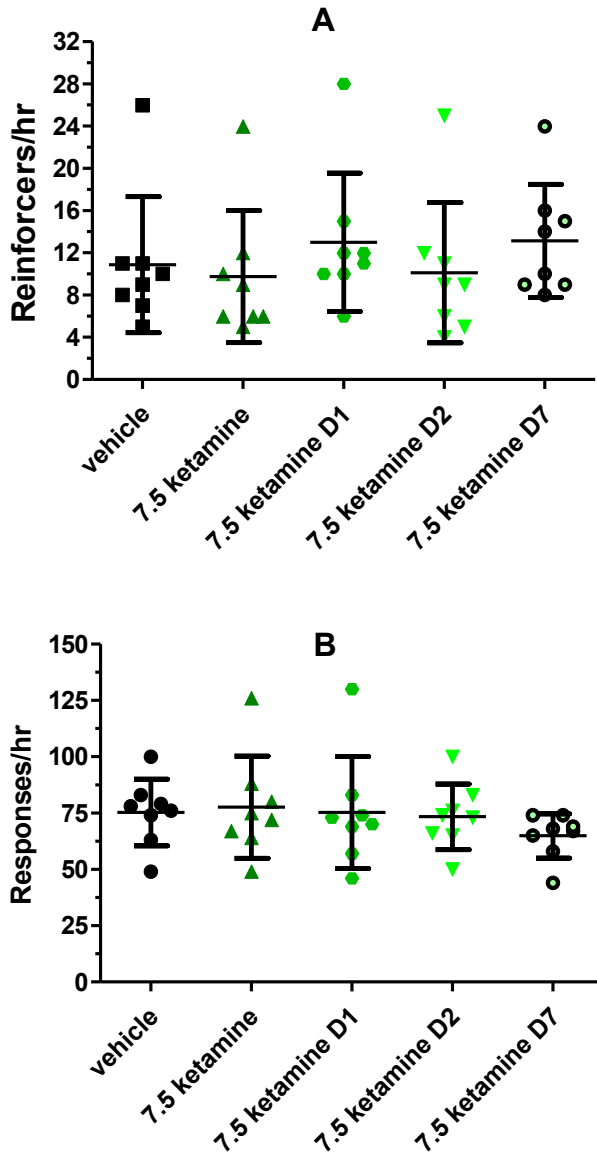
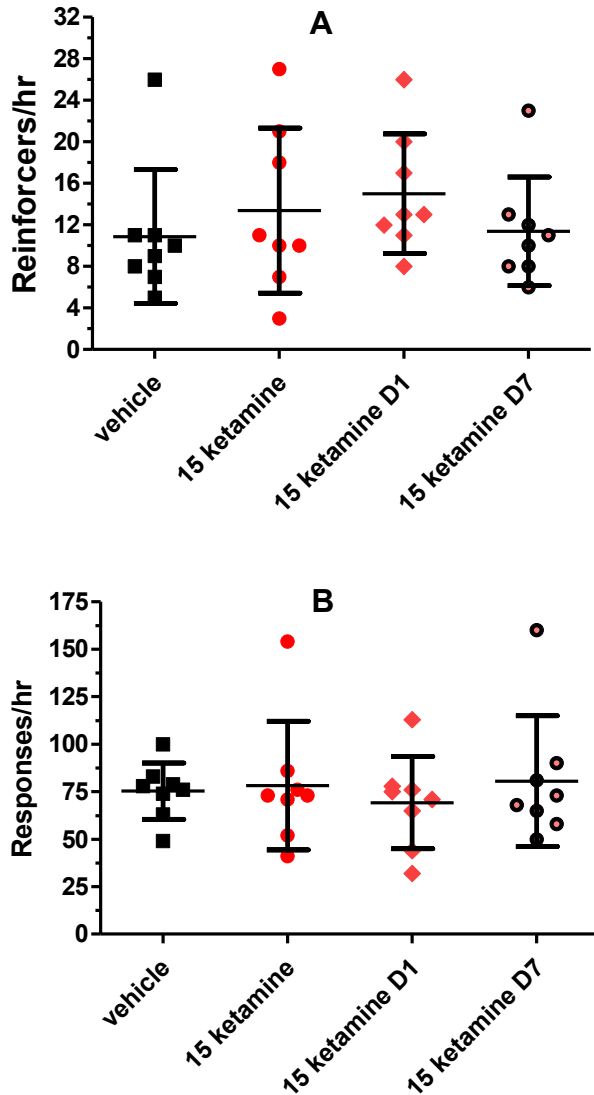


Marek & Salek Extending the specificity of differential-reinforcement-of-low rate 72-s (DRL 72-s) behavior for screening antidepressant-like effects of glutamatergic clinically validated anxiolytic or antidepressant drugs in rats. J Pharmacol Exp Ther. Supplemental Fig. 1.



