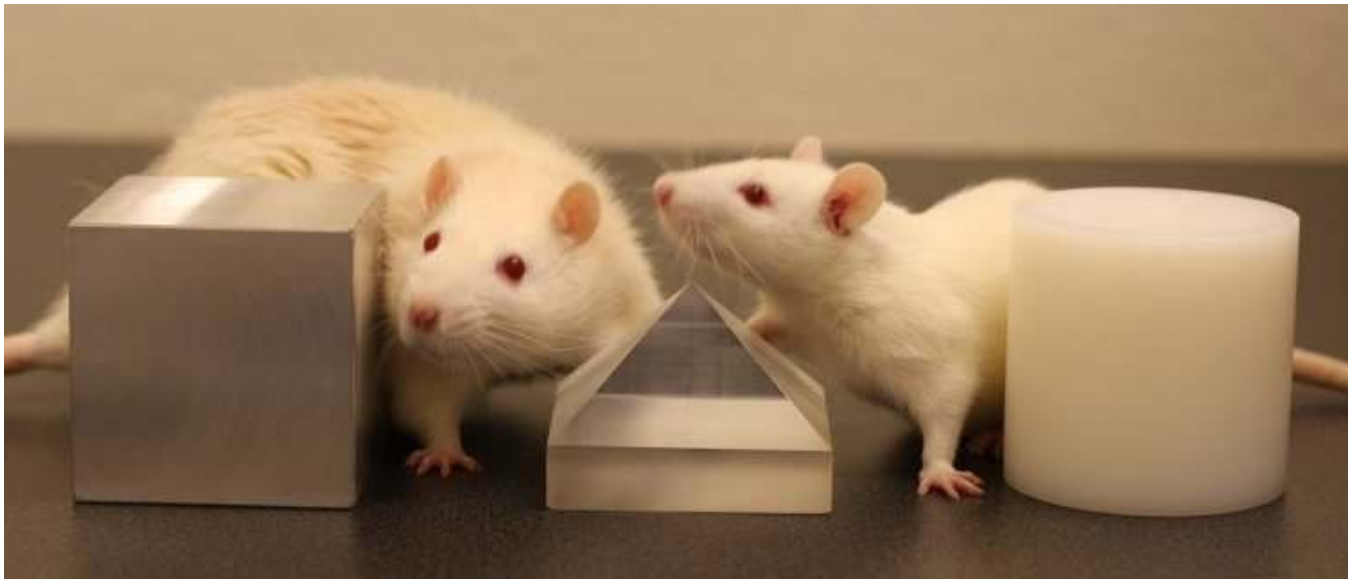


Novel object recognition test in the rat



Novel object recognition test

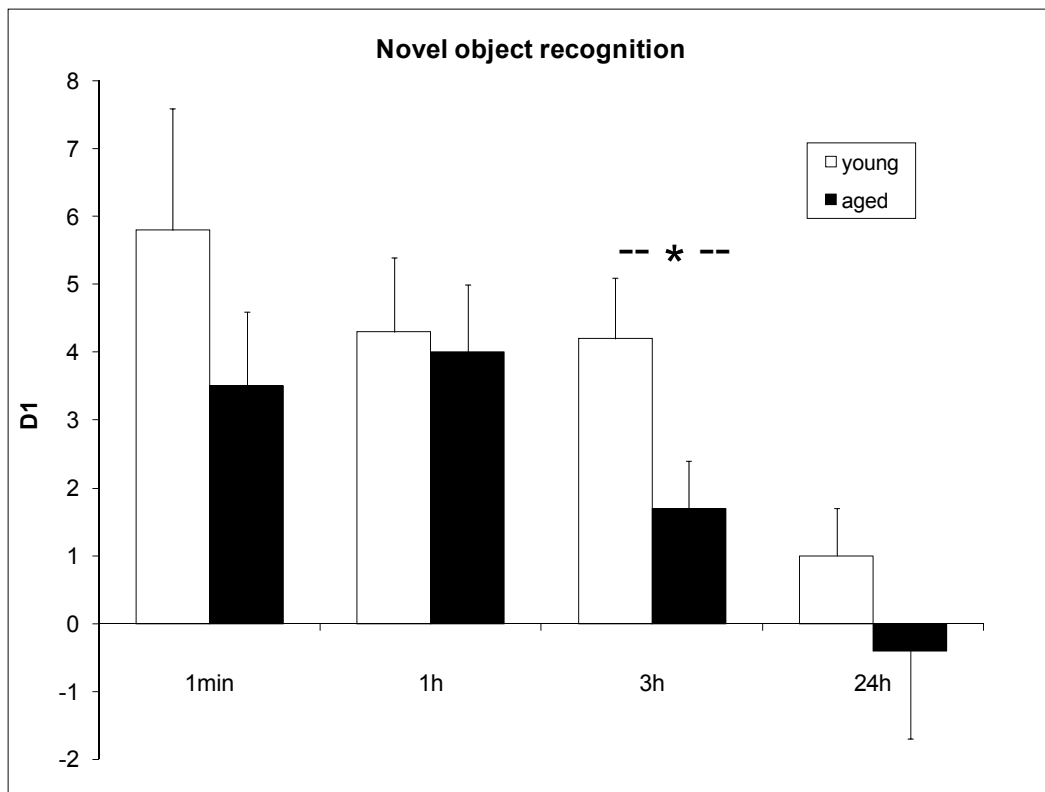
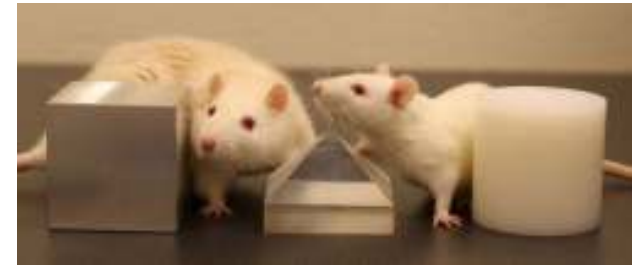


- Test design based on Ennaceur & Delacour (1988) – a test of object recognition memory (a common test of declarative memory).
- Use of computerised tracking system to obtain measure of total exploratory time. Visual measurement of object exploration time.
- Time dependent decline in preference for novel object. Likely reflective of memory decline for sample (familiar) object.
- Test widely used in the assessment of novel drugs on cognitive function.
- Three trials: (A) familiarisation, (B) sample phase, (C) test phase.



Novel object recognition

young vs. aged rats



- Young SD rats (2-4 month age) vs. aged SD rats (22-24 months age).
- Both age groups show preference for novel object at 1min and 1h post sample test phase – reflective of memory for familiar object, i.e. +ve D1 score.
- At 24h, both age groups show no preference for novel object – reflecting lack of memory for sample object.
- At 3h, young but not aged rats, show preference for novel object.
- Evidence for age dependent memory decline.

Summary



- Test can be configured to look at potential pro-cognitive effects or negative effects of test compound, by varying delay interval, i.e.
 - Pro-cognitive effects use a 24h delay
 - Cognitive impairing effects use a 1h or 3h delay.
- Studies may be conducted in young or aged rats.

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