Toxics Use Reduction Institute Science Advisory Board Meeting Minutes
January 8, 2026
Virtual Zoom Meeting
10:30 AM

Members Present: Robin Dodson (Chair), Heather Lynch, Christy Foran, Helen Poynton, Ryan Bouldin, Loretta Fernandez

Program staff present: Heather Tenney (TURI), Karen Thomas (TURI), Hayley Hudson (TURI), Colin Hannahan (TURI), David Turcotte (TURI), Nicole Moody (MassDEP), John Raschko (OTA), Kari Sasportas (OTA), Caredwen Foley (OTA)

Others present: Carol Holahan (Foley Hoag LLP), Liz Harriman (LCSP), Raza Ali (ACC), Dannielle Melendez (ACC), Robert Rio (RAR Strategies), Katherine Robertson (MCTA), Clint Richmont (MA Sierra Club).

Welcome & Introductions
Please note that this meeting is being conducted remotely as the provisions to allow remote meetings under the Open Meeting Law have been extended to June 30, 2027. Board members and program staff were introduced, and visitors were asked to put their name and affiliation in the chat.

The board welcomed new SAB member, Loretta Fernandez from Northeastern University.

New Member Training
TURI staff presented a detailed summary of the TUR Act, SAB responsibilities, TURA policies related to the SAB work, and the flow chart of the TURA process once the SAB makes a recommendation among other important introductory and historical information.

Approve October Meeting Minutes
There was a motion to discuss the October meeting minutes as written, and there was a second. There was a request to clarify the following phrase: "*some endpoints and some chemicals give better outcomes in this type of testing*" from the ToxCast section. It was suggested that this phrase be changed to: "*some endpoints and some chemicals give better predictions in this type of testing*." There was a motion to approve the minutes as amended, and there was a second. A roll call vote was conducted, five members voted in favor and one abstained.

Presentation and Discussion of Ultra Short Chain (USC) PFAS, continued from last meeting

TURI staff presented new information on ultra short chain PFAS, specifically perfluoropropanoic acid (PFPrA). The eight studies for Trifluoroacetic acid (TFA) from the previous meeting and the five new studies for PFPrA are listed in "Handouts" below. Board members discussed the new information.

- There was a question about the numbers of carbons that would exclude a chemical from the TURA PFAS category. The TURA category is three or more fully fluorinated carbons (two if it is an ether). Shorter than that are excluded under the current definition. A correction to the powerpoint was made based upon this discussion.
- The high level of uncertainty and the data used to derive the RfD was discussed. Members expressed concerns for the limited toxicity information for PFPrA and the low confidence in EPA's reference dose.
- Members expressed concerns for the ubiquitousness of PFPrA and its potential to be persistent, mobile, and bioavailable.
- It was noted that ultra-short chain PFAS (USC) in general are extremely hard to get rid of and so they may be an environmental concern solely based on that.
- There was a question about whether these would be covered in our PFAS category already because they are breakdown products of already listed longer chain PFAS. They are not covered in our category definition and it was noted that the category was developed to include substances that break down into substances (the PFAAs and fluorinated ethers) that the board individually reviewed.
- There was interest in the bioaccumulation in plants, members would like to see any information on that.
- Members would like to see more ecotoxicity information, if there is any. There was not ecotoxicity information for PFPrA at this time, but TURI will check for more information on this for the next meeting.
- Members would like to see more information on TFA, specifically more ecotoxicity information.
- A member asked about a particular substance, PFMOAA. This is an ether, so it is already included in the definitions and covered under TURA, which only requires 2 fluorinated carbons on either side of the oxygen.
- Are there other ultra short chained PFAS that we should be looking at?
    - TURI staff suggested possibly looking at TFMS as it is another USC that is commonly detected.
- TFA and PFPrA are the USCs with the most information, so it might make sense to keep looking at these rather than the one by one approach as each one has less and less information.

There was an opportunity for visitor comments.

