

## Supplementary Materials

**Table S1.** Showing non-enzymatic antioxidant content, Hydrogen peroxide-H<sub>2</sub>O<sub>2</sub>, Nitric oxide and Acetylcholinesterase activities in the different treatment groups. Superscript (x) shows significance difference ( $P < 0.05$ ) of vanadium exposure relative to control and ZA-II-05 treated group. NPT (Non-protein thiol).

| Parameter   | Groups     |                           |                        |              |            |
|---|------------|---------------------------|------------------------|--------------|------------|
|   | CONTROL    | VANADIUM                  | VAN.+ZA.               | WITHDRAWAL   | ZA-II-05   |
| <b>AchE</b>   |            |                           |                        |              |            |
| (mmole of substrate/min/mg/protein)                   | 28.00±2.62 | 346.31±32.57 <sup>x</sup> | 44.58±4.54             | 259.74±13.34 | 20.00±6.49 |
| <b>THIOL</b>  |            |                           |                        |              |            |
| (nmoles/mg/protein)                                   | 28.14±2.10 | 22.08±1.01                | 25.06±4.68             | 23.82±1.10   | 28.62±6.72 |
| <b>NPT</b>  |            |                           |                        |              |            |
| (nmoles/mg protein)                                   | 31.82±5.88 | 23.45±2.28                | 29.06±3.80             | 32.24±5.91   | 26.98±5.89 |
| <b>VIT. C</b> (nmoles/mg protein)                     | 0.18±0.02  | 0.162±0.01                | 0.20±0.04 <sup>x</sup> | 0.16±0.02    | 0.17±0.02  |
| <b>H<sub>2</sub>O<sub>2</sub></b>                     |            |                           |                        |              |            |
| (mmole H <sub>2</sub> O <sub>2</sub> /min/mg/protein) | 43.73±2.40 | 46.02±0.29                | 39.30±4.17             | 38.89±2.67   | 39.15±3.49 |
| <b>NO</b>   |            |                           |                        |              |            |
| (μmole/mg protein)                                    | 0.32±0.02  | 0.38±0.04                 | 0.32±0.03 <sup>x</sup> | 0.32±0.03    | 0.34±0.03  |

Profile of brain antioxidant enzymes, vitamin C, total thiol (PT), and non-protein thiol (NPT) levels in mice exposed to vanadium and ZA-II-05.