

Figure S1: Proportion of correct classification for IC-DA permutation test on untreated data for Protein groups : A) Osmolality-corrected Reverse Phase; B) Osmolality-corrected HILIC; Legend: Blue bars, permuted groups; Red bar, true groups.

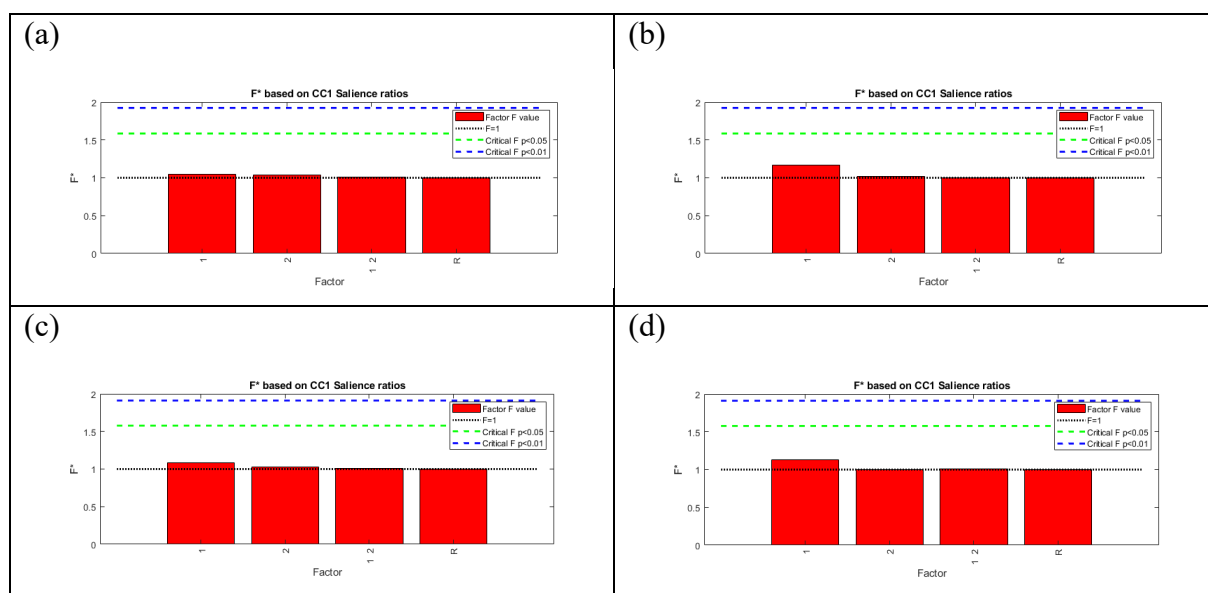


Figure S2. F-values calculated as the ratio of the salience of the residual table for CC 1 on the saliences of the other tables. (a) Osmolality-corrected, SNV-pretreated RP data; (b) Osmolality-corrected, SNV-pretreated HILIC data, (c) non-corrected, raw RP data; (d) non-corrected, raw HILIC data. Note that the F\* value is slightly higher for the non-corrected, raw RP data.

