**Fig. S1** Directed Acyclic Graph for the association between maternal consumption of grilled or roasted meat and birth outcomes

**Consumption of PAH-rich meat during pregnancy**

Parity

**Birth outcomes**

Weight gain during pregnancy

Maternal height

Airborne PAH

Consumption of fruits, vegetables, and fish

Sex of infant

Maternal age

Maternal education

Gestational age

Iron intake

Maternal PAH level during pregnancy

**Table S1** Estimated effects of consumption of PAH-rich meat during pregnancy on birth outcomes stratified by exposure to airborne PAHs and adjusted for other potential confounders

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | Birth weight | Birth length | Head circumference |
| (95% CI) | *P*-Value | **β**(95% CI) | *P*-Value | **β**(95% CI) | *P*-Value |
| *Model 1\** |
|  Airborne PAH(-)§ | Dietary PAH (-)¡ | Reference |  | Reference |  | Reference |  |
|  Airborne PAH(-)§ | Dietary PAH (+)¡ | -56.86(-134.99,21.27) | 0.153 | -0.24(-0.72,0.25) | 0.336 | -0.03(-0.32,0.26) | 0.834 |
|  Airborne PAH(+)§ | Dietary PAH (-)¡ | -50.36(-131.18,30.46) | 0.222 | -0.56(-1.06,-0.07) | 0.027 | -0.20(-0.51,0.11) | 0.212 |
|  Airborne PAH(+)§ | Dietary Meat(+)¡ | -69.07(-145.48,7.34) | 0.076 | -0.68(-1.16,-0.19) | 0.006 | -0.03(-0.33,0.27) | 0.847 |
|  R-squared |  | 0.35 |  | 0.28 |  | 0.23 |  |
| *Model 2\*\** |
|  Airborne PAH(-)§ | Dietary PAH (-)¡ | Reference |  | Reference |  | Reference |  |
|  Airborne PAH(-)§ | Dietary PAH (+)¡ | -63.36(-143.50,16.79) | 0.121 | -0.27(-0.77,0.22) | 0.276 | -0.07(-0.36,0.23) | 0.653 |
|  Airborne PAH(+)§ | Dietary PAH (-)¡ | -55.94(-138.02,26.14) | 0.181 | -0.59(-1.09,-0.08) | 0.022 | -0.22(-0.54,0.09) | 0.170 |
|  Airborne PAH(+)§ | Dietary PAH (+)¡ | -67.52(-144.44,9.40) | 0.085 | -0.71(-1.20,-0.21) | 0.005 | -0.06(-0.36,0.25) | 0.716 |
|  R-squared |  | 0.35 |  | 0.29 |  | 0.24 |  |
|  *Interaction term* |  |  |  |  |  |  |  |
|  Dietary PAH x airborne PAH | 76.15(-42.75,195.05) | 0.209 | 0.32(-0.41,1.04) | 0.390 | 0.32(-0.12,0.76) | 0.159 |

Note: \*Model 1 adjustment for mother age, maternal weight gain in prepregnancy, gestational age, sex of baby, mother’s height, mother’s education, and parity. \*\*Model 2 also included maternal consumption of fruit, vegetables, and intake of iron in addition to confounders for model 1. §-PAHs below median value (=5.73 ng/g creatinine), +PAH above or equal to the median value. ¡- no consumption of the grilled or smoked meat; + reported consumption of grilled or smoked meat at least once in a week during pregnancy.