

Supplementary Material: Epigenetic Modifications, and Alterations in Cell Cycle and Apoptosis Pathway in A549 Lung Carcinoma Cell Line upon Exposure to Perfluoroalkyl Substances

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Table S1. Sequences of primers used for quantitative real-time polymerase chain reaction (qRT-PCR).

| Target gene | Forward Primer | Reverse Primer |
|-------------|---------------------------------|----------------------------------|
| GAPDH | 5'-GAA GGT GAA GGT CGG AGT C-3' | 5'-GAA GAT GGT GAT GGG ATT TC-3' |

Table S1a. For epigenetic analysis.

| Target gene | Forward Primer | Reverse primer |
|-------------|--------------------------------------|--------------------------------------|
| DNMT1 | 5'-TAC CTG ACG ACC CTG ACC TC-3' | 5'-CGT TGG CAT CAA AGA TGG ACA-3' |
| DNMT3a | 5'-TAT TGA TGA GCG CAC AAG AGA GC-3' | 5'-GGG TGT TCC AGG GTA ACA TTG AG-3' |
| DNMT3b | 5'-GGC AAG TTC TCC GAG GTC TCT G-3' | 5'-TGG TAC ATG GCT TTT GGA TAG GA-3' |
| TET1 | 5'-CAG AAC CTA AAC CAC CCG TG-3' | 5'-TGC TTC GTA GCG CCA TTG TTA-3' |
| TET2 | 5'-GAT AGA ACC AAC CAT GTT GAG GG-3' | 5'-TGG AGC TTT GTA GCC AGA GGT-3' |
| TET3 | 5'-TCC AGC AAC TCC TAG AAC TGA G-3' | 5'-AGG CCG CTT GAA TAC TGA CTG-3' |

Table S1b. For cell cycle proliferation study.

| Target gene | Forward Primer | Reverse primer |
|-------------|-------------------------------------|-----------------------------------|
| CCNE1 | 5'-AAA TGG CCA AAA TCG ACA GG-3' | 5'-CGA GGC TTG CAC GTT GAG TT-3' |
| CCNA2 | 5'-AGT AAA CAG CCT GCG TTC ACC-3' | 5'-GAG GGA CCA ATG GTT TTC TGG-3' |
| CCNB1 | 5'-ATG ACA TGG TGC ACT TTC CTC C-3' | 5'-GCC AGG TGC TGT ATA ACT GG-3' |

Table S1c. For apoptosis and its pathway studies.

| Target gene | Forward Primer | Reverse primer |
|-------------|-------------------------------------|-------------------------------------|
| BAX | 5'-CAA ACT GGT GCT CAA GGC CC-3' | 5'-GGG CGT CCC AAA GTA GGA GA-3' |
| BCL-2 | 5'-TAC CCA CTG AGA TTT CCA GGC-3' | 5'-CAG GGC TTA AGG TAC TGG ATG A-3' |
| BCL2L1 | 5'-GCA GTA AAG CAA GCG CTG AGG-3' | 5'-CAC AAT GCG ACC CCA GTT TAC C-3' |
| CASP3 | 5'-GGA AGC GAA TCA ATG GAC TCT G-3' | 5'-CGA CAT CTG TAC CAG ACC GAG-3' |
| CASP8 | 5'-GCT TGT CAG GGG GAT AAC TAC C-3' | 5'-CCA TCC CCA GCA GAA AGT CAG-3' |
| CASP9 | 5'-CAG TGG GCT CAC TCT GAA GAC C-3' | 5'-GGG TGC AAG ATA AGG CAG GGT G-3' |
| BID | 5'-GGT GTG AAG GTG ATT TAA GGG C-3' | 5'-GCT ATT ACC AGG GGG CTA ACT C-3' |

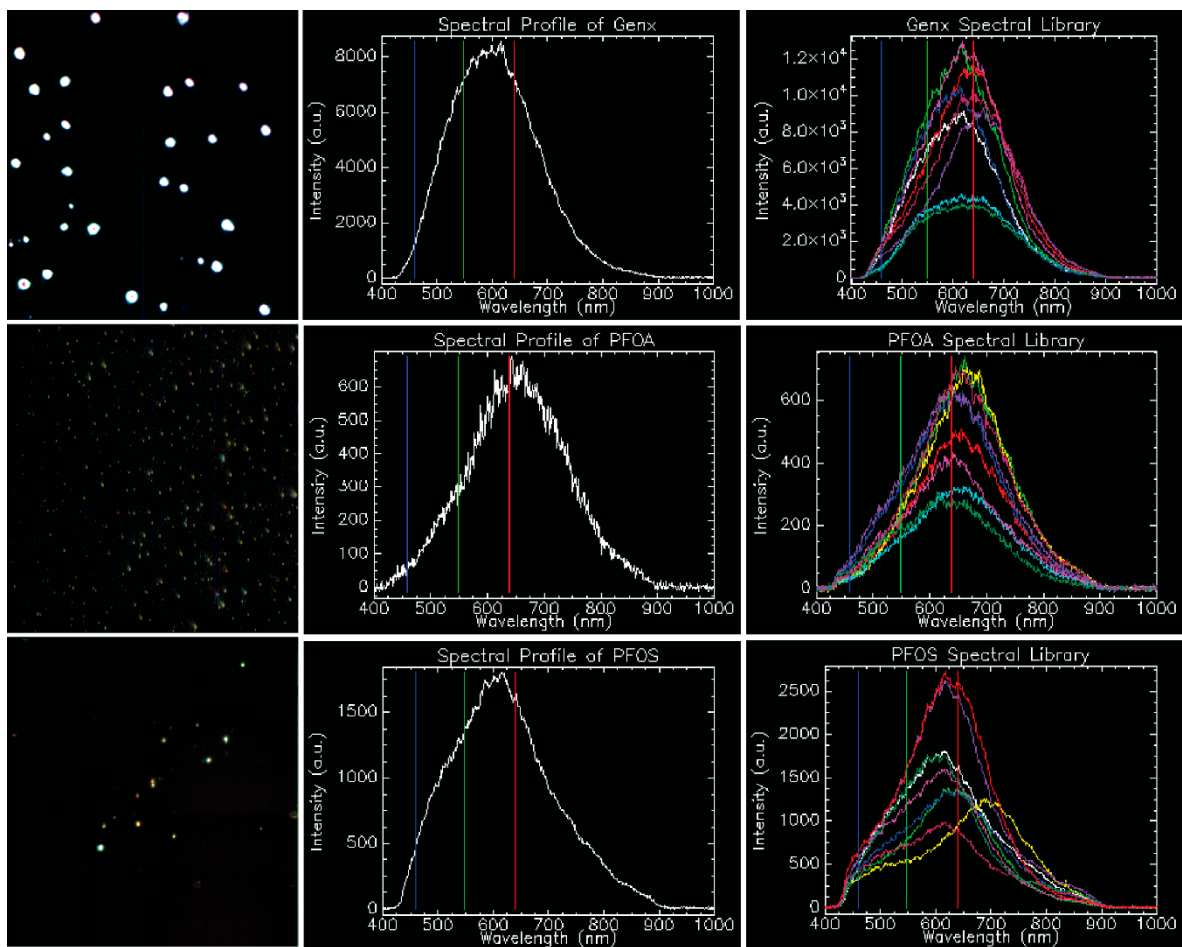


Figure S1. Hyperspectral images and spectral profiling of GenX (top row), PFOA (middle row) and PFOS (bottom row).