Corrigendum: serum myomirs as biomarkers for female carriers of duchenne becker m...

A Corrigendum on

Serum MyomiRs as Biomarkers for Female Carriers of Duchenne/Becker Muscular Dystrophy

by Zhang, J., Meng, Q., Zhong, J., Zhang, M., Qin, X., Ni, X., et al. (2020). Front. Neurol. 11: 563609. doi: 10. 3389/fneur. 2020. 563609

In the original article, there was an error. The cut-off value of the ROC curve was wrong, and it was accidentally written as the value of the Youden's index.

A correction has been made to *Results, Assessment of the Diagnostic Potential of MyomiRs in MD-Carriers, Paragraph 1* . The corrected paragraph is written below:

ROC analysis was carried out to assess the capacity of serum miRNAs to identify female MD-carriers and controls (Figure 2). Our data indicated that five of the seven up-regulated miRNAs in MD-carriers vs. controls revealed AUC values exceeding 70. 0%, and the other two exceeding 60. 0%. AUC, sensitivity and specificity for these miRNAs were, respectively, listed as follows: (a) miR-499: 78. 6, 73. 5, and 75. 8% (with a cut-off value of 1. 485, $p < 0. 0001$), (b) miR-133b: 77. 9, 73. 5, and 72. 7% (with a cut-off value of 1. 760, $p < 0. 0001$), (c) miR-1: 77. 1, 82. 4, and 72. 7% (with a cut-off value of 1. 215, $p < 0. 0001$), (d) miR-208b: 73. 0, 73. 5, and 72. 7 (with a cut-off value of 2. 555, $p = 0. 001$), (e) miR-133a: 70. 1, 88. 2, and 48. 5% (with a cut-off value of 0. 690, $p = 0. 005$), (f) miR-206: 65. 5, 52. 9, and 78. 8 (with a cut-off value of 2. 645, $p = 0. 029$) and (g) miR-208a: 62. 5, 79. 4, and 45. 5% (with a cut-off value of 0. 700, $p = 0. 078$). In comparison, ROC analysis

for the conventional serum marker, CK, with regards to the identification of MD-carriers revealed an AUC value of 86. 6% with a sensitivity of 76. 5%, a specificity of 100. 0% (with a cut-off value of 146. 500, $p < 0. 0001$) (Figure 2). None of the seven miRNAs had a higher AUC and specificity than CK, but the sensitivity of miR-1 and miR-133a was higher than CK.

Corrections have also been made to *Results, Assessment of the Diagnostic Potential of the Combination of MyomiRs and CK in MD-Carriers, Paragraphs 1 and 2* . The corrected paragraphs are shown below:

Combining all seven myomiRs (miR-1, miR-133a, miR-133b, miR-206, miR-208a, miR-208b, and miR-499; Figure 4) as potential diagnostic signatures for female MD-carriers, an improved AUC value of 87. 3% was reached with a sensitivity of 91. 2% and a specificity of 66. 7% (with a cut-off value of 0. 339, $p < 0. 0001$). In addition to specificity, this combination had higher sensitivity and AUC value than CK alone or any single miRNA.

In order to further explore the potential of myomiRs to diagnose MD-carriers, we performed ROC analysis by combining CK with the seven different myomiRs, respectively (Figure 5). Their AUCs, sensitivities and specificities were all improved compared to each individual evaluation. Among which, the AUC values of the combination of CK with miR-133b (AUC 93. 3%, sensitivity 82. 4%, specificity 100. 0%, with a cut-off value of 0. 618) and CK with miR-499 (AUC 91. 4%, sensitivity 82. 4%, specificity 100. 0%, with a cut-off value of 0. 594) exceeded 90. 0%, the sensitivities exceeded 80. 0% and the specificities were 100. 0%. The combination of these two miRNAs with CK

had an even higher AUC value and sensitivity than CK or any individual miRNA, and the specificity was also 100%.

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