

**Supplementary Table S4.** Foetus metabolic profile for experimental groups, healthy (C) and tumour-bearing (W) pregnancy at three different gestational periods 12-, 16-, and 19-days post-conception.. Results presented as mean (mM) + standard deviation. Number of animals per group: C (12 dpc,  $n = 6$ ; 16 dpc  $n = 6$ ; 19 dpc  $n = 8$ ); W (12 dpc  $n = 7$ ; 16 dpc  $n = 7$ ; 19 dpc  $n = 8$ ). a,  $p < 0.05$  compared to group C group at 12 dpc; b,  $p < 0.05$  compared to group C group at 16 dpc; \*  $p < 0.05$  compared to group C group in the same gestation period.

|                       | C              |                             |                              | W                           |                            |                             |
|-----------------------|----------------|-----------------------------|------------------------------|-----------------------------|----------------------------|-----------------------------|
|                       | 12 dpc         | 16 dpc                      | 19 dpc                       | 12 dpc                      | 16 dpc                     | 19 dpc                      |
| 3-Hydroxybutyrate     | 0.231 ± 0.077  | 0.136 ± 0.036               | 0.127 ± 0.029                | 0.163 ± 0.080               | 0.404 ± 0.674              | 0.700 ± 1.410               |
| 3-Hydroxyisobutyrate  | 0.112 ± 0.022  | 0.127 ± 0.023               | 0.089 ± 0.043                | 0.135 ± 0.008               | 0.104 ± 0.029              | 0.110 ± 0.016               |
| 3-Hydroxyisovalerate  | 0.211 ± 0.217  | 0.036 ± 0.055               | 0.046 ± 0.042                | 0.021 ± 0.024               | 0.046 ± 0.067              | 0.012 ± 0.003               |
| ADP                   | 0.238 ± 0.061  | 0.073 ± 0.030 <sup>a</sup>  | 0.141 ± 0.059 <sup>a</sup>   | 0.185 ± 0.074               | 0.157 ± 0.059 <sup>*</sup> | 0.209 ± 0.060 <sup>*</sup>  |
| AMP                   | 0.516 ± 0.194  | 0.645 ± 0.140               | 0.224 ± 0.110 <sup>a.b</sup> | 0.581 ± 0.173               | 0.575 ± 0.066              | 0.470 ± 0.271 <sup>*</sup>  |
| ATP                   | 0.073 ± 0.021  | 0.064 ± 0.012               | 0.097 ± 0.022 <sup>a.b</sup> | 0.099 ± 0.034 <sup>*</sup>  | 0.059 ± 0.006              | 0.130 ± 0.020 <sup>*</sup>  |
| Acetate               | 1.080 ± 1.113  | 0.407 ± 0.338               | 0.523 ± 0.328                | 0.326 ± 0.185               | 0.290 ± 0.271              | 0.294 ± 0.219               |
| Adenine               | 0.652 ± 0.420  | 0.266 ± 0.058 <sup>a</sup>  | 0.607 ± 0.221 <sup>b</sup>   | 0.305 ± 0.124 <sup>*</sup>  | 0.324 ± 0.115              | 0.322 ± 0.076 <sup>*</sup>  |
| Adenosine             | 0.057 ± 0.040  | 0.030 ± 0.007 <sup>a</sup>  | 0.030 ± 0.012 <sup>a</sup>   | 0.020 ± 0.012 <sup>*</sup>  | 0.035 ± 0.008              | 0.022 ± 0.006               |
| Alanine               | 4.654 ± 1.386  | 5.285 ± 0.439               | 4.827 ± 1.192                | 6.848 ± 1.423 <sup>*</sup>  | 6.193 ± 0.713              | 7.243 ± 1.044 <sup>*</sup>  |
