

Accepted Manuscript

Title: Role of DHEA and Cortisol in Prefrontal-Amygdalar Development and Working Memory

Authors: Nasr Farooqi, Martina Scotti, Jimin Lew, Kelly N. Botteron, Sherif Karama, James T. McCracken, Tuong-Vi Nguyen



PII: S0306-4530(18)30125-2
DOI: <https://doi.org/10.1016/j.psyneuen.2018.08.010>
Reference: PNEC 4022

To appear in:

Received date: 11-2-2018
Revised date: 6-8-2018
Accepted date: 6-8-2018

Please cite this article as: Farooqi N, Scotti M, Lew J, Botteron KN, Karama S, McCracken JT, Nguyen T-Vi, Role of DHEA and Cortisol in Prefrontal-Amygdalar Development and Working Memory, *Psychoneuroendocrinology* (2018), <https://doi.org/10.1016/j.psyneuen.2018.08.010>

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.

Title: Role of DHEA and Cortisol in Prefrontal-Amygdalar Development and Working Memory

Abbreviated title: DHEA/Cortisol and Prefrontal-Amygdalar Covariance

Nasr Farooqi, MD, PhD^a, Martina Scotti, MD, PhD^a, Jimin Lew^b, Kelly N Botteron, MD^{c,d}, Sherif Karama, MD, PhD^{a,e,f}, James T McCracken^{d,i}, Tuong-Vi Nguyen, MD, MSc^{a,g}

Authors:

- 1) Nasr Farooqi, MD, PhD^a
- 2) Martina Scotti, MD, PhD^a
- 3) Jimin Lew^b
- 4) Kelly N Botteron, MD^{c,d}
- 5) Sherif Karama, MD, PhD^{a,e,f}
- 6) James T McCracken^{d,i}
- 7) Tuong-Vi Nguyen, MD, MSc^{a,g,h}

*****Authors 1) and 2) contributed equally to the manuscript and share first authorship**

Affiliations:

^a Department of Psychiatry, McGill University, Montreal, QC, Canada, H4A 3J1

^b Department of Psychology, McGill University, Montreal, QC, Canada, H4A 3J1

^c Washington University School of Medicine, St. Louis, MO, USA, 63110

^d Brain Development Cooperative Group

^e McConnell Brain imaging Centre, Montreal Neurological Institute, Montreal, QC Canada H3A 2B4

^f Douglas Mental Health University Institute, Montreal, QC, Canada, H4H 1R3

^g Research Institute of McGill University Health Center, Montreal, QC, Canada, H4A 3J1

^h Department of Obstetrics-Gynecology, McGill University, Montreal, QC, Canada, H4A 3J1

ⁱ Department of Child and Adolescent Psychiatry, University of California in Los Angeles, Los Angeles, CA, USA, 90024

Communications should be directed to Dr. Tuong-Vi Nguyen (tuong.v.nguyen@mcgill.ca)

McGill University Health Center, Royal Victoria Hospital at the Glen site, 1001 Decarie, Montreal, QC, Canada, H4A 3J1

Phone number: (514) 299-3373

HIGHLIGHTS

- Prefrontal-amygdalar covariance varies as a function of DHEA-cortisol ratio
- DHEA decreases prefrontal-amygdalar covariance, cortisol increases this covariance
- DHEA-cortisol ratio impacts working memory through prefrontal-amygdalar covariance
- Higher DHEA improves working memory, higher cortisol worsens working memory
- DHEA and cortisol may play antagonistic roles during brain development in humans

Download English Version:

<https://daneshyari.com/en/article/6817425>

Download Persian Version:

<https://daneshyari.com/article/6817425>

[Daneshyari.com](https://daneshyari.com)