

## Abnormalities in High Energy Phosphate Metabolism in First Episode Bipolar Disorder Measured Using $^{31}\text{P}$ Magnetic Resonance Spectroscopy

### *Supplemental Information*

**Supplementary Table S1.** Phosphorus metabolite ratios calculated with  $\beta$ -ATP as the internal reference <sup>a</sup>

| Measure                                      | BD (n=20)    | HC (n=28)     |
|--|--------------|---------------|
| Metabolite ratio                             |              |               |
| Phosphocreatine to $\beta$ -ATP              | 1.25 (0.16)  | 1.26 (0.18)   |
| Inorganic phosphate to $\beta$ -ATP          | 0.36 (0.09)  | 0.38 (0.06)   |
| Phosphodiester to $\beta$ -ATP <sup>b</sup>  | 0.71 (0.12)  | 0.85 (0.22)   |
| Phosphomonoester to $\beta$ -ATP             | 1.02 (0.16)  | 1.02 (0.17)   |
| Flux of creatine kinase, $\text{mmol/g/min}$ | 42.97 (11.9) | 49.89 (12.14) |

<sup>a</sup> Note that  $\beta$ -ATP measurements are less reliable compared to  $\gamma$ -ATP, due to its waveform.

<sup>b</sup> PDE/ $\beta$ -ATP is significantly lower in BD compared to HC ( $p=0.009$ ).