SUPPLEMENTAL MATERIALS

**Supplemental Table 1.** Summary of associations between the CpGs associated with prenatal arsenic exposure (EWAS) and birth gestational age: P-values and regression coefficients for unadjusted (reported) and cell-type adjusted models

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Maternal drinking water arsenic, unadjusted for cell-type\*** | | |  | **Maternal drinking water arsenic, adjusted for estimated cell-types\*\*** | | |  | **Maternal drinking water arsenic, unadjusted for cell-type\*\*\*** | | |
| **CpG ID** | **Gene** |  | **β Coeff.** | **P-value** | **FDR**  **P-value** |  | **β Coeff.** | **P-value** | **FDR**  **P-value** |  | **β Coeff.** | **P-value** | **FDR**  **P-value** |
| cg01163597 | *SLC22A23* |  | 0.11 | 5.21x10-8 | 5.44x10-4 |  | 0.08 | 8.05x10-6 | 0.03 |  | 0.08 | 1.75x10-2 | 0.27 |
| cg16081457 |  |  | 0.17 | 2.21x10-7 | 5.81x10-4 |  | 0.14 | 4.93x10-5 | 0.04 |  | 0.12 | 4.57x10-2 | 0.35 |
| cg06522054 | *GNAL;GNAL;GNAL* |  | 0.11 | 1.64x10-7 | 6.41x10-4 |  | 0.10 | 8.50x10-6 | 0.02 |  | 0.09 | 2.13x10-2 | 0.28 |
| cg20382695 | *ATRNL1* |  | 0.10 | 1.03x10-7 | 5.76x10-4 |  | 0.09 | 1.39x10-5 | 0.03 |  | 0.07 | 8.24x10-2 | 0.42 |
| cg24937280 | *MCC* |  | 0.12 | 3.32x10-7 | 7.07x10-4 |  | 0.10 | 2.18x10-5 | 0.04 |  | 0.09 | 4.52x10-2 | 0.35 |
| cg01910639 | *S100A6* |  | -0.15 | 4.71x10-7 | 7.70x10-4 |  | -0.09 | 6.21x10-4 | 0.06 |  | -0.09 | 1.09x10-1 | 0.46 |
| cg18115406 | *LMX1B* |  | 0.12 | 4.66x10-7 | 7.68x10-4 |  | 0.09 | 1.23x10-4 | 0.04 |  | 0.06 | 1.55x10-1 | 0.52 |
| cg04874129 | *SLC6A2* |  | 0.14 | 9.00x10-7 | 8.67x10-4 |  | 0.10 | 1.22x10-4 | 0.04 |  | 0.10 | 6.45x10-2 | 0.39 |
| cg20277905 | *miR124-3* |  | 0.12 | 3.72x10-7 | 7.27x10-4 |  | 0.09 | 7.91x10-5 | 0.04 |  | 0.12 | 7.32x10-3 | 0.23 |
| cg00398764 |  |  | 0.13 | 9.84x10-7 | 8.82x10-4 |  | 0.08 | 1.26x10-5 | 0.03 |  | 0.12 | 7.82x10-3 | 0.23 |

\*Model for log2(maternal drinking water arsenic) adjusted for sex

\*\*Model for log2(maternal drinking water arsenic) adjusted for sex and estimated cell-type composition in cord blood (CD8T, CD4T, NK, B-cells, Monocytes, Granulocyte and nucleated red blood cells)

\*\*\*Model for log2(postpartum maternal toenail arsenic) adjusted for se

**Supplemental Table 2.** Relative contribution of each CpG to the 1st PC used in the discovery phase for mediation analyses.

|  |  |  |  |
| --- | --- | --- | --- |
| **CpG ID** |  |  | **Relative loading on 1st**  **Principal Component** |
| cg01163597 | *SLC22A23* |  | 0.10 |
| cg16081457 |  |  | 0.08 |
| cg06522054 | *GNAL;GNAL;GNAL* |  | 0.10 |
| cg20382695 | *ATRNL1* |  | 0.10 |
| cg24937280 | *MCC* |  | 0.10 |
| cg01910639 | *S100A6* |  | 0.10 |
| cg18115406 | *LMX1B* |  | 0.11 |
| cg04874129 | *SLC6A2* |  | 0.10 |
| cg20277905 | *miR124-3* |  | 0.10 |
| cg00398764 |  |  | 0.11 |

