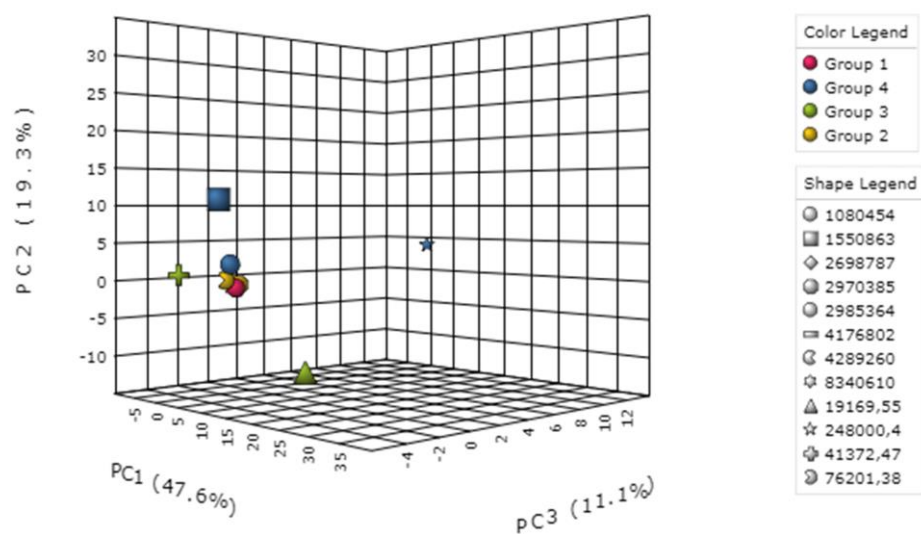
**Figure S1**

Real-time qPCR analysis indicated the expression of RSSA, RAD23 and Keratin 10 relative to control (keratinocytes without calcium, 0DD). DD= days of 1.2mM calcium treatments. ADta are shown has mean of three independent experiment +/- standard error. $p < 0.05$.

**Figure S2**

Interactive PCA (iPCA) method in the Time-series Analysis.

