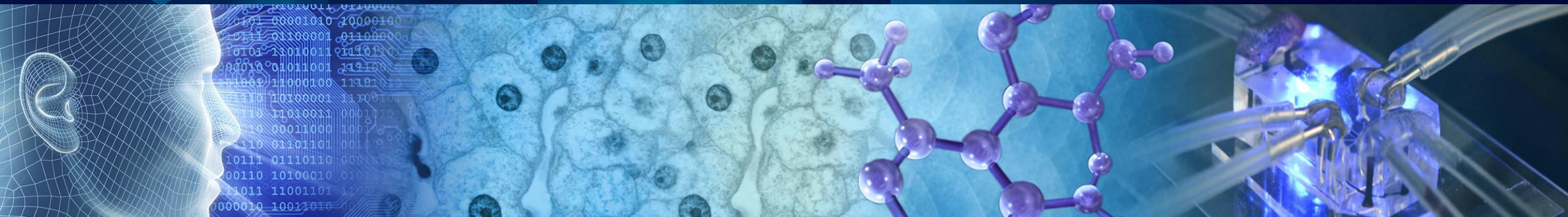




National Institute of
Environmental Health Sciences
Division of Translational Toxicology



Engaging the Public: Trainings, Workshops, and Demonstrations of NICEATM Tools

Victoria Hull, Sr. Bioinformatician

Inotiv, Inc., Contractor Supporting the NTP Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM)

Disclaimer: Inotiv staff provide technical support for NICEATM, but do not represent NIEHS, NTP, DTT, or the official positions of any federal agency.

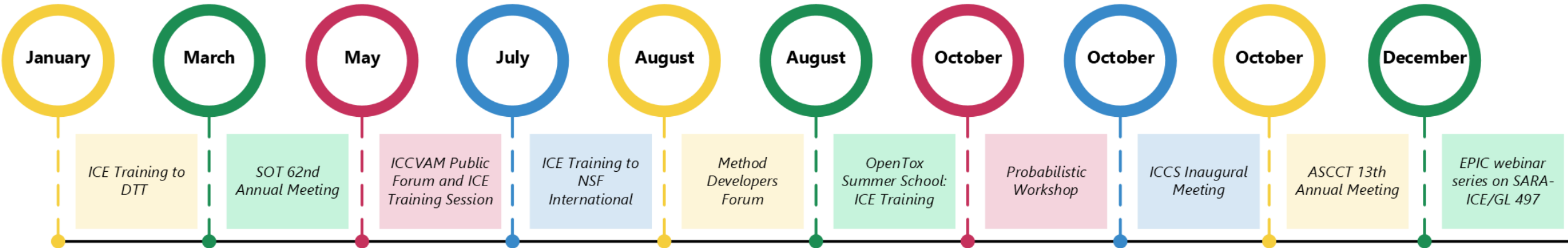
Importance of Public Outreach

- A key part of the NICEATM mission is to engage in a wide range of public outreach, including trainings, workshops, demonstrations, and forums.
- Public outreach is essential for the development, acceptance, and evaluation of New Approach Methodologies (NAMs).
 - Ongoing education series build confidence in NAMs.
 - Engaging the community drives collaboration both within and outside of the public sector.
 - Trainings support ongoing efforts to democratize data and make complex computational models accessible.