**Supplemental Table 3.** CpG sites analyzed by bisulfite pyrosequencing.

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene** | **CpG site** | **Genome coordinates** | **Mean methylation % (SD)** |
| *MIR124-3* | CpG 22 (cg20277905) | Chr20:63178364 | 2.24 (2.68) |
|  | CpG 21 | Chr20:63178372 | 3.80 (3.95) |
|  | CpG 20 | Chr20:63178377 | 1.31 (2.06) |
|  | CpG 19 | Chr20:63178383 | 3.93 (4.07) |
|  | CpG 18 | Chr20:63178392 | 2.67 (2.96) |
|  | CpG 17 | Chr20:63178397 | 0.69 (1.92) |
|  | CpG 16 | Chr20:63178399 | 1.99 (2.14) |
|  | CpG 15 | Chr20:63178402 | 5.76 (2.68) |
|  | CpG 14 | Chr20:63178408 | 0.63 (1.56) |
|  | CpG 13 | Chr20:63178416 | 1.24 (3.23) |
|  | CpG 12 | Chr20:63178420 | 3.41 (2.97) |
|  | CpG 11 | Chr20:63178422 | 1.06 (1.93) |
|  | CpG 10 | Chr20:63178429 | 1.67 (4.11) |
|  | CpG 9 | Chr20:63178433 | 2.88 (3.78) |
| *GNAL* | CpG 1000 | Chr18:11752462 | 1.05 (1.38) |
|  | CpG 1001 | Chr18:11752465 | 4.25 (2.24) |
|  | CpG 1002 | Chr18:11752478 | 2.14 (2.12) |
|  | CpG 1003 | Chr18:11752481 | 2.25 (2.13) |
|  | CpG 1004 | Chr18:11752494 | 2.37 (1.64) |
|  | CpG 1005 | Chr18:11752497 | 1.84 (1.41) |
|  | CpG 1006 | Chr18:11752499 | 1.27 (1.60) |
|  | CpG 1007 | Chr18:11752517 | 1.63 (1.80) |
|  | CpG 1008 (cg06522054) | Chr18:11752539 | 3.19 (2.31) |
| *MCC* | CpG 48 | Chr5:113488053 | 2.20 (2.67) |
|  | CpG 47 (cg24937280) | Chr5:113488060 | 1.73 (2.26) |
|  | CpG 46 | Chr5:113488078 | 0.26 (1.06) |
|  | CpG 45 | Chr5:113488085 | 1.21 (1.76) |
|  | CpG 44 | Chr5:113488091 | 0.35 (1.08) |
|  | CpG 43 | Chr5:113488096 | 0.67 (1.28) |
|  | CpG 42 | Chr5:113488102 | 2.63 (2.16) |
|  | CpG 41 | Chr5:113488104 | 2.72 (2.08) |
|  | CpG 40 | Chr5:113488110 | 2.51 (2.14) |
|  | CpG 39 | Chr5:113488116 | 2.55 (2.17) |
|  | CpG 38 | Chr5:113488118 | 0.69 (1.87) |
|  | CpG 37 | Chr5:113488132 | 0.75 (1.13) |
|  | CpG 36 | Chr5:113488134 | 0.92 (1.30) |

**Supplemental Table 4.** Pearson correlations among CpG analyzed by bisulfite pyrosequencing located on *MIR124-3*.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CpG22 (cg20277905) | CpG21 | CpG20 | CpG19 | CpG18 | CpG17 | CpG16 | CpG15 | CpG14 | CpG13 | CpG12 | CpG11 | CpG10 |
| CpG21 | 0.20\*† |  |  |  |  |  |  |  |  |  |  |  |  |
| CpG20 | 0.34\*† | 0.17\*† |  |  |  |  |  |  |  |  |  |  |  |
| CpG19 | 0.10\*† | 0.09\*† | 0.14\*† |  |  |  |  |  |  |  |  |  |  |
| CpG18 | 0.24\*† | 0.17\*† | 0.27\*† | 0.20\*† |  |  |  |  |  |  |  |  |  |
| CpG17 | 0.16\*† | 0.07 | 0.26\*† | 0.13\*† | 0.12\*† |  |  |  |  |  |  |  |  |
| CpG16 | 0.19\*† | 0.18\*† | 0.25\*† | 0.19\*† | 0.28\*† | 0.19\*† |  |  |  |  |  |  |  |
| CpG15 | 0.33\*† | 0.30 | 0.28\*† | 0.09\*† | 0.19\*† | 0.08 | 0.22\*† |  |  |  |  |  |  |
| CpG14 | 0.22\*† | 0.17\*† | 0.14\*† | 0.09\*† | 0.12\*† | 0.16\*† | 0.23\*† | 0.30\*† |  |  |  |  |  |
| CpG13 | 0.08 | 0.05 | 0.10\*† | 0.06 | 0.09\*† | 0.16\*† | 0.13\*† | 0.01 | 0.14\*† |  |  |  |  |
| CpG12 | 0.36\*† | 0.25\*† | 0.29\*† | 0.24\*† | 0.27\*† | 0.22\*† | 0.40\*† | 0.42\*† | 0.29\*† | 0.13\*† |  |  |  |
| CpG11 | 0.27\*† | 0.13\*† | 0.35\*† | 0.17\*† | 0.22\*† | 0.27\*† | 0.28\*† | 0.26\*† | 0.35\*† | 0.20\*† | 0.33\*† |  |  |
| CpG10 | 0.12\*† | 0.16\*† | 0.21\*† | 0.08 | 0.16\*† | 0.16\*† | 0.24\*† | 0.21\*† | 0.11\*† | 0.14\*† | 0.23\*† | 0.29\*† |  |
| CpG9 | 0.10\*† | 0.14\*† | 0.15\*† | 0.16\*† | 0.17\*† | 0.16\*† | 0.20\*† | 0.11\*† | 0.08 | 0.46\*† | 0.26\*† | 0.16\*† | 0.12\*† |
| \*P <0.05, unadjusted; † P<0.05, FDR adjusted | | | | | | | | | | | | | |

