

Article

Biomarker Candidates of Habitual Food Intake in a Swedish Cohort of Pregnant and Lactating Women and Their Infants

Mia Stråvik ^{1,*}, Olle Hartvigsson ¹, Stefania Noerman ¹, Anna Sandin ², Agnes E. Wold ³, Malin Barman ¹ and Ann-Sofie Sandberg ¹

¹ Food and Nutrition Science, Department of Life Sciences, Chalmers University of Technology, 412 96 Gothenburg, Sweden; ann-sofie.sandberg@chalmers.se

² Pediatrics, Department of Clinical Science, Sunderby Research Unit, Umeå University, 901 87 Umeå, Sweden

³ Department of Infectious Diseases, Institute of Biomedicine, Sahlgrenska Academy, University of Gothenburg, 413 90 Gothenburg, Sweden

* Correspondence: mia.stravik@chalmers.se

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Table S1. Features of interest for MSMS analysis.

| Potential metabolite | mz | rt | Adduct | Mode |
|--|------------------|------------------|---|----------|
| Pregnancy & delivery | | | | |
| Anserine | 121.070002980776 | 43.5149993896484 | M+2H | Positive |
| Pipecolic acid | 130.084874061977 | 53.6369667053223 | M+H | Positive |
| Choline | 143.071942117219 | 146.512084960938 | M+K | Positive |
| Proline betaine | 144.100677933661 | 46.4918327331543 | M+H | Positive |
| Pipecolic acid | 147.112804007174 | 35.7742233276367 | M+NH ₄ | Positive |
| Indole-3-acetaldehyde | 177.101523417765 | 55.4220008850098 | M+NH ₄ | Positive |
| Proline betaine | 185.127041836108 | 141.155014038086 | M+ACN+H | Positive |
| Acetylcarnitine | 204.122894778965 | 47.6826438903809 | M+H | Positive |
| Carnosine | 227.110415556985 | 324.526000976562 | M+H | Positive |
| CMPF ¹ | 241.109775710262 | 327.502990722656 | M+H | Positive |
| CMPF ¹ | 263.089872705659 | 327.503021240234 | M+Na | Positive |
| Lutein | 285.22476495678 | 427.208633422852 | M+2H | Positive |
| 3,3'-diindolylmethane | 288.15222712711 | 351.317016601562 | M+ACN+H | Positive |
| Phloretin | 307.120055349519 | 353.700042724609 | M+CH ₃ OH+H | Positive |
| Kaempferol | 319.081397751648 | 363.225006103516 | M+CH ₃ OH+H | Positive |
| Lutein | 569.432313465669 | 468.609008789062 | M+H | Positive |
| Lutein | 591.428029828622 | 408.471984863281 | M+Na | Positive |
| Lutein | 601.471061770655 | 466.823059082031 | M+CH ₃ OH+H | Positive |
| Trimethylamine N-oxide | 76.0752816857054 | 42.3238182067871 | M+H | Positive |
| Ascorbic acid | 87.009312096435 | 52.5139427185059 | M-2H | Negative |
| Ascorbic acid | 157.011511330464 | 35.8087501525879 | M-H ₂ O-H | Negative |
| Proline betaine | 178.064127208162 | 45.9650001525879 | M+Cl | Negative |
| S-methylcysteine | 194.046294950205 | 285.766510009766 | M+Hac-H | Negative |
| Indole-3-lactic acid | 204.066708245801 | 222.788223266602 | M-H | Negative |
| Carnosine | 247.082009909926 | 301.536499023438 | M+Na-2H | Negative |
| Phloretin | 333.09181425996 | 285.901412963867 | M+Hac-H | Negative |
| 4 months postpartum² | | | | |
| Choline | 104.107121986718 | 40.8259963989258 | [M+H] ⁺ /[M] ⁺ | Positive |
| Pipecolic acid | 130.086400246006 | 55.4720458984375 | [M+H] ⁺ | Positive |
| Proline betaine | 144.101857908248 | 46.318000793457 | [M+H] ⁺ | Positive |
| S-methylcysteine | 177.070361094278 | 361.815002441406 | [M+H- H ₂ O] ⁺ /[M+ACN+H] ⁺ | Positive |
| 3-Methyl histidine | 192.07457785385 | 38.1227130889893 | [M+H] ⁺ /[M+Na] ⁺ | Positive |
| Acetylcarnitine | 204.123262821318 | 50.5887908935547 | [M+H] ⁺ | Positive |
| 4-hydroxyphenylpyruvate | 213.074734423396 | 37.7863998413086 | [M+H] ⁺ /[M+CH ₃ OH+H] ⁺ | Positive |
| CMPF ¹ | 263.08981438261 | 325.809936523438 | [M+H] ⁺ /[M+Na] ⁺ | Positive |
| Zeaxanthin | 568.426551797752 | 465.572570800781 | [M+H] ⁺ /[M] ⁺ | Positive |
| Lutein | 569.432313465669 | 468.609008789062 | M+H | Positive |
| CMPF ¹ | 239.092153517623 | 330.2763671875 | [M-H] ⁻ | Negative |

