Workshop Agenda

Here is a look at the workshop agenda. Please note the participants and the specific titles are subject to change. All assemblies will be in the NIST Green Auditorium on the NIST Gaithersburg campus, the poster displays will be in the NIST Poster Hallway (near the Green Auditorium) and the table top displays will be in the NIST Portrait Hallway (near the Green Auditorium and adjacent to the NIST Cafeteria). All attendees must be registered to have access to the NIST campus.

Opening Day: Tuesday, January 14, 2020	
7:30 – 8:30 am	**Registration Open & Check-in -** *NIST Conference Program Specialists – Green Auditorium Lobby Area*
8:30 – 10:00 am	**Opening Plenary Session -** Moderators: Dr. Cameron Miller and Dr. Dianne Poster (NIST)
8:30 – 8:35 am	**Welcome & Introductory Remarks -** *Dr. Cameron Miller, NIST*
8:35 – 8:45 am	**Welcome Remarks -** *Dr. Walter Copan, Under Secretary of Commerce for Standards and Technology and NIST Director*
8:45 – 8:55 am	**Welcome -** *Dr. Eric Lin, Director, NIST Material Measurement Laboratory*
8:55 – 9:25 am	**Keynote Presentation: Industry Perspectives -** *Mr. Oliver Lawal, IUVA Immediate-past President, President and CEO, AquiSense Technologies*
9:25 – 9:40 am	**Plenary Talk: Views from the Yale Medical School Healthcare Workshop -** *Dr. Richard Martinello, Associate Professor of Medicine (Infectious Diseases) and of Pediatrics; Medical Director, Infection Prevention, Yale New Haven Hospital and Yale New Haven Health, Quality & Safety, Yale Medical School*
9:40 – 9:55 am	**Plenary talk: IUVA Healthcare Working Group and Outlooks for Collaboration -** *Mr. Troy Cowan, Vision Based Consulting*
9:55 – 10:00 am	**Discussion**
10:00 – 10:30 am	**Break – Coffee in Poster Hallway and Portrait Room**
	Posters – Poster Hallway (authors will present posters during formal Poster Session at 2:15 pm – 3:15 pm)
	Table Top Displays – Portrait Room (open all day, both days)
10:30 – 12:00 pm	**Panel I: UVC/Light Disinfection Basics -** Moderator: Mr. Troy Cowan, Vision Based Consulting
10:30 – 10:40 am	Dr. Cameron Miller, NIST - *Electromagnetic spectra (EM)*
10:40 – 10:50 am	Mr. Dan Spicer, Light Sources, Inc. - *Methods and mechanisms of photonic disinfection*

10:50 – 11:00 am	Mr. Joe May, EIT, LLC - *General discussion of UV measurement in the disinfection range 220nm to 310nm*
11:00 – 11:10 am	Mr. Peter Gordon, Bolb Inc. - *Determining optimized roles of different types of light delivery sources*
11:10 – 11:20 am	Mr. Sam Guzman, American Ultraviolet - *Safety aspects: exposure and operations*
11:20 – 11:30 am	Mr. Peter Teska, Diversey - *Interactions and damage of surfaces by light*
11:30 – 11:40 am	Dr. Julie Mangino, Ohio State University Medical Center - *Environmental cleaning using UV disinfection to minimize cross transmission risk*
11:40 – 11:50 am	Mr. Jim Leland, Gigahertz-Optik - *Broadband vs. spectral measurements*
11:50 – 12:00 pm	Discussion
12:00 – 1:00 pm	**Lunch – NIST Cafeteria**
	Take time to view the poster – Poster Hallway
	Browse the Table Top Displays – Portrait Room
1:00 – 2:15 pm	**Panel II: Hospital Associated Infections (HAIs) -** Moderator: Dr. Yaw Obeng, NIST
1:00 – 1:15 pm	Dr. Richard Martinello, Yale School of Medicine - *Overview and impact*
1:15 – 1:30 pm	Dr. John Boyce, J.M. Boyce Consulting, LLC - *Use of light for HAI reduction*
1:30 – 1:45 pm	Dr. Curtis Donskey, Case Western Reserve University - *Perspectives on assessing UV efficacy by biological measurements*
1:45 – 2:00 pm	Dr. Shelly Miller, University of Colorado (by Video Teleconference) - *Building engineering considerations*
2:00 – 2:15 pm	Discussion
2:15 – 3:15 pm	**Table Top Displays and Poster Session– Coffee available by Table Top Displays (Portrait Room) and in Poster Hallway**
	Table Top Displays – Portrait Room
	Surfacide, Dimmer UVC Innovations, Diversey, Bridgeport Magnetics Group, American Ultraviolet, Gigahertz-Optik Inc., Germitec, Proximity, Canopus Water Technologies Inc., Porex, Illumination Technology, Inc.,Light Sources, Inc., IUVA Young Progessionals Group, ILT, Hydraluvx, Aerobiotix, Inc., Vytis Shield, AquiSense Technologies