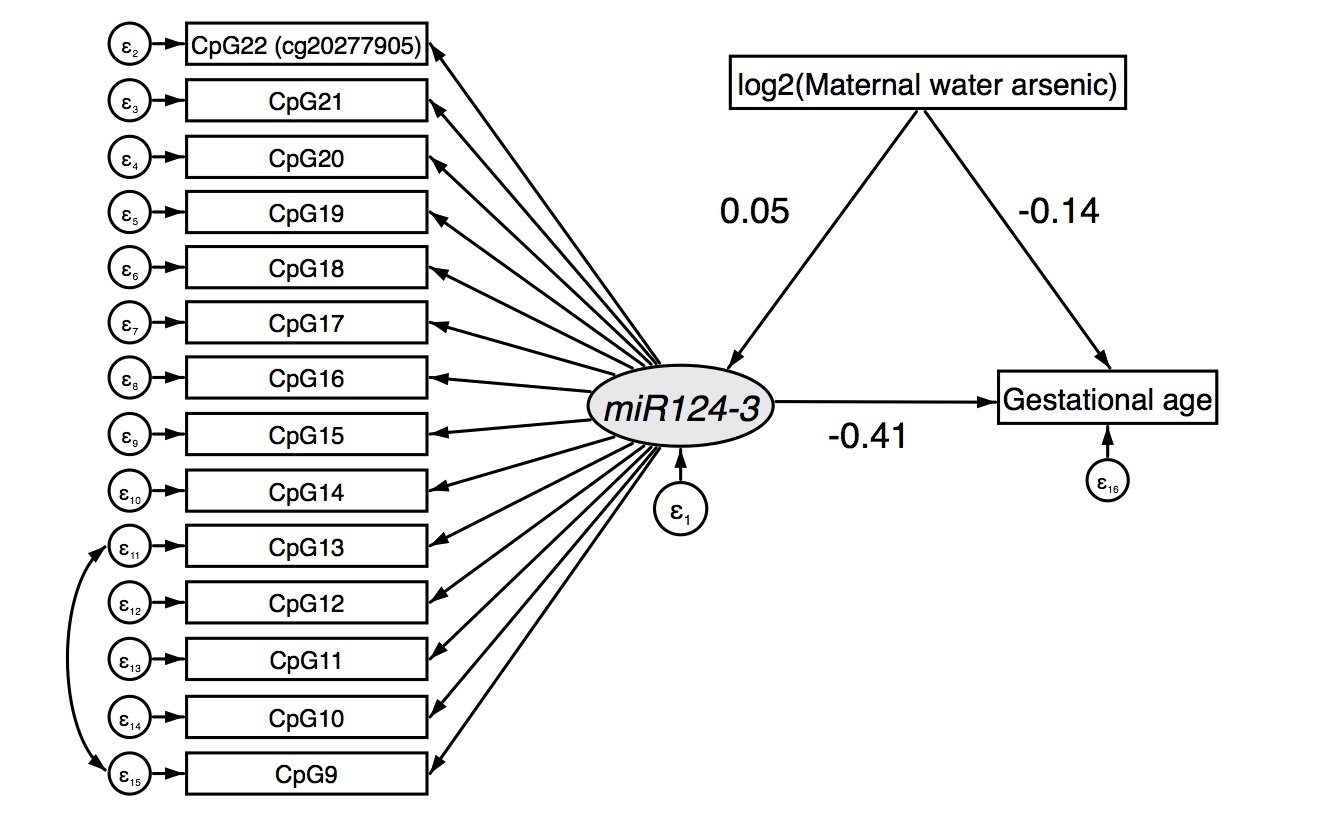
**Supplemental Table 5.** Pearson correlations among CpG analyzed by bisulfite pyrosequencing located on *GNAL*.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CpG1000 | CpG1001 | CpG1002 | CpG1003 | CpG1004 | CpG1005 | CpG1006 | CpG1007 |
| CpG1001 | 0.34\*† |  |  |  |  |  |  |  |
| CpG1002 | 0.25\*† | 0.41\*† |  |  |  |  |  |  |
| CpG1003 | 0.33\*† | 0.37\*† | 0.49\*† |  |  |  |  |  |
| CpG1004 | 0.34\*† | 0.57\*† | 0.67\*† | 0.48\*† |  |  |  |  |
| CpG1005 | 0.28\*† | 0.34\*† | 0.30\*† | 0.41\*† | 0.59\*† |  |  |  |
| CpG1006 | 0.44\*† | 0.44\*† | 0.31\*† | 0.50\*† | 0.49\*† | 0.54\*† |  |  |
| CpG1007 | 0.21\*† | 0.25\*† | 0.26\*† | 0.33\*† | 0.52\*† | 0.70\*† | 0.45\*† |  |
| CpG1008 (cg06522054) | 0.22\*† | 0.34\*† | 0.25\*† | 0.36\*† | 0.52\*† | 0.67\*† | 0.42\*† | 0.68\*† |
| \*P <0.05, unadjusted; † P<0.05, FDR adjusted | | | | | | | | |

**Supplemental Table 6.** Pearson correlations among CpG analyzed by bisulfite pyrosequencing located on *MCC*.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CpG36 | CpG37 | CpG38 | CpG39 | CpG40 | CpG41 | CpG42 | CpG43 | CpG44 | CpG45 | CpG46 | CpG47 (cg24937280) |
| CpG37 | 0.42\*† |  |  |  |  |  |  |  |  |  |  |  |
| CpG38 | 0.31\*† | 0.25\*† |  |  |  |  |  |  |  |  |  |  |
| CpG39 | 0.53\*† | 0.41\*† | 0.27\*† |  |  |  |  |  |  |  |  |  |
| CpG40 | 0.45\*† | 0.39\*† | 0.26\*† | 0.71\*† |  |  |  |  |  |  |  |  |
| CpG41 | 0.41\*† | 0.36\*† | 0.23\*† | 0.49\*† | 0.41\*† |  |  |  |  |  |  |  |
| CpG42 | 0.44\*† | 0.38\*† | 0.26\*† | 0.55\*† | 0.46\*† | 0.61\*† |  |  |  |  |  |  |
| CpG43 | 0.49\*† | 0.39\*† | 0.30\*† | 0.45\*† | 0.46\*† | 0.38\*† | 0.46\*† |  |  |  |  |  |
| CpG44 | 0.40\*† | 0.33\*† | 0.20\*† | 0.29\*† | 0.22\*† | 0.27\*† | 0.34\*† | 0.31\*† |  |  |  |  |
| CpG45 | 0.43\*† | 0.52\*† | 0.29\*† | 0.37\*† | 0.36\*† | 0.44\*† | 0.49\*† | 0.47\*† | 0.33\*† |  |  |  |
| CpG46 | 0.27\*† | 0.27\*† | 0.18\*† | 0.19\*† | 0.28\*† | 0.33\*† | 0.37\*† | 0.33\*† | 0.32\*† | 0.31\*† |  |  |
| CpG47 (cg24937280) | 0.46\*† | 0.28\*† | 0.29\*† | 0.43\*† | 0.49\*† | 0.47\*† | 0.50\*† | 0.42\*† | 0.21\*† | 0.38\*† | 0.41\*† |  |
| CpG48 | 0.40\*† | 0.33\*† | 0.22\*† | 0.33\*† | 0.35\*† | 0.34\*† | 0.42\*† | 0.34\*† | 0.25\*† | 0.38\*† | 0.36\*† | 0.56\*† |
| \*P <0.05, unadjusted; † P<0.05, FDR adjusted | | | | | | | | | | | | |