Supplemental Fig 1. Ketamine time course for 7.5 mg dose compared to vehicle on DRL 72-s behavior. The “7.5 ketamine” label reflects the 7.5 mg ketamine data displayed in Fig 5 of the manuscript. The D1, D2 and D7 data refer to reinforcers and total responses during the 60 min behavioral session 1, 2, and 7 days following the ketamine dose with the session conducted 1 h following drug administration. The same symbols are used for the vehicle and ketamine (day of administration) from Fig. 5 of the manuscript. The data 1,2, and 7 days following the 7.5 mg ketamine injection are displayed by green circles, green inverted triangles and green circles with a black surrounding line.

Marek & Salek Extending the specificity of differential-reinforcement-of-low rate 72-s (DRL 72-s) behavior for screening antidepressant-like effects of glutamatergic clinically validated anxiolytic or antidepressant drugs in rats. *J Pharmacol Exp Ther.* Supplemental Fig. 2.



Supplemental Fig 2. Ketamine time course for 15 mg dose compared to vehicle on DRL 72-s behavior. The “15 ketamine” label reflects the 15 mg ketamine data displayed in Fig 5 of the manuscript. The D1 and D7 data refer to reinforcers and total responses during the 60 min behavioral session 1 and 7 days following the ketamine dose with the session conducted 1 h following drug administration. The same symbols are used for the vehicle and ketamine (day of administration) from Fig. 5 of the manuscript. The data 1 and 7 days following the 15 mg ketamine injection are displayed by red diamonds and red circles with a black surrounding line.

Marek & Salek Extending the specificity of differential-reinforcement-of-low rate 72-s (DRL 72-s) behavior for screening antidepressant-like effects of glutamatergic clinically validated anxiolytic or antidepressant drugs in rats. J Pharmacol Exp Ther

Supplemental Table 1. Effects of LY354740, mGluR2 PAMs, mGlu2/3 receptor antagonists, and ketamine on Major Depressive Disorder (MDD) clinical trials, preclinical antidepressant screens, Generalized Anxiety Disorders (GAD) clinical trials, and preclinical anxiolytic drug screens.

	LY354740 (mGlu2/3 agonist)	mGlu2 receptor PAMs	mGlu2/3 receptor antagonists	Ketamine or Esketamine
MDD clinical trials	<i>not tested</i>	Negative ¹	Negative ²	POSITIVE ³⁻⁸
DRL 72-s behavior	Negative ⁹	Positive ^{10,11}	Negative ¹²	Positive ^{9,13,14}
Forced swim test	Negative ^{15,16,21}	Positive ¹⁰	Positive ^{12,18,20-21}	Positive ^{20, 22-24,37}
Tail suspension test	Negative ¹⁵	<i>not tested</i>	Positive ^{17,20,25}	Positive ²⁰
Olfactory bulbectomy	<i>not tested</i>	<i>not tested</i>	Positive ²⁵	Positive ²⁶
GAD clinical trials	POSITIVE ^{27,28}	<i>not tested</i>	<i>not tested</i>	<i>not tested</i>
Elevated plus maze	Positive ^{29-31,43}	Positive ³²	Negative ^{17,12}	Pos/neg ³³⁻³⁹
Stress-induced hyperthermia	Positive ^{40,41}	Positive ^{41,10,47,50}	Pos/neg ^{12,42}	<i>not tested</i>
Lactate-induced panic	Positive ⁴³	Positive ⁴⁴	<i>not tested</i>	<i>not tested</i>
Fear potentiated startle	Positive ^{30,48}	Positive ^{49,50}	Pos/Neg ^{46,49}	Pos/neg ⁵¹⁻⁵⁴

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- 2 (NCT01457677)
- 3 (Berman et al., 2000)
- 4 (Caddy et al., 2015)
- 5 (Daly et al., 2019)
- 6 (Fedgchin et al., 2019)
- 7 (Niciu et al., 2014)
- 8 (Papova et al., 2019)
- 9 (Marek & Salek, 2020, present manuscript)
- 10 (Fell et al., 2011)
- 11 (Nikiforuk, 2010)
- 12 (Bespalov et al., 2008; Hillhouse and Porter, 2014)
- 13 (Hillhouse and Porter, 2014)
- 14 (Hillhouse et al., 2014)
- 15 (Klodzinska et al., 1999)
- 16 (Witkin et al., 2017)
- 17 (Chaki et al., 2004)
- 18 (Witkin and Eiler, 2006)
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- 20 (Witkin et al., 2016)
- 21 (Karasawa et al., 2005)
- 22 (Garcia et al., 2008)

- 23 (Autry et al., 2011)
- 24 (Salat et al., 2015)
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- 27 (Dunayevich et al., 2008)
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- 48 (Tizzano et al., 2002)
- 49 (Johnson et al., 2003)
- 50 (Johnson et al., 2005)
- 51 (Clifton et al., 2018)
- 52 (McGowan et al., 2017)
- 53 (Radford et al., 2018)
- 54 (Pietersen et al., 2006)