

Supplementary file 1

## **Significantly elevated levels of plasma Nicotinamide, Pyridoxal and Pyridoxamine Phosphate levels in obese Emirati population: a cross-sectional study**

**Ghada Rashad Ibrahim<sup>1</sup>, Iltaf Shah<sup>1</sup>, Salah Gariballa<sup>2</sup>, Javed Yasin<sup>2</sup>, James Barker<sup>3</sup> and Syed Salman Ashraf<sup>\*4</sup>**

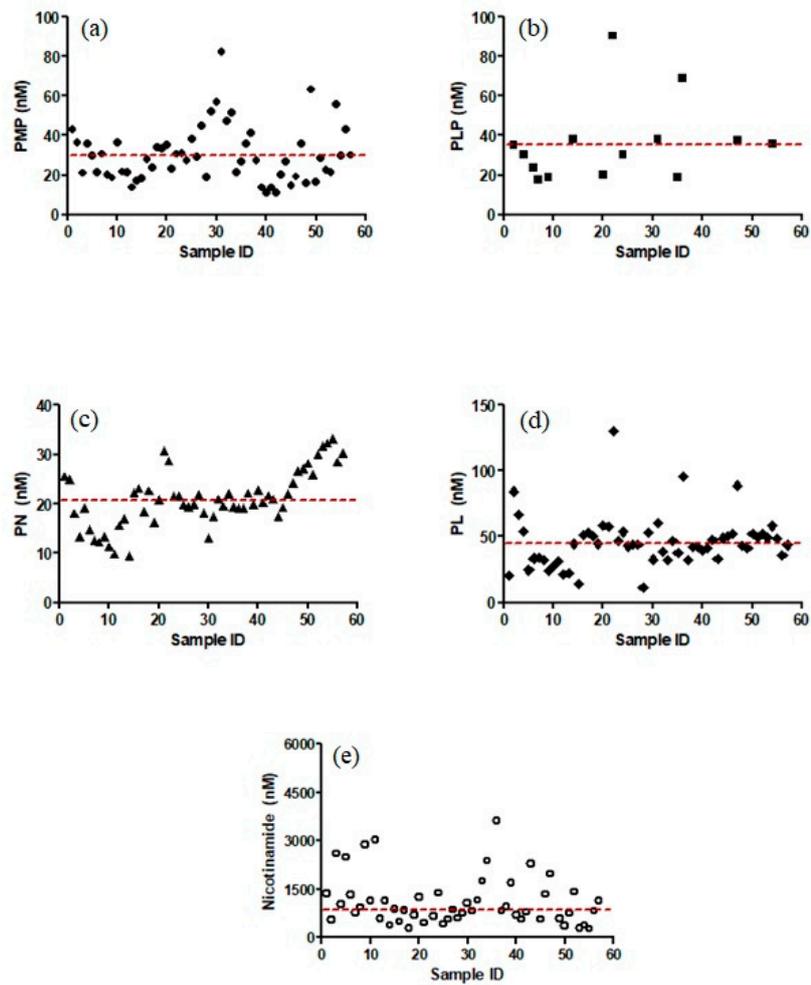
<sup>1</sup> Department of Chemistry, College of Science, UAE University, Al Ain, UAE.

<sup>2</sup> Department of Internal Medicine, College of Medicine, UAE University, Al Ain, UAE