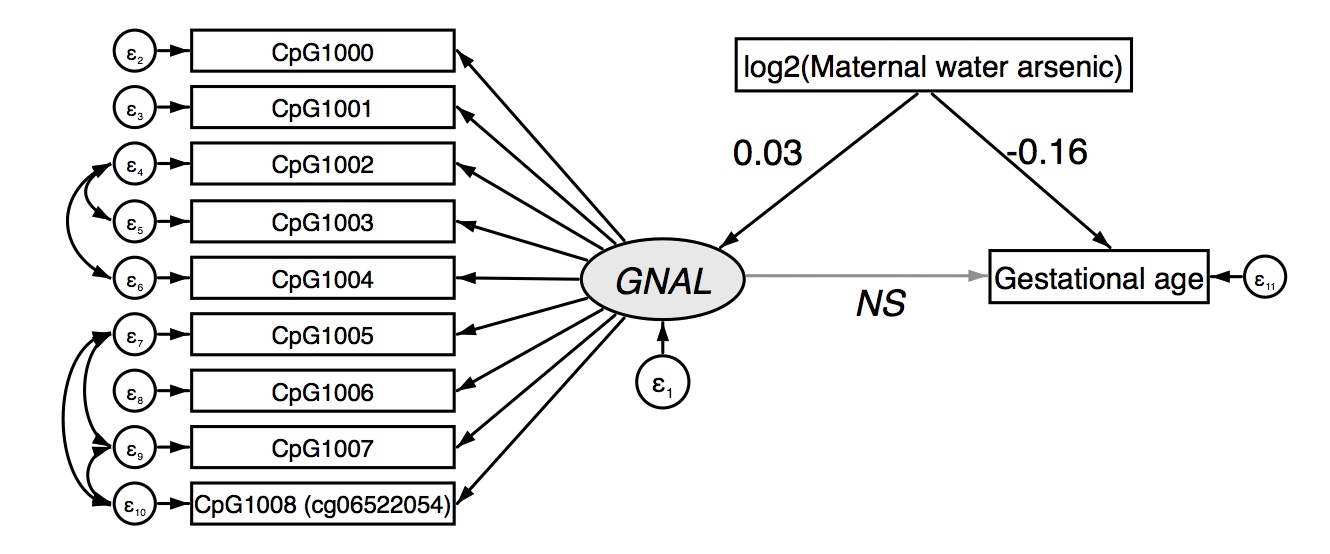
**Supplemental Figure 1**. Structural equation model for the mediated association of maternal drinking water arsenic concentration and birth gestational age by DNAm of *miR124-3* in the validation phase.

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**Supplemental Table 7.** Parameter estimates from the structural equation model for the mediated effect of maternal drinking water arsenic concentration on birth gestational age through variation of DNAm of *miR124-3* in the validation phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| log2(maternal water drinking arsenic) → *miR124-3* | Direct | 0.05 (0.01, 0.10) | 0.03 |
| log2(maternal water drinking arsenic) → Gestational age | Direct | -0.14 (-0.20, -0.09) | <0.001 |
| *miR124-3* → Gestational age | Direct | -0.41 (-0.60, -0.22) | <0.001 |
| log2(maternal water drinking arsenic) → *miR124-3* → Gestational age | Indirect | -0.02 (-0.04, 0.00) | 0.03 |
| SEM fit measures (robust): χ2=140.908, p=0.006; CFI=0.943; RMSEA=0.032 | | | |

**Supplementary Figure 2**. Structural equation model for the mediated association of maternal drinking water arsenic concentration and birth gestational age by DNAm of *GNAL* in the validation phase.