Figure S3

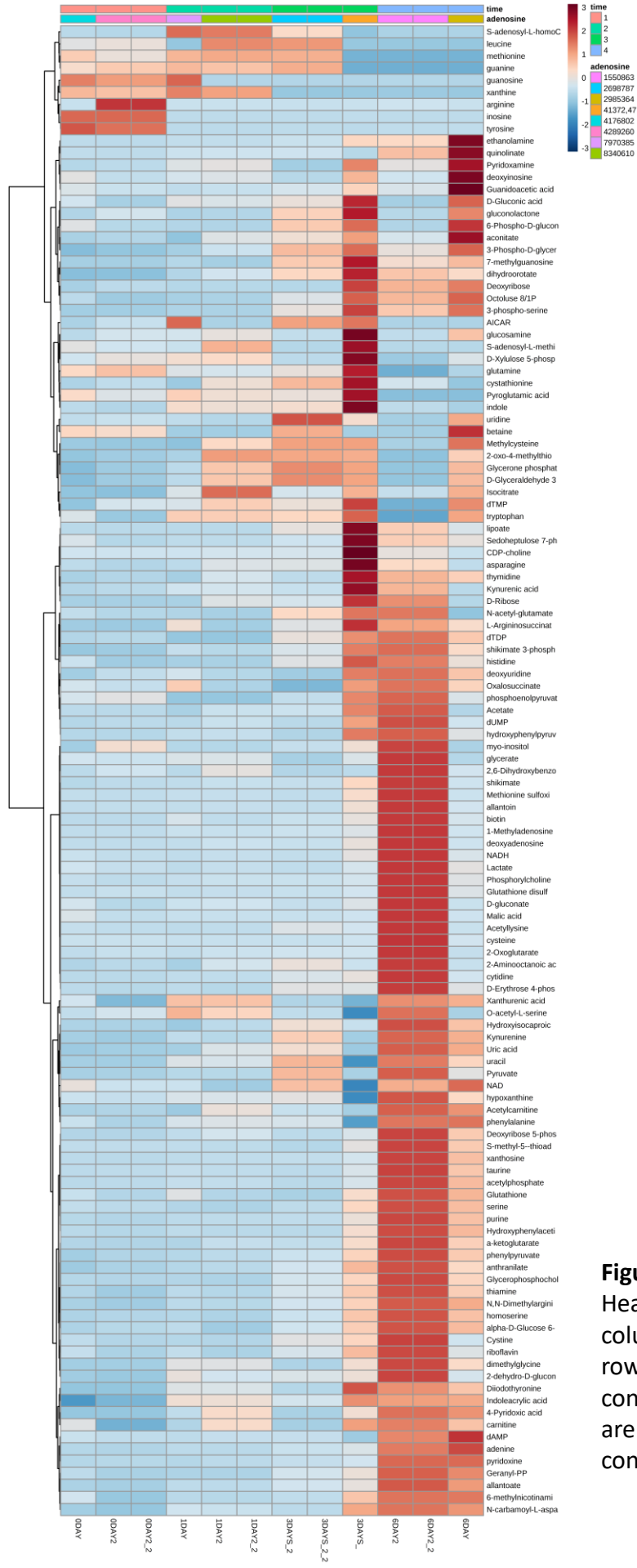
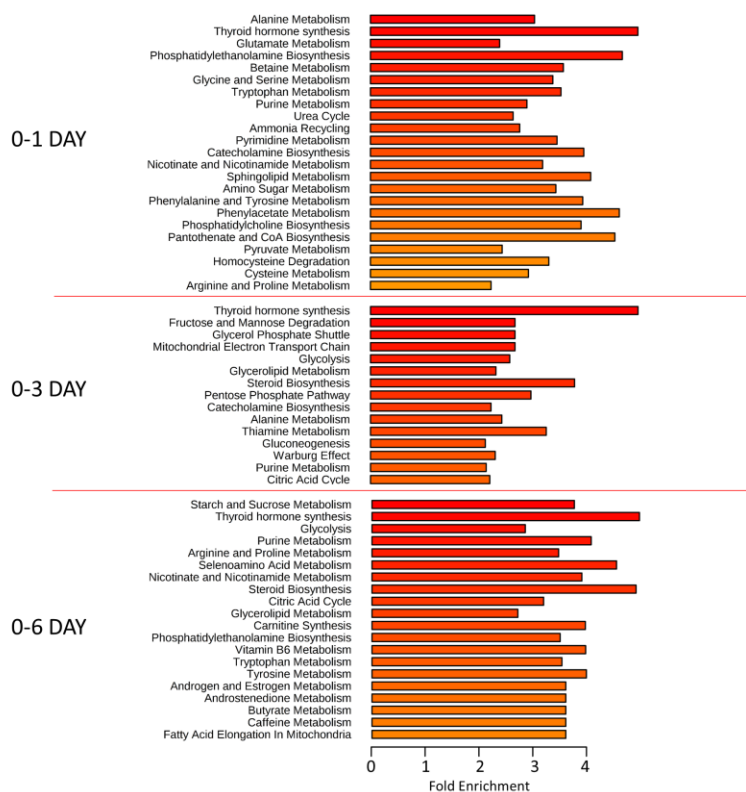


Figure S3

Heatmap and metabolites clusters. The columns represent the patients and the rows the z-transformed metabolite concentrations; the colors in the heatmap are red to blue, indicating high to low concentration of the metabolites.

Enrichment Overview

**Figure S4**

Pathways overrepresented in keratinocytes under calcium treatment at 1 day, 3 days, 6 days vs. controls were obtained by utilizing the MSEA, using MetaboAnalyst. The color codes of the bar plot correspond to the calculated p values, set to 0.01.