

**Table S1.** Correlation between lipid profiles, liver function test, hematological parameters, kidney function test, and medium chain fatty acids in breast cancer.

|                                      |             | Caproic Acid (%) | Caprylic Acid (%) | Capric Acid (%) | Lauric Acid (%) |
|--------------------------------------|-------------|------------------|-------------------|-----------------|-----------------|
| Hb (g/dl)                            | Correlation | -0.092           | -0.138            | -0.094          | -0.103          |
|                                      | p- Value    | 0.358            | 0.171             | 0.350           | 0.310           |
| Platelet count (10 <sup>3</sup> *µl) | Correlation | 0.058            | -0.034            | 0.133           | -0.071          |
|                                      | p- Value    | 0.568            | 0.738             | 0.188           | 0.485           |
| RBS (mg/dl)                          | Correlation | 0.091            | -0.022            | -0.012          | 0.089           |
|                                      | p- Value    | 0.370            | 0.828             | 0.907           | 0.378           |
| TC (mg/dl)                           | Correlation | 0.233            | -0.291            | 0.136           | -0.036          |
|                                      | p- Value    | <0.020*          | <0.003*           | 0.177           | 0.725           |
| TG (mg/dl)                           | Correlation | 0.005            | -0.009            | 0.043           | -0.212          |
|                                      | p- Value    | 0.963            | 0.929             | 0.668           | <0.034*         |
| HDL-C (mg/dl)                        | Correlation | 0.137            | 0.050             | 0.079           | 0.165           |
|                                      | p- Value    | 0.174            | 0.624             | 0.436           | 0.102           |
| LDL-C (mg/dl)                        | Correlation | 0.170            | -0.168            | 0.137           | -0.207          |
|                                      | p- Value    | 0.092            | 0.094             | 0.173           | <0.039*         |
| VLDL-C (mg/dl)                       | Correlation | 0.025            | -0.059            | -0.039          | -0.253          |
|                                      | p- Value    | 0.801            | 0.558             | 0.701           | <0.011*         |
| MDA (µM/L)                           | Correlation | -0.037           | -0.119            | 0.049           | -0.041          |
|                                      | p- Value    | 0.716            | 0.240             | 0.626           | 0.685           |
| Blood Urea (mg/dl)                   | Correlation | -0.104           | -0.092            | -0.010          | -0.077          |
|                                      | p- Value    | 0.304            | 0.363             | 0.919           | 0.446           |
| Serum Creatinine (mg/dl)             | Correlation | 0.035            | -0.020            | -0.161          | 0.037           |
|                                      | p- Value    | 0.733            | 0.845             | 0.111           | 0.717           |
| ALP (IU/L)                           | Correlation | -0.043           | -0.163            | -0.177          | -0.161          |
|                                      | p- Value    | 0.668            | 0.104             | 0.078           | 0.111           |
| AST (IU/L)                           | Correlation | -0.193           | -0.251            | -0.292          | -0.257          |
|                                      | p- Value    | 0.054            | <0.012*           | <0.003*         | <0.010*         |
| ALT (IU/L)                           | Correlation | -0.224           | -0.179            | -0.226          | -0.109          |
|                                      | p- Value    | <0.015*          | 0.075             | <0.024*         | 0.282           |
| Na + (mmol/L)                        | Correlation | 0.060            | -0.020            | 0.089           | 0.123           |
|                                      | p- Value    | 0.556            | 0.842             | 0.380           | 0.222           |
| K+ (mmol/L)                          | Correlation | -0.158           | 0.034             | -0.142          | -0.050          |
|                                      | p- Value    | 0.116            | 0.738             | 0.160           | 0.618           |
| Cl - (mmol/L)                        | Correlation | -0.186           | 0.079             | -0.140          | -0.099          |
|                                      | p- Value    | 0.064            | 0.435             | 0.165           | -0.070          |
| Total Bilirubin (mg/dl)              | Correlation | -0.223           | -0.131            | -0.143          | -0.015          |
|                                      | p- Value    | <0.026*          | 0.194             | 0.155           | 0.491           |
| Albumin (g/dl)                       | Correlation | -0.021           | 0.136             | 0.145           | 0.013           |
|                                      | p- Value    | 0.840            | 0.178             | 0.150           | 0.900           |
| Globulin (g/dl)                      | Correlation | 0.076            | -0.207            | 0.045           | -0.198          |
|                                      | p- Value    | 0.451            | <0.039*           | 0.653           | <0.048*         |
| A/G Ratio                            | Correlation | -0.217           | 0.085             | -0.151          | -0.055          |
|                                      | p- Value    | <0.030*          | 0.399             | 0.135           | 0.587           |
| Total Protein (mg/dl)                | Correlation | -0.002           | -0.056            | -0.049          | -0.009          |
|                                      | p- Value    | 0.985            | 0.579             | 0.629           | 0.928           |

\*P value≤0.05 was considered statistically significant. Abbreviations: RBS - Random blood sugar, Hb - Hemoglobin, MDA – Malondialdehyde, TC - Total Cholesterol, TG - Triglycerides, HDL-C - High-density lipoprotein cholesterol, LDL- Low-density lipoprotein cholesterol, and VLDL-C - Very low-density lipoprotein cholesterol, ALP - Alkaline phosphatase, AST - Aspartate aminotransferase, ALT - Alanine transaminase, A/G (Albumin/globulin) ratio.