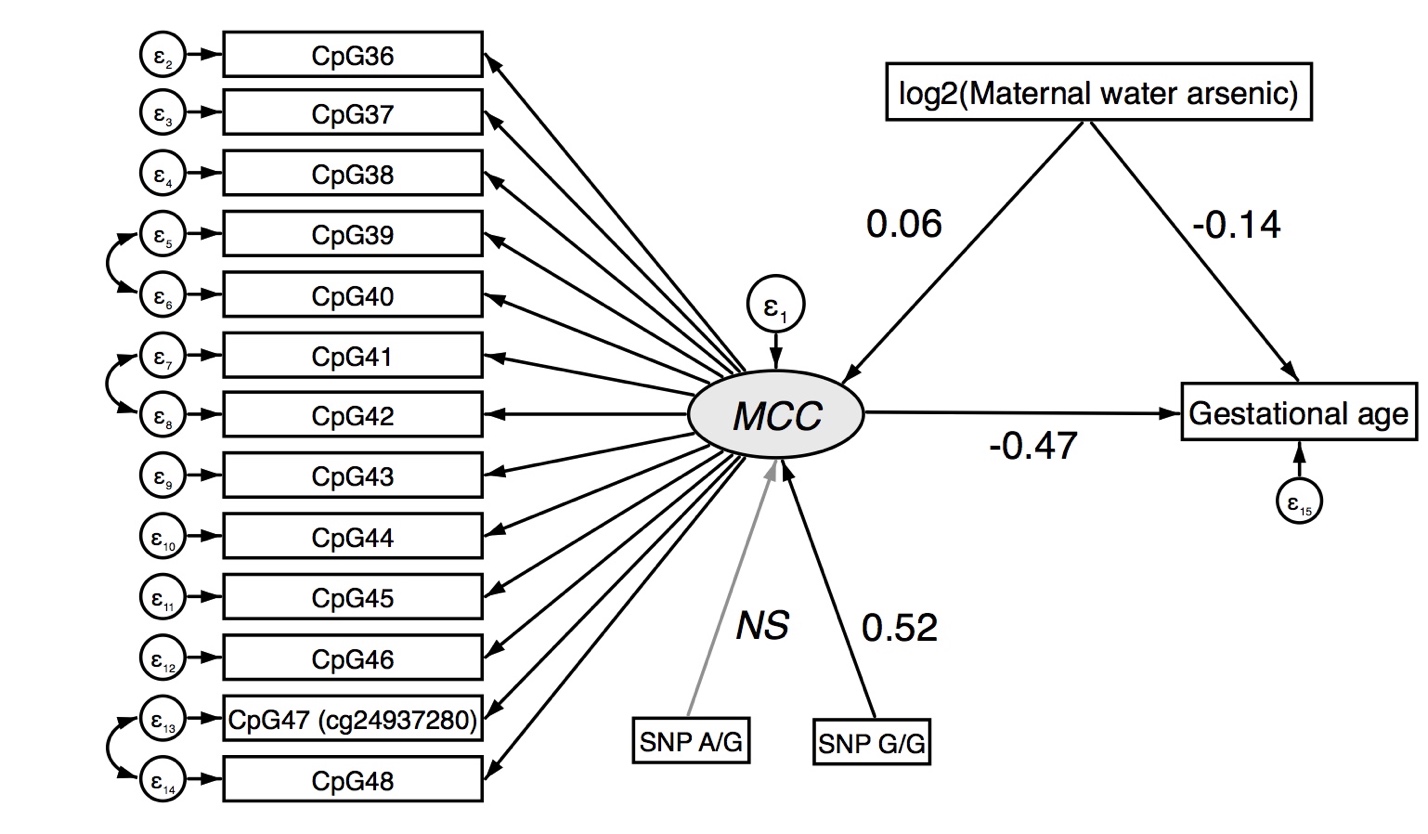


*NS=*non-significant

**Supplementary Table 8.** Parameter estimates from the structural equation model for the mediated effect of maternal drinking water arsenic concentration on birth gestational age through variation of DNAm of *GNAL* in the validation phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| log2(maternal drinking water arsenic) → *GNAL* | Direct | 0.03 (0.01, 0.05) | 0.02 |
| log2(maternal drinking water arsenic) → Gestational age | Direct | -0.16 (-0.21, -0.10) | <0.001 |
| *GNAL* → Gestational age | Direct | -0.28 (-0.60, 0.02) | 0.07 |
| log2(maternal drinking water arsenic) → *GNAL* → Gestational age | Indirect | -0.01 (-0.02, 0.00) | 0.17 |
| SEM fit measures (robust): χ2=80.483, *P*<0.001; CFI=0.953; RMSEA=0.069 | | | |

**Supplementary Figure 3**. Structural equation model for the mediated association of maternal drinking water arsenic concentration and birth gestational age by DNAm of *MCC* in the validation phase.

