

Table 1. Chromosomal positions and gene locations of the 17 markers.

| Gene   | SNP        | SNP rs Num                | Alleles       | Chr. | Position (bp) |
|--------|------------|---------------------------|---------------|------|---------------|
| CYP1A1 | CYP1A1-78  | rs2198843                 | C/G           | 15   | 72,788,283    |
|        | CYP1A1-109 | rs1456432                 | A/G           | 15   | 72,790,104    |
|        | CYP1A1-06  | rs4646903                 | C/T           | 15   | 72,798,694    |
|        | CYP1A1-15  | rs4646421                 | T/C           | 15   | 72,803,245    |
|        | CYP1A1-14  | rs2606345                 | T/G           | 15   | 72,804,229    |
|        | CYP1A1-83  | rs7495708                 | G/A           | 15   | 72,806,896    |
|        | CYP1A1-81  | rs2472299                 | C/T           | 15   | 72,820,453    |
| CYP1B1 | CYP1B1-66  | rs162549                  | T/A           | 2    | 38,148,960    |
|        | CYP1B1-06  | rs1056837                 | T/C           | 2    | 38,151,654    |
|        | CYP1B1-05  | rs1056836                 | G/C           | 2    | 38,151,707    |
|        | CYP1B1-74  | rs162560                  | A/G           | 2    | 38,153,019    |
|        | CYP1B1-04  | rs10012                   | C/G           | 2    | 38,155,894    |
|        | CYP1B1-03  | rs2617266                 | C/T           | 2    | 38,156,048    |
| GSTT2  | GSTT2-02   | rs2719                    | T/G           | 22   | 22,629,757    |
|        | GSTT2-01   | rs1622002                 | G/A           | 22   | 22,630,580    |
|        | GSTT2-03   | rs140194                  | G/A           | 22   | 22,655,095    |
| GSTM1  | GSTM1-02   | SNP500Cancer ID: GSTM1-02 | Gene deletion | 22   | 22,629,757    |

Table 2a. Genotype frequency distributions of the 17 markers in the three populations<sup>†</sup>

