**METABOLIC IMPACT OF INFANT FORMULAS IN YOUNG INFANTS. AN OUTLOOK FROM THE URINE METABOLOME.**

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Table S1: Correlation between urine organic acids levels in infants receiving infant formula.

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| --- | --- | --- |
| **Metabolite (Acid)** | **R\*** | **P value\*\*** |
| Lactic | -0,507 | 0,023 |
| 2 OH butyric | 0,365 | 0,113 |
| Glicolic | -0,264 | 0,26 |
| 3 OH isobutiric | -0,130 | 0,586 |
| Oxalic | 0,168 | 0,478 |
| Pyruvic  | -0,097 | 0,684 |
| 2 methyl 3 OH butyric | 0,597 | 0,005 |
| Methylmalonic | 0,069 | 0,773 |
| 3 OH isovaleric | -0,192 | 0,417 |
| Urea | 0,027 | 0,911 |
| Octanoic | -0,022 | 0,927 |
| Ethylmalonic | 0,175 | 0,462 |
| Phosphoric | 0,314 | 0,178 |
| Succinic | -0,087 | 0,717 |
| Methylsuccinic | 0,451 | 0,046 |
| Fumaric | -0,122 | 0,609 |
| 4-Deoxytetronic | 0,590 | 0,006 |
| Phenoxyacetic | 0,292 | 0,212 |
| Glutaric | 0,332 | 0,153 |
| 3 Methylglutaric | 0,526 | 0,017 |
| 3 OH Adipate Lactone | 0,181 | 0,444 |
| 3 methylglutaconic | 0,092 | 0,698 |
| 3,4 Dihydroxybutyric | -0,240 | 0,309 |
| Citramalic | 0,402 | 0,079 |
| Adipic | 0,497 | 0,026 |
| 3 methyl adipic | 0,654 | 0,002 |
| Heptenedioic | 0,095 | 0,691 |
| 2 OH glutaric | 0,037 | 0,876 |
| 3 OH 3 Methylglutaric | -0,091 | 0,704 |
| 2 Ketoglutaric | 0,301 | 0,197 |
| 4 OH Benzoic | 0,116 | 0,626 |
| 4 OH phenylacetic | 0,046 | 0,846 |
| Lauric | 0,155 | 0,515 |
| Suberic | 0,159 | 0,502 |
| Aconitic | 0,159 | 0,848 |
| HVA | -0,004 | 0,987 |
| Hipuric | -0,097 | 0,683 |
| 2-methyl 3- ketovaleric | -0,188 | 0,427 |
| Citric | -0,93 | 0,698 |
| VMA | -0,054 | 0,821 |
| 4 OH phenylactic | 0,158 | 0,507 |
| D-Glucitol | -0,214 | 0,365 |
| Palmitic | -0,383 | 0,095 |
| 3 OH Sebacic | 0,102 | 0,669 |
| 4 OH hippuric | 0,291 | 0,213 |
| Stearic | -0,362 | 0,117 |
| PAG | 0,511 | 0,021 |

\* Spearman's Rho (correlation coefficient)

\*\* Statistical significance was considered with P<0.05



Figure S1: Metabolites that showed statistically significant Spearman's correlation with age in the total population (both groups). **A.** Metabolites that show tendency to decrease with age. **B.** Metabolites that show tendency to increase with age.



Figure S2: Metabolites that showed statistically significant Spearman's correlation with only one population **A.** Metabolites associated with age in breast milk group. **B.** Metabolites associated with age in infant formula group.