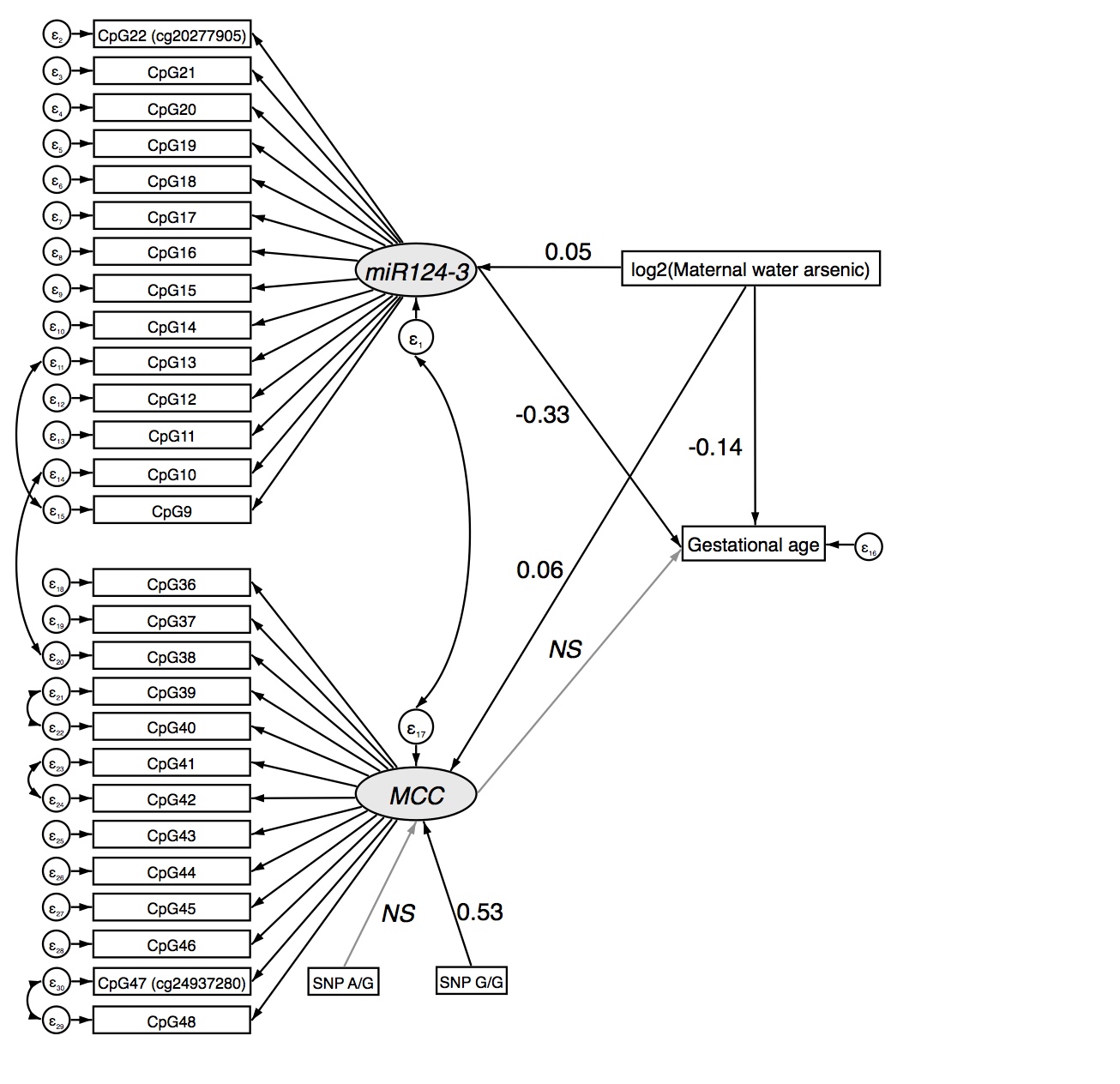


*NS=*non-significant

**Supplementary Table 9.** Parameter estimates from the structural equation model for the mediated effect of maternal drinking water arsenic concentration on birth gestational age through variation of DNAm of *MCC* in the validation phase*.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| log2(maternal drinking water arsenic) → *MCC* | Direct | 0.06 (0.03, 0.09) | 0.001 |
| SNP rs1057827 → *MCC* (reference: A/A) |  |  |  |
| G/G | Direct | 0.52 (0.07, 0.97) | 0.03 |
| A/G | Direct | 0.13 (-0.05, 0.31) | 0.17 |
| log2(maternal drinking water arsenic) → Gestational age | Direct | -0.14 (-0.20, -0.08) | <0.001 |
| *MCC* → Gestational age | Direct | -0.47 (-0.70, -0.24) | <0.001 |
| log2(maternal drinking water arsenic) → *MCC* → Gestational age | Indirect | -0.03 (-0.05, -0.01) | 0.004 |
| SEM fit measures (robust): χ2=207.179, *P*<0.001; CFI=0.943; RMSEA=0.048 | | | |

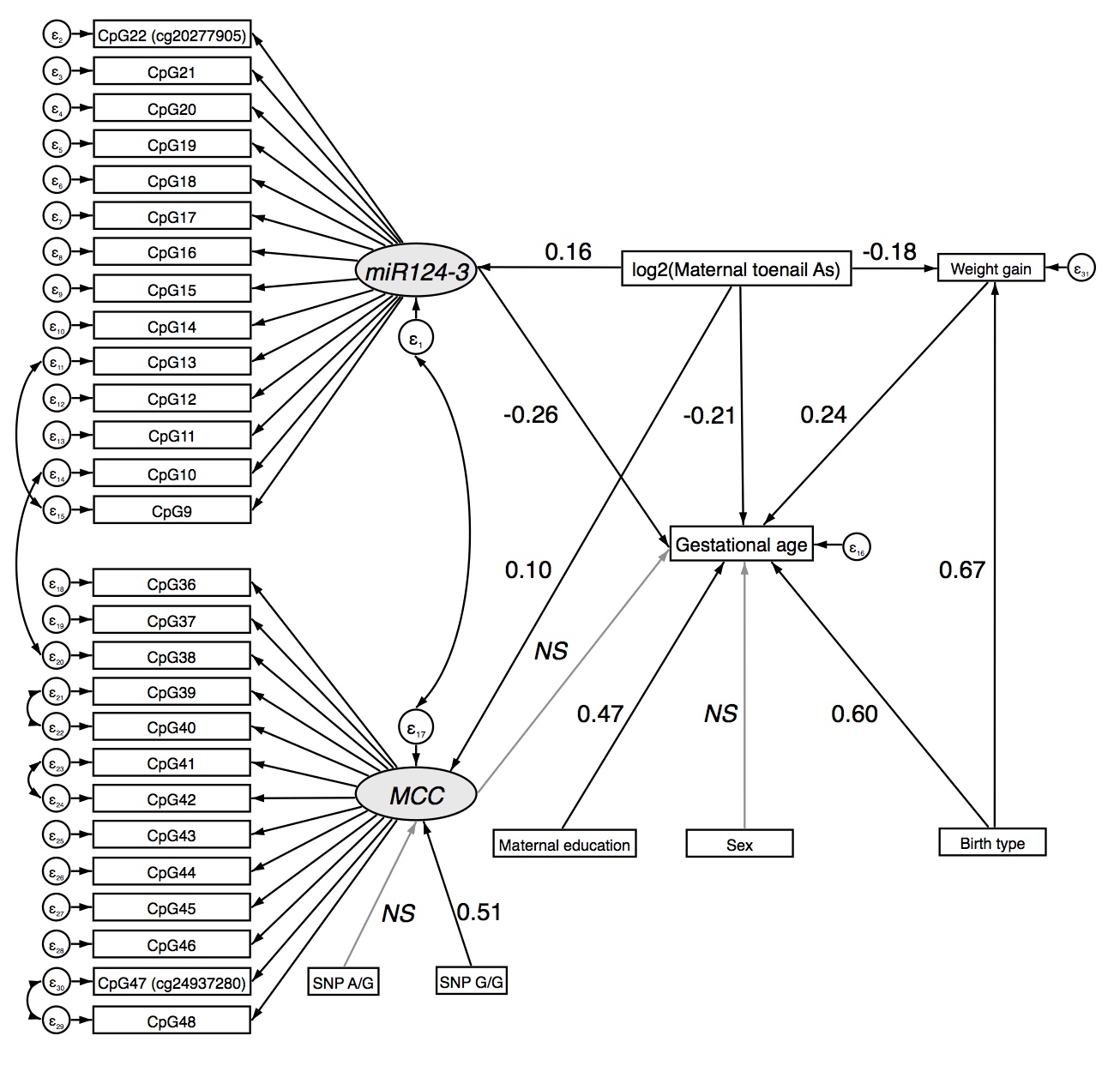
**Supplementary Figure 4**. Unadjusted structural equation model for the mediated effect of maternal drinking water arsenic concentration on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