|                          |         | AA        |           |           |          | D         |           |           |          | C         |           |           |          |
|--------------------------|---------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|
|                          |         | TT        | TC        | CC        | N        | TT        | TC        | CC        | N        | TT        | TC        | CC        | N        |
| <sup>2a</sup> CYP1A1-06  | mother  | 90        | 57        | 8         | 155      | 162       | 79        | 12        | 253      | 304       | 62        | 4         | 370      |
|                          | newborn | 48        | 44        | 4         | 96       | 99        | 45        | 7         | 151      | 243       | 42        | 4         | 289      |
|                          |         | <b>AA</b> | <b>AG</b> | <b>GG</b> | <b>N</b> | <b>AA</b> | <b>AG</b> | <b>GG</b> | <b>N</b> | <b>AA</b> | <b>AG</b> | <b>GG</b> | <b>N</b> |
| <sup>3</sup> CYP1A1-109* | mother  | 31        | 77        | 48        | 156      | 110       | 116       | 38        | 264      | 291       | 82        | 5         | 378      |
|                          | newborn | 17        | 46        | 33        | 96       | 61        | 74        | 17        | 152      | 219       | 64        | 6         | 289      |
|                          |         | <b>TT</b> | <b>TG</b> | <b>GG</b> | <b>N</b> | <b>TT</b> | <b>TG</b> | <b>GG</b> | <b>N</b> | <b>TT</b> | <b>TG</b> | <b>GG</b> | <b>N</b> |
| <sup>3</sup> CYP1A1-14*  | mother  | 5         | 30        | 124       | 159      | 29        | 127       | 109       | 265      | 174       | 164       | 41        | 379      |
|                          | newborn | 2         | 20        | 76        | 98       | 20        | 79        | 55        | 154      | 134       | 126       | 31        | 291      |
|                          |         | <b>TT</b> | <b>TC</b> | <b>CC</b> | <b>N</b> | <b>TT</b> | <b>TC</b> | <b>CC</b> | <b>N</b> | <b>TT</b> | <b>TC</b> | <b>CC</b> | <b>N</b> |
| <sup>2a</sup> CYP1A1-15  | mother  | 18        | 69        | 71        | 158      | 21        | 98        | 145       | 264      | 3         | 60        | 314       | 377      |
|                          | newborn | 14        | 48        | 36        | 98       | 9         | 59        | 84        | 152      | 4         | 42        | 245       | 291      |
|                          |         | <b>CC</b> | <b>CG</b> | <b>GG</b> | <b>N</b> | <b>CC</b> | <b>CG</b> | <b>GG</b> | <b>N</b> | <b>CC</b> | <b>CG</b> | <b>GG</b> | <b>N</b> |
| <sup>3</sup> CYP1A1-78*  | mother  | 52        | 77        | 29        | 158      | 38        | 118       | 108       | 264      | 5         | 83        | 291       | 379      |
|                          | newborn | 32        | 48        | 16        | 96       | 16        | 78        | 59        | 153      | 5         | 64        | 219       | 288      |
|                          |         | <b>CC</b> | <b>CT</b> | <b>TT</b> | <b>N</b> | <b>CC</b> | <b>CT</b> | <b>TT</b> | <b>N</b> | <b>CC</b> | <b>CT</b> | <b>TT</b> | <b>N</b> |
| <sup>1</sup> CYP1A1-81*  | mother  | 61        | 74        | 24        | 159      | 96        | 116       | 53        | 265      | 174       | 158       | 46        | 378      |
|                          | newborn | 36        | 47        | 15        | 98       | 53        | 75        | 26        | 154      | 133       | 115       | 37        | 285      |
|                          |         | <b>GG</b> | <b>GA</b> | <b>AA</b> | <b>N</b> | <b>GG</b> | <b>GA</b> | <b>AA</b> | <b>N</b> | <b>GG</b> | <b>GA</b> | <b>AA</b> | <b>N</b> |
| <sup>3</sup> CYP1A1-83*  | mother  | 52        | 73        | 33        | 158      | 37        | 114       | 111       | 262      | 5         | 82        | 267       | 354      |
|                          | newborn | 13        | 32        | 13        | 58       | 14        | 51        | 51        | 116      | 4         | 42        | 125       | 171      |

<sup>†</sup>Genotype frequency distributions among the three populations were compared.

\*SNPs that have significant SNP\*PAH interaction effects in any of the three populations.

<sup>1</sup>Only D is different from C; <sup>2a</sup>C is different from both AA and D; <sup>2b</sup>AA is different from both D and C; <sup>3</sup>AA, D, and C are pairwise different.

Table 2b. Genotype frequency distributions of the 17 markers in the three populations

