

BACKGROUND

CNSICRO's unique rat model of schizophrenia is produced using non-invasive chemical manipulation during perinatal brain development. Slowly developing and progressive, the model provides a more accurate representation of the human condition, reliably displaying alterations in characteristic behavioural symptoms of schizophrenia, as well as underlying neuropathology.

Differentiation & Advantages

- *neurodevelopmental, slowly developing, and progressive*
- *models the three categories of schizophrenia symptoms*
- *differences between males and females reflect diversity noted in human condition*
- *neuropathology is consistent with that observed in clinical populations*

Validation

Symptom Type	Human Symptoms	Animal Behavioural Correlate Tested
Positive	Hallucinations, delusions, racing thoughts	Psychomotor agitation (Burt et al., 2008)
Negative	Apathy, lack of emotion, poor or nonexistent social functioning	Social avoidance (Ryan et al., 2011)
Cognitive	Disorganized thoughts, difficulty concentrating and/or following instructions, difficulty completing tasks, memory problems	Maze paradigms/prepulse inhibition (e.g. Marriott et al., 2012)

References

- Marriott et al (2012) *Pharmacol Biochem Behav* 103(2):338-44
- Ryan et al (2011) *Physiology & Behaviour* 102:291-295
- Burt et al (2008) *Physiology & Behaviour* 93:327-336