| Asparagine            | 0.626 ± 0.365  | 1.008 ± 0.224               | 0.812 ± 0.206                | 1.035 ± 0.136               | 0.811 ± 0.117              | 0.855 ± 0.170               |
| Aspartate             | 1.666 ± 1.584  | 1.280 ± 0.418               | 1.295 ± 0.524                | 1.176 ± 0.281               | 1.035 ± 0.391              | 1.036 ± 0.243               |
| Betaine               | 2.598 ± 4.073  | 0.456 ± 0.171               | 0.455 ± 0.093                | 0.542 ± 0.110               | 0.446 ± 0.159              | 0.362 ± 0.075               |
| Carnitine             | 0.369 ± 0.092  | 0.326 ± 0.072               | 0.299 ± 0.116 <sup>a</sup>   | 0.362 ± 0.083               | 0.270 ± 0.035 <sup>*</sup> | 0.267 ± 0.054               |
| Choline               | 0.771 ± 0.131  | 0.552 ± 0.119               | 0.549 ± 0.132 <sup>a</sup>   | 0.559 ± 0.137 <sup>*</sup>  | 0.470 ± 0.092 <sup>*</sup> | 0.403 ± 0.065 <sup>*</sup>  |
| Citrate               | 0.458 ± 0.324  | 0.263 ± 0.091               | 0.282 ± 0.122                | 0.284 ± 0.169               | 0.273 ± 0.110              | 0.235 ± 0.090               |
| Creatine              | 1.944 ± 0.221  | 3.074 ± 1.182               | 8.306 ± 6.598 <sup>a.b</sup> | 2.435 ± 0.365               | 2.983 ± 0.235              | 3.726 ± 1.257 <sup>*</sup>  |
| Cytidine              | 0.125 ± 0.043  | 0.084 ± 0.013               | 0.097 ± 0.037                | 0.123 ± 0.022               | 0.093 ± 0.017              | 0.106 ± 0.065               |
| Ethanolamine          | 1.427 ± 0.451  | 0.659 ± 0.130 <sup>a</sup>  | 0.545 ± 0.292 <sup>a</sup>   | 0.540 ± 0.259 <sup>*</sup>  | 0.655 ± 0.176              | 0.686 ± 0.602               |
| Formate               | 0.746 ± 0.664  | 0.282 ± 0.320               | 0.310 ± 0.222                | 0.321 ± 0.294               | 0.190 ± 0.174              | 0.298 ± 0.213               |
| Fumarate              | 0.084 ± 0.027  | 0.054 ± 0.009 <sup>a</sup>  | 0.084 ± 0.018 <sup>a.b</sup> | 0.066 ± 0.015 <sup>*</sup>  | 0.062 ± 0.019              | 0.072 ± 0.020               |
| GTP                   | 0.077 ± 0.025  | 0.034 ± 0.010 <sup>a</sup>  | 0.037 ± 0.013 <sup>a</sup>   | 0.039 ± 0.012 <sup>*</sup>  | 0.028 ± 0.014              | 0.029 ± 0.017               |
| Glucose               | 0.519 ± 0.223  | 1.439 ± 0.461 <sup>a</sup>  | 1.305 ± 0.760 <sup>a</sup>   | 0.263 ± 0.163               | 0.766 ± 0.316 <sup>*</sup> | 0.678 ± 0.334 <sup>*</sup>  |
| Glucose-6-phosphate   | 0.658 ± 0.364  | 0.758 ± 0.253               | 1.249 ± 0.377 <sup>a.b</sup> | 0.421 ± 0.422               | 0.690 ± 0.294              | 0.541 ± 0.357 <sup>*</sup>  |
| Glutamate             | 5.496 ± 2.771  | 7.926 ± 2.059               | 7.379 ± 2.818                | 7.748 ± 0.523               | 8.259 ± 1.673              | 8.810 ± 1.324               |
| Glutamine             | 1.992 ± 0.901  | 3.504 ± 0.242 <sup>a</sup>  | 3.638 ± 0.511 <sup>a</sup>   | 2.684 ± 0.375 <sup>*</sup>  | 3.508 ± 0.721              | 3.306 ± 0.399               |
| Glutathione           | 0.108 ± 0.094  | 0.105 ± 0.054               | 0.202 ± 0.097                | 0.154 ± 0.179               | 0.162 ± 0.212              | 0.120 ± 0.111               |