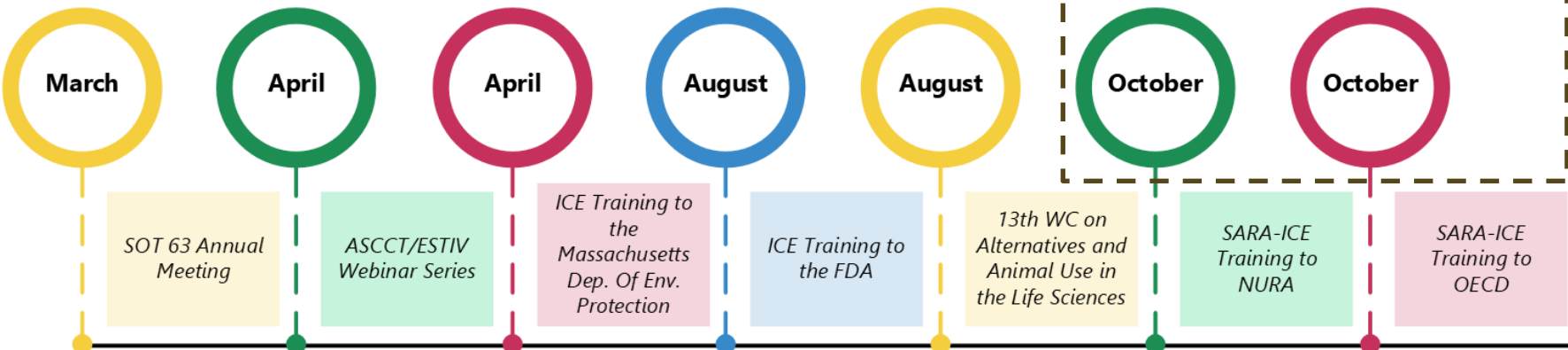


Outreach Highlights in 2024-2025

2024



2025



Meetings, Workshops, and Webinars

- NICEATM staff are key supporters, participants, and organizers of meetings, workshops, and webinars.
- Visit the NICEATM webpage to read more about upcoming meetings and access materials from previous ones.



NICEATM: Alternative Methods

U.S. Strategic Roadmap

Accepted Alternative Methods

3Rs Meetings, Workshops & Webinars

ICCVAM Public Forum: July 2025

Communities of Practice Webinar 2025

Workshop on Probabilistic Methods for Health Assessments

Method Developers Forum 2024

3Rs Meetings, Workshops & Webinars

This page includes links to upcoming events organized by NICEATM and others relevant to the "3Rs": replacement, reduction, or refinement of animal use in testing and research. [View information about past meetings and workshops.](#)

Upcoming NICEATM and ICCVAM Meetings, Workshops & Webinars

Date	Meeting	Location
September 11-12, 2025	Scientific Advisory Committee on Alternative Toxicological Methods	Online

<https://ntp.niehs.nih.gov/go/3Rs-wksp>

▼ On This Page

- [Upcoming NICEATM and ICCVAM Meetings, Workshops & Webinars](#)
- [Recent NICEATM and ICCVAM Meetings, Workshops & Webinars](#)
- [Other Meetings, Workshops & Webinars on Test Method Development and 3Rs Topics](#)

