The rat conditioned avoidance response model (CAR) is a gold standard preclinical screen for antipsychotic activity. Disruption of avoidance but not escape responses is a selective characteristic of all marketed antipsychotics but not other CNS-active drugs. The efficacy of a drug to suppress conditioned avoidance responding correlates with its ability to reduce psychosis in man. CAR is therefore a crucial animal model in the development of new drugs to treat schizophrenia.

Model validated in-house using a variety of typical and atypical antipsychotic drugs. Experimental design and consultation, statistical analysis by a qualified statistician, fully audited data pack and written report to regulatory standards if required.

### Methodology

Rats are trained to avoid a mild electric footshock in sound-attenuated two-chambered shuttle boxes. Thus, a conditioned stimulus (CS - tone and light) is followed by a shock applied to the side where the animal is located during presentation of the CS. Crossing to the other compartment to avoid the shock is an avoidance response. Crossing to the other compartment during presentation of the shock is an escape response. An increase in escape failures (when the animal fails to respond to the shock) indicates sedation.

All data are means + SEM for groups of 8 rats. Significant differences from vehicle-treated controls are denoted by *p<0.05, **p<0.01 and ***p<0.001 (exact Wilcoxon rank sum test). In comparison, haloperidol reduced avoidance responses with an ED50 of 0.05 mg/kg sc.