

**SUPPLEMENTAL INFORMATION**

**Dose and diet – Sources of arsenic intake in mouse *in utero* exposure scenarios**

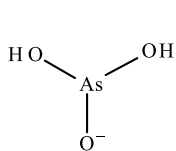
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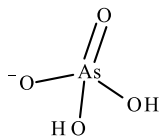
**Running title** – Evaluating aggregate arsenic exposure in utero

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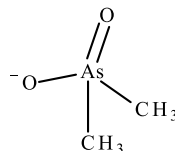
**Supplemental Figure 1 – Structures of arsenic species of potential interest**



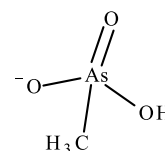
arsenite  
As(III)



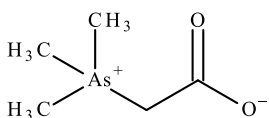
arsenate  
As(V)



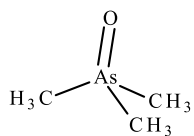
dimethylarsinate  
DMA



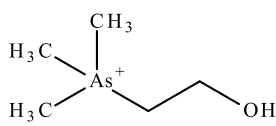
methylarsonate  
MA



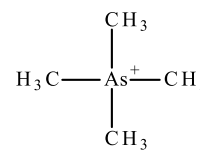
arsenobetaine  
AB



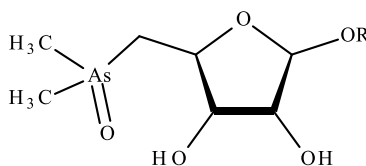
trimethylarsine oxide  
TMAO



arsenocholine  
AC



tetramethylarsonium ion  
TETRA



arsenosugar

glycerol: R= CH<sub>2</sub>CH(OH)CH<sub>2</sub>OH

phosphate: R= CH<sub>2</sub>CH(OH)CH<sub>2</sub>(OPO<sub>3</sub>H)CH<sub>2</sub>CH(OH)CH<sub>2</sub>OH

sulfonate: R=CH<sub>2</sub>CH(OH)CH<sub>2</sub>SO<sub>3</sub>H

sulfate: R=CH<sub>2</sub>CH(OH)CH<sub>2</sub>OSO<sub>3</sub>H

**Supplemental Information Table S1** - Concentrations of total arsenic and of water-extractable arsenicals in natural ingredient rodent diets (1-11) or a purified ingredient rodent diet (12)

Diet	Total As (µg/kg) <sup>a</sup>			Water Extractable As (µg/kg) <sup>b</sup>							Sum of quantified species <sup>e</sup> in µg As/kg (% Total As)
				EE <sup>c</sup> (%)	iAs <sup>d</sup>	DMAs	TMAO	AB	SO3-sugar	Glycerol sugar	
1	128	±	5	41	32	2.7	<4	<2	9.2	3.6	48 (38)
2	130	±	13	27	31	<2	<4	<2	<2	<2	31 (24)
3	91.0	±	2.0	30	22	<2	<4	<2	<2	<2	22 (24)
4	95.5	±	3.1	24	19	<2	<4	<2	<2	<2	19 (20)
5	62.2	±	2.3	25	13	<2	<4	<2	<2	<2	13 (21)
6	363	±	7	34	40	19	7.6	45	<2	2.1	114 (31)
7	100	±	2	40	32	<2	<4	<2	2.6	<2	34 (34)
8	79.4	±	2.3	26	17	<2	<4	<2	<2	<2	17 (21)
9	405	±	19	36	50	19	6.2	51	<2	<2	126 (31)
10	361	±	6	53	29	13	12	128	<2	<2	182 (50)
11	138	±	3	26	30	<2	<4	2.6	<2	<2	33 (24)
12	12.8	±	0.7	44	4.6	<2	<4	<2	<2	<2	4.6 (36)

- Total arsenic concentration in homogenized sample of rodent diet.
- Concentration of arsenicals in the water extracts of rodent diets.
- Extraction efficiency (EE) is percentage of total arsenic present in a homogenized diet sample that is present in the water extract of that diet.
- Sum of iAs<sup>III</sup> and iAs<sup>V</sup>.
- Upper - Sum of concentrations of arsenic species quantified in water extract. Lower – Sum of concentrations of arsenic species quantified in water extract as a percentage of total arsenic concentration in homogenized sample of rodent diet.