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Supplemental Material

Metabolomic, Lipidomic, Transcriptomic, and Metagenomic Analyses in Mice Exposed to PFOS and Fed Soluble and Insoluble Dietary Fibers

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Table S1. Open Standard Diet supplemented with cellulose, inulin, or pectin dietary fibers.

Figure S1. Metabolomic and lipidomic data analysis workflow.

Figure S2. Body weight, food and water intake of male C57BL/6 mice exposed to PFOS and fed with cellulose, inulin or pectin supplemented diet for 7 weeks. A: water intake; B: food intake; C: body weight. Bars represent mean \pm SEM of 6-8 mice in each group. Detailed data are of body weight, food and water intake are listed in Excel Table S9-10.

Figure S3. Heat map analysis of liver samples from mice exposed to PFOS and fed diets supplemented with one of the three fibers: cellulose (control), inulin, or pectin (n=6-8/group). Full metabolomic data are listed in Excel Table S5.

Figure S4. Differences in the level of liver metabolites from mice exposed to PFOS and fed diets supplemented with one of the three fibers: cellulose (control), inulin, or pectin (n=6-8/group). MetaboAnalyst 5.0 analysis identified a total of 23 metabolites/compounds that had adjusted $p < 0.05$ (adj-p) and fold change > 2 after PFOS exposure in control, inulin and pectin fed groups. Log-transformed abundance values are shown as box and whisker plots (midline, median; box limits, upper and lower quartiles; whiskers, 10 th and 90 th percentiles). Data were compared using two-way ANOVA and Tukey test for multiple comparisons, * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$. Full metabolomic data are listed in Excel Table S5.

Figure S5. Relative abundance of *Muribaculum* and *Duncaniella* in mouse cecal contents (Excel Table S7). Mice were exposed to PFOS and fed diets supplemented with one of the three fibers: cellulose (control), inulin, or pectin (n=5/group). Relative abundance values are shown as box and whisker plots (midline, median; box limits, upper and lower quartiles; whiskers, 10 th and 90 th percentiles). Data were analyzed using two-way ANOVA followed by the Tukey's post-hoc test. *p < 0.05, **p<0.01.

Additional File- Excel Document