

**Table-S1:** Descriptive statistics of the mapping of methylation profile of pups cerebral hemispheres from mothers supplemented with FA at 0.4 and 4 mg/kg of diet.

| Cerebral hemispheres | Total Read | Mapped Read | Mapping Ratio | Unique CpG | CpG Coverage (X) | Bisufite Conv Rate |
|----------------------|------------|-------------|---------------|------------|------------------|--------------------|
| Male-0.4             | 30,727,284 | 14,503,542  | 47.20%        | 4,525,416  | 12               | 98.28%             |
| Male-4               | 28,503,239 | 12,951,562  | 45.44%        | 4,768,860  | 10               | 98.25%             |
| Female-0.4           | 32,518,299 | 16,960,824  | 52.16%        | 4,556,488  | 14               | 98.44%             |
| Female-4             | 34,945,143 | 16,219,404  | 46.41%        | 4,264,472  | 14               | 98.86%             |