

# Accepted Manuscript



The Epigenetic Clock at Birth: Associations With Maternal Antenatal Depression and Child Psychiatric Problems

Anna Suarez, MA, Jari Lahti, PhD, Darina Czamara, PhD, Marius Lahti-Pulkkinen, PhD, Anna K. Knight, BS, Polina Girchenko, MS, Esa Hämäläinen, MD, Eero Kajantie, MD, Jari Lipsanen, MA, Hannele Laivuori, MD, Pia M. Villa, MD, Rebecca M. Reynolds, MD, Alicia K. Smith, MD, Elisabeth B. Binder, MD, Katri Räikkönen, PhD

PII: S0890-8567(18)30107-2

DOI: [10.1016/j.jaac.2018.02.011](https://doi.org/10.1016/j.jaac.2018.02.011)

Reference: JAAC 2073

To appear in: *Journal of the American Academy of Child & Adolescent Psychiatry*

Received Date: 12 May 2017

Revised Date: 9 February 2018

Accepted Date: 13 February 2018

Please cite this article as: Suarez A, Lahti J, Czamara D, Lahti-Pulkkinen M, Knight AK, Girchenko P, Hämäläinen E, Kajantie E, Lipsanen J, Laivuori H, Villa PM, Reynolds RM, Smith AK, Binder EB, Räikkönen K, The Epigenetic Clock at Birth: Associations With Maternal Antenatal Depression and Child Psychiatric Problems, *Journal of the American Academy of Child & Adolescent Psychiatry* (2018), doi: 10.1016/j.jaac.2018.02.011.

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.

## The Epigenetic Clock at Birth: Associations With Maternal Antenatal Depression and Child Psychiatric Problems

RH = Epigenetic Clock and Development

Anna Suarez, MA, Jari Lahti, PhD, Darina Czamara, PhD, Marius Lahti-Pulkkinen, PhD, Anna K. Knight, BS, Polina Girchenko, MS, Esa Hämäläinen, MD, Eero Kajantie, MD, Jari Lipsanen, MA, Hannele Laivuori, MD, Pia M. Villa, MD, Rebecca M. Reynolds, MD, Alicia K. Smith, MD, Elisabeth B. Binder, MD, Katri Räikkönen, PhD

Clinical Guidance

Supplemental Material

Accepted March 9, 2018.

Drs. Lahti, Lahti-Pulkkinen, Räikkönen, Mss. Suarez and Girchenko, and Mr. Lipsanen are with the University of Helsinki, Finland. Drs. Czamara and Binder are with the Max-Planck Institute of Psychiatry, Germany. Drs. Hämäläinen, Laivuori, and Villa are with the University of Helsinki and Helsinki University Hospital, Finland. Dr. Kajantie is with the National Institute for Health and Welfare, Helsinki, Finland. Dr. Reynolds is with the Queen's Medical Research Institute, University of Edinburgh, UK. Dr. Smith and Ms. Knight are with Emory University, Atlanta, GA, USA.

This work was supported by the Academy of Finland, EraNet Neuron, EVO (a state subsidy for health science research), Doctoral Programme in Psychology, Learning and Communication, and the University of Helsinki.

A preliminary study abstract was presented at the International Society of Psychoneuroendocrinology's 46<sup>th</sup> Annual Conference in Miami, FL, USA, September 8-11, 2016 and at the International Society of Psychiatric Genetics' 25<sup>th</sup> World Congress in Orlando, FL, USA, October 13-17, 2017, and was published in *Psychoneuroendocrinology* 2016;71S:63.

The authors thank Jessica Keverne, PhD, Max-Planck Institute of Psychiatry, Germany, for manuscript editing.

Disclosure: Drs. Lahti, Czamara, Lahti-Pulkkinen, Hämäläinen, Kajantie, Laivuori, Villa, Reynolds, Smith, Binder, Räikkönen, Mss. Suarez, Knight, Girchenko, and Mr. Lipsanen report no biomedical financial interests or potential conflicts of interest.

Correspondence to Marius Lahti-Pulkkinen, PhD, Department of Psychology and Logopedics, University of Helsinki. Haartmaninkatu 3, PO Box 21, FI-00014 Finland; email: [marius.lahti-pulkkinen@helsinki.fi](mailto:marius.lahti-pulkkinen@helsinki.fi)

Download English Version:

<https://daneshyari.com/en/article/6795409>

Download Persian Version:

<https://daneshyari.com/article/6795409>

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