Toxics Use Reduction Institute Science Advisory Board Meeting Minutes
March 19, 2026
Virtual Zoom Meeting
9:00 AM

Members Present: Robin Dodson (Chair), Christy Foran, Ryan Bouldin, Loretta Fernandez, Jennifer Schlezinger, Rich Gurney, Denise Kmetzo

Program staff present: Heather Tenney (TURI), Hayley Hudson (TURI), Colin Hannahan (TURI), Nicole Moody (MassDEP), John Raschko (OTA)

Others present: Dannielle Melendez (ACC), Robert Rio (RAR Strategies), Katherine Robertson (MCTA), Jerome Lang (Nano-C), Abbey Linsk (ACC), Jessica Ryman (DABT, ACC)

Pre Meeting New Member Training
TURI staff presented a 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.

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.

Approve January Meeting Minutes
There was a motion to discuss the January meeting minutes as written, and there was a second. There was an opportunity for discussion, but there was none. A roll call vote was conducted; six members voted in favor, and one abstained.

Presentation and Discussion of Ultra Short Chain (USC) PFAS, follow up from last meeting
TURI staff presented a quick review of our USC PFAS discussion over the past few meetings and answered follow-up questions from the January meeting.

Potential Higher Hazard Substance: N-Methyl Pyrrolidone (NMP):
TURI presented information on N-Methyl Pyrrolidone (NMP). NMP is already a TURA listed chemical, so this discussion was focused on reviewing new evidence of NMP as a potential higher hazard substance (HHS). Information was focused on the most recent authoritative sources and the six documents were summarized in an EHS Summary (See list in handouts section below).

Members noted that NMP may not be as hazardous as other HHS (for instance there is no evidence of carcinogenicity, it is not a PBT). Concerns were noted about the potential for regrettable substitutions. There was discussion on how persistent NMP may be in the environment. Wastewater treatment plant concentrations are very high, but it doesn't seem to be persistent. Members would like more information on the ubiquity and the concentrations of NMP in the environment.

There was discussion on the adequate weight of evidence for a developmental toxicant. The importance of timing of developmental and reproductive hazards was discussed.

One member stated that the NOEL, LOEL, and PODs are not overly concerning, and this may not be the chemical that we should start with. There was further conversation around acute effects and acute reference doses. Health Advisories for drinking water were mentioned as a good place to look for more information.

One member investigated the attractiveness of NMP as an aprotic solvent. Essentially, it is very good at keeping mixtures mixed. The EPA document states that it is used in cosmetics and other products that are left on the skin. In addition, it is used in air fresheners, hair spray, wipes, and pharmaceuticals. Regrettable substitutions might include things like dimethyl sulfoxide (DMSO) and Dimethyl formamide (DMF), the latter of which is already a Higher Hazard Substance. There is an emerging new use for dissolving plastics and textiles – NMP would likely perform well in this application.

From TURI's standpoint, authoritative information is a good starting point for the board to consider a HHS. We can provide primary studies if the board is interested in moving forward. Alternatively, we can step back and refresh the existing more hazardous substances (MHS) dataset, which was developed between 1998 and 2004. We can expect that many data gaps will be filled and some data will be updated.

It was determined that TURI will refresh the standard dataset on the roughly 80 MHS so the board could look at them together. The board can then consider them together and if any additional datapoints may be useful.

Discussion of Computational Toxicology Tools for Endocrine Disruption Endpoint

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

Mansouri looked at the sensitivity and specificity of the tool. One key takeaway was that it is fairly predictive and has more sources of higher accuracy. It is very much a prioritization approach and not meant to replace other testing- just prioritize further testing. The tool helps to fill gaps and there are thousands of chemicals to think about, so tools will be helpful for that.

This was a good reminder that these tools are for prioritizing. They are not meant to give a whole hazard assessment of a chemical. We also must consider data gaps - for example, there are 18 assays for estrogen but none for progesterone. Unsurprisingly, stronger agonists were more recognizable and more data sources resulted in better predictability. These tools will hopefully aid in narrowing the pool, but they have recognizable challenges. It is easiest to learn when using a tool on chemicals that have information.

TURI wants to continue to bring these papers to the board and keep this discussion going. This will be an ongoing discussion for the board, probably for many years.

Next Meeting
We will plan for a June meeting.

The meeting was adjourned.

Handouts

- DRAFT January SAB Meeting Minutes for Board Review
- Sigmund 2025: Scientists' Statement on the Chemical Definition of PFASs
- Sands 2025: Synergistic toxicity of PFAS and microplastic mixtures across five human cell lines

NMP articles:

- DRAFT EHS Summary NMP
- EPA 2020: Risk Evaluation for NMP
- EPA 2015: TSCA Work Plan for NMP
- NICNAS 2018: NMP Human Health Assessment
- Danish EPA 2015: Survey of NMP
- ECHA 2011: SVHC Support Document
- SCCS 2011: Opinion on NMP

Comptox articles:

- Mansouri 2016: CERAPP: Collaborative Estrogen Receptor Activity Prediction Project
- Browne 2015: Screening Chemicals for Estrogen Receptor Bioactivity Using a Computational Model

- Browne 2015: CORRECTION Screening Chemicals for Estrogen Receptor Bioactivity Using a Computational Model
- Mansouri 2020:CoMPARA: Collaborative Modeling Project for Androgen Receptor Activity

Zoom Meeting Chat (lightly edited)

John Raschko, OTA to Everyone (Mar 19, 2026, 9:31 AM)
John Raschko, Mass OTA

Jerome Lang to Everyone (Mar 19, 2026, 9:31 AM)
Jerome Lang, Nano-C

Jennifer Schlezinger to Everyone (Mar 19, 2026, 9:43 AM)
Looking at the Sands paper!

Rich Gurney (Simmons U) to Everyone (Mar 19, 2026, 10:05 AM)
EPA fact sheet" NMP is produced and imported into the United States, with use estimated at over 184 million pounds per year. EPA estimates that approximately 9 percent of total NMP usage is for paint and coating removal products."

Ryan Bouldin to Everyone (Mar 19, 2026, 10:26 AM)
NMP Usage from EPA 2017 - www.epa.gov/sites/default/files/2017-02/documents/nmp.pdf

Denise Kmetzo to Everyone (Mar 19, 2026, 10:32 AM)
Top tier for RfC and RfD for USEPA would be IRIS (Integrated Risk Information System). Could also consider CalEPA, or PPRTVs.

Rich Gurney (Simmons U) to Everyone (Mar 19, 2026, 10:45 AM)
Apologies, I have to run to lead a class.