**SUPPLEMENTARY MATERIAL**

**Fate of arsenicals in mice carrying the human *AS3MT* gene exposed**

**to environmentally relevant levels of arsenite in drinking water**

Christelle Douillet1, Madison Miller1, Peter H. Cable1, Qing Shi1, Hisham El-Masri2, Tomáš Matoušek3, Beverly H. Koller4, David J. Thomas5, Miroslav Stýblo1\*

1Department of Nutrition, University of North Carolina, Gillings School of Public Health, Chapel Hill, NC 27599, USA

2Chemical Characterization and Exposure Division, Center for Computational Toxicology & Exposure, Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27709 USA

3Institute of Analytical Chemistry of the Czech Academy of Sciences, v. v. i., Veveří 97, 602 00 Brno, Czech Republic

4Department of Genetics, University of North Carolina, School of Medicine, Chapel Hill, NC 27599, USA

5Dinkey Creek Consulting, LLC, Chapel Hill, North Carolina 27517 USA

**\*Corresponding Author:**

Miroslav Stýblo, PhD

Department of Nutrition, Gillings School of Global Public Health

University of North Carolina at Chapel Hill

Chapel Hill, NC, 27599-7461, USA

Telephone: (919) 966-5721; Email: styblo@med.unc.edu

**Running Title:** Metabolism of inorganic As in mice expressing human *AS3MT*

**Disclaimer:** The Center for Computational Toxicology & Exposure, Office of Research and Development, U.S. Environmental Protection Agency has reviewed and approved this manuscript for publication. Approval does not signify that the contents reflect the views of the Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.





**Figure S1:** Correlation between average tAs and average iAs concentrations in liver, kidneys, pancreas, spleen, heart, lung, adrenal glands, brain, and visceral fat, calf muscle of male and female Hs and WT mice exposed to 25-ppb or 400-ppb iAs in drinking water. Linear regression lines, Spearman’s rank correlation coefficient (Rs), and corresponding P values are shown.





**Figure S2:** Correlation between average tAs and average MAs concentrations in liver, kidneys, pancreas, spleen, heart, lung, adrenal glands, brain, and visceral fat, calf muscle of male and female Hs and WT mice exposed to 25-ppb or 400-ppb iAs in drinking water. Linear regression lines, Spearman’s rank correlation coefficient (Rs), and corresponding P values are shown.





**Figure S3:** Correlation between average tAs and average DMAs concentrations in liver, kidneys, pancreas, spleen, heart, lung, adrenal glands, brain, and visceral fat, calf muscle of male and female Hs and WT mice exposed to 25-ppb or 400-ppb iAs in drinking water. Linear regression lines, Spearman’s rank correlation coefficient (Rs), and corresponding P values are shown.