

Supplemental table 2:
Overview of metabolites and proteins analyzed during the high fat prandial challenge test
GCMS metabolic profiling platform nr 1
Multiplex proteome analyses platform nr 2
Clinical chemistry platform nr 3

#	ID	abbreviation	link	Pif
1	unknown 1			1
2	Hexadecanoic-methylester			1
3	C22:6 Fatty acid	DHA	HMDB02183	1
4	3-Methylhistidine	3m-His	HMDB00479	1
5	Acetoacetic acid peak 1		HMDB00060	1
6	2,4-Dihydroxybutanoic acid		HMDB00360	1
7	Xylose	Xyl	HMDB00098	1
8	Arabinose		HMDB00646	1
9	Arabitol, Ribitol, or Xylitol		HMDB01851_or HMDB00508_or HMDB02917	1
10	Ribose		HMDB00283	1
11	Arachidonic acid	AA	HMDB01043	1
12	Acetoacetic acid peak 2		HMDB00060	1
13	Alanine	Ala	HMDB00161	1
14	Sarcosine	Sar	HMDB00271	1
15	Asparagine	Asn	HMDB00168	1
16	unknown 2			1
17	Lactic acid		HMDB00190_or HMDB01311	1
18	unknown 3			1
19	C16:0 fatty acid	C16:0 FA	HMDB00220	1
20	C17:0 Fatty acid	C17:0 FA	HMDB02259	1
21	C18:0 fatty acid	C18:0 FA	HMDB00827	1
22	3-Amino-2-piperidinon		HMDB00323	1
23	2-Amino-1-butyric acid		HMDB00452	1
24	2-Hydroxybutanoic acid		HMDB00008	1
25	unknown 4			1
26	Stearoylamide			1
27	Proline	Pro	HMDB00162	1
28	N-carboxyproline			1
29	Ornithine	Orn	HMDB00214	1
30	Valine	Val	HMDB00883	1
31	2-Hydroxyvaleric acid		HMDB01863	1
32	Lactic acid		HMDB00190	1
33	Histidine	His	HMDB00177	1
34	2-Hydroxypiperidine			1
35	Glutamine degr. internal amide		HMDB02142	1
36	unknown 5			1
37	Lysine	Lys	HMDB00182	1
38	Glutamine	Gln	HMDB02142	1
39	Leucine	Leu	HMDB00687	1
40	Isoleucine	Ile	HMDB00172	1
41	S-methyl-L-cysteine		HMDB02108	1
42	N-methyl-4-hydroxyproline			1
43	Glycine	Gly	HMDB00123	1
44	Beta-Alanine	B-ala	HMDB00056	1
45	Lysine	Lys	HMDB00182	1
46	Mannose	Man	HMDB00169	1
47	Methionine		HMDB00696	1
48	unknown 6			1
49	unknown 7			1
50	Pyruvic acid		HMDB00243	1
51	Urea		HMDB00294	1
52	3-Hydroxybutanoic acid		HMDB00357	1
53	Phenylalanine		HMDB00159	1
54	5-oxoproline?		HMDB00267	1
55	3-Methyl-2-oxo-valeric acid		HMDB00491	1
56	4-methyl-2-oxovaleric acid		HMDB00695	1
57	unknown 8			1
58	Indole-3-propionic acid		HMDB02302	1
59	Tryptophan	Trp	HMDB00929	1
60	Glutamine?	Gln?	HMDB00641	1
61	Serine	Ser	HMDB00187	1
62	unknown 9			1
63	Byproduct of glucose			1
64	Byproduct of glucose			1
65	Lactose		HMDB00186	1
66	Glycerol		HMDB00131	1
67	Meso-erythritol		HMDB02994	1
68	1,5-Anhydro-D-Glucitol		HMDB02712	1
69	Glucose?	Glc?	HMDB00122	1
70	Myo-inositol		HMDB00211	1