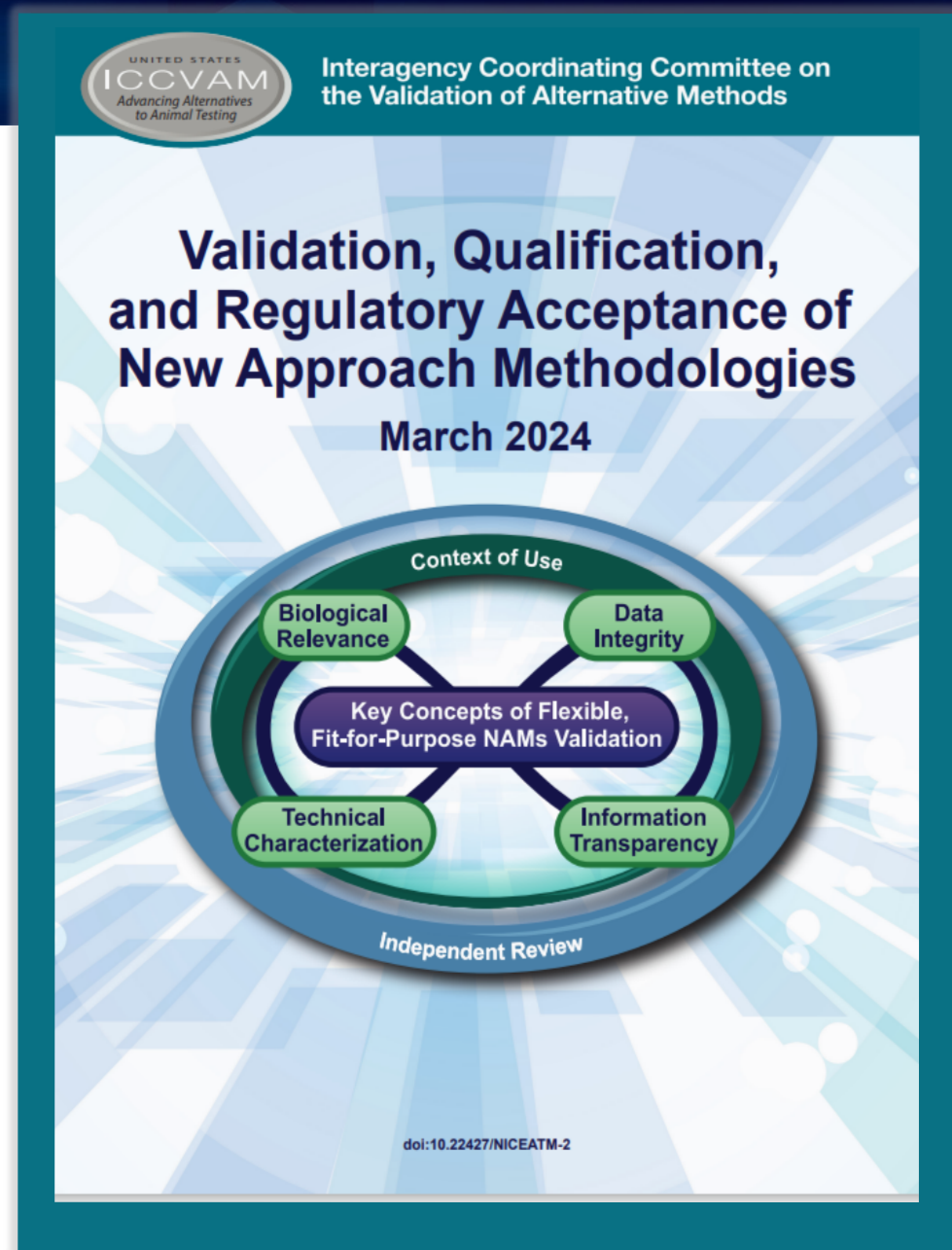
▼ Related Links

- [Presentations at Scientific Meetings](#)

<https://ntp.niehs.nih.gov/whatwestudy/niceatm/3rs-meetings>

Method Developers Forum

- The Method Developers Forum (MDF) series is a proactive effort to highlight and implement the recommendations detailed within the 2024 ICCVAM guidance document.
- Forum provides an opportunity for NAMs developers to present their methods and discuss regulatory issues with relevant stakeholders.
- The first ICCVAM Method Developers Forum was held virtually on August 21-22, 2024 with a focus on NAMs for **carcinogenicity testing**.
 - The next MDF will focus on **cardiovascular toxicity**.



- On October 7-8, 2024, the EPA Office of Research and Development, in conjunction with NICEATM, convened a workshop to facilitate discussion of probabilistic methods in human health risk assessment.
 - Workshop provided examples of application of probabilistic methods in chemical risk assessments, highlighted ongoing research, and discussed the needs and challenges for the regular use of these methods.

