



# **Corrigendum: Detection of Microbial 16S rRNA Gene in the Blood of Patients With Parkinson's Disease**

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**Detection of Microbial 16S rRNA Gene in the Blood of Patients With Parkinson's Disease** by Qian, Y., Yang, X., Xu, S., Wu, C., Qin, N., Chen, S.-D., et al. Front. Neurosci. (2018). 10:156.

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Qian Y, Yang X, Xu S, Wu C, Qin N, Chen S-D and Xiao Q (2019) Corrigendum: Detection of Microbial 16S rRNA Gene in the Blood of Patients With Parkinson's Disease. Front. Aging Neurosci. 11:4. doi: 10.3389/fnagi.2019.00004 Due to a flaw in analysis, there was a technical error used in the following classical formula to calculate copy numbers.

"Number of copies = (amount of DNA (ng) \*  $6.022 \times 10^{23}$ ) / (length \*  $1 \times 10^9$  \* 650) (650 = Molecular weight/bp,  $6.022 \times 10^{23}$  = Avogadro's number)."

The length of 16S rRNA gene of *Escherichia coli* BL21 strain, which is "1,542 bp," instead of the length of its genome, which is "4,558,947 bp," was used to match the amount of DNA of this strain. This led to the errors regarding the 16S gene (copies/ng) of the PD and healthy group in the **Table 2**, Supplementary Figure S1 and a statement in the Results in the original article.

The corrected Table 2 and Supplementary Figure S1 appear below.

A correction has also been made to the Results, Characteristics of the Studied Groups:

"There was no significant difference in the 16S rRNA gene copies between PD and healthy groups by real-time PCR ( $1.22E+04 \pm 1.21E+05$  copies/ng of PD vs.  $7.78E+03 \pm 6.86E+04$  copies/ng of controls, P = 0.316, Wilcoxon rank-sum test analysis)."

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

**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Qian, Yang, Xu, Wu, Qin, Chen and Xiao. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

## TABLE 2 | Characteristics of the study subjects.

CharacteristicsPD group (n = 45)Healthy gro (n = 45)Age (years)^a $68.1 (8.0)$ $67.9 (8.0)$ Female (n, %) $23 (51.1\%)$ $22 (48.9\%)$ BMI (kg/m <sup>2</sup> )^a $22.8 (2.3)$ $23.4 (2.1)$ Constipation (n, %) $24 (53.3\%)$ $3 (6.7\%)$ 16s gene (copies/ng)^b $1.22E+04$ $7.78E+03$	
Female (n, %) 23 (51.1%) 22 (48.9%)   BMI (kg/m <sup>2</sup> ) <sup>a</sup> 22.8 (2.3) 23.4 (2.1)   Constipation (n, %) 24 (53.3%) 3 (6.7%)	up <i>P</i> -value
BMI (kg/m <sup>2</sup> ) <sup>a</sup> 22.8 (2.3) 23.4 (2.1)   Constipation (n, %) 24 (53.3%) 3 (6.7%)	0.875
Constipation (n, %) 24 (53.3%) 3 (6.7%)	0.903
	0.164
$16s$ dene (copies/pa) <sup>b</sup> $1.22E\pm0.0$ $7.78E\pm0.3$	< 0.001
(1.21E+05) (6.86E+04)	0.316

Data are shown as mean (SD)<sup>a</sup> or median (IQR)<sup>b</sup>. Comparisons between the two groups were performed with Student's t-test (age and BMI) and Pearson's Chi-square test (female and constipation), respectively. The 16S gene copies were normalized to 1 ng of each DNA sample, and the comparison between the two groups was performed with Wilcoxon rank-sum test analysis. PD, Parkinson's disease; BMI, Body Mass Index.