¹ 3-carboxy-4-methyl-5-propyl-2-furanpropanoic acid.

² The most probable mz corresponding to a cluster from RamClust in R.

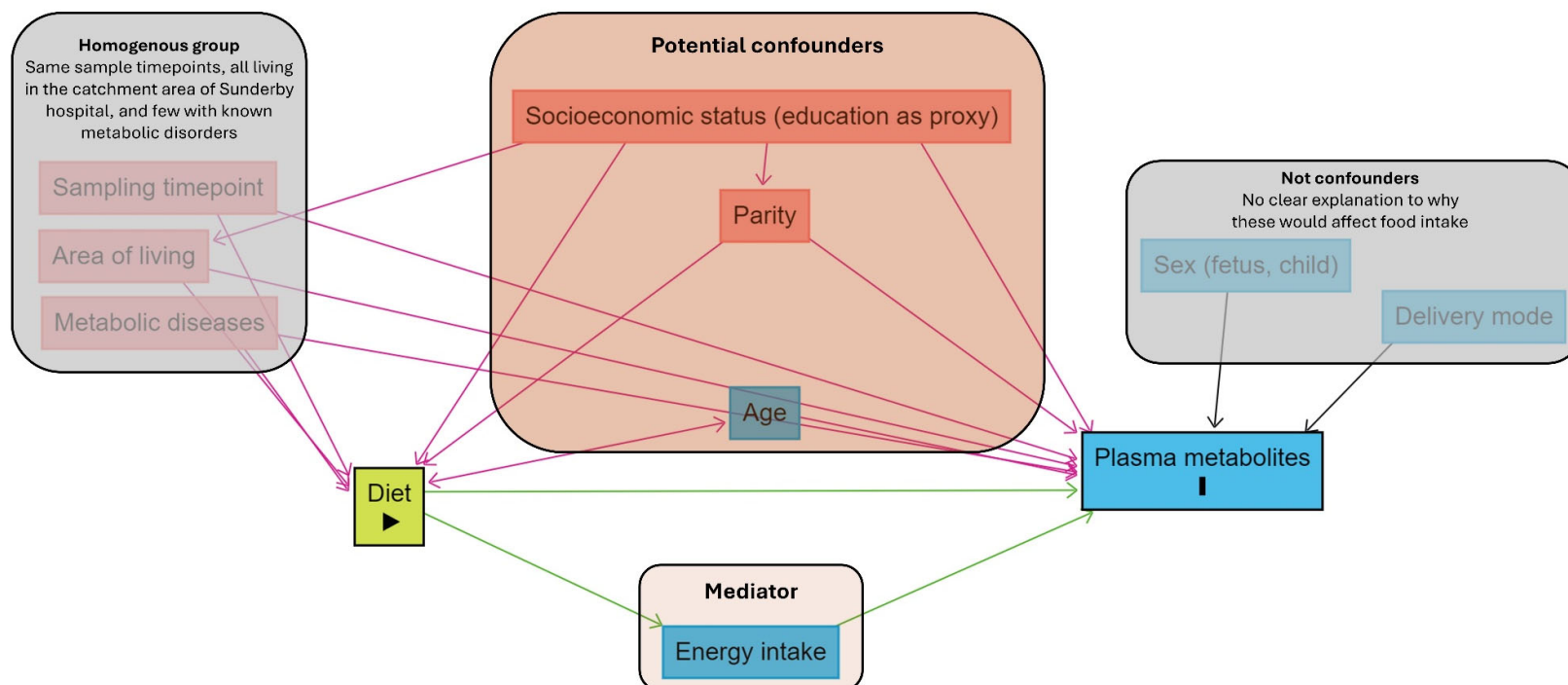


Figure S1. Directed acyclic graph.

