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Supplemental Material

Adverse Maternal, Fetal, and Postnatal Effects of Hexafluoropropylene Oxide Dimer Acid (GenX) from Oral Gestational Exposure in Sprague-Dawley Rats

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Figure S1. Ex vivo fetal testis testosterone production measured on gestation day (GD) 18 following maternal oral hexafluoropropylene oxide-dimer acid (HFPO-DA) exposure from GD14-18. Experiments were conducted across two blocks of n=15 dams per block (control n=6, treated n=3 dams per dose) with testosterone concentration normalized to the mean control concentration within a given block. Data points indicate individual litter values (mean of three male pups per litter), bars and whiskers indicate mean \pm standard error.

Figure S2. Hexafluoropropylene oxide-dimer acide (HFPO-DA) in vitro agonism and antagonism activity for estrogen (a,b), androgen (c,d), and glucocorticoid (e,f) receptors. Estrogen activity assessed using 17β -estradiol (E2) as reference agonist and ICI-182-087 (ICI) as reference antagonist. Androgen activity assessed using dihydrotestosterone (DHT) as reference agonist and hydroxyflutamide (OHF) as reference antagonist. Glucocorticoid activity assessed using dexamethasone (Dex) as reference agonist and mifepristone (Mif) as reference antagonist. Data points represent mean ± standard deviation (n=2-3 biological replicates (i.e., unique cell passages), with n=4 technical replicates per dose within a biological replicate).

Table S1. Identification of genes on custom array plate developed to identify genomic biomarkers of phthalated-induced male reproductive developmental toxicity in fetal rat testis.

Table S2. Identification of PPAR pathway genes analyzed in maternal and fetal livers using Qiagen RT² Profiler PCR Array Rat PPAR Targets (Cat no. PARN-149Z).

Table S3. Fetal liver (collected GD18) PPAR gene expression following GD14-18 maternal oral exposure to HFPO-DA.

Table S4. Fetal testis (collected GD18) gene expression of genes associated with phthalate-like male reproductive effects following GD14-18 maternal oral exposure to HFPO-DA.

Table S5. Maternal and fetal endpoints from GD14-18 oral maternal HFPO-DA exposure.

Table S6. Maternal liver (collected GD18) PPAR gene expression following GD14-18 maternal oral exposure to HFPO-DA.

Table S7. Maternal, perinatal, and pubertal endpoints from pilot postnatal study (GD14-18 oral maternal HFPO-DA dosing).

Table S8. Adult male necropsy endpoints from pilot postnatal study (GD14-18 oral maternal HFPO-DA dosing).

Table S9. Adult female necropsy endpoints from pilot postnatal study (GD14-18 oral maternal HFPO-DA dosing).

 Table S10. Maternal serum and fetal/neonatal plasma HFPO-DA concentrations.