Accepted Manuscript

Title: Validation of Salivary Oxytocin and Vasopressin as

Biomarkers in Domestic Dogs

Authors: Evan L. MacLean, Laurence R. Gesquiere, Nancy

Gee, Kerinne Levy, W.Lance Martin, C.Sue Carter

PII: S0165-0270(17)30320-5

DOI: http://dx.doi.org/10.1016/j.jneumeth.2017.08.033

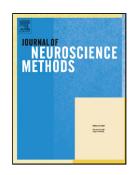
Reference: NSM 7841

To appear in: Journal of Neuroscience Methods

Received date: 17-3-2017 Revised date: 25-8-2017 Accepted date: 26-8-2017

Please cite this article as: MacLean Evan L, Gesquiere Laurence R, Gee Nancy, Levy Kerinne, Martin WLance, Carter C.Sue. Validation of Salivary Oxytocin and Vasopressin as Biomarkers in Domestic Dogs. *Journal of Neuroscience Methods* http://dx.doi.org/10.1016/j.jneumeth.2017.08.033

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.



Validation of Salivary Oxytocin and Vasopressin as Biomarkers in Domestic Dogs

Evan L. MacLean¹, Laurence R. Gesquiere², Nancy Gee^{3,4}, Kerinne Levy⁵, W. Lance Martin⁶ & C. Sue Carter⁷

- ¹ School of Anthropology, University of Arizona, Tucson, AZ 85721
- ² Department of Biology, Duke University, Durham, NC 27708
- ³ Waltham Centre for Pet Nutrition, Waltham on the Wolds, Leicestershire, United Kingdom, LE14 4RT
- ⁴ Department of Psychology, State University of New York, Fredonia, NY 14063
- ⁵ Canine Companions for Independence, Santa Rosa, CA, 95407
- ⁶ Martin-Protean LLC, Princeton, NJ 08540
- ⁷ Kinsey Institute and Department of Biology, Indiana University, Bloomington, IN 47405

Highlights

- We validated immunoassays for measuring oxytocin (OT) and vasopressin (AVP) in dog
- OT and AVP were present in dog saliva and detectable by ELISA and HPLC-MS
- Assays yielded good parallelism and accuracy, both with and without extraction
- Dams exhibited an increase in both salivary and plasma OT when nursing their litters

Abstract

Background: Oxytocin (OT) and Vasopressin (AVP) are phylogenetically conserved neuropeptides with effects on social behavior, cognition and stress responses. Although OT and AVP are most commonly measured in blood, urine and cerebrospinal fluid (CSF), these approaches present an array of challenges including concerns related to the invasiveness of

Download English Version:

https://daneshyari.com/en/article/5737101

Download Persian Version:

https://daneshyari.com/article/5737101

<u>Daneshyari.com</u>