

# Hippocampal plasticity and corticosterone : from dendrites to behavior

## Citation for published version (APA):

Martínez-Claros, M. (2013). *Hippocampal plasticity and corticosterone : from dendrites to behavior*. Maastricht University. <https://doi.org/10.26481/dis.20130516mm>

## Document status and date:

Published: 01/01/2013

## DOI:

[10.26481/dis.20130516mm](https://doi.org/10.26481/dis.20130516mm)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.

## Statements

Belonging to the PhD thesis

### **Hippocampal plasticity and corticosterone: From dendrites to behavior**

*Marisela Martínez-Claros*

Maastricht, 16 May 2013

1. There is a complex relationship between corticosterone levels, neurogenesis in the dentate gyrus and synaptogenesis in the CA3 region of the hippocampus. (*This thesis*)
2. Adrenalectomy decreases dendritic complexity of CA3 pyramidal neurons while moderate corticosterone levels increase the number of surviving new-born cells in the dentate gyrus. (*This thesis*)
3. Adrenalectomy, regardless of corticosterone replacement, results in poorer learning and memory as well as dendritic atrophy of CA3 pyramidal neurons. (*This thesis*)
4. There is an inverted U-shaped dose-response relationship between corticosterone and hippocampal plasticity. (*This thesis*)
5. Neurons born in the adult DG have a limited time frame to be recruited into circuits that process spatial information. (*This thesis*)
6. "Every act of perception, is to some degree an act of creation, and every act of memory is to some degree an act of imagination." *Oliver Sacks*
7. "Worries are pointless. If there's a solution, there's no need to worry. If no solution exists, there's no point to worry." *Matthieu Ricard*
8. "Every man can, if he so desires, become the sculptor of his own brain". *Santiago Ramón y Cajal*
9. "One never notices what has been done; one can only see what remains to be done". *Marie Curie*
10. "What matters in life is not what happens to you but what you remember and how you remember it." *Gabriel Garcia Marquez*