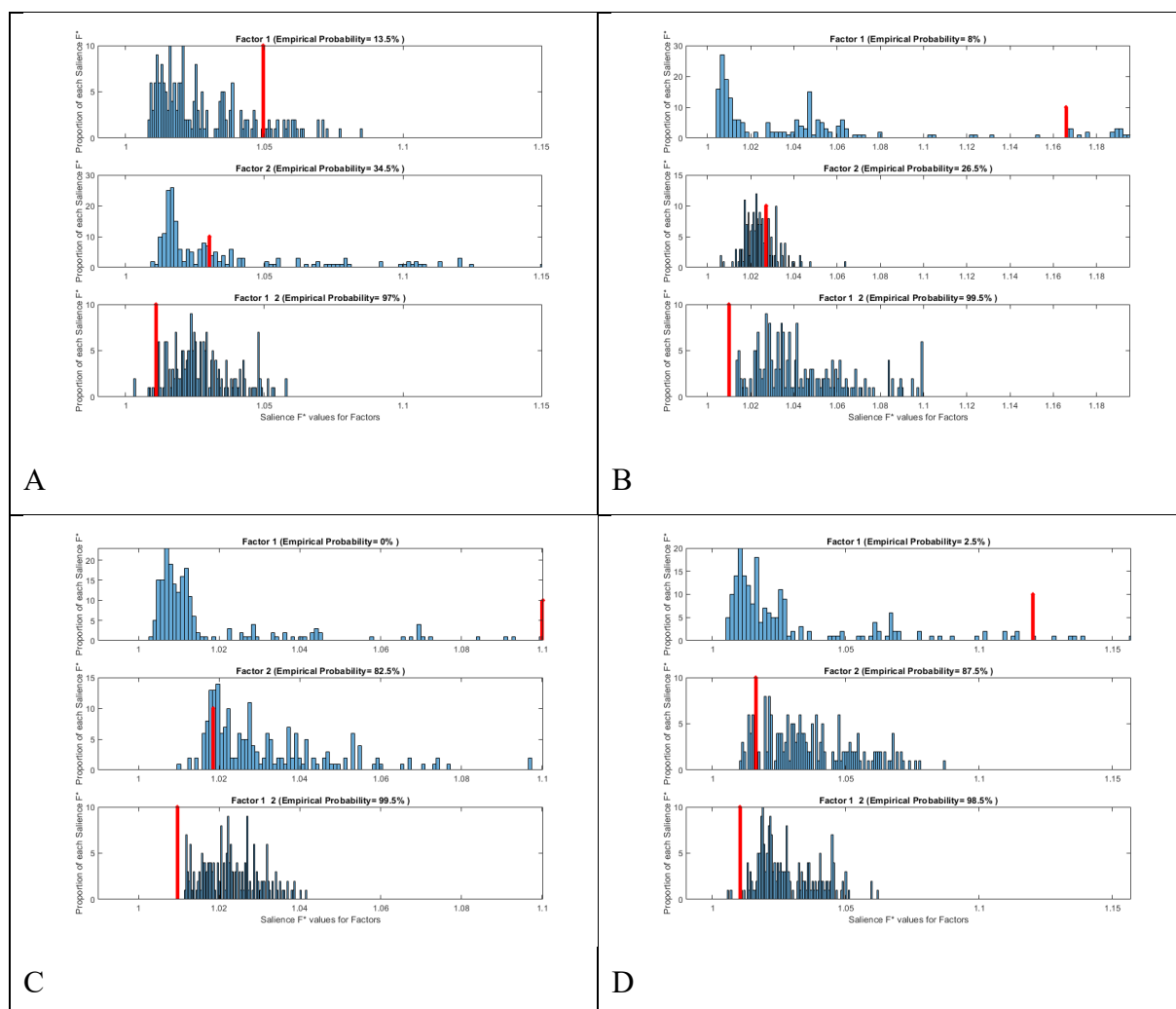


Figure S3: Proportion of correct classification for AComDim-ICA permutation test on the data for Period groups for the original (Red) and the permuted (Blue) groups, for the 3 Factors : A) SNV-treated osmolality-corrected Reverse Phase; B) SNV-treated osmolality-corrected HILIC, C) raw, non-corrected Reverse Phase; D) raw, non-corrected HILIC.

In Figure S3 it is clear that the Factor1 effect is more significant for the HILIC data than for the RP data. In no case are Factor2 and Factor12 significant.





Table S2. MS-MS characteristics of urinary metabolites related to the consumption of experimental meal. For some features no MS-MS fragmentation could be obtained due to the low intensity of the ion in the spectrum.

Experim. m/z	Suggested ion	Elemental composition	MS/MS fragment ions	Collision energy, eV	annotation
338.3422	--	C <sub>12</sub> H <sub>44</sub> NO	No MS-MS fragments obtained	--	unknown
114.067	[M+H] <sup>+</sup>	C <sub>4</sub> H <sub>8</sub> N <sub>3</sub> O	86.0848	30	creatinine
312.2176	[M+H] <sup>+</sup>	C <sub>17</sub> H <sub>30</sub> N <sub>4</sub> O <sub>4</sub>	253.1445, 151.1120, 123.1162, 85.0289, 81.0703	20	decanoylcarnitine
287.1008	[M+Na] <sup>+</sup>	C <sub>13</sub> H <sub>17</sub> N <sub>2</sub> O <sub>4</sub>	136.0765, 130.0506, 91.0537, 84.0446	15	phenylacetylglutamine
229.1553	[M+H] <sup>+</sup>	C <sub>11</sub> H <sub>21</sub> N <sub>2</sub> O <sub>3</sub>	142.0866, 70.0654	20	unknown
162.1135	[M+H] <sup>+</sup>	C <sub>7</sub> H <sub>16</sub> N <sub>3</sub> O	102.0919, 103.0324, 85.0233	15	Carnitine
229.1189	[M+H] <sup>+</sup>	C <sub>10</sub> H <sub>17</sub> N <sub>2</sub> O <sub>4</sub>	132.0658, 86.0606	20	Hydroxyprolyl-proline
350.0853	--	--	No MS-MS fragments obtained	--	unknown
333.1165	--	--	No MS-MS fragments obtained	--	unknown
377.1428	--	C <sub>10</sub> H <sub>26</sub> N <sub>4</sub> O <sub>9</sub> P	No MS-MS fragments obtained	--	unknown

