

Manuscript EMBO-2011-79777

## **N-CADHERIN SPECIFIES FIRST ASYMMETRY IN DEVELOPING NEURONS**

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### **Review timeline:**

Submission date:	10 October 2011
Editorial Decision:	18 November 2011
Revision received:	18 January 2012
Accepted:	24 January 2012

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### **Transaction Report:**

(Note: With the exception of the correction of typographical or spelling errors that could be a source of ambiguity, letters and reports are not edited. The original formatting of letters and referee reports may not be reflected in this compilation.)

1st Editorial Decision

18 November 2011

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Thank you for transferring your manuscript to the EMBO Journal. As discussed, your manuscript has now been seen by one arbitrating referee who saw the original referee comments from the previous journal and your detailed point-by-point response.

I have now heard back from the referee and I am pleased to say that the referee is supportive of publication of your study in the EMBO Journal. As you can see below, only minor revisions are needed. Once we get the revised manuscript back we will proceed with its acceptance for publication here.

Thank you for submitting your interesting work to the EMBO Journal.

Yours sincerely

Editor  
The EMBO Journal

### **REFeree REPORTS**

Referee #1

This manuscript reports an intriguing role of N-cadherin in establishing the first neuronal polarity, i.e. determine the position of the first neurite to be formed. The most important aspect of this work is that it moves on from the dissociated cell cultures to the in vivo preparations corroborating their

findings by electroporating a dominant-negative N-cadherin. This is exciting work which is convincingly done and deserves to be published in EMBO J.

I have only one comment in regard to the statement 'we analysed neurons newly generated from basal progenitors at their exit from the SVZ'. First the authors certainly do not know from which type of progenitors these neurons originate (They refer to citations claiming that most neurons at this time would derive from basal progenitors, but this is not what Noctor et al and Miyata et al have seen by live imaging.) Therefore either the authors show directly the origin of these neurons or better omit this statement. More relevant for their work, however, is the question how recently generated (no matter from which progenitor) these neurons really are. For this the authors should use BrdU-labelling to confirm that these neurons derive from progenitors in S-phase less than 16 hours ago.

1st Revision - authors' response

18 January 2012

Answers to the referee:

Referee #1

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Answer: We changed this statement in the text, and keep this way as a possibility only (see underlined text, page 10)

*Moreover, relevant for their work, however, is the question how recently generated (no matter from which progenitor) these neurons really are. For this the authors should use BrdU-labeling to confirm that these neurons derive from progenitors in S-phase less than 16 hours ago.*

Answer: We did a number of EdU and BrDU labeling in order to address this question. Single injections of EdU or BrDU at 24h, 20, 18 or 16h revealed very few EdU or BrDU positive transfected neurons in this zone. However, sequential labelings (16, 13 and 11h before analysis) revealed many positive neurons, indicating that the analyzed neurons are younger than 16h. A single BrDU pulse given to the same mouse at 11h indeed was sufficient to label a large (ca. 36%) population of those neurons exiting from the SVZ. This is included in the text (underlined page10) and in Figure 6C.