It was noted that PFPrA is a PFCA and is only one fluorinated carbon short of PFBA. Ultra short chains would be a regrettable substitute for other longer chain PFAS. Sierra Club submitted comments, which are available, on the EPA PFAS definition.

Presentation and Discussion of EPA's ToxCast tool, continued from last meeting

TURI staff presented four studies on the use of EPA's Toxicology Forecaster Data. (See list in handouts below.) Board members commented the following:

- The board would like to understand how well the data correlates to or predicts in vivo effects. Is the predictive data protective?
- Perhaps use of this data for a specific endpoint would be helpful (e.g., cardiotoxicity or endocrine disruption).
- On the Krishna article, how the false positives were removed was questioned. The cytotoxic burst and ECOTOX showed good correlation, but the correlation coefficients were very low, such that the predictive data would only be protective for 50% of the chemicals considered. This is curious because the in vitro data should be more sensitive.
- ToxCast data could potentially be used for 'weight of evidence' in SAB deliberations. (e.g., if other studies suggest liver toxicity then the board could consider predictive results for the liver assays).
- ToxCast data is not enough evidence by itself.
- ToxCast data could be used to fill data gaps.
- There was interest in learning more about the predictive ability of this data for endocrine disruption. What are the ED assays, what do they cover, are they duplicative, what don't they cover?
- ToxCast data can help determine mechanisms.
- ToxCast data may be useful in chemical groupings – for instance when looking at structural and ToxCast similarities.
- The Jeong review article was helpful and the board asked if there is another article that is post 2022.

There was an opportunity for visitor comments on this portion of the meeting and there were none.

Next Meeting

We will plan for a March or April meeting.

The meeting was adjourned.

Handouts

- DRAFT October SAB Meeting Minutes for Board Review

USC PFAS articles:

- EPA ORD Human Health Toxicity Value for PFPrA
- Morishita 2025: Occurrence of ultrashort-chain per- and polyfluoroalkyl substances in water samples from Ohio, Indiana, and Illinois
- Miao 2025: Environmental Occurrence, Source Identification, and Health Hazards of Ultrashort-Chain PFAS in the Yangtze River Delta
- Quan 2025: PFAS in bottled water from China: High prevalence of ultrashort-chain compounds, health risks, and global insights
- ECHA 2025: Proposal for Harmonised Classification and Labelling for TFA
- Moscato 2025: TFA – A Narrative Review on Physico-Chemical Properties, Exposure Pathways, and Toxicological Concerns
- Arp 2024: The Global Threat from the Irreversible Accumulation of TFA
- Dekant 2023: Mammalian toxicity of TFA and assessment of human health risks due to environmental exposures
- Freeling 2023: Assessing the environmental occurrence of the anthropogenic contaminant TFA
- Joudan 2021: Insufficient evidence for the existence of natural TFA
- Pickard 2020: Ice Core Record of Persistent Short-Chain Fluorinated Alkyl Acids: Evidence of the Impact From Global Environmental Regulations

ToxCast articles:

- Jeong 2022: Application of ToxCast/Tox21 data for toxicity mechanism-based evaluation and prioritization of environmental chemicals: Perspective and limitations
- Phifer 2021: Assessing how in vitro assay types predict in vivo toxicology data
- Schaupp 2023: Comparison of in silico, in vitro, and in vivo toxicity benchmarks suggests a role for ToxCast data in ecological hazard assessment
- Krishna 2021: High-Throughput Screening to Identify Chemical Cardiotoxic Potential

Zoom Meeting Chat

2026-01-08 10:33:45 From Liz Harriman to Everyone:
Liz Harriman, Lowell Center for Sustainable Production, UMass Lowell

2026-01-08 10:33:49 From Caredwen Foley to Everyone:
Caredwen Foley, MA OTA

2026-01-08 10:34:05 From Kari Sasportas to Everyone:

