RUTGERS
School of Public Health

UMET | UNIVERSIDAD METROPOLITANA
SISTEMA UNIVERSITARIO
ANA G. MÉNDEZ

Sponsored in
conjunction with

NIH National Institute of
Environmental Health Sciences
Worker Training Program

Best Practices in Using Technology in HAZMAT Training

March 29–30, 2017 | The Condado Plaza Hilton, San Juan, Puerto Rico

All sessions are in the Lagoon Tower, lobby level, unless specified.

Agenda

March 29, 2017

8:00–9:00 a.m. **Registration and Breakfast** .... *Royal Ballroom Foyer*

9:00–9:15 a.m. **Welcome** .... *Royal Ballroom*

- **Mitchel Rosen,** *Ph.D., Rutgers University*
- **Carlos Padín,** *Ph.D., Universidad Metropolitana (UMET)*
- **Joseph "Chip" Hughes, Jr.,** *NIEHS Worker Training Program (WTP)*
- **Linda Birnbaum,** *Ph.D., NIEHS*

9:15–9:45 a.m. **Introductions and Icebreaker Activity**

ICEBREAKER ACTIVITY: Attendees will discuss the limitations that they have encountered using technologies for worker safety and health training within their organizations. Attendees should consider the following questions:

- What would you like to get out of this workshop? What do you want to learn?
- What are some of the major challenges your organization faces in using technologies for worker safety and health training?
- What are some potential solutions for overcoming these limitations?
- Attendees will use an interactive polling tool to submit topics discussed at their round tables.

9:45–10:15 a.m. **Evolution of Technology Use in WTP: Our History and Looking Ahead**

History of Technology among WTP Awardees
- **Chip Hughes,** *NIEHS WTP*

Current Technology among WTP Awardees
- **Kenda Freeman and Deborah Weinstock,** *National Clearinghouse/MDB, Inc.*

10:15–10:30 a.m. **Break** .... *Royal Ballroom Foyer*

10:30 a.m.–noon **Use of E-learning Technologies and Resources in WTP**

BREAKOUT SESSION: There will be three breakout rooms for this session. **Attendees will have an opportunity to attend two breakouts of their choosing during this 90-minute session.**

Breakout hosts will be charged with addressing several questions during their collaborative presentation(s). Breakout participants will be charged with asking questions and interacting with the breakout hosts to find out more information about the tools that are presented.

Mobile Apps/Online ....*Mezzanine, Condado Room*

MODERATOR: Carol Rice, *Ph.D., Midwest Consortium*

- **Gary Gustafson,** *CPWR – The Center for Construction Research and Training (CPWR), and* **Ken Smith,** *Simcoach Games*

  Microgames: an overview of their process and philosophy for developing and using the technology, followed by a demonstration. Microgames are two- to three-minute video games for learning and practicing real workplace skills.

- **Peter Raynor,** *Ph.D., University of Minnesota/Midwest Consortium*

  The METPHAST program, supported by NIEHS, will be described and integration into a Midwest Consortium air pollution exercise will be illustrated. Other exercises developed by the Midwest Consortium using online resources will be listed.

Virtual Reality/Simulations..*Mezzanine, Laguna II*

MODERATOR: Jim Remington, *NIEHS WTP*

- **Matt Kozak and Janet Womachka,** *The New England Consortium-Civil Service Employees Association (TNEC-CSEA)*

  Virtual reality and computer-based simulations with 360-degree views allows them to put any participant in a hazardous area while they provide training and guidance as to how to assess and control hazards.

- **Jennifer Lastra,** *360immersive*

  The company offers a do-it-yourself model where they share their best production techniques with designated people in your organization.

- **Russell Rivard,** *Milwaukee Fire Department*

  HazSim is a handheld monitor that can be converted into various meters and controlled from afar by the instructor so students can properly respond to immediately dangerous to life or health (IDLH) atmospheres without actually being in one.

E-learning Resources and Technologies .... *Mezzanine, Laguna I*

MODERATOR: Chip Hughes, *NIEHS WTP*

- **Mark Catlin,** *Service Employees International Union*

  Use of a YouTube video library for safety and health training.

- **Pat Goble and Rob Wininger,** *International Chemical Workers Union Council (ICWUC)*

  Use of tablets for training, and how to do HAZWOPER training through apps instead of the traditional PowerPoint presentations.

- **Sean Phillips,** *OAI, Inc.*

  Use of gamification for Environmental Career Worker Training Program (ECWTP) training, and social media for recruitment and follow-up.

- **Gregory Sempowski,** *Ph.D., Duke University*

  Use of the Inquisiq Learning Management System (LMS) with Storyline 2 to develop, schedule, track, and document training sessions; register trainees; pre-quiz, post-course test; and post-course evaluation.

