Summary
The findings of the present study on the behavioural effects of aluminium are consistent with those of several other investigators.

- Generally, some effects of Al were seen in the early stages in the teratological experiments.
- There were no changes in most of the pup and dam parameters measured, though there was a decrease in the body weights of the offspring of the Treated animals.
- There was no change in the body weights in the rats exposed to Al in adulthood.
- Al caused significant reduction in ultrasonic vocalization calling in the gestationally exposed rats.
- Higher dose of Al administration caused significant reduction in the horizontal and vertical activity.
- Increased anxiety was indicated in the gestationally exposed animals in the Open Field test.
- Increased anxiety was also seen in Phase 1 in adult male rats exposed to Al, while decreased anxiety was seen in Phase 2 experiments.
• In the Elevated Plus-Maze test, both the gestationally exposed rats and the male rats exposed in the adulthood did not clearly indicate either increase or decrease in anxiety – there was a great deal of variability in the various measures of the Elevated Plus-Maze test.

• More research is needed in the area of effect of Aluminium on emotionality – little work has been done in this area; most work appears to have been done on the effect of Al on learning and memory.

• Al also did not seem to have any definite effect on the performance in the Morris Water Maze.

• The adult male rats – both Control and Treated had excellent long term memory achieving consistent escape latencies even after a long interval of 27 weeks.

• The performance of the Treated animals was affected in the spatial task of the Morris Water Maze test.

• For the most part, the neurobehavioural effects of aluminium were not found to be consistent particularly in the animals exposed in adulthood.

• Al is more likely to cause neurobehavioural toxicity if the exposure is gestational. In humans, therefore, the risk of
Aluminium toxicity would be greater if the exposure is during pregnancy - further research is needed in this area before a definite conclusion can be drawn.