| Glycine               | 1.988 ± 0.623  | 2.728 ± 0.416               | 2.178 ± 0.361                | 2.476 ± 0.470               | 3.029 ± 0.584              | 2.670 ± 1.127               |
| Guanidoacetate        | 0.362 ± 0.271  | 0.239 ± 0.055               | 0.474 ± 0.136                | 0.236 ± 0.132               | 0.206 ± 0.062              | 0.224 ± 0.153               |
| Guanosine             | 0.044 ± 0.013  | 0.021 ± 0.003               | 0.039 ± 0.019 <sup>b</sup>   | 0.021 ± 0.006 <sup>*</sup>  | 0.017 ± 0.005              | 0.018 ± 0.007 <sup>*</sup>  |
| Histamine             | 0.086 ± 0.050  | 0.074 ± 0.011               | 0.141 ± 0.155                | 0.052 ± 0.021               | 0.065 ± 0.034              | 0.075 ± 0.056               |
| Histidine             | 0.082 ± 0.048  | 0.092 ± 0.054               | 0.389 ± 0.528                | 0.050 ± 0.016               | 0.048 ± 0.016              | 0.039 ± 0.016               |
| IMP                   | 0.173 ± 0.058  | 0.213 ± 0.130               | 0.557 ± 0.187 <sup>a.b</sup> | 0.076 ± 0.051 <sup>*</sup>  | 0.108 ± 0. 40              | 0.050 ± 0.022 <sup>*</sup>  |
| Inosine               | 0.486 ± 0.441  | 0.281 ± 0.072               | 0.501 ± 0.193                | 0.168 ± 0.111               | 0.299 ± 0.185 <sup>*</sup> | 0.254 ± 0.090               |
| Isoleucine            | 0.345 ± 0.095  | 0.500 ± 0.138 <sup>a</sup>  | 0.400 ± 0.139 <sup>b</sup>   | 0.414 ± 0.098               | 0.401 ± 0.072              | 0.466 ± 0.123               |
| Lactate               | 28.227 ± 5.153 | 31.577 ± 4.598 <sup>a</sup> | 26.380 ± 2.494 <sup>b</sup>  | 33.349 ± 3.260 <sup>*</sup> | 31.703 ± 2.605             | 35.092 ± 2.610 <sup>*</sup> |
| Leucine               | 0.732 ± 0.199  | 0.966 ± 0.280               | 0.852 ± 0.306                | 0.841 ± 0.261               | 0.778 ± 0.136              | 0.893 ± 0.206               |
| Lysine                | 1.571 ± 0.307  | 2.165 ± 0.509 <sup>a</sup>  | 1.739 ± 0.579 <sup>b</sup>   | 1.994 ± 0.240 <sup>*</sup>  | 1.807 ± 0.218 <sup>*</sup> | 1.718 ± 0.424               |
| Methionine            | 0.298 ± 0.118  | 0.261 ± 0.194               | 0.363 ± 0.185                | 0.314 ± 0.217               | 0.210 ± 0.168              | 0.183 ± 0.093               |
| NAD+                  | 0.049 ± 0.019  | 0.095 ± 0.038               | 0.035 ± 0.042 <sup>b</sup>   | 0.123 ± 0.080 <sup>*</sup>  | 0.083 ± 0.044              | 0.080 ± 0.031               |
| Nicotinurate          | 0.207 ± 0.077  | 0.134 ± 0.020 <sup>a</sup>  | 0.188 ± 0.041 <sup>b</sup>   | 0.124 ± 0.055 <sup>*</sup>  | 0.125 ± 0.041              | 0.098 ± 0.028 <sup>*</sup>  |
| O-Phosphocholine      | 2.755 ± 1.301  | 1.830 ± 0.194 <sup>a</sup>  | 1.460 ± 0.435 <sup>a</sup>   | 3.117 ± 0.701               | 1.970 ± 0.487              | 1.419 ± 0.423               |
| O-Phosphoethanolamine | 2.551 ± 0.955  | 3.392 ± 1.139               | 2.484 ± 0.435                | 3.705 ± 0.976               | 3.893 ± 0.893              | 2.433 ± 0.676               |