71	Pseudo uridine			HMDB00767	1
72	Threonine	Thr		HMDB00167	1
73	Aminomalonic acid			HMDB01147	1
74	Cysteine	Cys		HMDB00574	1
75	Tyrosine	Tyr		HMDB00158	1
76	L-Cystine			HMDB00192	1
77	unknown 10				1
78	C16:0 lysophosphatidylcholine	C16:0 LPC		HMDB10382	1
79	C18:2 lysophosphatidylcholine	C18:2 LPC		HMDB10386	1
80	C18:0 lysophosphatidylcholine	C18:0 LPC		HMDB10384	1
81	C10:0 Fatty acid	C10:0 FA		HMDB00511	1
82	4-Hydroxyproline	HPro		HMDB00725	1
83	4-Deoxyglucose				1
84	N-carboxyl-alanine				1
85	unknown 11				1
86	Monomethylphosphate				1
87	Unknown 12				1
88	Indole-3-carboxaldehyde?			HMDB00195	1
89	Glutamic acid	Glu		HMDB03339	1
90	Succinic acid			HMDB00254	1
91	unknown 13				1
92	C12:0 Fatty acid	C12:0 FA		HMDB00638	1
93	alpha-Aminoadipic acid	AADA		HMDB00510	1
94	unknown 14				1
95	Citric acid			HMDB00094	1
96	unknown 15				1
97	Spingomyelin (d16:1/16:0)	SM(d16:1/16:0)			1
98	Spingomyelin (d16:1/18:0)	SM(d16:1/18:0)			1
99	Spingomyelin (d16:1/20:0)	SM(d16:1/20:0)			1
100	Spingomyelin (d16:1/22:0)	SM(d16:1/22:0)			1
101	Spingomyelin (d16:1/24:1)	SM(d16:1/24:1)			1
102	C14:0 Fatty acid	C14:0 FA		HMDB00806	1
103	unknown 16				1
104	alpha-Ketoglutaric acid			HMDB00208	1
105	4-hydroxyglutamate semialdehyde?			HMDB06556	1
106	4-hydroxyglutamate semialdehyde?			HMDB06556	1
107	Erythronic acid			HMDB00613	1
108	2,3,4-trihydroxybutanoic acid			HMDB00613	1
109	Spingomyelin (d17:1/16:0)	SM(d17:1/16:0)			1
110	Spingomyelin (d17:1/18:0)	SM(d17:1/18:0)			1
111	Phosphate			HMDB01429	1
112	sn-Glycerol-3-Phosphate			HMDB02722	1
113	Inositol cyclic phosphate			HMDB01125	1
114	Fructose	Fruc		HMDB00660	1
115	Spingomyelin (d18:2/16:0)	SM(d18:2/16:0)			1
116	Spingomyelin (d18:2/18:0)	SM(d18:2/18:0)			1
117	Spingomyelin (d18:2/20:0)	SM(d18:2/20:0)			1
118	Spingomyelin (d18:2/24:0) & Spingomyelin (18:2/24:1)	SM(d18:2/24:0) & SM(18:2/24:1)			1
119	C16:1 fatty acid	C16:1 FA		HMDB03229 or HMDB02186 or HMDB10736	1
120	Spingomyelin (d18:1/16:0)	SM(d18:1/16:0)		HMDB10169	1
121	Spingomyelin (d18:1/17:0)	SM(d18:1/17:0)			1
122	Spingomyelin (d18:1/18:0)	SM(d18:1/18:0)		HMDB01348	1
123	Spingomyelin (d18:1/22:0)	SM(d18:1/22:0)			1
124	Spingomyelin (d18:1/23:0)	SM(d18:1/23:0)			1
125	Spingomyelin (d18:1/24:0) & Spingomyelin (d18:1/24:1)	SM(d18:1/24:0) & SM(d18:1/24:1)			1
126	Spingomyelin (d18:0/16:0)	SM(d18:0/16:0)		HMDB10168	1
127	Inositol				1
128	Myo-inositolphosphate			HMDB00213	1
129	D-glucose	Glc		HMDB00122	1
130	Creatinine			HMDB00562	1
131	C18:2 fatty acid	C18:2 FA		HMDB00673 or HMDB06270 or HMDB03797 or HMDB00573 or HMDB05047	1
132	C18:1 fatty acid	C18:1 FA		HMDB00207 or HMDB03231 or HMDB00573	1
133	Lysophosphatidic acid (0:0/16:0) or Lysophosphatidic acid (16:0/0:0)	LPA(0:0/16:0) or LPA(16:0/0:0)		HMDB07849 or HMDB07853	1
134	Glucose?	Glc?		HMDB00122	1
135	Sucrose			HMDB00258	1
136	Maltose			HMDB00163	1
137	C16:0 Glycerol ester	C16:0 MG			1
138	1,2-Diglyceride (Mw 592)	1,2 DG			1
139	1,3-Diglyceride (Mw 592)	1,3 DG			1
140	C18:1 Glycerol ester	C18:1 MG			1
141	C18:0 Glycerol ester	C18:0 MG			1