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**Supplemental Table 10.** Unadjusted structural equation model for the mediated effect of maternal drinking water arsenic concentration on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| ***miR124-3*** |  |  |  |
| log2(maternal water arsenic) → *miR124-3* | Direct | 0.05 (0.01, 0.10) | 0.03 |
| ***MCC*** |  |  |  |
| log2(maternal water arsenic) → *MCC* | Direct | 0.06 (0.03, 0.09) | <0.001 |
| SNP rs1057827 → *MCC* (reference: AA) |  |  |  |
| G/G | Direct | 0.53 (0.12, 0.94) | 0.01 |
| A/G | Direct | 0.11 (-0.05, 0.27) | 0.19 |
| **Gestational age** |  |  |  |
| log2(maternal water arsenic) → Gestational age | Direct | -0.14 (-0.20, -0.08) | <0.001 |
| *miR124-3* → Gestational age | Direct | -0.33 (-0.53, -0.12) | 0.002 |
| *MCC* → Gestational age | Direct | -0.18 (-0.47, 0.10) | 0.20 |
| log2(maternal water arsenic) → *miR124-3* → Gestational age | Indirect | -0.02 (-0.03, 0.00) | 0.05 |
| log2(maternal water arsenic) → *MCC* → Gestational age | Indirect | -0.01 (-0.03, 0.01) | 0.22 |
| SEM fit measures (robust): χ2=718.542, *P*<0.001; CFI=0.899; RMSEA=0.041 | | | |

**Supplementary Figure 5**. Adjusted structural equation model for the mediated effect of postpartum maternal toenail arsenic concentration on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

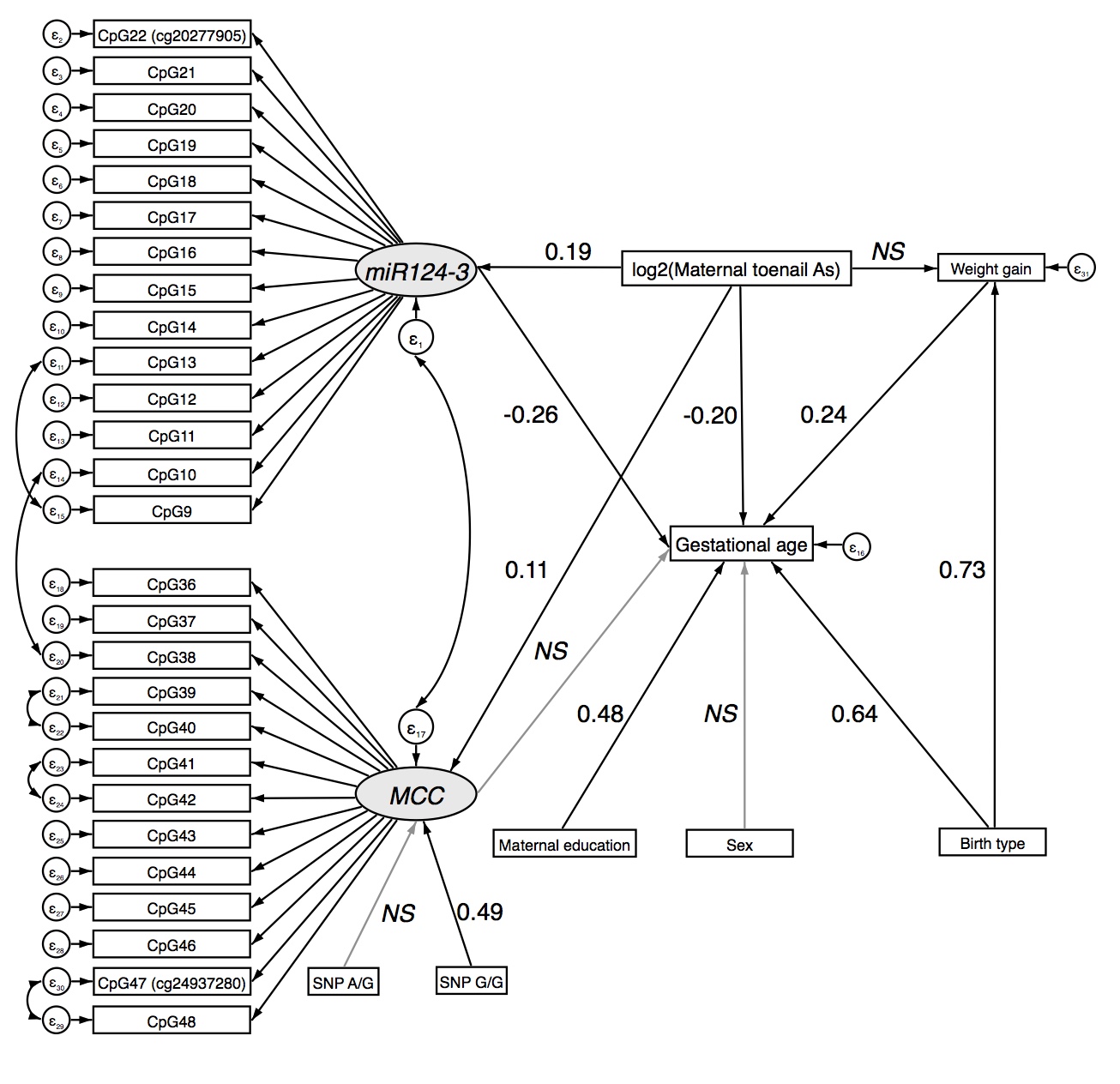
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*NS=*non-significant