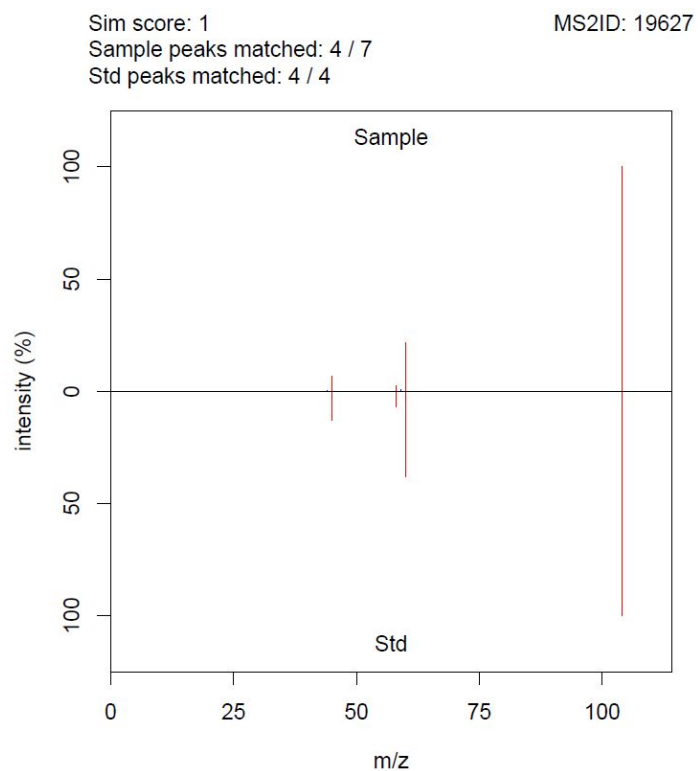


Figure S2. MSMS spectra matching for choline.

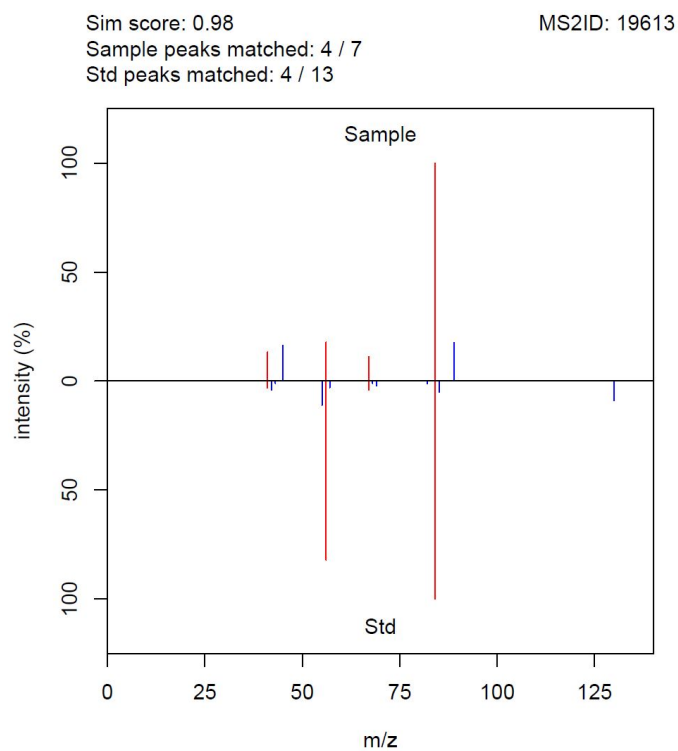


Figure S3. MSMS spectra matching for pipecolic acid.

