SUPPLEMENTARY MATERIALS

Supplementary Table 1. Effect of adjusting for age at first pregnancy on the *p,p'*-DDT association with breast cancer, stratified by age in 1945*

Model	Before adjustment for age at first pregnancy		After adjustment for age at first pregnancy[†]	
	Before Age 3* OR (95% CI)	Age 3 and older* OR (95% CI)	Before Age 3* OR (95% CI)	Age 3 and older* OR (95% CI)
Linear Model[‡]				
$\log_2$(*p,p'*-DDT)	0.56 (0.26 - 1.19)	2.83 (1.96 - 4.10)	0.72 (0.32 - 1.62)	3.50 (2.30 - 5.33)
Tertile Model[§]				
Tertile 1	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Tertile 2	0.11 (0.01 - 0.91)	1.30 (0.75 - 2.25)	0.28 (0.03 - 2.25)	1.28 (0.72 - 2.27)
Tertile 3	0.10 (0.01 - 0.96)	2.17 (1.13 - 4.19)	0.15 (0.02 - 1.46)	2.32 (1.17 - 4.60)

[*]P-value for the product term between *p,p'*-DDT (DDT($\log_2$-transformed as a continuous variable) and age in 1945 (dichotomized as <3 vs. 3+ years) was 0.01 before adjustment (Table 2) and 0.01 after adjustment for age at first pregnancy. In the tertile model, products terms for each *p,p'*-DDT tertile with age at first exposure (<3 vs. 3+) were 0.07 for tertile 2 and 0.02 for tertile 3 before adjustment (Table 2) and 0.11 for tertile 2 and 0.02 for tertile 3 after adjustment for age at first pregnancy. OR, Odds Ratio estimated by conditional logistic regression. CI, Confidence Interval.

[†]Age at first pregnancy was entered as a continuous variable to adjusted models.

[‡]Linear Model includes: *p,p'*-DDT($\log_2$-transformed as a continuous variable), *o,p'*-DDT ($\log_2$-transformed as a continuous variable), year of blood draw (continuous) and parity (continuous).

[§]Tertile Model includes indicator variables for tertiles 2 and 3 of *p,p'*-DDT where tertile 1 was the reference category (described in Table 2), *o',p'*-DDT represented as a 3-cateogry ordinal variable coded at tertile medians (described in Table 2), year of blood draw (continuous) and parity (continuous)

Supplementary Table 2. Effect of removing outlier values on the *p,p'*-DDT association with breast cancer.

Model	Before exclusion of outlier *p,p'*-DDT values*	After exclusion of outlier *p,p'*-DDT values*
	OR (95% CI)	OR (95% CI)
Linear Model[†]		
$\log_2(p,p'\text{-DDT})$	2.36 (1.70 – 3.29)	2.72 (1.91 – 3.88)
$\log_2$DDT x age(<3 vs.3+)	0.31 (0.12 – 0.77)	0.26 (0.10 – 0.65)
Tertile Model[‡]		
Tertile 1	1.00 (Reference)	1.00 (Reference)
Tertile 2	1.21 (0.70 – 2.09)	1.32 (0.75 - 2.31)
Tertile 3	1.89 (1.00 – 3.58)	2.21 (1.12 – 4.39)
Tertile 2 x age(<3 vs.3+)	0.24 (0.05 – 1.12)	0.22 (0.05 – 1.05)
Tertile 3 x age(<3 vs.3+)	0.18 (0.04 – 0.76)	0.16 (0.04 – 0.71)

*Outliers were defined as $\log_2$-transformed *p,p'*-DDT or untransformed *p,p'*-DDT values that met the following criteria: [below Quartile 1 – (Interquartile Range x 1.5)] or above [Quartile 4 + (Interquartile Range x 1.5)]. Using these criteria we identified 7 women who had $\log_2$-transformed *p,p'*-DDT values outside these limits and 21 who had untransformed *p,p'*-DDT outlier values. The column on the left shows DDT associations with breast cancer prior to excluding the 7 outlier values from the linear model and the 21 outlier values from the tertile model. The column on the right shows associations after excluding the outliers. All models include product terms for DDT with age at exposure (dichotomized as <3 vs. 3+ years) to show results for testing the significance of the interaction terms, and the effect of outlier exclusions on these tests. OR, Odds Ratio estimated by conditional logistic regression. CI, Confidence Interval.

[†]Linear Model includes: *p,p'*-DDT($\log_2$-transformed as a continuous variable), *o,p'*-DDT ($\log_2$-transformed as a continuous variable), year of blood draw, parity and a product term for continuous $\log_2(p,p'\text{-DDT})$ with age at first exposure, dichotomized as <3 vs. 3+ years.

[‡]Tertile Model includes indicator variables for tertiles 2 and 3 of *p,p'*-DDT where tertile 1 was the reference category (described in Table 2), *o',p'*-DDT represented as a 3-cateogry ordinal variable coded at tertile medians (described in Table 2), year of blood draw (continuous), parity (continuous), and two product terms for each *p,p'*-DDT tertile with age at exposure, dichotomized as <3 vs. 3+ years