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Corrigendum: A Frequency-Domain Machine Learning Method for Dual-Calibrated fMRI Mapping of Oxygen Extraction Fraction (OEF) and Cerebral Metabolic Rate of Oxygen Consumption (CMRO₂)

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Keywords: calibrated-fMRI, oxygen extraction fraction, CMRO₂, OEF, machine learning

A Corrigendum on

A Frequency-Domain Machine Learning Method for Dual-Calibrated fMRI Mapping of Oxygen Extraction Fraction (OEF) and Cerebral Metabolic Rate of Oxygen Consumption (CMRO₂)

by Germuska M., Chandler H., Okell T., Fasano F., Tomassini V., Murphy K., Wise R. G. (2020). *Front. Artif. Intell.* 3:12. doi: 10.3389/frai.2020.00012

In the original article, there was a mistake in **Table 3** as published. The labels for [Hb] and OEF₀ were swapped. The corrected **Table 3** appears below.

In the original article, there was an error. Reference to **Table 3** in the text had the labels for [Hb] and OEF₀ swapped. A correction has been made to **Results, In-vivo**, paragraph 5:

"**Table 3** reports the results of a bivariate regression of OEF against [Hb] and CBF for both analysis methods. The slopes of the relationship between OEF and [Hb] are similar to that reported in healthy subjects by Ibaraki et al. (2010), −1.75 Hb (g/dL). As per Ibaraki et al. the relationship between CBF and OEF did not reach significance ($p = 0.44$) for the ML approach, however a significant negative correlation was observed in the rNLS analysis ($p = 0.005$). A univariate analysis of CMRO_{2,0} against CBF₀ is consistent with that observed in healthy controls by Powers et al. (2011) ($\beta_1 = 0.2$) for both

TABLE 3 | Results of a bivariate regression of OEF₀ against CBF₀ and [Hb] for 30 healthy volunteers analyzed with the ML (ensemble of MLPs) and rNLS fitting methods.

Predictor	ML β_1 (p value)	rNLS β_1 (p value)
[Hb]	-1.42 (0.001)	-2.23 (0.001)
CBF	-0.07 (0.44)	-0.37 (0.005)
Intercept	61.95 (<0.001)	89.48 (<0.001)

analysis methods, $\beta_1 = 0.32$ ($p < 0.001$) and $\beta_1 = 0.24$ ($p < 0.001$) for the ML and rNLS approaches respectively.”

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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