

Erratum to: Effect of NRG1, GDNF, EGF and NGF in the Migration of a Schwann Cell Precursor Line

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The authors would like to publish this erratum to add accuracy and better explanation to the original published article. Several changes for more accuracy are provided by the authors who also apologize that they did not see these inaccuracies earlier before publication.

General Corrections/Clarifications:

1. The recombinant EGF-like domain of NRG1- α (not NRG1- β) was used throughout the paper where NRG1 results are mentioned.
2. Culture medium described as containing 10% FBS is better described as containing 8–9% FBS (with the exception mentioned below). The same medium also contained ~1.8 mM L-glutamine rather than 2 mM.
3. The SpL201 cells used for experimentation were at times observed to have a very low level of bacterial contamination.

Specific Corrections/Clarifications:

Experimental Procedures:

4. The heading “In Vitro Chemoattraction of Neurotrophins” should be changed to “Boyden Assay”.
5. Under the heading “Time Lapse Video Microscopy”, “DMEM/10%FBS” should be changed to “DMEM with, L-glutamine, antibiotics, and 2.5% FBS”.
6. The concentration of fibronectin described in the section under the heading “Micro-chip Assay” as “100 μ g/ml” should be changed to “10 μ g/ml”.
7. Under the heading “SpL201 Injection”, HH13 is a better estimate of the stage chick embryos were injected. Also, the site of injection may have been at the intersomite-neural tube junction anywhere between somites 10 and 20 counting rostrocaudally (i.e., not necessarily at the forelimb level). Furthermore, sections were mounted in Permafluor (not Permount).

Results:

Characterizing SpL201 Cell Line

8. In the second paragraph, it is more accurate to replace the sentence, “We found that these cells migrated along typical neural crest pathways”, with the sentence, “After injecting, we found labeled cells present along neural crest cell migratory pathways among other regions.” In addition, the sentence, “Therefore, these SpL201 cells are capable of migrating as well and as speedily as neural crest cells,” should be replaced with, “Therefore, it may be possible that SpL201 cells behave similarly to neural crest cells in regards to some aspects of migration.”

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Chemoattraction Assays

9. Because our Boyden chamber assay did not include a control for chemokinesis (e.g., adding the NTF to both compartments of the well), a positive response with any treatment in this assay is best thought to demonstrate chemoattraction and/or chemokinesis (rather than only chemoattraction as was previously implied).
10. In Fig. 3a, Step 1, “neural crest” should be replaced with “SpL201 cells”.
11. In paragraph 3, “chemotaxis” should be replaced with “chemokinesis”.
12. In paragraph 4, “since soluble EGF attracted SpL201 (Fig. 2b)” should be changed to “since soluble EGF may have attracted SpL201s in our Boyden chamber assay (Fig. 3b)”.
13. The first sentence in the legend of Fig. 4, “GDNF and NRG1 attract a Schwann cell precursor line SpL201 cells” should be replaced with “Live imaging provides support that SpL201 cells are attracted to soluble GDNF” to reflect that the NRG1 versus Control comparison was not significant (we think now that the study lacked enough power due to the low number of replicate movies analyzed). Although there

was a response observed by cells on the proximal side of the channel by GDNF and MIF (as noted in the paper), there was no significant response observed from cells that were tracked on the side of the channel distal to the reservoir containing the NTF. It should also be noted that all data was uniformly transformed prior to statistical analysis.

14. In paragraph 5, the word “strongly” should be omitted to reflect the corrections/clarifications mentioned above.
15. In the legend of Fig. 6, the sentence “GDNF panel in Fig. 5b is from the same experiment as panel B in Fig. 6” should be replaced with “GDNF and Control panels in Fig. 5b are the same as the GDNF and Control 5 h panels in Fig. 6b”.

Discussion:

16. In the first paragraph and last paragraph of this section, the word “show(s)” should be replaced with “support(s)” to reflect the corrections/clarifications listed above, especially those pertaining to NRG1.
17. In the seventh paragraph, “NRG” should be replaced with “NRG1”.