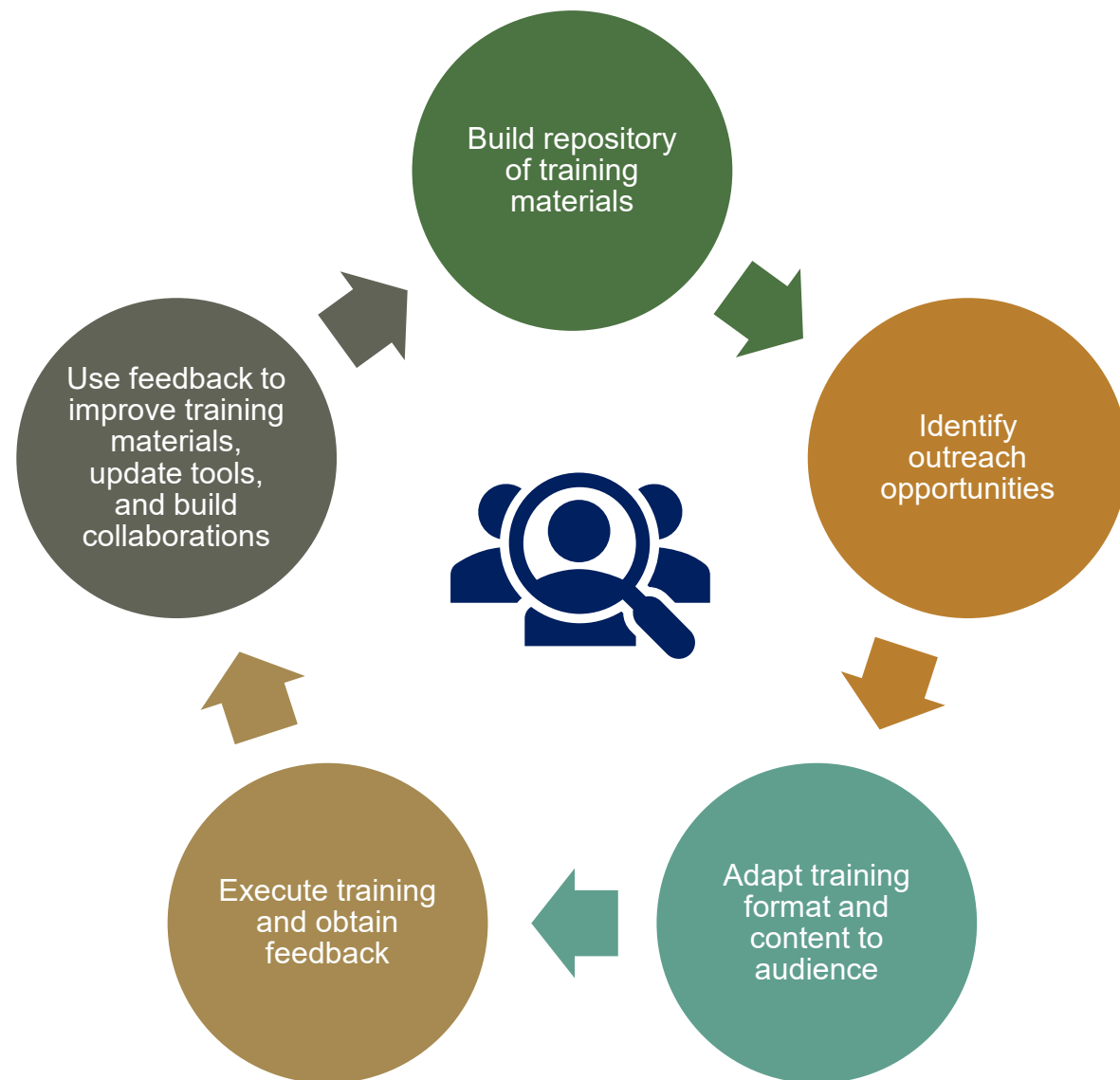
Broken into four sessions on:

- Probabilistic exposure.
 - Toxicokinetics.
 - Benchmark dose modeling.
 - Toxicity value determination.
-
- Promoted greater understanding of probabilistic methods within the context of human health assessments.
 - Guided discussion for how these methods may be implemented.



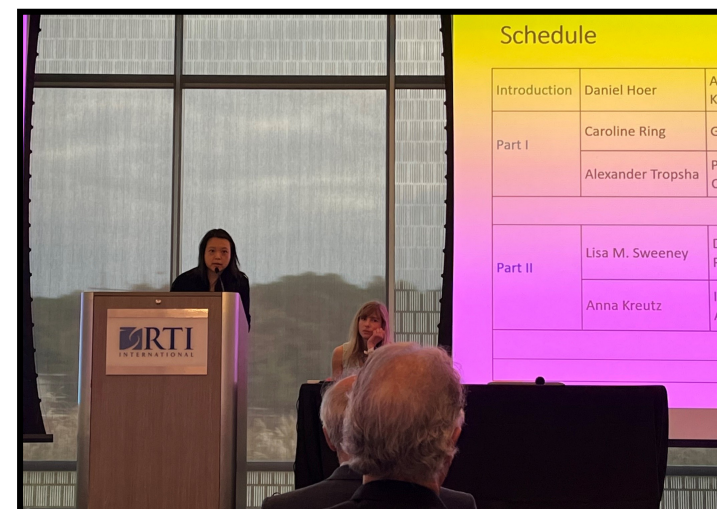
Trainings and Training Approach

- NICEATM trainings are available across a wide variety of topics and formats.
 - Trainings are updated and adapted for each audience.
- Cyclical process in which audience feedback informs training materials and tool updates.
- Topics include:
 - NICEATM Tools – ICE, DASSApp, ChemMaps, OPERA, etc.
 - Computational methods – PBPK, IVIVE, acute oral toxicity predictions using CATMoS, etc.
 - NAMs for risk assessment.



