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Electronic supplementary Table S-1

Statistical data from partial least squares-discriminant analysis (PLS-DA) at different water deprivation time points. (a) Liver aqueous extract metabolite profiles. (b) Liver organic extract metabolite profiles.

a					
	Sample	PLS PC'S	R^2 X(cum)	R^2 Y(cum)	$Q^2(\text{cum})$
	All	3	0.648	0.387	0.122
	0h vs 24h	2	0.62	0.811	0.668
	0h vs 48h	1	0.313	0.802	0.61
	0h vs 72h	2	0.629	0.803	0.562
-	0h vs 96h	2	0.564	0.941	0.787

b

Sample	PLS PC'S	R^2 X(cum)	R^2 Y(cum)	$Q^2(\text{cum})$
All	2	0.871	0.357	0.271
0h vs 24h	1	0.93	0.785	0.737
0h vs 48h	3	0.971	0.944	0.864
0h vs 72h	3	0.966	0.991	0.893
0h vs 96h	4	0.98	0.993	0.963

Electronic supplementary figure captions

ESI Fig. S-1 Series of 600.13 MHz single pulse ¹H NMR spectra of (a) liver tissue aqueous extracts and (b) liver tissue organic extracts at various time points following water deprivation.

ESI Fig. S-2 PLS-DA model scores plots for control group and water-deprived groups. (a) Liver aqueous extract metabolite profiles. (b) Liver organic extract metabolite profiles. In the scores plot, the confidence interval is defined by the Hotelling's T2 ellipse (95% confidence interval), and observations outside the confidence ellipse are considered outliers.

ESI Fig. S-3 PLS-DA-derived liver aqueous extract metabolite profiles for control group (red symbols) versus water-deprived group (black symbols). Cross-validated scores plots of pairwise comparison between (a) control versus 24 h, (c) control versus 48 h, (e) control versus 72 h, and (g) control versus 96 h of water deprivation groups. Two groups in each scores plot were separated along the first component. In the scores plots, the confidence interval is defined by the Hotelling's T2 ellipse (95% confidence interval), and observations outside the confidence ellipse are considered outliers. Loading plots of pairwise comparison between (b) control versus 24 h, (d) control versus 48 h, (f) control versus 72 h, and (h) control versus 96 h water deprivation groups. The metabolites with the largest intensities contributed to the clustering.

ESI Fig. S-4 PLS-DA-derived liver organic extract metabolite profiles for control group (red symbols) versus water-deprived group (black symbols). Cross-validated scores plots of pairwise

comparison between (a) control versus 24 h, (c) control versus 48 h, (e) control versus 72 h, and (g) control versus 96 h of water deprivation groups. Two groups in each scores plot were separated along the first component. In the scores plots, the confidence interval is defined by the Hotelling's T2 ellipse (95% confidence interval), and observations outside the confidence ellipse are considered outliers. Loading plots of pairwise comparison between (b) control versus 24 h, (d) control versus 48 h, (f) control versus 72 h, and (h) control versus 96 h water deprivation groups. The metabolites with the largest intensities contributed to the clustering.

ESI Fig. S-5 Variable importance of projection plots for liver tissue aqueous metabolites along component 1. (a) Control versus 24 h, (b) control versus 48 h, (c) control versus 72 h, and (d) control versus 96 h of water deprivation groups.

ESI Fig. S-6 Variable importance of projection plots for liver tissue organc metabolites along component 1. (a) Control versus 24 h, (b) control versus 48 h, (c) control versus 72 h, and (d) control versus 96 h of water deprivation groups.







ESI Fig. S-2



ESI Fig. S-3



ESI Fig. S-4









ESI Fig. S-5



