CORRECTION

Correction to: Metabolic characterisation of disturbances in the *APOC3*/triglyceride-rich lipoprotein pathway through sample-based recall by genotype

Laura J. Corbin[1,2] · **David A. Hughes**[1,2] · **Andrew J. Chetwynd**[3,4] · **Amy E. Taylor**[2,5] · **Andrew D. Southam**[3,4] · **Andris Jankevics**[3,4] · **Ralf J. M. Weber**[3,4] · **Alix Groom**[1,2] · **Warwick B. Dunn**[3,4,6] · **Nicholas J. Timpson**[1,2]

Correction to: Metabolomics (2020) 16:69
https://doi.org/10.1007/s11306-020-01689-9

As a result of incorrect processing of two raw datasets presented (LIPIDS-POS and LIPIDS-NEG), some metabolite annotations reported in the original publication were incorrectly labeled. Correction of this error has resulted in the number of metabolite annotations changing from 183 to 213 and this has altered the number of metabolites reported in each lipid class. This presents a necessary technical update to the original paper, however the biological conclusions advanced in the original publication are largely unaltered. The biological interpretation of the ceramide lipid class was altered given the amended metabolite annotations. This error came to the attention of the authors after article publication.

To account for this update, the following sections have been amended with the original text italicized.

✉ Nicholas J. Timpson
n.j.timpson@bristol.ac.uk

[1] MRC Integrative Epidemiology Unit at University of Bristol, Bristol BS8 2BN, UK

[2] Population Health Sciences, Bristol Medical School, University of Bristol, Bristol BS8 2BN, UK

[3] School of Biosciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

[4] Phenome Centre Birmingham, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

[5] NIHR Biomedical Research Centre at the University Hospitals Bristol NHS Foundation Trust and the University of Bristol, Bristol BS8 2BN, UK

[6] Institute of Metabolism and Systems Research, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

1. Abstract: 144 *(and not 161)* uniquely annotated metabolites were found to be associated with rs138326449(*APOC3*).

2. Abstract: acyl-alkyl glycerophospholipid and ceramide classes (*and not acyl-alkyl glycerophospholipid class*).

3. Section 3.1: LIPIDS_NEG (*and not LIPIDS_POS*).

4. Section 3.1: LIPIDS_POS (*and not LIPIDS_NEG*).

5. Section 3.2: ..... 213 (*and not 183*) could be identified, representing 144 (*and not 161*) unique metabolites across the three datasets (137 (*and not 153*) in the combined analysis, 92 (*and not 104*) in young participants…).

6. Section 3.2: …. the distribution of the 213 (*and not 183*) identified metabolites in carrier….

7. Section 3.2: 110 (*and not 130*) uniquely identified metabolites were found to be common….

8. Section 3.2: …. between carriers and non-carriers, 20 (*and not 16*) were identified.

9. Section 3.3: Visualisation of the 137 *(and not 153)* (identified) unique associated metabolites from the combined analysis in a heatmap….

10. Section 3.3: … *as proxied by mass to charge ratio (m/z)* (for example, ceramides) (*Fig. 3*).

11. Discussion section: … but also included other lipid classes (diacylglycerides, ceramides, fatty acids and esters); The text *fatty acids and fatty esters* has been deleted.

12. Discussion section: These six (*and not three*) TAGs were amongst …….

13. Discussion section: The latter group was more similar to the carrier group overall and included 8 (*and not 11*) carrier samples (all mother's samples (*and not 8 from mothers and 3 from young participants*)).

14. Table 2 and Table S4 have been corrected; specifically the number of metabolites and the percentages reported.

15. Figure 2 and Figure S4 have been corrected; specifically the y-axis has been changed to represent the changes in the number of metabolites reported for each metabolite class.

16. Figure 3 and Figure S5 have been corrected; specifically the number of metabolites in each metabolite class has been changed along with the corresponding beta values.

17. Fig S2A and S2B; the number of features reported have been corrected.

18. Figure S3; some metabolite names have been corrected as well as some unidentified metabolites removed and some newly identified metabolites included.

19. Figure S6A and Figure S6B; some of the metabolite names displayed have been changed.

20. Fig S7; Lipids positive and lipids negative plots switched.

21. Table S2; Lipids positive and lipids negative column headers switched.

22. Table S3; specifically entries in five columns have been corrected—feature_label_id (column A), assay (column B), metabolites (column E), metabolite.class (column F) and short_label (Column G).

23. Table S3: Retention time data has been collected using chemical standards for some of the listed metabolites since publication and which has allowed the authors to correct a small number of false annotations. Table S3 has been amended for seven features detected in HILIC_POS and no longer includes these incorrect annotations. ESM1 has been amended to show this change (The expected retention time ranges, derived from authentic chemical standards, were applied to remove false annotations related to lipid metabolites).

24. Table S5; this table contains only the identified features found to be associated in the differential missingness analysis and has been updated in line with the revised annotations.

25. Table S6; rows relating to fatty acids and cardiolipins removed.

The original article has been corrected.