Figure S1 PCA score plot of ^{1}H-NMR. Each point is each sample. Different groups are in different colors, with circles representing the 95% confidence interval.

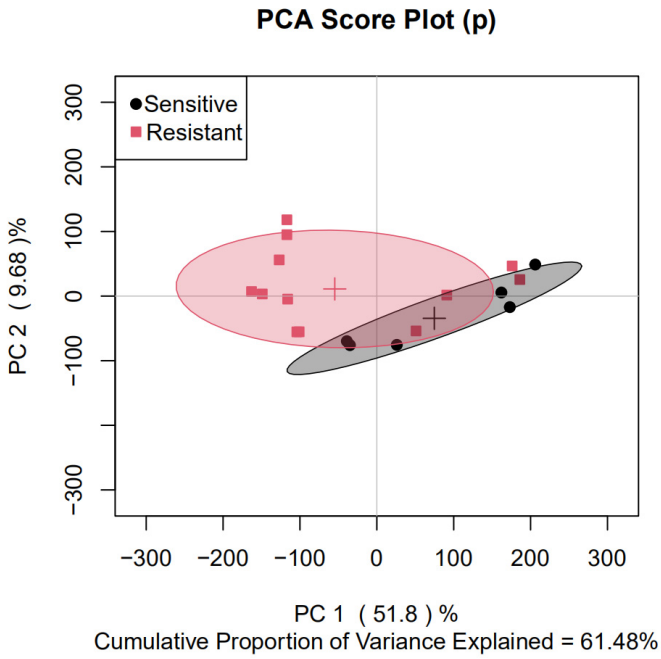


Figure S2 PCA(A) and OPLS-DA(B) analysis of the data achieved from UPLC-MS. Each point is each sample. Different groups are in different colors, with circles representing the 95% confidence interval.

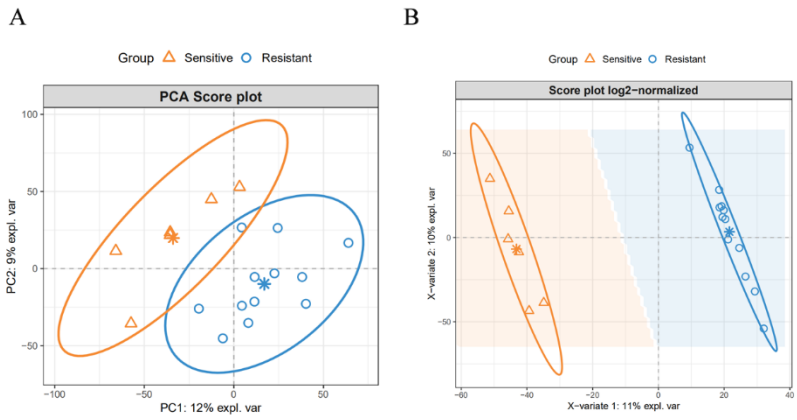
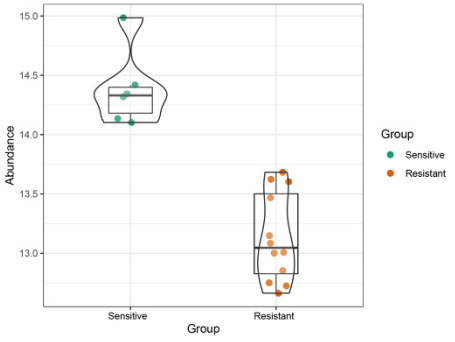


Figure S3 Other significant metabolites identified by UPLC-MS between the two groups.

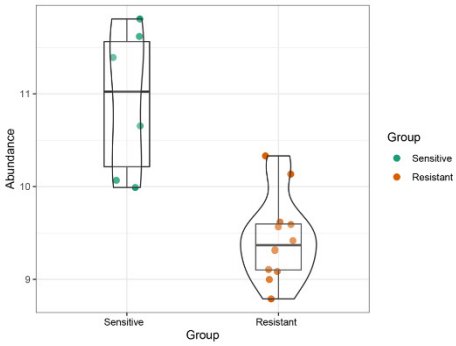
ID05858_6.37_249.05

$W_{\text{Mann-Whitney}}$ = 72.00, p = 8.85e−04, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = 1.00, $\text{CI}_{95\%}$ [1.00, 1.00], n_{obs} = 18



