

ERRATUM TO: FIVE DISCOVERIES OF VOLODYMYR BETZ. PART ONE. BETZ AND THE ISLANDS OF ENTORHINAL CORTEX

Medvediev Volodymyr¹, Cherkasov Viktor², Vaslovykh Viktoria³, Tsymbaliuk Vitaliy¹

¹ Department of Neurosurgery, Bogomolets National Medical University, Kyiv, Ukraine

² Department of descriptive and clinical anatomy, Bogomolets National Medical University, Kyiv, Ukraine

³ Neuropathomorphology Department, State Institution «Romodanov Neurosurgery Institute, National Academy of Medical Sciences of Ukraine», Kyiv, Ukraine

Address for correspondence:

Medvediev Volodymyr, e-mail: vavo2010@gmail.com

Corrections to the article: [https://doi.org/10.32345/USMYJ.1\(136\).2023.30-59](https://doi.org/10.32345/USMYJ.1(136).2023.30-59)

In order to bring the visual content of the article into compliance with the licensing conditions of the publishing process, we replaced fig. 1 with the original one, created by us exclusively from our own sources. In this regard, we have added Duvernoy (1988) to the list of references – one of the sources that contains high-quality images of the human entorhinal region, which we used as samples for our own sketches (fig. 1 A, B).

Taking into account the results of our further research, as well as the error in reading the relevant passage of Betz's work (1882), we have corrected and clarified the definition of two other Betz discoveries that we mentioned in the abstract of the article: 1) description of the cytoarchitectonic structure of the olfactory tubercle (*but not its elements – the islands of Calleja, the existence of which as a separate morphological phenomenon, as it turned out, is controversial* – Millhouse, 1987), as well as a 2) description of a number of currently relevant features of the cortex modular organization – a concept that goes beyond the exclusively columnar scheme of the cortex structure (Naumann et al., 2016).

Since the paper by Ionov et al. (2021) was retracted (<https://pubmed.ncbi.nlm.nih.gov/38834490/>), to support the thesis about LEC (*lateral entorhinal cortex*) participation «in the motivation sphere function and in the network reinforcement correlates formation», we replaced this source with Issa, Radvansky, Xuan, & Dombeck (2024), making appropriate changes in the text of our article and in the list of references. Regarding another work we cite, Ionov, Pushinskaya, Gorev, Frenkel & Severtsev (2021), a warning from the editor-in-chief of the journal has been announced (<https://link.springer.com/article/10.1007/s00213-022-06168-8>). Therefore, we have removed it from the list of those we cited.

In the captions under fig. 1 and fig. 3-5, we emphasized that the neuron clusters displayed on them correspond to entorhinal islands – in our deep conviction. Also, we corrected rare spelling errors in the text of the article and in the list of references.

The electronic version of the article with all the changes mentioned here is placed on the journal page instead of the previous one at the same link – [https://doi.org/10.32345/USMYJ.1\(136\).2023.30-59](https://doi.org/10.32345/USMYJ.1(136).2023.30-59).

REFERENCES

Betz, V. A. (1882). О подробностях строения мозговой корки человека: предварительное сообщение (posvyashchayetsya pamyati professora parizhskogo meditsinskogo fakul'teta Polya Broka). [On the details of the human cerebral cortex structure: a preliminary report (dedicated to the memory of Paul Broca, professor at the Parisian Faculty of Medicine)]. In *Zapiski Kievskogo Obshchestva Yestestvoispytateley* [Notes of the Kiev Society of Naturalists] (Vol. 6, issue 2, p. 165–176). Kyiv: Printing House Ern. Perlis. http://ukr.catalogue.nlu.org.ua/?page=2&arg2=записки_киевского

Duvernoy, H. M. (1988) *The human hippocampus: an atlas of applied anatomy*. Springer-Verlag Berlin Heidelberg.

Ionov, I. D., Pushinskaya, I. I., Gorev, N. P., Frenkel, D. D., & Severtsev, N. N. (2021). Anticatalytic activity of nicotine in rats: involvement of the lateral entorhinal cortex. *Psychopharmacology*, 238(9), 2471–2483. <https://doi.org/10.1007/s00213-021-05870-3>

Ionov, I. D., Pushinskaya, I. I., Gorev, N. P., Shpilevaya, L. A., Frenkel, D. D., & Severtsev, N. N. (2021). Histamine H1 receptors regulate anhedonic-like behavior in rats: Involvement of the anterior cingulate and lateral entorhinal cortices. *Behavioural brain research*, 412, 113445. <https://doi.org/10.1016/j.bbr.2021.113445>

Issa, J. B., Radvansky, B. A., Xuan, F., & Dombeck, D. A. (2024). Lateral entorhinal cortex subpopulations represent experiential epochs surrounding reward. *Nature neuroscience*, 27(3), 536–546. <https://doi.org/10.1038/s41593-023-01557-4>

Millhouse O. E. (1987). Granule cells of the olfactory tubercle and the question of the islands of Calleja. *The Journal of comparative neurology*, 265(1), 1–24. <https://doi.org/10.1002/cne.902650102>

Naumann, R. K., Ray, S., Prokop, S., Las, L., Heppner, F. L., & Brecht, M. (2016). Conserved size and periodicity of pyramidal patches in layer 2 of medial/caudal entorhinal cortex. *The Journal of comparative neurology*, 524(4), 783–806. <https://doi.org/10.1002/cne.23865>