**Supplemental Table 11.** Structural equation model for the mediated effect of postpartum maternal toenail arsenic concentration on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| ***miR124-3*** |  |  |  |
| log2(maternal toenail As) → *miR124-3* | Direct | 0.16 (0.07, 0.25) | 0.001 |
| ***MCC*** |  |  |  |
| log2(maternal toenail As) → *MCC* | Direct | 0.10 (0.04, 0.15) | 0.001 |
| SNP rs1057827 (reference: AA) |  |  |  |
| G/G | Direct | 0.51 (0.10, 0.92) | 0.01 |
| A/G | Direct | 0.10 (-0.07, 0.25) | 0.26 |
| **Maternal weight gain** |  |  |  |
| log2(maternal toenail As) → Weight gain | Direct | -0.18 (-0.33, -0.03) | 0.02 |
| Birth type (cesarean vs. vaginal) → Weight gain | Direct | 0.67 (0.15, 1.19) | 0.01 |
| **Gestational age** |  |  |  |
| log2(maternal toenail As) → Gestational age | Direct | -0.21 (-0.34, -0.08) | 0.002 |
| *miR124-3* → Gestational age | Direct | -0.26 (-0.46, -0.06) | 0.01 |
| *MCC* → Gestational age | Direct | -0.18 (-0.45, 0.09) | 0.20 |
| Sex (male vs. female) → Gestational age | Direct | 0.11 (-0.20, 0.42) | 0.48 |
| Weight gain → Gestational age | Direct | 0.24 (0.18, 0.30) | <0.001 |
| Birth type (cesarean section vs. vaginal) → Gestational age | Direct | 0.60 (0.30, 0.90) | <0.001 |
| Maternal education (> primary vs. ≤ primary) → Gestational age | Direct | 0.47 (0.15, 0.79) | 0.004 |
| log2(maternal toenail As) → Weight gain → Gestational age | Indirect | -0.04 (-0.08, -0.01) | 0.03 |
| log2(maternal toenail As) →*miR124-3* → Gestational age | Indirect | -0.04 (-0.08, -0.01) | 0.02 |
| log2(maternal toenail As) → *MCC* → Gestational age | Indirect | -0.02 (-0.04, 0.01) | 0.22 |
| SEM fit measures (robust): χ2=886.434, *P*<0.001; CFI=0.893; RMSEA=0.038 | | | |

**Supplementary Figure 6**. Adjusted structural equation model for the mediated effect of maternal toenail arsenic concentration at enrollment on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

****

**Supplemental Table 12.** Structural equation model for the mediated effect of maternal toenail arsenic concentration at enrollment on birth gestational age through variation of DNAm of CpGs in *miR124-3* and *MCC* in the validation phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathway** | **Effect** | **β Coefficient** | ***P*** |
| **(95% CIs)** |
| ***miR124-3*** |  |  |  |
| log2(maternal toenail arsenic) → *miR124-3* | Direct | 0.19 (0.09, 0.29) | <0.001 |
| ***MCC*** |  |  |  |
| log2(maternal toenail arsenic) → *MCC* | Direct | 0.11 (0.05, 0.17) | <0.001 |
| SNP rs1057827 → *MCC* (reference: AA) |  |  |  |
| G/G | Direct | 0.49 (0.08, 0.90) | 0.02 |
| A/G | Direct | 0.10 (-0.07, 0.26) | 0.25 |
| **Maternal weight gain** |  |  |  |
| log2(maternal toenail arsenic) → Weight gain | Direct | -0.11 (-0.28, 0.05) | 0.18 |
| Birth type (cesarean vs. vaginal) → Weight gain | Direct | 0.73 (0.22, 1.25) | 0.01 |
| **Gestational age** |  |  |  |
| log2(maternal toenail arsenic) → Gestational age | Direct | -0.20 (-0.34, -0.07) | 0.003 |
| *miR124-3* → Gestational age | Direct | -0.26 (-0.46, -0.06) | 0.01 |
| *MCC* → Gestational age | Direct | -0.18 (-0.45, 0.10) | 0.20 |
| Sex (male vs. female) → Gestational age | Direct | 0.09 (-0.22, 0.40) | 0.56 |
| Weight gain → Gestational age | Direct | 0.24 (0.18, 0.30) | <0.001 |
| Birth type (cesarean section vs. vaginal) → Gestational age | Direct | 0.64 (0.34, 0.94) | <0.001 |
| Maternal education (> primary vs. ≤ primary) → Gestational age | Direct | 0.48 (0.16, 0.80) | 0.003 |
| log2(maternal toenail arsenic) → Weight gain → Gestational age | Indirect | -0.03 (-0.07, 0.01) | 0.18 |
| log2(maternal toenail arsenic) → *miR124-3* → Gestational age | Indirect | -0.05 (-0.09, 0.01) | 0.02 |
| log2(maternal toenail arsenic) → *MCC* → Gestational age | Indirect | -0.02 (-0.05, 0.01) | 0.21 |
| SEM fit measures (robust): χ2=884.114, *P*<0.001; CFI=0.894; RMSEA=0.038 | | | |