

## Supplemental Appendix

**Supplemental Table 1.** Risk Ratios (RR) and 95% Confidence Intervals (95% CI) for biochemical and total pregnancy loss across quartiles of the sum of organophosphate flame retardant concentrations ( $\Sigma$ PFR) stratified by woman's age (<35 vs.  $\geq$  35 years).

Metabolite Quartile	Biochemical Pregnancy Loss <sup>a</sup>		Total Pregnancy Loss <sup>b</sup>	
	RR (95% CI) <35 years	RR (95% CI) $\geq$ 35 years	RR (95% CI) <35 years	RR (95% CI) $\geq$ 35 years
$\Sigma$ PFR <sup>c, d,</sup>				
Q1 (0.0038)	REF	REF	REF	REF
Q2 (0.0060)	1.65 (0.17, 16.3)	1.59 (0.44, 5.74)	1.36 (0.46, 4.02)	1.40 (0.65, 3.04)
Q3 (0.0087)	1.56 (0.18, 13.7)	0.85 (0.16, 4.37)	0.70 (0.20, 2.42)	1.52 (0.75, 3.10)
Q4 (0.018)	3.20 (0.40, 26.0)	1.49 (0.37, 5.97)	2.00 (0.73, 5.50)	0.84 (0.34, 2.10)
p-trend <sup>e, f</sup>	0.28	0.80	0.35	0.92

<sup>a</sup> Biochemical pregnancy loss was defined as the demise of a non-visualized  $\beta$ -hCG confirmed pregnancy.

<sup>b</sup> Pregnancy loss <20 weeks' gestation was defined as the loss of any pregnancy (including biochemical losses) of less than 20 weeks gestation ( $\leq$ 139 days).

<sup>c</sup>  $\Sigma$ PFR is the molar sum of the three organophosphate flame retardant metabolite concentrations with high detection frequencies: (BDCIPP\*(1/319.91) + (DHPH\*(1/250.04) + ipPPP\*(1/292.09). Concentrations shown in mol/ml X10<sup>-9</sup>.

<sup>d</sup> All models adjusted for: age (categorical), BMI (continuous), and smoking status (never/ever).

<sup>e</sup> Tests for trend were performed using the urinary PFR metabolite concentration quartile as an ordinal level indicator variable in the regression model, adjusted for covariates.

<sup>f</sup> Tests for interaction were p=0.16 (biochemical loss) and p=0.51 (total pregnancy loss).

**Supplemental Figure 1.**

**Figure 1. Participant flow chart and organophosphate flame retardant (PFR) biomarker data available in the Environment and Reproductive Health (EARTH) Study.**

