Accepted Manuscript

Title: Neurocircuitry of fear extinction in adult and juvenile rats

Authors: Despina E. Ganella, Ly Dao Nguyen, Luba Lee-Kardashyan, Leah E. Kim, Antonio G. Paolini, Jee Hyun Kim

S0166-4328(18)30025-1
https://doi.org/10.1016/j.bbr.2018.06.001
BBR 11458
Behavioural Brain Research
6-1-2018
12-5-2018
1-6-2018

Please cite this article as: Ganella DE, Nguyen LD, Lee-Kardashyan L, Kim LE, Paolini AG, Kim JH, Neurocircuitry of fear extinction in adult and juvenile rats, *Behavioural Brain Research* (2018), https://doi.org/10.1016/j.bbr.2018.06.001

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Original Research

Neurocircuitry of fear extinction in adult and juvenile rats

Despina E. Ganella^{1,2^}, Ly Dao Nguyen^{1,2^}, Luba Lee-Kardashyan^{1,2}, Leah E. Kim¹, Antonio G. Paolini^{2,3} & Jee Hyun Kim^{1,2}*

¹ Behavioural Neuroscience Division, The Florey Institute of Neuroscience and Mental Health, Parkville, VIC 3052 Australia

² Florey Department of Neuroscience and Mental Health, University of Melbourne, Parkville, VIC 3052 Australia

³ School of Psychology and Public Health, La Trobe University, Bundoora VIC 3086, Australia

^Co first authors

*Correspondence:	A/Prof. Jee Hyun Kim
	Behavioural Neuroscience Division
	The Florey Institute of Neuroscience and Mental Health
	Kenneth Myer Building
	30 Royal Pde
	Parkville, VIC 3052 Australia
	Email: drjeehyunkim@gmail.com
	Phone: +61 3 9035 6623
	Fax: +61 3 9035 3107

Highlights

- Juveniles and adults have comparable BLA projections to hippocampus
- Juveniles and adults have comparable BLA projections to infralimbic cortex
- Adults show activated BLA cells projecting to hippocampus after extinction
- Juveniles do not show activated BLA to hippocampus cells
- Activated BLA projections correlate with behavior in adults but not in juveniles

Abstract

In contrast to adult rodents, juvenile rodents fail to show relapse following extinction of conditioned fear. Using different retrograde tracers injected into the infralimbic cortex (IL)

Download English Version:

https://daneshyari.com/en/article/8837683

Download Persian Version:

https://daneshyari.com/article/8837683

Daneshyari.com