## Analyst



View Article Online

## CORRECTION



Cite this: Analyst, 2015, 140, 1356

## Correction: Imaging mass spectrometry of a mouse brain by tapping-mode scanning probe electrospray ionization

Yoichi Otsuka,\*<sup>a</sup> Junpei Naito,<sup>a</sup> Shuya Satoh,<sup>a</sup> Masafumi Kyogaku,<sup>a</sup> Hiroyuki Hashimoto<sup>a</sup> and Ryuichi Arakawa<sup>b</sup>

DOI: 10.1039/c4an90101k

www.rsc.org/analyst

Correction for 'Imaging mass spectrometry of a mouse brain by tapping-mode scanning probe electrospray ionization' by Yoichi Otsuka *et al.*, *Analyst*, 2014, **139**, 2336–2341.

On pp. 2338 and 2339, there are errors in the captions to Fig. 2 and Table 1, where the ion images and assignments for the major ion peaks shown, respectively, are identified as being obtained from a rat brain section. This is not correct and we would like to confirm that the images and peak data were obtained from a mouse brain section. Correct versions of Fig. 2 and Table 1 are shown here below.

<sup>&</sup>lt;sup>a</sup> Frontier Research Center, Canon Inc., 30-2 Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan. E-mail: otsuka.yoichi@canon.co.jp; Tel: +81-3-3758-2111 <sup>b</sup>Department of Chemistry and Materials Engineering, Faculty of Chemistry, Materials, and Bioengineering, Kansai University, 3-3-35 Yamatecho, Suita, Osaka 564-8680, Japan. E-mail: arak@kansai-u.ac.jp; Tel: +81-6-6368-0781



**Fig. 2** Negative-ion mode SPESI-MS of the mouse brain section. (a) Optical image of a coronal mouse brain section. (b) Diagram delineates the major brain anatomical regions such as corpus callosum (cc), cerebral cortex (Cbc), caudate putamen (CPu), lateral septum (LS), lateral ventricle (LV) and cingulate cortex (Cg). (c) Selected ion images of specific molecules at the area of t-SPESI measurement. The m/z for each image is noted inside. (d) An overlaid image of 4 images in (c). Six regions of interest (ROI) were selected for the comparison of mass spectra. All ROI were magnified as shown on the right side. (e) SPESI mass spectra of six ROI. The ions derived from the brain sections are shown as the red line in the mass spectrum of area 1. Scale bar: 1 mm.

 Table 1
 The assignments for the major ion peaks of mouse coronal sections using t-SPESI<sup>a</sup>

Measured mass	Molecular species	Ion type	Exact mass	Error ppm	Α	В	С	D
117.03	Succinic acid	[M – H] <sup>–</sup>	117.0193	49	*			
133.03	FA; 2,3-dihydroxy-valeric acid	[M − H] <sup>−</sup>	133.0506	192	*			
146.08	Glutamic acid	[M − H] <sup>−</sup>	146.0456	201	*			
174.08	FA; 2-amino-3-oxo-hexanedioic acid	[M − H] <sup>−</sup>	174.0408	197	*			
255.23	Palmitic acid	[M − H] <sup>−</sup>	255.233	31	*	*	*	
281.28	Octadecenoic acid	[M − H] <sup>−</sup>	281.2486	94	*	*	*	
283.28	Stearic acid	[M − H] <sup>−</sup>	283.2643	38	*	*		*
303.28	Arachidonic acid	[M − H] <sup>−</sup>	303.233	139	*	*	*	*
327.23	Docosatriynoic acid	[M − H] <sup>−</sup>	327.233	24	*	*	*	*
391.28	CPA (16:0)	[M − H] <sup>−</sup>	391.2255	127	*			
413.28	Ascorbyl palmitate	[M − H] <sup>−</sup>	413.2545	50	*			
446.38	TG (55:5)	$[M - 2H]^{-}$	446.3765	7	*			
600.53	Cer (37:1)	[M + Na-2H]	600.4667	6	*			
628.58	Cer (39:1)	[M + Na−2H]¯	628.565	16	*			
654.58	Cer (40:0)	[M – H]	654.6042	45	*			
657.58	DG (49:4)	[M – H] <sup>–</sup>	657.5464	43	*			
679.53	TG (13:0/13:0/13:0)	[M – H] <sup>–</sup>	679.5882	93	*			
682.63	Cer (42:0)	[M – H] <sup>–</sup>	682.6355	15	*			
701.53	PE-Cer (37:1)	[M – H] <sup>–</sup>	701.5603	50	*			
726.58	Plasmenyl-PE (36:2)	[M – H] <sup>–</sup>	726.589	19	*	*		
750.58	Plasmenyl-PE (37:5)	[M – H] <sup>–</sup>	750.589	19	*	*		*
766.58	PE (38:4)	[M – H] <sup>–</sup>	766.5392	47	*	*		*
774.58	PE (40:6)	[M – H] <sup>–</sup>	774.5443	40	*	*		*
788.58	PS (36:1)	$[M - H]^{-}$	788.5236	65	*	*		
806.58	ST (18:0)	$[M - H]^{-}$	806.5458	36	*	*	*	
834.58	PS (40:6)	$[M - H]^{-}$	834.5771	3	*	*	*	*
844.68	PS (40:1)	$[M - H]^{-}$	844.6073	80	*			
862.68	ST (22:0)	$[M - H]^{-}$	862.6084	77	*	*	*	
878.63	ST (h22:0)	$[M - H]^{-}$	878.6033	25	*	*	*	
885.58	PI (38:4)	$[M - H]^{-}$	885.5499	28	*	*	*	*
888.68	ST(24:1)	$[M - H]^{-}$	888.624	57	*	*	*	
890.68	ST(24:0)	$[M - H]^{-}$	890.6397	40	*	*	*	
904.68	ST (h24:1)	$[M - H]^{-}$	904.6189	62	*	*	*	
906.68	ST(h24:0)	$[M - H]^{-}$	906.6346	45	*	*	*	
916.73	ST (25:0)	$[M - H]^{-}$	916.6731	57	*	*	*	

<sup>*a*</sup> (A) Tentatively assigned form database. (B) Peaks reported by Wiseman *et al.* (ref. 15). (C) Peaks reported by Eberlin *et al.* (ref. 14). (D) Peaks reported by Janfelt *et al.* (ref. 16). Cer, ceramide; DG, diacylglycerols; FA, fatty acid; PE, phosphoethanolamine; PS, phosphoserine; ST, sulfatide; TG, triacylglycerols.

8