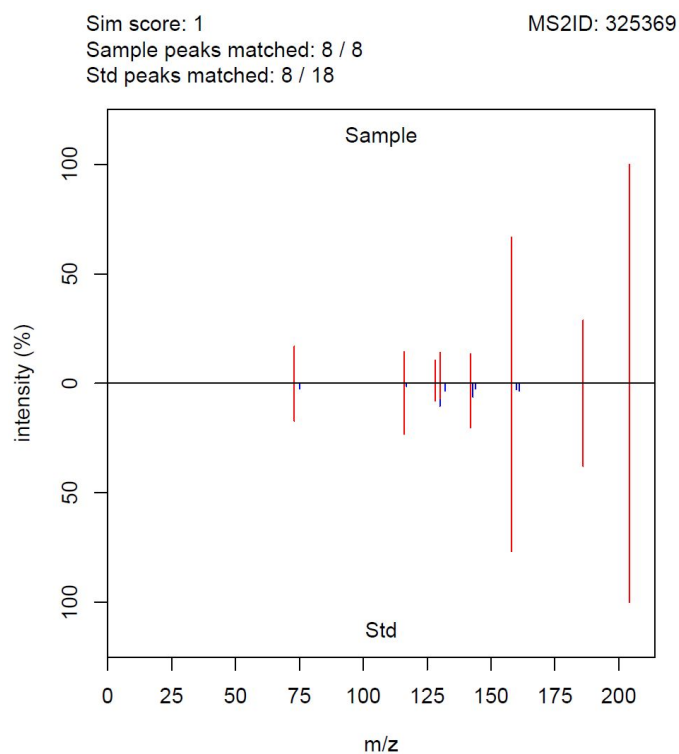


Figure S4. MSMS spectra matching for indole-3-lactic acid.

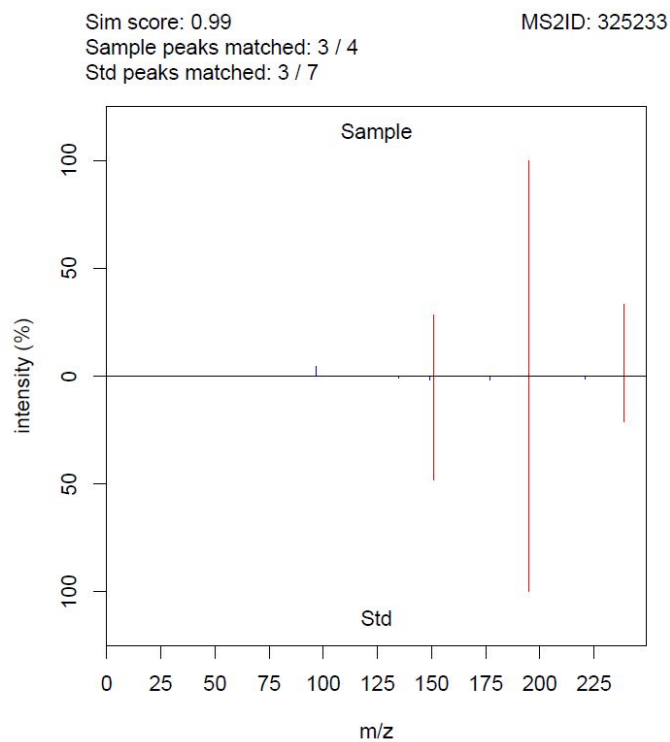


Figure S5. MSMS spectra matching for CMPF.



Sim score: 0.98
Sample peaks matched: 18 / 22
Std peaks matched: 18 / 27

MS2ID: 19544

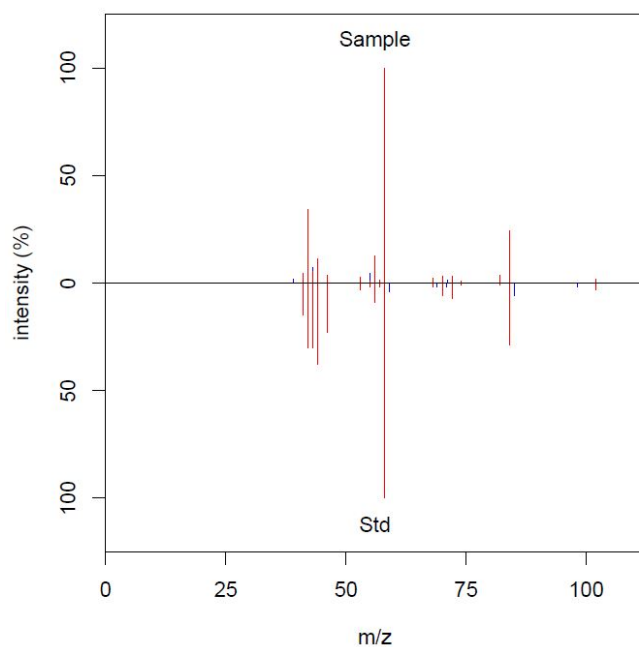


Figure S6. MSMS spectra matching for proline betaine.

