New findings on how ketamine prevents depression

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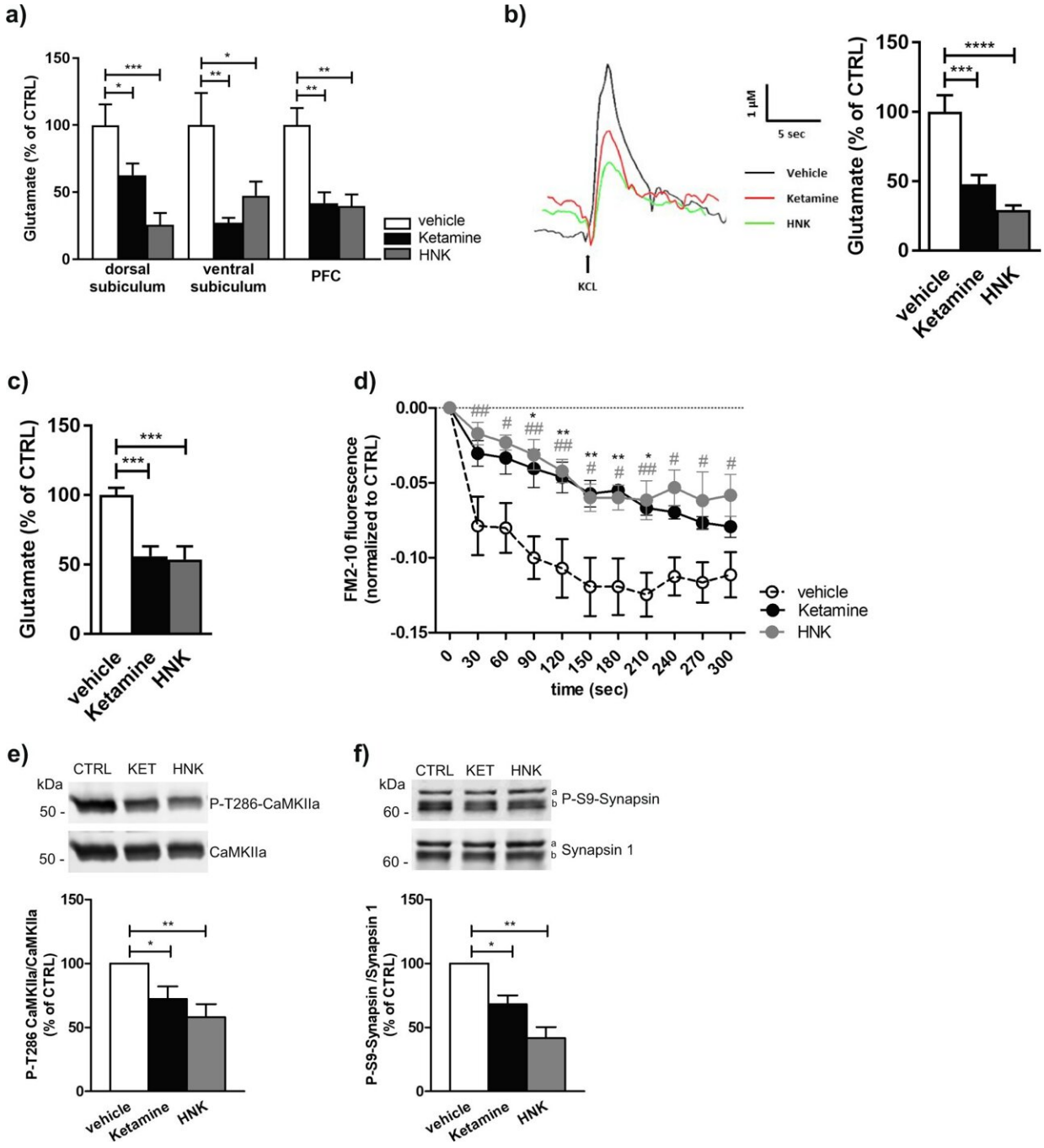

Fig. 1: Acute local and systemic administration of ketamine and (2 R, 6 R)-HNK reduces the presynaptic glutamate release. a Reduction of KCl-evoked glutamate release upon local application of ketamine or (2 R, 6 R)-HNK (100 µM) into dorsal subiculum, ventral subiculum or prefrontal cortex (PFC) of isoflurane anesthetized mice. Statistical significance was assessed using one-way ANOVA followed by Fisher's LSD. Dorsal subiculum N = 7 animals per each group; F (2,

18) = 10.44, p = 0.001; ventral subiculum N = 6 vehicle; N = 5 ketamine; N = 6 (2 R, 6 R)-HNK treated mice; F = (2, 13) = 5.15, p = 0.022; PFC N = 6 vehicle; N = 6 ketamine; N = 5 (2 R, 6 R)-HNK treated animals; F (2, 14) = 11.41, p = 0.001. *p