142	1,2 Diglyceride (Mw 620)	1,2 DG		1
143	Uric acid		HMDB00289	1
144	Cholesterol	Chol	HMDB00067	1
145	Vitamin E	Vit E	HMDB01893	1
146	Angiotensin converting enzyme	ACE	P12821	2
147	Adiponectin	ADIPO	Q15848	2
148	Alpha-1 Antitrypsin	A1AT	P01009	2
149	Alpha-2 Macroglobulin	A2M	P01023	2
150	Alpha-Fetoprotein	FETA	P02771	2
151	Angiotensinogen	ANGT	P01019	2
152	Apolipoprotein A1	APOA1	P02647	2
153	Apolipoprotein CIII	APOC3	P02656	2
154	Apolipoprotein H	APOH	P02749	2
155	Agouti-signaling protein	ASIP	P42127	2
156	Beta-2 Microglobulin	B2M	P61769	2
157	Brain-Derived Neurotrophic Factor	BDNF	P23560	2
158	C Reactive Protein	CRP	P02741	2
159	NMDA receptor-regulated protein 1 or Cancer Antigen 19-9	NARG1 or GA19	Q9BXJ9	2
160	Tumor necrosis factor receptor superfamily member 5	TNR5 or CD40	P25942	2
161	CD40 Ligand	CD40L	P29965	2
162	Complement 3	CO3	P01024	2
163	Cortisol		HMDB00063	2
164	Connective tissue growth factor	CTGF	P29279	2
165	Epidermal Growth Factor	EGF	P01133	2
166	Epidermal Growth Factor Receptor	EGFR	P00533	2
167	C-X-C motif chemokine 5 or Neutrophil-activating peptide ENA-78	CXCL5 or ENA78	P42830	2
168	Protein S100-A12	S10AC or ENRAGE	P80511	2
169	Factor VII	FA7 or F7	P08709	2
170	Ferritin	FRI	P02792 or P02794	2
171	Fibrinogen	FIB	P02671 or P02675 or P02675	2
172	Follicle stimulating hormone	FSH	P01215 or P01225	2
173	Glucagon-like peptide 1 active	GLP-1 active	P01275	2
174	Glucagon-like peptide 1 total	GLP-1 Total	P01275	2
175	Glucagon	GLUC	P01275	2
176	Glutathione S-Transferase A1	GSTA1	P08263	2
177	Haptoglobin	HPT	P00738	2
178	Heparin-binding EGF-like growth factor	HBEGF	Q99075	2
179	Intercellular adhesion molecule 1	ICAM1	P05362	2
180	Immunoglobulin alpha	IgA	P01876 or P01877	2
181	Immunoglobulin mu	IgM	P01871	2
182	interleukin 16	IL16	Q14005	2
183	interleukin 17 or interleukin 17A	IL17 or IL17A	Q18552	2
184	interleukin 18	IL18	Q14116	2
185	interleukin 1alpha	IL1A	P01583	2
186	interleukin 1 receptor antagonist protein	IL1RA	P18510	2
187	interleukin 7	IL7	P13232	2
188	interleukin 8	IL8	P10145	2
189	Insulin	INS	P01308	2
190	Leptin	LEP	P41159	2
191	Luteinizing hormone	LSH or LH	P01215 or P01229	2
192	Lipoprotein (a)	APOA or LPA	P08519	2
193	Macrophage colony-stimulating factor 1	CSF1 or MCSF	P09603	2
194	C-C motif chemokine ligand 22 or Macrophage-derived chemokine	CCL22 or MDC	Q00626	2
195	C-C motif chemokine ligand 3 or Macrophage inflammatory protein 1-alpha	CCL3 or MIP-1alpha	P10147	2
196	C-C motif chemokine ligand 4 or Macrophage inflammatory protein 1-beta	CCL4 or MIP-1beta	P13236	2
197	Matrix metalloproteinase-2 or 72 kDa type IV collagenase	MMP2	P08253	2
198	Matrix metalloproteinase-9	MMP9	P14780	2
199	Myeloperoxidase	MPO	P05164	2
200	Myoglobin	MYG	P02144	2
201	Plasminogen activator inhibitor 1	SERPINE1 or PAI-1	P05121	2
202	Pancreatic polypeptide	PAHO or PP	P01298	2
203	Platelet-derived growth factor	PDGF	P04085 or P01127 or Q9NRA1 or Q9GZP0	2
204	Progesterone		HMDB01830	2
205	Prolactin	PRL	P01236	2
206	Prostate Specific Antigen, Free or Kallikrein-3	PSA or KLK3	P07288	2
207	Prostatic Acid Phosphatase	ACPP or PPAP	P15309	2
208	Peptide YY	PYY	P10082	2
209	C-C motif chemokine 5	CCL5 or RANTES	P13501	2
210	Resistin	RETN	Q9HD89	2
211	Serum Amyloid P	SAP	P02743	2
212	Aspartate aminotransferase, cytoplasmic	AATC or SGOT	P17174	2

213	Sex hormone-binding globulin	SHBG	P04278	2
214	Kit Ligand or Stem Cell Factor	KITLG or SCF	P21583	2
215	Tenascin C	TENA	P24821	2
216	Testosterone		HMDB00234	2
217	Thrombospondin-1	THBS1	P07996	2
218	Thyroid Stimulating Hormone	TSH	P01215 or P01222	2
219	Thyroxine Binding Globulin	THBG or SERPINA7	P05543	2
220	Metalloproteinase inhibitor 1	TIMP-1	P01033	2
221	Tumor necrosis factor receptor superfamily member 1B or Tumor necrosis factor receptor 2	TNF RII or TNFR1B	P20333	2
222	Vascular cell adhesion protein 1	VCAM-1	P19320	2
223	Vascular endothelial growth factor A	VEGFA or VEGF	P15692	2
224	von Willebrand Factor	VWF	P04275	2
225	Insulin	Ins	P01308	3
226	Glucose	Glc	HMDB00122	3
227	Triglycerides	TG		3
228	Non esterified fatty acids	NEFA		3
229	High sensitive C reactive Protein	hsCRP	P02741	3
230	Interleukin 6	IL6	P05231	3
231	Tumor necrosis factor alpha	TNFa	P01375	3