Noon–1:15 p.m. **Lunch** .... *Royal Ballroom Foyer*

1:15–2:15 p.m. **Evaluating the Effectiveness and Appropriateness of Training Technologies** .... *Royal Ballroom*

MODERATOR: Donald Elisburg, *National Clearinghouse/MDB, Inc.*

- **Salvatore Cali and Sean Phillips,** *OAI, Inc.*

  Observation, routine evaluations from students and instructors, third-party evaluation, peer-to-peer interest; LMS can track usage. Evidence of effectiveness: increased engagement observed; for LMS platform, higher scores on exams and better articulation of content by trainees.

- **Matt Kozak and Janet Womachka,** *TNEC-CSEA*

  CSEA uses a multi-level system for evaluation. Staff evaluates the technology's use, then the peer trainers, then the direct users evaluate their experience, use, and value brought to the training. CSEA is also doing an evaluation project regarding some of this technology.

2:15–3:15 p.m. **Current and Emerging E-learning Tools and Technologies**

MODERATOR: Kenneth Oldfield, *Alabama Fire College*

- **Jennifer Lastra,** *360immersive*
- **Henry Ryng,** *inXsol*
- **Gautham Venugopalan,** *Ph.D., Gryphon Scientific*

3:15-3:30 p.m. **Overview of Interactive Learning Sessions**

3:30–3:45 p.m. **Break** .... *Royal Ballroom Foyer*

3:45–5:00 p.m. **Interactive Learning Sessions**

⚑ **Explore Training Technologies**

- ■ **Using Technology to Train about the Emergency Response Guidebook** .... *Mezzanine, Laguna I*
  - **Pat Goble and Rob Wininger,** *ICWUC*

- ■ **Latest Technology Used in Work Zone Safety Training** .... *Mezzanine, Condado Room*
  - **Emmett Russell,** *The American Road and Transportation Builders Association*

- ■ **Microgames** .... *Mezzanine, Laguna II*
  - **Ken Smith,** *Simcoach*

⚑ **Product Sharing** .... *Mezzanine, Miramar I*

SBIR grantees and other companies will share the products they have created that may be useful for health and safety training.

- **Cesar Bandera,** *Ph.D., CellPodium*
- **Matt Hammer,** *Vivid Learning Systems*
- **Jennifer Lastra,** *360immersive*
- **Shariar Motakef,** *Ph.D., CapeSym, Inc.*
- **Henry Ryng,** *inXsol*
- **Gautham Venugopalan,** *Gryphon Scientific*

5:00 p.m. **Adjourn for the Day**

6:30 p.m. **Group Dinner** .... *Waikiki, Regatta 996, 1022, Ashford Avenue*

March 30, 2017

8:00–9:00 a.m. **Registration and Breakfast** .... *Royal Ballroom Foyer*

9:00–10:00 a.m. **Keynote Address** .... *Royal Ballroom*

The Evolution and Future of Health and Safety Training
- **Jill James,** *Vivid Learning Systems*

10:00–11:00 a.m. **Best Practices for Technology Use In or Out of the Classroom**

Questions to consider for session:

- What are some technology-based methods to enhance what you are teaching in/out of the classroom?
- How can existing technologies be adopted to enhance curricula?
- What is and isn't appropriate use for certain technologies (in/out of classroom)?

MODERATOR: Sharon Beard, *NIEHS WTP*

- **Jill James,** *Vivid Learning Systems*
  Language-free learning.
- **Chris Trahan Cain,** *CPWR: TRU-Net – The Trainers & Researchers United Network (TRU-Net)*
  TRU-Net is an effort to formalize the link between CPWR's consortium of safety and health researchers and its extensive training network.

11:00–11:15 a.m. **Break** .... *Royal Ballroom Foyer*

11:15–11:45 a.m. **E-learning and Minimum Criteria:**
Kick-off Planning for the Fall Workshop on Minimum Criteria .... *Royal Ballroom*

FACILITATOR: Craig Slatin, *Sc.D., TNEC*

Using a polling tool, or flipchart, attendees will provide at least one minimum criteria for e-learning (i.e., critical criteria that are needed to make e-learning optimally useful for trainees) that falls within one of the following categories:

- E-literacy/user-friendliness
- Supports group learning and empowerment learning
- Ease of use by trainers
- Affordable to develop and deploy
- Enhances the discussion, lecture, and hands-on learning

11:45 a.m.–noon **Wrap-up**

Noon–1:00 p.m. **Lunch** .... *Mezzanine, Miramar I*