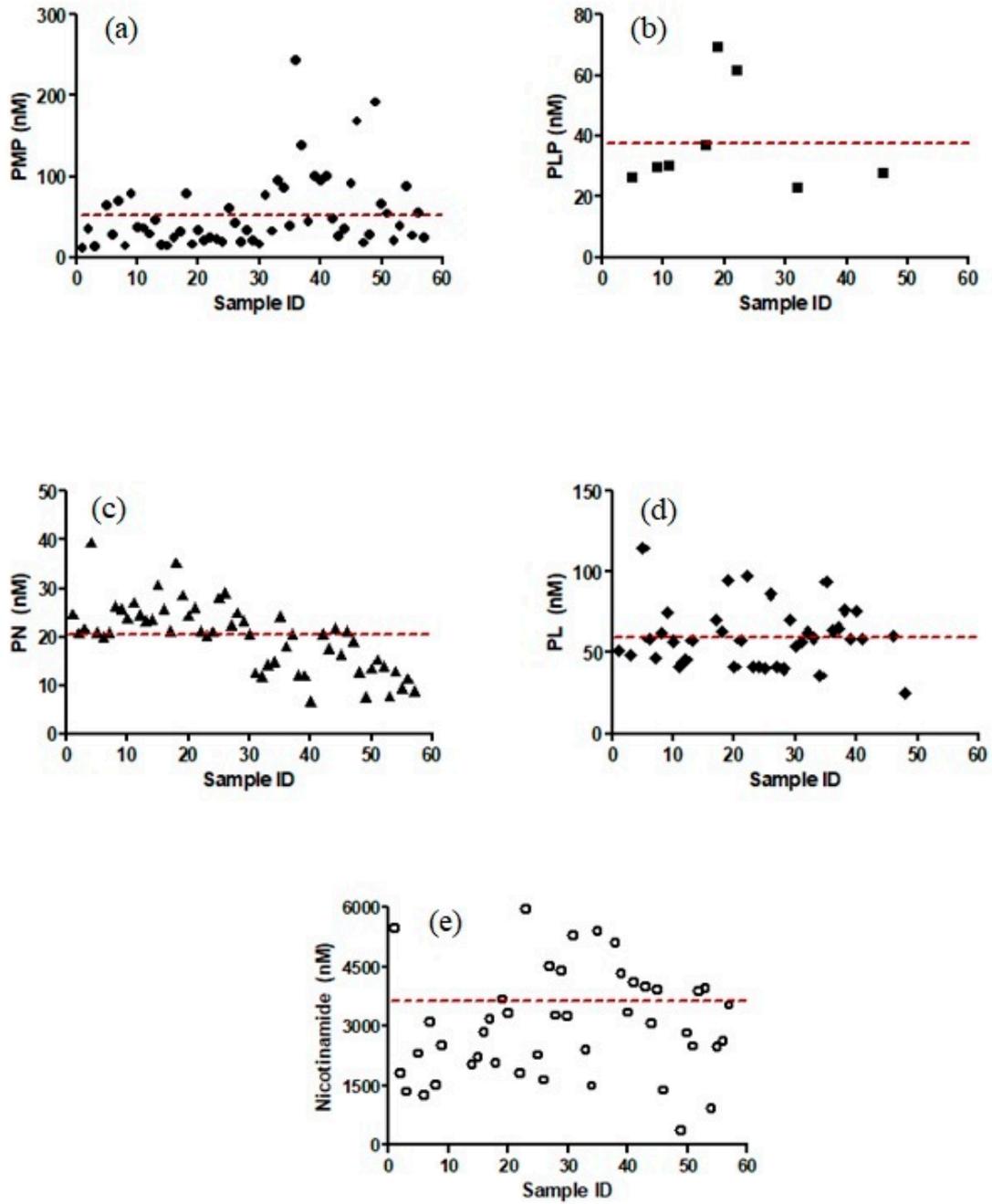
<sup>3</sup> Department of Chemical and Pharmaceutical Sciences, School of Life Sciences, Pharmacy and Chemistry, Kingston University

<sup>4</sup> Department of Chemistry, College of Arts and Sciences, Khalifa University, Abu Dhabi, UAE.

\* Correspondence: Dr. S. Salman Ashraf, Department of Chemistry, College of Arts and Sciences, Khalifa University, P O Box 127788, Abu Dhabi, UAE. Tel: +971 2 501 8483



**Figure S1.** Concentrations of PMP, PL, PN, PL and Nicotinamide in healthy Emirati population (n=57).



**Figure S2.** Concentrations of PMP, PL, PN, PL and Nicotinamide in obese Emirati population (n=57).

**Table S1:** Effect of incubation temperature on TCA-precipitated release of vitamers from spiked simulated plasma

Analyte	0°C	25°C	50°C
	(1 hour)	(1 hour)	(5 min)
Area Under the Curve (AUC)			
PMP	16,599	20,120	21,931
PLP	36,480	41,076	41,229
PN	222,146	234,575	245,534
PM	212,681	243,573	264,702
PL	230,989	277,679	275,796
Nicotinamide	240,934	313,138	352,393

**Table S2:** Intra-day and inter-day accuracy, precision and linear range of the partially validated LC-MSMS method

S/N	Analytes	Intra-Day		Inter-day		Linear Range (ng/mL)	r2
		Precision (%CV)	% Accuracy	Precision (%CV)	% Accuracy		
1	PLP	12.1	115.2	6.0	103.3	0.056-360	0.970
2	PL	13.4	104.7	5.2	112.7	0.0184-360	0.974
3	PMP	11.4	129.3	8.4	86.1	0.0184-360	0.978
4	PM	3.0	100.3	9.8	92.5	0.056-360	0.998
5	PN	2.3	99.8	43.5	101.2	0.006-111	0.985
6	Nicotinamide	7.5	102.3	7.3	93.9	4.4-360	0.940