Kari Sasportas, MA OTA

2026-01-08 10:34:13 From Katherine Robertson to Everyone:
Katherine Robertson

2026-01-08 10:34:20 From John Raschko, OTA to Everyone:
John Raschko, MA OTA

2026-01-08 10:34:29 From Raza Ali to Everyone:
Raza Ali, American Chemistry Council

2026-01-08 11:27:09 From Heather Tenney to Everyone:
Decision-Making under TURA:

2026-01-08 11:42:40 From Clint Richmond, MA Sierra Club to Everyone:
Agreed. This is a perfluoroalkyl carboxylic acid, a highly problematic class, and it is one fluorinated carbon short of PFBA which is a regulated substance in some jurisdications.

2026-01-08 11:45:10 From Helen Poynton (she/her) to Everyone:
https://pubs.acs.org/doi/full/10.1021/acs.est.3c085

2026-01-08 11:46:30 From John Raschko, OTA to Everyone:
Replying to "https://pubs.acs.org/doi/full/10.1021/acs.est.3c08...":
The link didn't work for me.

2026-01-08 11:47:45 From Helen Poynton (she/her) to Everyone:
Maternal and Neonatal Effects of Maternal Oral Exposure to Perfluoro-2-methoxyacetic Acid (PFMOAA) during Pregnancy and Early Lactation in the Sprague–Dawley Rat

2026-01-08 11:48:32 From Liz Harriman to Everyone:
https://pubmed.ncbi.nlm.nih.gov/38163761/

2026-01-08 11:50:18 From Liz Harriman to Everyone:
it's an ether, so only needs 2 fluorinated, either side of O

2026-01-08 11:56:06 From Clint Richmond, MA Sierra Club to Everyone:
The other issue to mention is that from an analytic perspective it is not part of any standard method and as a short-chain, it is more difficult to measure than longer chains and so we are undermeasuring it in every media/study.

2026-01-08 12:01:13 From Ryan Bouldin to Everyone:

https://pubchem.ncbi.nlm.nih.gov/compound/Bis_trifluoromethane_sulfonimide#section=Mass-Spectrometry

2026-01-08 12:04:27 From Heather Lynch to Everyone:
https://pubmed.ncbi.nlm.nih.gov/41134196/

2026-01-08 12:06:44 From Helen Poynton (she/her) to Everyone:
Replying to "https://pubmed.ncbi.nlm.nih.gov/41134196/":
I do not have access to the full length pdf. If TURI could get this paper for next meeting would be great.

2026-01-08 12:08:23 From Heather Lynch to Everyone:
can confirm ecotox studies are on the echa website

2026-01-08 12:08:25 From Heather Lynch to Everyone:
and summaries

2026-01-08 12:08:35 From Heather Lynch to Everyone:
"Short-term E/LC50 values are available for
algae (key study growth rate 72hEC50 = 237 mg/L), daphnia (48hEC50 >100 mg/L) and fish (96hLC50 > 100 mg/L). All of the key studies demonstrate E/LC50 above 100 mg/L, showing that the substance does not need to be classified for acute toxicity to aquatic organisms according to the CLP and the UN-GHS criteria."

2026-01-08 12:08:37 From Heather Lynch to Everyone:
TFA

2026-01-08 12:09:09 From Heather Lynch to Everyone:
link is awful, sorry: https://chem.echa.europa.eu/100.000.846/dossier-view/512f4572-7d1e-43de-8009-2632def5062a/d3866f34-7d3a-4420-b8fa-fb2987e1ee22_125ed25b-eae2-4036-a459-db4c0c66f231?searchText=Trifluoroacetic%20acid

2026-01-08 12:12:18 From Hayley Hudson to Everyone:
Replying to "https://pubmed.ncbi.nlm.nih.gov/41134196/":
Ok we can do that

2026-01-08 12:15:21 From Clint Richmond, MA Sierra Club to Everyone:
This raises the issues of chronic toxicity and toxicology of mixtures, which are much more difficult to assess.