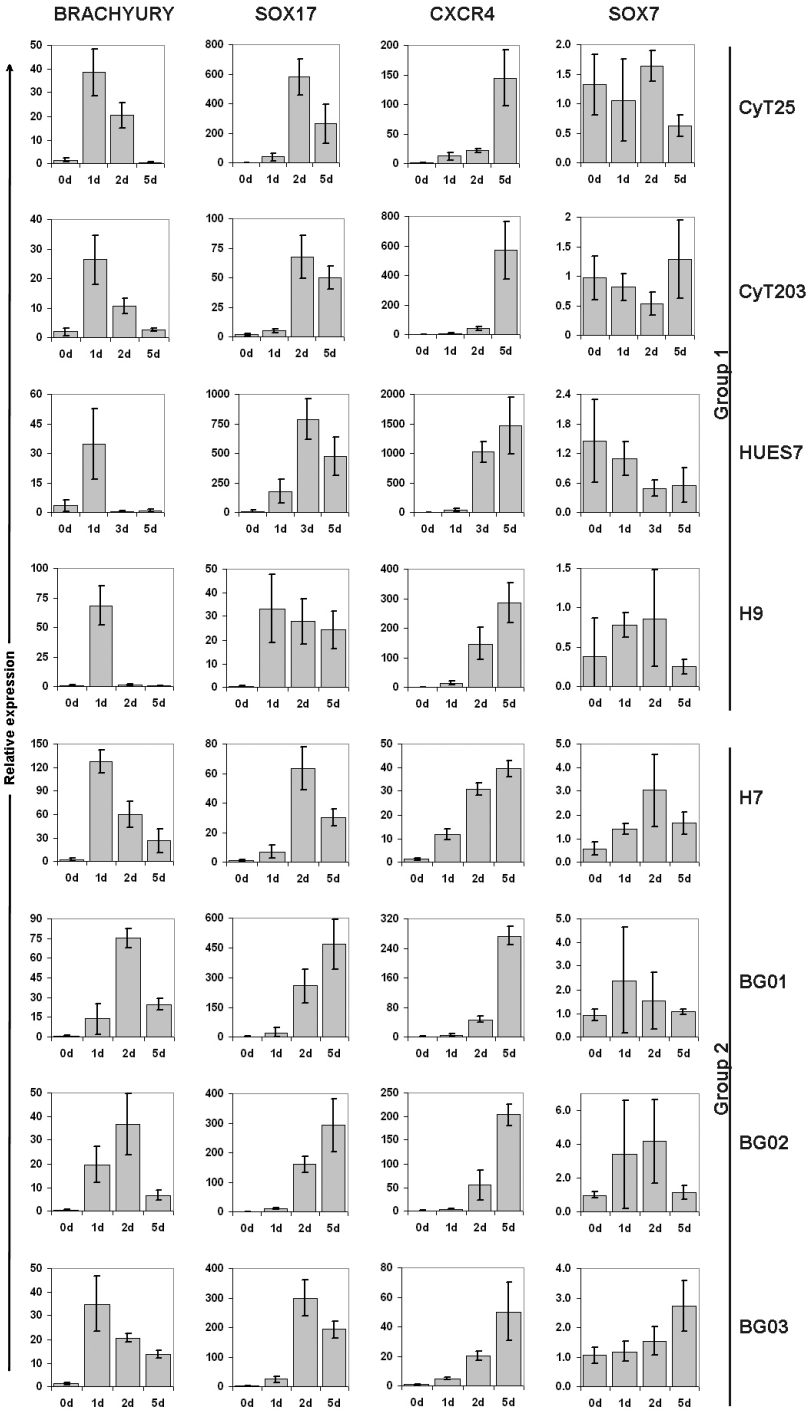
Supplementary Fig. 7 **Eight hESC lines exhibit PS-like gene expression dynamics during DE formation.**



All 8 cell lines induce robust expression of SOX17 to levels that range from 60-fold to 750-fold over those found in the respective hESC culture prior to differentiation. CXCR4 gene expression is also robustly expressed and generally shows a pattern slightly delayed from that of SOX17. The 8 hESCs lines varied with regard to their gene expression profiles and based on these profiles were subdivided into groups 1 and 2. Group 1 cell lines exhibit a peak in brachyury expression at day 1 of differentiation after which brachyury is down-regulated to at or below hESC levels. Group 2 cell lines show a delayed course of brachyury expression and after 5 days differentiation levels remain 10- to 30-fold above that found in the hESCs. We suggest that either rapid disappearance or prolonged maintenance of brachyury may predict the relative proportion of endoderm versus mesoderm that is produced from each cell line using this high activin/low FBS differentiation protocol. X-axes indicate days of differentiation.

Important note:

Differentiation of the H7, H9, and HUES7 hESC lines was kindly provided by collaborators working from a blinded protocol. Cell lysates were sent to CyThera for analysis of gene expression using real-time PCR. Differentiation of H7 and H9 hESC lines was carried out by the laboratory of Melissa Carpenter at The Robarts Institute, Ontario, Canada. Differentiation of HUES7 was carried out by Gillian Beattie at the UCSD Whittier Institute, San Diego, CA.