In Person Trainings

- Examples include:
 - ICE presentation at the ICCS Inaugural Meeting.
 - ASCCT continuing education course on PBPK and IVIVE.
 - ICE training at NSF international headquarters.
- Interactive elements like Q+As, cooperative activities, and hands-on demonstrations to increase audience engagement.
- Format for which we received the most feedback from stakeholders.



Virtual Trainings

- Examples include:
 - ICE demonstrations to the FDA, the Massachusetts Department of Environmental Protection (MassDep), and OpenTox Summer School.
 - Continuing education course on IVIVE at SOT 2025.
 - SARA-ICE demonstrations to OECD.
- Virtual format allowed us to access diverse audiences with minimal expenses or travel costs.
 - Audiences are typically larger than in-person trainings.
- Supporting staff were able to monitor live Q+A to answer questions as they appeared.

National Institute of Environmental Health Sciences
Division of Translational Toxicology

ICE: Integrated Chemical Environment
<https://ice.ntp.niehs.nih.gov/>

Users

Method Developers
Chemical Producers
Risk Assessors

Resources

High-Quality Data
Reference Chemicals
Computational Tools

Outcomes

- Identify opportunities to develop new methods
- Compare method performance
- Identify data gaps
- Obtain and examine toxicity and chemical data
- Develop testing strategies

ICE ANALYTICS

2024 New Users: 22,437

2024 Sessions: 38,356

ICE Release v4.1 (September 2024)

- Updated cHTS annotations from NCI Metathesaurus to OBO Foundry
- A new PFAS and an updated ROC chemical quick lists
- ICE REST API updated to include Curve Surfer tool concentration-response data
- Additional data visualizations in Search tool

ICE Release v4.1.1 (February 2025)

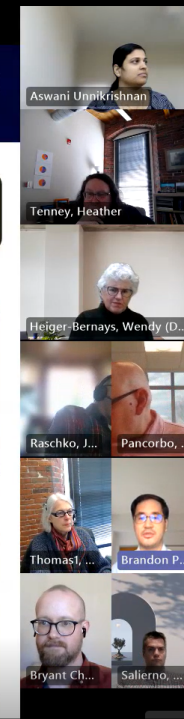
- Added ClassyFire chemical taxonomies for over one million chemicals
- Updated all ICE Tool Help videos

Tools & Features:

- Search
- Chemical Quest
- Curve Surfer
- PSPK
- IVIVE
- Chemical Characterization
- Data
- Help Videos

Integrated Chemical Environment

Bell et al. EHP 2017
Bell et al. Tox In Vitro 2020
Abedini et al. Comp Tox 2021
Daniel et al. Front Toxicol 2022



OpenTox
GLOBAL OPEN PLATFORM

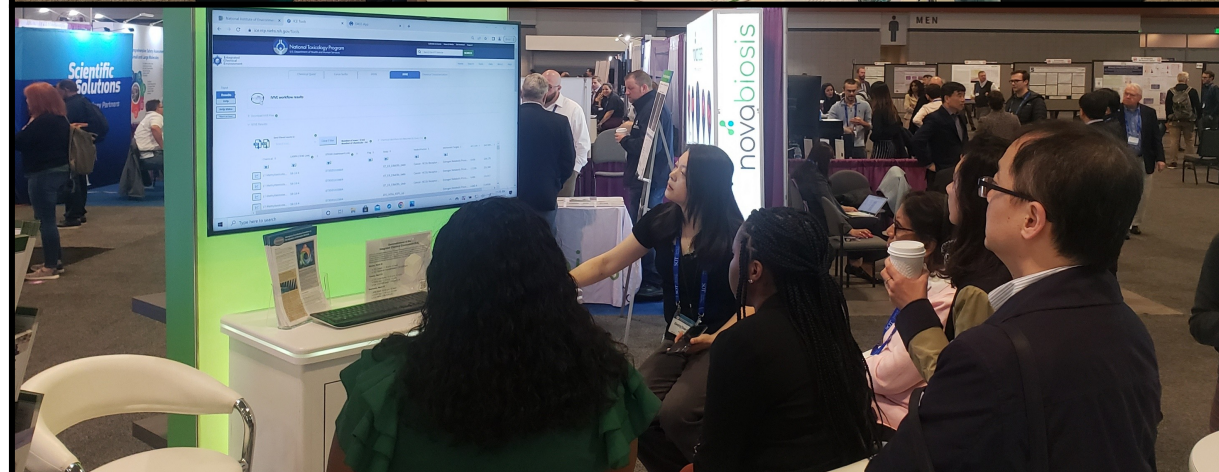
OpenTox is the leading global open platform for predictive toxicology supported by open standards.

