***Supplementary material-Figure legends***

***Supporting Information***

*Dataset 1 SuppInfo:* The nontargeted metabolomics raw data include a total of 19,125 metabolites (11,092 positive ions and 8,033 negative ions).

*Dataset 2 SuppInfo:* The dataset of 392 metabolites that were identified and profiled differed between the labor and non-labor groups. These metabolites included 12 superclasses, predominantly lipids and lipid-like molecules.

*Figure* *1 SuppInfo:* *Principle Component Analysis (PCA) model with QCs.*

QCs clustered tightly at the center of the scores plot when all the data have been analyzed. The model showed that the experiment is stable and repeatable

*Figure 2 SuppInfo: Hierarchical cluster analysis shows lipid metabol**omic profiles of patients in non-labor and labor groups.*

Shades of red and blue represent fold-increase and fold-decrease of a metabolite, respectively, relative to baseline metabolite concentrations (see color scale). Six major subclasses of lipids are showed in the heatmap.

*Figure 3 SuppInfo: Relationship of the content of two steroid metabolisms with BMI and the length of labor.*

A: Trends of the content of 11-hydroxyandrosterone and dihydrotestosterone with BMI; B: Trends of the content of 11-hydroxyandrosterone and dihydrotestosterone with labor duration.