| Pantothenate          | 0.179 ± 0.066  | 0.404 ± 0.189 <sup>a</sup>  | 0.317 ± 0.186 <sup>a.b</sup> | 0.194 ± 0.082               | 0.348 ± 0.076              | 0.310 ± 0.063               |
| Phenylalanine         | 0.392 ± 0.207  | 0.463 ± 0.143               | 0.497 ± 0.219                | 0.491 ± 0.167               | 0.425 ± 0.136              | 0.571 ± 0.119               |
| Proline               | 1.793 ± 0.509  | 1.526 ± 0.517               | 1.427 ± 0.385 <sup>a</sup>   | 1.854 ± 0.464               | 1.424 ± 0.316 <sup>*</sup> | 1.408 ± 0.473               |
| Pyruvate              | 0.113 ± 0.038  | 0.093 ± 0.019 <sup>a</sup>  | 0.101 ± 0.014 <sup>a</sup>   | 0.101 ± 0.028 <sup>*</sup>  | 0.074 ± 0.015              | 0.084 ± 0.009               |
| Serine                | 1.663 ± 0.322  | 1.984 ± 0.096               | 2.114 ± 0.868                | 1.698 ± 0.213               | 1.780 ± 0.511              | 1.700 ± 0.239               |
| Succinate             | 0.767 ± 0.297  | 0.931 ± 0.267               | 0.555 ± 0.155 <sup>b</sup>   | 0.935 ± 0.277               | 0.950 ± 0.207              | 0.969 ± 0.168 <sup>*</sup>  |
| Taurine               | 7.739 ± 3.587  | 9.408 ± 2.660               | 10.334 ± 2.911               | 8.942 ± 2.165               | 9.059 ± 1.287              | 7.922 ± 1.400               |
| Threonine             | 1.292 ± 0.281  | 1.497 ± 0.082               | 1.674 ± 0.708                | 1.470 ± 0.392               | 1.681 ± 0.414              | 1.445 ± 0.199               |
| Tryptophan            | 0.174 ± 0.067  | 0.109 ± 0.049               | 0.142 ± 0.092                | 0.114 ± 0.070               | 0.098 ± 0.070              | 0.133 ± 0.081               |
| Tyrosine              | 0.331 ± 0.219  | 0.366 ± 0.135               | 0.422 ± 0.221                | 0.381 ± 0.162               | 0.331 ± 0.093              | 0.463 ± 0.136               |
| UDP-glucose           | 0.194 ± 0.088  | 0.247 ± 0.097               | 0.259 ± 0.090 <sup>a</sup>   | 0.303 ± 0.028 <sup>*</sup>  | 0.315 ± 0.045 <sup>*</sup> | 0.320 ± 0.038 <sup>*</sup>  |
| UMP                   | 0.367 ± 0.292  | 0.439 ± 0.135               | 0.335 ± 0.142                | 0.366 ± 0.175               | 0.360 ± 0.103              | 0.325 ± 0.172               |
| Uracil                | 0.194 ± 0.149  | 0.128 ± 0.047               | 0.072 ± 0.033                | 0.204 ± 0.124               | 0.123 ± 0.019              | 0.187 ± 0.192               |
| Uridine               | 0.225 ± 0.101  | 0.234 ± 0.071               | 0.363 ± 0.261                | 0.186 ± 0.086               | 0.286 ± 0.056 <sup>*</sup> | 0.252 ± 0.084               |
| Valine                | 0.883 ± 0.360  | 1.137 ± 0.530 <sup>a</sup>  | 0.958 ± 0.339 <sup>b</sup>   | 1.014 ± 0.230               | 0.806 ± 0.143              | 0.999 ± 0.170               |
| myo-Inositol          | 2.655 ± 0.887  | 2.908 ± 0.890               | 2.839 ± 1.244                | 3.018 ± 0.556               | 3.840 ± 0.507              | 3.368 ± 0.823               |
| 1-Methylhistidine     | 0.233 ± 0.057  | 0.292 ± 0.250 <sup>a</sup>  | 0.232 ± 0.114 <sup>b</sup>   | 0.288 ± 0.119               | 0.180 ± 0.094 <sup>*</sup> | 0.213 ± 0.043               |