Mon, 08/26/2024 - 12:00 08/26/2024 - 08/30/2024

Online Meeting Room

Demonstration Booths

- Staff attended the NIEHS booth at conferences like World Congress and SOT.
- Demonstrations were provided for web applications such as ICE, DASSApp, SARA-ICE, and HPPT App.
- Audience members of varying backgrounds stopped by for 5-to-10-minute demonstrations.
- Most attendees had little to no knowledge of ICE or other NICEATM tools.



To learn about upcoming trainings, demonstrations, or continuing education courses at scientific meetings visit the NICEATM webpage.

Publications & Presentations

NICEATM News

Presentations at Scientific Meetings

Searchable List of NICEATM Abstracts

13th World Congress

SOT 2025

ASCCT 2024 Annual Meeting

SOT 2024

ASCCT 2023 Annual Meeting

Presentations at Scientific Meetings

<https://ntp.niehs.nih.gov/go/niceatm-abstracts>

This page includes links to presentations by NICEATM at scientific meetings and conferences since 2022. Please [contact NICEATM](#) to obtain information about and materials from meetings before 2022.

[View a searchable list of NICEATM abstracts since 2022](#)

Show entries

Start Date	End Date	Meeting	Location
2025-08-31	2025-09-04	13th World Congress on Alternatives and Animal Use in the Life Sciences Visit conference website	Riocentro Convention and Event Center Rio de Janeiro, Brazil

<https://ntp.niehs.nih.gov/whatwestudy/niceatm/publications-and-presentations/presentations-at-scientific-meetings>

To request an ICE training, please contact: **ICE-support@niehs.nih.gov**

- In 2024-2025 we had visiting collaborators from EFSA, the University of Seoul, and L'Oreal.
 - Provided demonstrations of ICE and led discussions about their respective areas of interest, including Developmental and Reproductive Toxicity, PBPK, IVIVE, and the curated High Throughput Screening Pipeline.
- We regularly monitor the ICE contact email (ICE-support@niehs.nih.gov) to ensure all questions are answered.
- ICE tools have thorough user guides, help videos, and training slide decks.

ICE User Guide	ICE PBPK Tool
Search	Table of Contents:
Chemical Quest	• Introduction • Building a PBPK Query ◦ Select Model ◦ Specify Additional Parameters ◦ Chemical Input ◦ Upload Custom PhysChem Data ◦ Run PBPK Tool • Viewing PBPK Results ◦ Download Results ◦ Interactive Results Table ◦ Interactive Plots ◦ Using Results to Query Other ICE Tools
Curve Surfer	
PBPK	
IVIVE	
Chemical Characterization	
Interactive Graphs	
Rest API	



Increase the number of publicly available static training modules, including help videos and training slide decks.



Have more trainings targeted at early career scientists, students, and trainees.



Continue to improve case study demonstrations, ensuring that each audience understands how our tools may suit their specialized needs.



Create new avenues for audience feedback so we can better learn what works, what does not work, and where the potential gaps are.

Summary

- Public outreach is a key part of ICCVAM's mission to promote the acceptance, development, and improvement of NAMs.
- In 2024 and 2025 there were a wide range of NICEATM-supported outreach programs to both the public and private sector.
 - Outreach spanned a variety of topics and experience levels.
- There's more we can do in terms of outreach materials, opportunities, and integration of feedback.



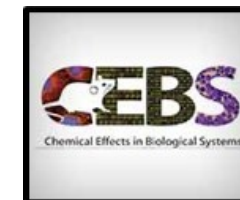
National Institute of
Environmental Health Sciences
Division of Translational Toxicology

Acknowledgments

The NICEATM Group



NIEHS/DTT Contributors



Subscribe to NICEATM News
<https://ntp.niehs.nih.gov/go/niceatm>



Integrated
Chemical
Environment

<https://ice.ntp.niehs.nih.gov/>



<https://github.com/NIEHS/OPERA>