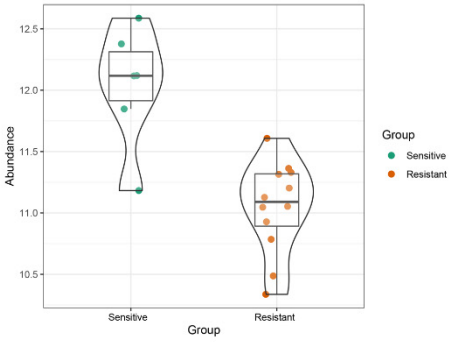
ID00863_2.8_113.03

$W_{\text{Mann-Whitney}}$ = 68.00, p = 0.003, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = 0.89, $\text{CI}_{95\%}$ [0.68, 0.96], n_{obs} = 18



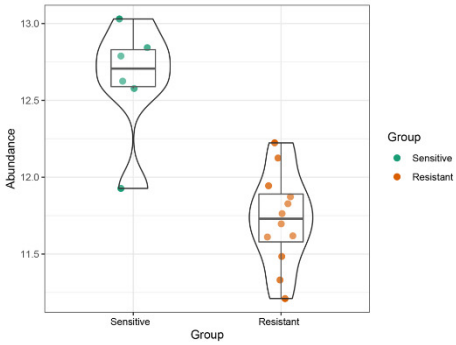
ID00274_5.18_72.99

$W_{\text{Mann-Whitney}}$ = 67.00, p = 0.004, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = 0.86, $\text{CI}_{95\%}$ [0.61, 0.95], n_{obs} = 18



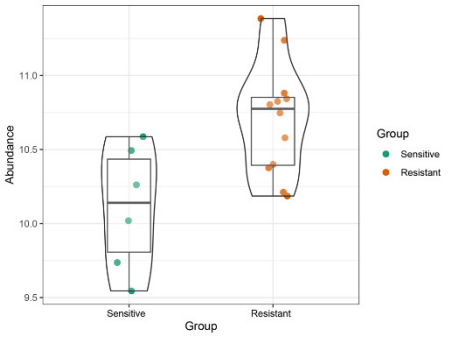
ID00736_6.79_104.03

$W_{\text{Mann-Whitney}}$ = 69.00, p = 0.002, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = 0.92, $\text{CI}_{95\%}$ [0.76, 0.97], n_{obs} = 18



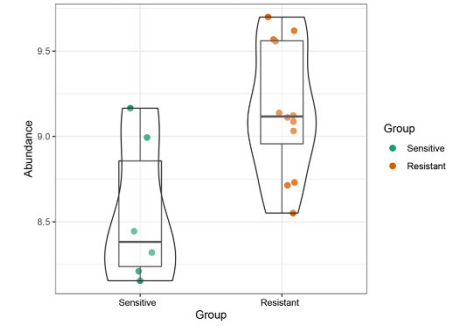
ID02077_6.14_145.05

$W_{\text{Mann-Whitney}}$ = 11.00, p = 0.022, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = −0.69, $\text{CI}_{95\%}$ [−0.89, −0.27], n_{obs} = 18



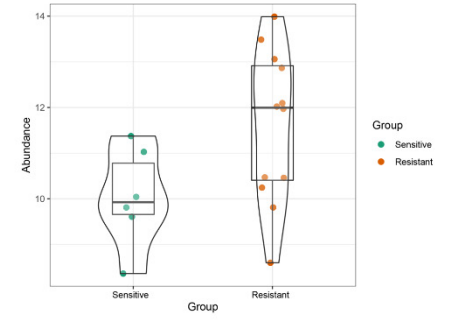
ID02814_6.78_169.01

$W_{\text{Mann-Whitney}}$ = 11.00, p = 0.022, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = −0.69, $\text{CI}_{95\%}$ [−0.89, −0.27], n_{obs} = 18



ID09298_8.72_329.03

$W_{\text{Mann-Whitney}}$ = 14.00, p = 0.044, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = −0.61, $\text{CI}_{95\%}$ [−0.86, −0.13], n_{obs} = 18



ID02428_1.24_157.12

$W_{\text{Mann-Whitney}}$ = 71.00, p = 0.001, $\hat{r}^{\text{rank}}_{\text{biserial}}$ = 0.97, $\text{CI}_{95\%}$ [0.91, 0.99], n_{obs} = 18

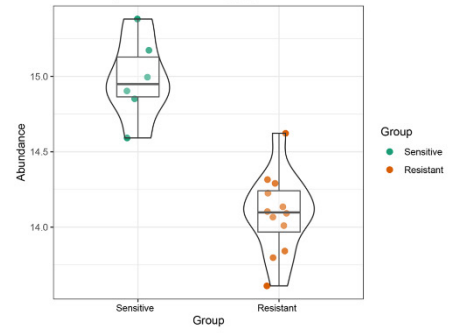


Figure S4 The genes that associated with these pathways and metabolites. Red represents genes and green represents pathways.