

Accepted Manuscript

Title: Information processing in the vertebrate habenula

Authors: Stephanie Fore, Fabrizio Palumbo, Robbrecht Pelgrims, Emre Yaksi

PII: S1084-9521(16)30437-2
DOI: <http://dx.doi.org/doi:10.1016/j.semcdb.2017.08.019>
Reference: YSCDB 2328

To appear in: *Seminars in Cell & Developmental Biology*

Received date: 23-3-2017
Revised date: 12-7-2017
Accepted date: 5-8-2017



Please cite this article as: Fore Stephanie, Palumbo Fabrizio, Pelgrims Robbrecht, Yaksi Emre. Information processing in the vertebrate habenula. *Seminars in Cell and Developmental Biology* <http://dx.doi.org/10.1016/j.semcdb.2017.08.019>

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.

Information processing in the vertebrate habenula

Stephanie Fore¹, Fabrizio Palumbo¹, Robbrecht Pelgrims¹, Emre Yaksi¹

¹ Kavli Institute for Systems Neuroscience and Centre for Neural Computation, Norwegian University of Science and Technology, Olav Kyrres gate 9, Norwegian Brain Centre, 7491 Trondheim, Norway.

ABSTRACT

The habenula is a brain region that has gained increasing popularity over the recent years due to its role in processing value-related and experience-dependent information with a strong link to depression, addiction, sleep and social interactions. This small diencephalic nucleus is proposed to act as a multimodal hub or a switchboard, where inputs from different brain regions converge. These diverse inputs to the habenula carry information about the sensory world and the animal's internal state, such as reward expectation or mood. However, it is not clear how these diverse habenular inputs interact with each other and how such interactions contribute to the function of habenular circuits in regulating behavioral responses in various tasks and contexts. In this review, we aim to discuss how information processing in habenular circuits, can contribute to specific behavioral programs that are attributed to the habenula.

Download English Version:

<https://daneshyari.com/en/article/8479666>

Download Persian Version:

<https://daneshyari.com/article/8479666>

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