

- **Per- and polyfluoroalkyl substances (PFAS) are chemicals found in many consumer and industrial products.**
- **Currently, there are ~1223 PFAS chemicals included in the Toxic Substances Control Act (TSCA) inventory for use in the US, 602 which are currently active.**
- **The U. S. Environmental Protection Agency is leading an effort to define the toxic profile of a structurally representative group of PFAS to understand the intersection of their toxicity and structure.**

- Embryos were prepared on the day of fertilization and exposed to either dimethyl sulfoxide (DMSO:vehicle), or one of the PFAS chemicals. Positive control (chlorpyrifos) was run on each plate.
- On the sixth day each larva was assessed by two independent, blinded observers who graded developmental landmarks: e.g., mortality, hatching, swim bladder inflation, edema, abnormal spine/tail, cranial-facial abnormalities, and small size.

## LATERAL VIEW

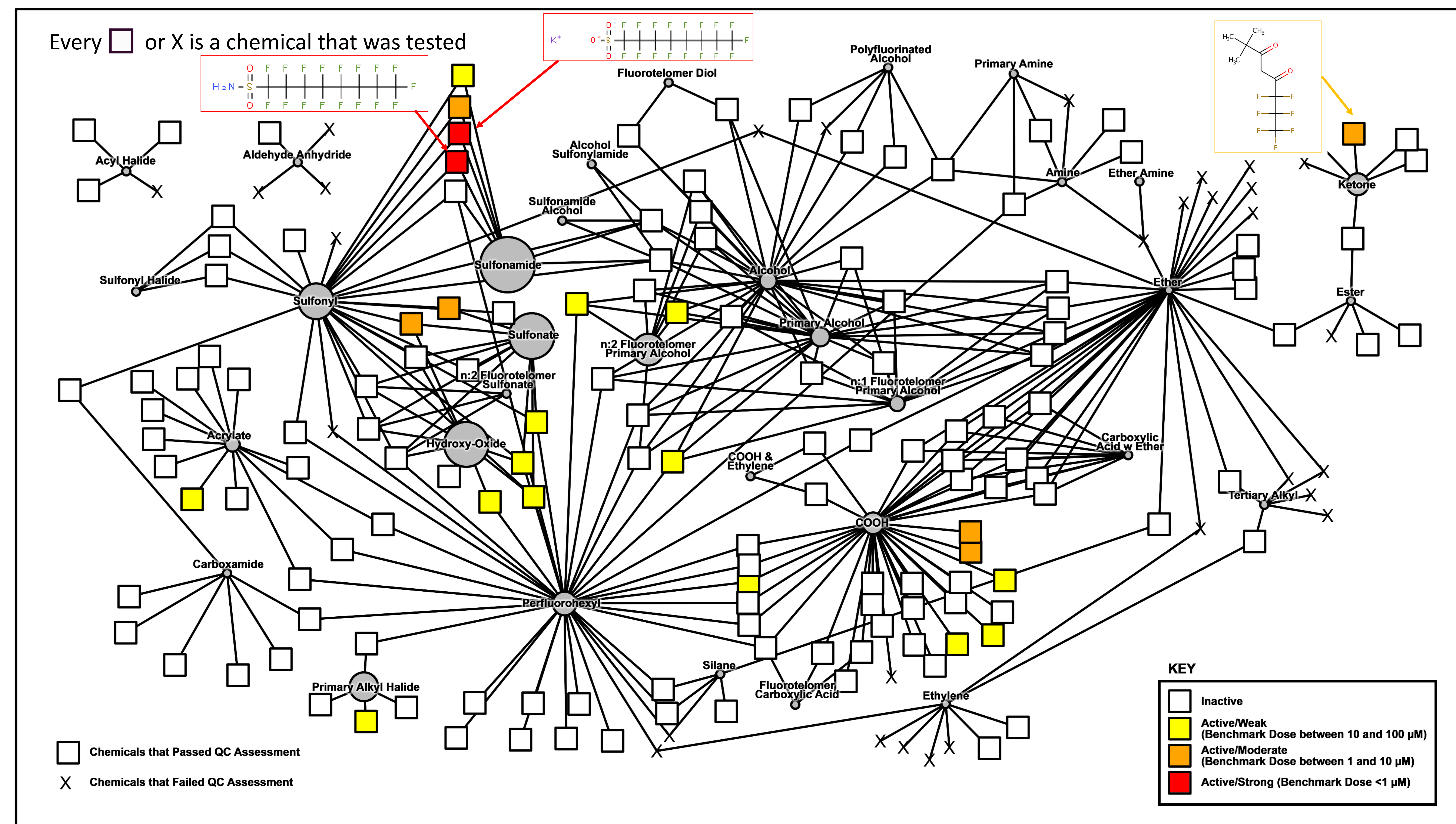


### DORSAL VIEW



**C. Treated Larva – SEVERELY ABNORMAL: uninflated swim bladder, craniofacial abnormalities, edema, spine/tail abnormalities**

**PFAS with Sulfonamide, Sulfonate, and/or Hydroxy-oxide Chemical Moieties were Likely to be Developmentally Toxic to Zebrafish Embryos Based on These Test Results**



**K. Britton<sup>1</sup>, D. Korest<sup>2</sup>, R. Judson<sup>3</sup>, K. Jarema<sup>3</sup>, K. Coutros<sup>3</sup>, B. Wetmore<sup>3</sup>, B. Hill<sup>2</sup>, D. Hunter<sup>3</sup>, J. Olin<sup>3</sup> and S. Padilla<sup>3</sup>**

<sup>1</sup>ORAU, <sup>2</sup>ORISE, <sup>1,2,3</sup>Center for Computational Toxicology and Exposure, U.S. EPA, RTP, NC

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**Padilla.stephanie@EPA.gov**