Sim score: 1
Sample peaks matched: 5 / 5
Std peaks matched: 5 / 26

MS2ID: 19343

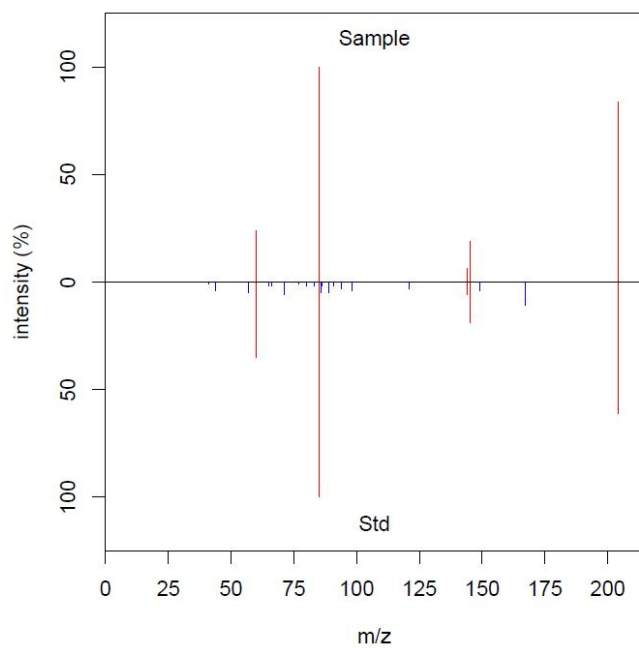


Figure S7. MSMS spectra matching for acetylcarnitine.

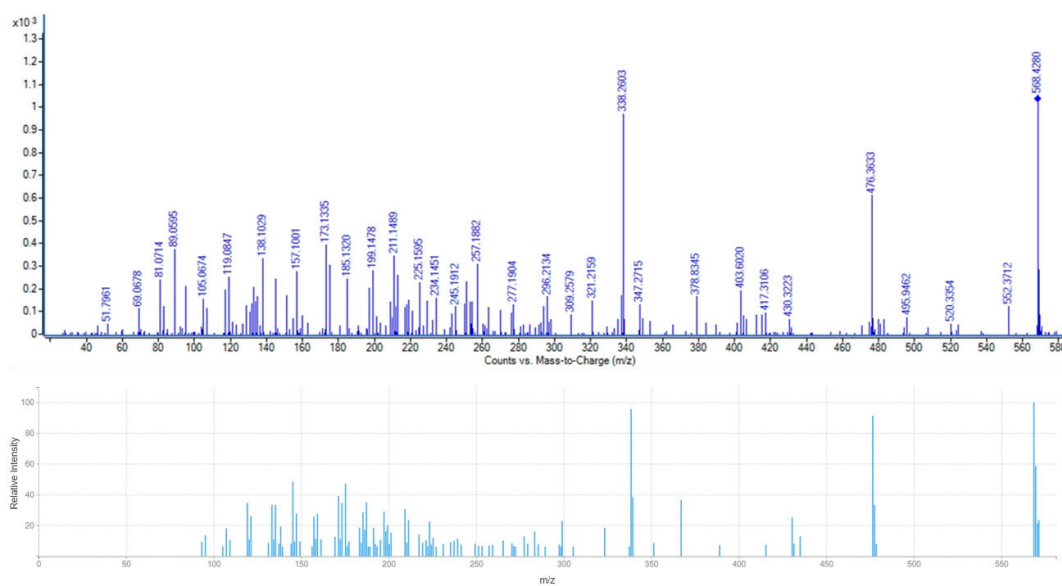


Figure S8. MS/MS spectra matching for lutein. Matching was done after a manual check against HMDB spectral library. The reference spectra (bottom image) can be found at: https://hmdb.ca/spectra/ms_ms/2228168.