**Supporting Information:**

**Table S1**, Bodyweight and growth rate for control and T-2 toxin dosed rats.

**Table S2**, Clinical biochemistry parameters of rats exposed to different levels of T-2 toxin.

**Table S3**, NMR assignments of the metabolites in rat urine, thymus, stomach, spleen and liver aqueous tissue extracts.

**Table S4**, The significantly changed metabolites in the urine of low, moderate and high dosed rats.

**Figure S1**, Structure of T-2 toxin.

**Figure S2**, The bodyweight of control group and different levels of T-2 dosed groups at both the starting and ending of the trial as well as the growth rates of different groups.

**Figure S3**, Histological examinations of liver (× 200) and stomach (× 100) from control rats and the rats after 7 days high dose of T-2 toxin exposure. The liver in the high dose group showed signs of steatosis. The stomach from high T-2 dosed rats showed basal cell hyperplasia in the gastric mucosa.

**Figure S4**, PCA scores plot of 1D spectra of urine obtained from the control, low dose, moderate dose and high dose rats after 8 hour T-2 toxin exposure.