(cont.)<sup>†</sup>

|                         |         | AA  |     |     |     | D   |     |     |     | C   |     |     |     |
|-------------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                         |         | CC  | CT  | TT  | N   | CC  | CT  | TT  | N   | CC  | CT  | TT  | N   |
| <sup>1</sup> CYP1B1-03* | mother  | 85  | 63  | 11  | 159 | 167 | 88  | 10  | 265 | 175 | 159 | 43  | 377 |
|                         | newborn | 57  | 37  | 5   | 99  | 99  | 47  | 7   | 153 | 130 | 132 | 28  | 290 |
|                         |         | CC  | CG  | GG  | N   | CC  | CG  | GG  | N   | CC  | CG  | GG  | N   |
| <sup>2b</sup> CYP1B1-04 | mother  | 29  | 78  | 48  | 155 | 110 | 116 | 29  | 255 | 175 | 153 | 43  | 371 |
|                         | newborn | 19  | 42  | 32  | 93  | 64  | 75  | 13  | 152 | 130 | 130 | 29  | 289 |
|                         |         | GG  | GC  | CC  | N   | GG  | GC  | CC  | N   | GG  | GC  | CC  | N   |
| <sup>3</sup> CYP1B1-05  | mother  | 81  | 65  | 12  | 158 | 87  | 141 | 36  | 264 | 66  | 191 | 121 | 378 |
|                         | newborn | 58  | 30  | 4   | 92  | 47  | 69  | 31  | 147 | 44  | 147 | 88  | 279 |
|                         |         | TT  | TC  | CC  | N   | TT  | TC  | CC  | N   | TT  | TC  | CC  | N   |
| <sup>3</sup> CYP1B1-06* | mother  | 78  | 68  | 14  | 160 | 88  | 139 | 39  | 266 | 66  | 189 | 121 | 376 |
|                         | newborn | 56  | 36  | 7   | 99  | 46  | 74  | 34  | 154 | 40  | 150 | 87  | 277 |
|                         |         | TT  | TA  | AA  | N   | TT  | TA  | AA  | N   | TT  | TA  | AA  | N   |
| CYP1B1-66               | mother  | 2   | 55  | 101 | 158 | 10  | 82  | 169 | 261 | 12  | 136 | 231 | 379 |
|                         | newborn | 4   | 30  | 64  | 98  | 5   | 36  | 110 | 151 | 9   | 93  | 187 | 289 |
|                         |         | AA  | AG  | GG  | N   | AA  | AG  | GG  | N   | AA  | AG  | GG  | N   |
| CYP1B1-74*              | mother  | 4   | 52  | 103 | 159 | 8   | 85  | 171 | 264 | 11  | 134 | 235 | 380 |
|                         | newborn | 4   | 30  | 57  | 91  | 7   | 32  | 100 | 139 | 7   | 85  | 181 | 273 |
|                         |         | +/+ | +/- | -/- | N   | +/+ | +/- | -/- | N   | +/+ | +/- | -/- | N   |
| <sup>2a</sup> GSTM1-02  | mother  | 9   | 94  | 30  | 133 | 15  | 137 | 78  | 230 | 28  | 130 | 183 | 341 |
|                         | newborn | 8   | 47  | 17  | 72  | 4   | 69  | 34  | 107 | 9   | 116 | 129 | 254 |
|                         |         | GG  | GA  | AA  | N   | GG  | GA  | AA  | N   | GG  | GA  | AA  | N   |
| <sup>3</sup> GSTT2-01*  | mother  | 106 | 49  | 3   | 158 | 228 | 32  | 0   | 260 | 364 | 16  | 0   | 380 |
|                         | newborn | 64  | 35  | 0   | 99  | 137 | 16  | 1   | 154 | 282 | 11  | 0   | 293 |
|                         |         | TT  | TG  | GG  | N   | TT  | TG  | GG  | N   | TT  | TG  | GG  | N   |
| <sup>3</sup> GSTT2-02   | mother  | 1   | 38  | 119 | 158 | 26  | 122 | 117 | 265 | 99  | 186 | 92  | 377 |
|                         | newborn | 4   | 23  | 72  | 99  | 13  | 67  | 74  | 154 | 62  | 164 | 66  | 292 |
|                         |         | AA  | AG  | GG  | N   | AA  | AG  | GG  | N   | AA  | AG  | GG  | N   |
| <sup>2b</sup> GSTT2-03  | mother  | 1   | 18  | 141 | 160 | 4   | 85  | 174 | 263 | 7   | 128 | 239 | 374 |
|                         | newborn | 0   | 11  | 84  | 95  | 1   | 45  | 106 | 152 | 1   | 107 | 180 | 288 |

<sup>†</sup>Genotype frequency distributions among the three populations were compared.

\*SNPs that have significant SNP\*PAH interaction effects in any of the three populations.

<sup>1</sup>Only D is different from C; <sup>2a</sup>C is different from both AA and D; <sup>2b</sup>AA is different from both D

and C; <sup>3</sup>AA, D, and C are pairwise different.