

Erratum to: Oxylipins discriminate between whole grain wheat and wheat aleurone intake: a metabolomics study on pig plasma

Natalja P. Nørskov · Mette Skou Hedemann ·
Peter K. Theil · Knud Erik Bach Knudsen

Published online: 16 November 2012
© Springer Science+Business Media New York 2012

Erratum to: Metabolomics
DOI 10.1007/s11306-012-0465-x

The original version of the article unfortunately contained a mistake. In the Tables 2 and 3 all the signs “>” have to be “<”. In the Result section there is mistake in the sentence. The sentence should be written as: OSC-PCA score plot showed that there was discrimination between whole grain and refined flour, whereas refined flour and aleurone were closely related.

The online version of the original article can be found under
doi:[10.1007/s11306-012-0465-x](https://doi.org/10.1007/s11306-012-0465-x).

N. P. Nørskov (✉) · M. S. Hedemann ·
P. K. Theil · K. E. B. Knudsen
Department of Animal Science, Aarhus University,
Blichers Alle 20, Postbox 50, 8830 Foulum, Tjele, Denmark
e-mail: natalja.norskov@agrsci.dk

Table 2 List of metabolites discriminating between portal vein and mesenteric artery

Bile acids								
Retention time (min)	<i>m/z</i>	Mass accuracy (ppm)	Metabolites	Portal vein vs. mesenteric artery (fasted state)		Portal vein vs. mesenteric artery (fed state)		
				Fold change ^b	<i>q</i> value ^c	Fold change ^b	<i>q</i> value ^c	
13.62	448.3056 ^a	2.8	Glycochenodeoxycholic acid	12.7*** ^d	<0.001	5.6***	<0.001	
11.73	448.3059 ^a	2.0	Glycoursodioxycholic acid	4.8***	<0.001	2.6***	<0.001	
12.17	446.2899	0.4	Unidentified glycine conjugated bile acid	10.9***	<0.001	5.0***	<0.001	
11.21	448.3054	3.1	Unidentified glycine conjugated bile acid	13.9***	<0.001	6.1***	<0.001	
11.02	464.3007 ^a	2.4	Glycohyocholic acid	7.0***	<0.001	3.7***	<0.001	
14.41	389.2682	1.0	Unidentified unconjugated bile acid	7.3***	<0.001	1.7***	<0.001	
16.16	391.2839 ^a	3.8	Chenodeoxycholic acid	4.1***	<0.001	3.9***	<0.001	
12.78	407.2790 ^a	3.2	Hyocholic acid	5.0***	<0.001	1.7***	<0.001	
13.78	391.2837 ^a	4.3	Hyodeoxycholic acid or Ursodeoxycholic acid	2.1***	<0.001	1.5***	<0.001	

Metabolites are listed according to the loadings of PCA models, from metabolites with the highest influence to metabolites with the less influence. The measurements were performed in negative electrospray ionization mode

^a Identified using commercial standard

^b Fold change was calculated by dividing the mean of normalized intensity of each plasma metabolite measured in the portal vein by the mean intensity of the same plasma metabolite measured in the mesenteric artery

^c FDR *q* value was calculated for correction of falls-positives

^d *P* value was calculated by a two-sample *t* test; * <0.05 ** <0.01 *** <0.001

Table 3 List of metabolites discriminating between whole grain wheat, wheat aleurone and refined flour

Fatty acids											
Retention time (min)	<i>m/z</i>	Mass accuracy (ppm)	Metabolites ^c	Whole grain wheat vs. refined flour		Wheat aleurone vs. refined flour		Whole grain wheat vs. wheat aleurone (artery)		Whole grain wheat vs. wheat aleurone (vein)	
				Fold change ^d	<i>q</i> value ^e	Fold change ^d	<i>q</i> value ^e	Fold change ^d	<i>q</i> value ^e	Fold change ^d	<i>q</i> value ^e
18.34	295.2264 ^a	5.0	13-HODE and 9-HODE	1.3** ^f	0.07	0.9	0.41	1.5**	0.03	1.4**	0.07
18.80	297.2419 ^b	5.3	9,10-epoxy-stearic acid	33.3***	<0.001	40.3***	<0.001	0.8	0.34	0.8	0.44
11.68	329.2323 ^a	3.0	9,12,13-TriHOME	1.04**	0.05	0.7	0.79	1.6**	0.02	1.3*	0.08
18.64	293.2095 ^b	9.2	13-oxo-ODE	0.4	0.66	0.6	0.25	1.6*	0.02	1.4*	0.05
21.45	309.2404	–	Unidentified	4.8*	0.14	0.4*	0.10	4.3**	0.004	2.6**	0.06
16.30	311.2207 ^b	6.7	13H-EpODE	1.04**	0.04	0.7	0.78	1.5**	0.05	1.4**	0.05
22.02	277.2142 ^a	7.2	Linolenic acid	1.4***	<0.001	1.2*	0.05	1.2**	0.05	1.1*	0.11
23.33	279.2306 ^a	4.3	Linoleic acid	1.04	0.54	0.9	0.54	1.1	0.22	1.1	0.14
19.11	319.2274 ^b	1.5	11-HETE	1.1	0.83	0.8	0.25	1.5*	0.07	1.3	0.26

Metabolites are listed according to the % of described variation in the PLS-DA models, from high to low. The measurements were performed in negative electrospray ionization mode

^a Identified using commercial standard

^b Identified using spectra from the literature

^c 13-Hydroxy-9,11-octadecadienoic acid (13-HODE), 9-hydroxy-10,12-octadecadienoic acid (9-HODE), 9,10-epoxyoctadecanoic acid (9,10-epoxy-stearic acid), 9,12,13-trihydroxy-10-octadecenoic acid (9,12,13-TriHOME), 13-keto-9,11-octadecadienoic acid (13-oxo-ODE), 13-hydroxy-9,10-epoxy-11-octadecenoic acid (13H-EpODE), 11-hydroxy-5,8,12,14-eicosatetraenoic acid (11-HETE)

^d Fold change was calculated by dividing the mean of normalized intensity of each plasma metabolite after consumption of one experimental bread by the mean intensity of the same plasma metabolite after consumption of another experimental bread

^e FDR *q* value was calculated for correction of falls-positives

^f *P* value was calculated by a two-sample *t* test; * <0.05 ** <0.01 *** <0.001