160.09	[M+H] <sup>+</sup>	C7H13NO3	142.0860, 100.0760		Dehydrocarnitine
421.1682	[M+H] <sup>+</sup>	C14H25N6O9 C7H13N3O5	363.1629, 305.1567	25	unknown
416.2134	--	C17H29N5O7	No MS-MS fragments obtained		unknown
289.0901	--	--	No MS-MS fragments obtained		unknown
170.0931	[M+H] <sup>+</sup>	C7H12N3O2	124.0852, 109.0742, 97.1008, 96.0728, 95.0658, 83.0575	20	3-methylhistidine
137.0718	[M+H] <sup>+</sup>	C7 H9 N2 O	120.0463, 110.0600, 94.0656	20	6-methylpyridine-3-carboxamide
207.0592	[M+H] <sup>+</sup>	C4H9N5O5	165.0481, 132.0680	20	unknown

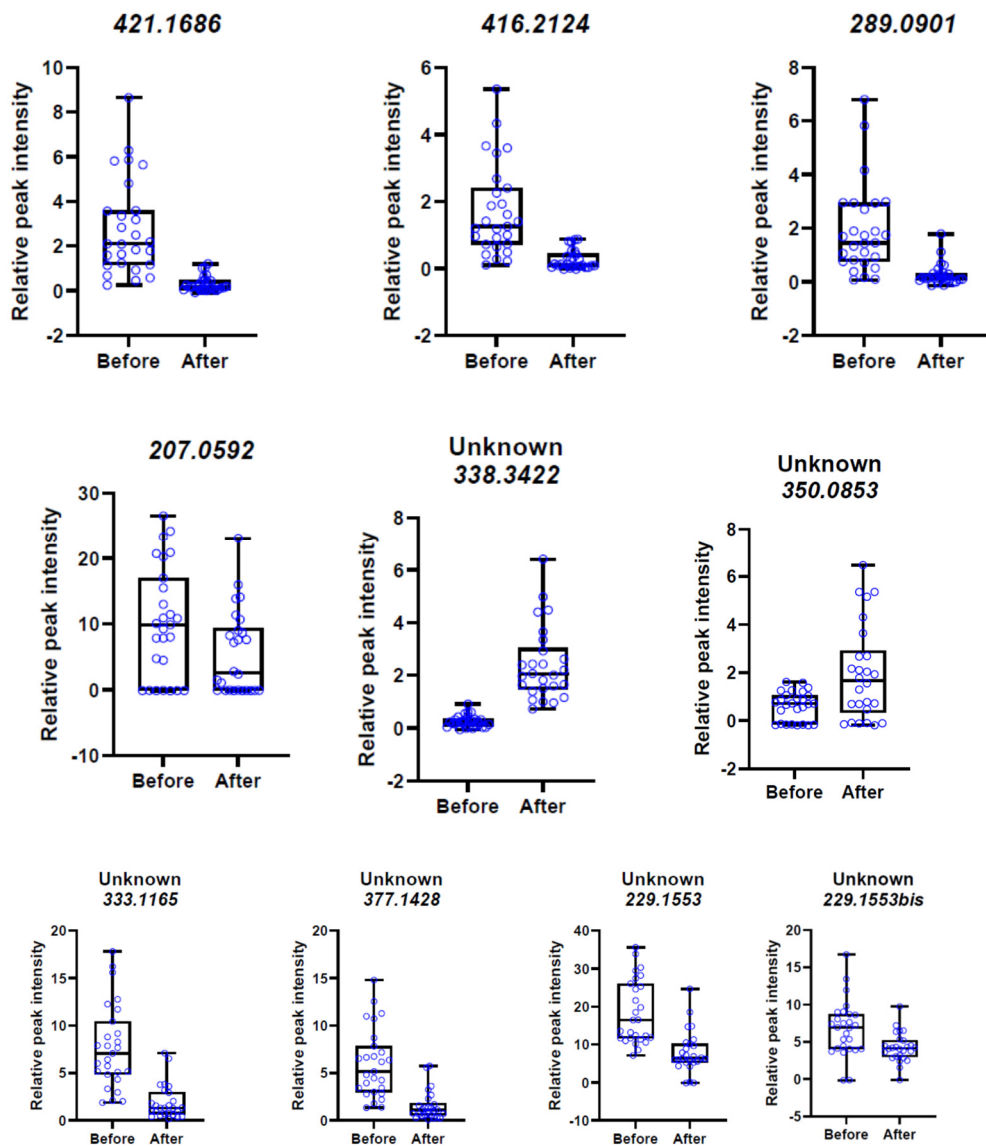


Figure S6. Boxplot of signal intensities of non-identified metabolites before and 9 h after meal intake. Legend: group 1 = before meal intake, group 2 = 9h after meal intake.