

**SUPPLEMENTARY FIG. S3.** Gene expression patterns for *ALPL*, *COL1A1*, and *BGLAP* **(A, B,** and **C,** respectively) in osteogenically differentiating adipose-derived stem cells (ASCs) on a well-by-well basis. The greatest differences in percentage exist in the earliest stages of differentiation, as seen by an occasional 10% difference in *ALPL* expression levels among wells (e.g., days 5 and 7). Expression of *COL1A1* evens out from well to well, with some wells having little-to-no variance in percentage, though there are a few instances where a 10% difference is still visible (e.g., days 11 and 13). *BGLAP* expression is the most consistent, with each well showing the same percentage of expression with little-to-no variation across the wells. These well-by-well analyses lend credence to the theory that ASC populations are heterogeneous, given that the wells assessed for *ALPL* expression show appreciable variation in percentage of cells expressing the gene, while the population assessed for *BGLAP* expression is much more uniform. Additionally, this may be a manifestation of the theory that ASCs enter "tracks" of differentiation, meaning that while there is noticeable heterogeneity in the gene expression early on during osteogenesis, later genes are expressed much more uniformly in response to the osteogenic pathway being "turned on."