**Supplemental Table 2. Mixed-effects regression models of SUA by each of the 15 selected SNP1,2**

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| --- | --- | --- | --- | --- |
|  | **Gene locus** | **Risk allele****Dosage** | **γ±SEE** | **p-value** |
| **Serum Uric Acid** |  |  | **n=7663**  | **n’=1,3413** |
| ***Model 1: rs1260326*** | *GCKR* | T(0,1,2) |  |  |
|  rs1260326 (γ01 for π0i) |  |  | **+0.204±0.099** | **0.041** |
|  rs1260326×Time (γ11 for π1i)  |  |  | +0.027±0.024 | 0.26 |
| ***Model 2: rs1312969*** | *SLC2A9* | T(0,1,2) |  |  |
|  rs1312969 (γ01 for π0i) |  |  | **+0.195±0.069** | **0.005** |
|  rs1312969×Time (γ11 for π1i)  |  |  | +0.003±0.016 | 0.86 |
| ***Model 3: rs1249874*** | *SLC2A9* | A(0,1,2) |  |  |
|  rs1249874 (γ01 for π0i) |  |  | **+0.211±0.068** | **0.002** |
|  rs1249874×Time (γ11 for π1i)  |  |  | +0.012±0.016 | 0.47 |
| ***Model 4: rs7442295*** | *SLC2A9* | A(0,1,2) |  |  |
|  rs7442295 (γ01 for π0i) |  |  | **+0.142±0.069** | **0.038** |
|  rs7442295×Time (γ11 for π1i)  |  |  | +0.014±0.016 | 0.38 |
| ***Model 5: rs6449213*** | *SLC2A9* | T(0,1,2) |  |  |
|  rs6449213 (γ01 for π0i) |  |  | **+0.256±0.095** | **0.007** |
|  rs6449213×Time (γ11 for π1i)  |  |  | +0.025±0.023 | 0.27 |
| ***Model 6: rs1014290*** | *SLC2A9* | T(0,1,2) |  |  |
|  rs1014290 (γ01 for π0i) |  |  | **+0.199±0.073** | **0.007** |
| rs1014290×Time (γ11 for π1i)  |  |  | +0.000±0.017 | 0.98 |
| ***Model 7: rs9991278*** | *SLC2A9* | G(0,1,2) |  |  |
|  rs9991278 (γ01 for π0i) |  |  | **+0.213±0.084** | **0.011** |
|  rs9991278×Time (γ11 for π1i)  |  |  | +0.014±0.020 | 0.46 |
|  |  |  |  |  |
|  |  |  |  |  |
| ***Model 8: rs2231142*** | *ABCG2* | T(0,1,2) |  |  |
|  rs2231142 (γ01 for π0i) |  |  | **+0.581±0.229** | **0.0113** |
|  rs2231142×Time (γ11 for π1i)  |  |  | +0.039±0.055 | 0.47**3** |
| ***Model 9: rs742132*** | *LRRC16A* | G(0,1,2) |  |  |
|  rs742132 (γ01 for π0i) |  |  | *+0.132±0.074* | *0.076* |
|  rs742132×Time (γ11 for π1i)  |  |  | -0.002±0.018 | 0.89**4** |
| ***Model 10: rs3799344*** | *SLC17A1* | C(0,1,2) |  |  |
|  rs3799344 (γ01 for π0i) |  |  | **+0.185±0.072** | **0.010** |
|  rs3799344×Time (γ11 for π1i)  |  |  | -0.008±0.017 | 0.63 |
| ***Model 11: rs7932775*** | *SLC22A12* | C(0,1,2) |  |  |
|  rs7932775 (γ01 for π0i) |  |  | **+0.145±0.072** | **0.0453** |
|  rs7932775×Time (γ11 for π1i)  |  |  | +0.013±0.017 | 0.444 |
| ***Model 12: rs7224610*** | *HLF* | C(0,1,2) |  |  |
|  rs7224610 (γ01 for π0i) |  |  | **+0.237±0.117** | **0.042** |
|  rs7224610×Time (γ11 for π1i)  |  |  | -0.043±0.028 | 0.13 |
| ***Model 13: rs2241480*** | *SLC2A9* | T(0,1,2) |  |  |
|  rs2241480 (γ01 for π0i) |  |  | -0.085±0.081 | 0.30 |
|  rs2241480×Time (γ11 for π1i)  |  |  | *+0.032±0.018* | *0.096* |
| ***Model 14: rs478607*** | *NRXN2* | G(0,1,2) |  |  |
|  rs478607 (γ01 for π0i) |  |  | -0.030±0.069 | 0.66 |
|  rs478607×Time (γ11 for π1i)  |  |  | *+0.027±0.016* | *0.094* |
| ***Model 15:*** rs71931165778 | *NFAT5* | C(0,1,2) |  |  |
|  rs71931165778 (γ01 for π0i) |  |  | +0.270±0.213 | 0.21 |
|  rs71931165778×Time (γ11 for π1i)  |  |  | *+0.080±0.047* | *0.090* |
|  |  |  |  |  |

*Abbreviations*: Agebase=Baseline age at visit 1, SUA=Serum Uric Acid.

1 Each of the models’ intercepts and slopes were further adjusted for Agebase, for marital status, poverty status, education (years), baseline current smoking status, current illicit drug use and baseline body mass index, BMI centered at 30 kg.m-2, the 10 principal components for population structure, and 8 key dietary factors factors in addition to total grains, total fruits, total vegetables, other meats, discretionary solid fat and discretionary oils, and the inverse mills ratio. Agebase was centered at 50y, and all dietary factors were centered at their weighted means (See Table 1, Total). 2Values are regression coefficients γ ± standard error of the estimate (SEE). n=number of participants in the analysis; n’=total number of visits included in the analysis. 3 P<0.05 for interaction with sex, suggestive of a stronger positive effect among men. 4 P<0.05 for interaction with sex, suggestive of a stronger positive effect among women.