	Poster Session – Poster Hallway - Chairs: Dr. Michael Postek, University of South Florida and Dr. John Kasianowicz, NIST
	#1: Pablo Fredes, University de Santiago de Chile – *Relevant key parameters to migrate Hg lamps to LEDs, in the UV range for fluence determination*
	#2: Karin Ziegler, Ziegler Electronic Devices GmbH - *Sensors for absolute UV-C measurements and long-term stability tests*
	#3: Kirsten Parratt, Biosystems and Biomaterials Division, NIST - *Model biofilms to evaluate antimicrobial treatments and structure-function relationships*
	#4: Steve Reinecke, Proximity - *Evaluating the use of UVC light devices in a clinical setting to reduce pathogens on computer workstations*
	#5: Thomas Larason, Sensor Science Division, NIST - *Ultraviolet (UV) treatment for safe drinking water*
	#6: Catherine Cooksey, Sensor Science Division, NIST - *Exposure study on UV-induced degradation of white diffusers*
	#7: Jeremy Starkweather, UV-Concepts Inc. - *Purpose built UV-C enclosure for portable medical equipment: controlling the environment is the key to consistent results*
	#8: Maria Gergen, Lumagenics - *Effective, novel, handheld, UV technology for surface disinfection while patients or staff are nearby*
	#9: Peter Teska, Diversey Inc. - *Damage to common healthcare polymer surfaces from UV-C exposure*
	#10: Jesse Miller, PathO3Gen Solutions - *NSF Study: Efficacy of an Ozone-Generating Whole-Shoe Disinfection Device at Three Time Points*
	#11: Arthur Kreitenberg, Dimer UVC Innovations - *A Separate Needed Standard for Operating Room UV Disinfection*
3:15 – 4:15 pm	**Panel III: Assessing the Needs for Standards for Light Disinfection -**Moderator: Dr. John Boyce, J.M. Boyce Consulting, LLC
3:15 – 3:25 pm	Mr. Brian Manley, Tru-D SmartUVC, LLC - *UVC measurements - status and current issues*
3:25 – 3:35 pm	Dr. Cameron Miller, NIST - *Updates on developments of a UVC standard*

3:35 – 3:45 pm	Mr. Alex Baker, Illuminating Engineering Society - *Measurements from a physics perspective and an ANSI Standard*
3:45 – 3:55 pm	Dr. Matthew Hardwick, ResInnova Laboratories - *Perspectives on efficacy standards*
3:55 – 4:15 pm	Discussion
4:15 – 5:40 pm	**Panel IV: Building Environment & Using EM and Light -** Moderator: Alice Brewer, Tru-D SmartUVC, LLC
4:15 – 4:25 pm	Dr. David Weber, University of North Carolina School of Medicine -*Overview & best practices and use of EM/light to date - gaps in research*
4:25 – 4:35 pm	Mr. Joe May, EIT, LLC & Mr. Claes Lindahl, Intellego Technologies -*Ultraviolet-C monitoring*
4:35 – 4:45 pm	Mr. Ashish Mathur, UVDI - *Perspectives on building codes, energy consumption, cost benefits*
4:45 – 4:55 pm	Dr. Arthur Kreitenberg, Dimer UVC Innovations - *Surface textures and implications for needed standards*
4:55 – 5:05 pm	Dr. Matthew Hardwick, ResInnova Laboratories, President, Health Surfaces Institute - *Surface interactions and UV compatibility*
5:05 – 5:15 pm	Dr. Chetan Jinadatha, Central Texas Veterans Health Care System - *Perspectives on the use of light in alternate and common spaces*
5:15 – 5:25 pm	Dr. Ehsan Mousavi, Clemson University - *Architect perspectives on improving hospital design for the use of light to treat HAIs*
5:25 – 5:40 pm	Discussion
5:40 – 5:45 pm	**Wrap Up and Close for the Day -** Dr. Cameron Miller, NIST
5:45 pm	**Bus service to hotel**
7:00 pm	**Optional dinner at Copper Canyon Grill, Rio Complex -** On you own expense: individual bills will be provided w/ 20% gratuity added (Address: 100 Boardwalk Place, Gaithersburg, MD; walking distance from the Courtyard by Marriott and free parking in the parking garages at the Rio Complex in the Washingtonian Center) – Listen to Wrap Up and Close for the Day announcements for the latest information on the optional dinner

Day 2: Wednesday, January 15, 2020	
7:30 – 8:30 am	**Registration Open & Check-in -** *NIST Conference Program Specialists – Green Auditorium Lobby Area*
8:30 – 8:35 am	**Welcome & Introductory Remarks -** *Dr. Cameron Miller, NIST*
8:35 – 9:20 am	**Panel V: Beyond UVComplementary -** Moderator: Mr. Troy Cowan, Vision Based Consulting
8:35 – 8:45 am	Mr. Rajul Randive, Crystal IS - *Other EM/light wavelengths*
8:45 – 8:55 am	Dr. Jeffrey Roeder, Sonata Scientific - *Photocatalytics*
8:55 – 9:05 am	Dr. David Weber, University of North Carolina School of Medicine - *Reflective surfaces and coatings*
9:05 – 9:15 am	Dr. P.K. Swain, CTO and VP of Technology; Heraeus Noblelight America - *New technology sources - future landscape*
9:15 – 9:20 am	Discussion
9:20 – 10:30 am	**Industry Roundtable: Different Approaches, Common Goal to Combat HAIs -**Moderator: Mr. Oliver Lawal, AquiSense Technologies
	Mr. Mark Stibich, Xenex
	Mr. Gunner Lyslo, Surfacide
	Mr. Steve Reinecke, Proximity
	Dr. Arthur Kreitenberg, Dimer UVC Innovations
	Mr. Jeremy Starkweather, UV Concepts
	Mr. Sam Guzman, American Ultraviolet
	Mr. Chuck Dunn, Tru-D SmartUVC, LLC
	Mr. Peter Gordon, Bolb, Inc.
	Mr. Ashish Mathur, UVDI
	Mr. Rick Dayton, Diversey
	Mr. Sam Trapani, Steriliz/RD Systems
	Mr. Chip Gillooly, Lumagenics
	Discussion
10:30 am	**Coffee available by Table Top Displays (Portrait Room) and in Poster Hallway**
10:30 – 12:00 pm	**Panel VI: UV & Biology Metrology – What's Required -** Moderator: Dr. Michael Postek, University of South Florida
10:30 – 10:40 am	Mr. Ryan Kelley, LTI Optics - *EM/light modeling*
10:40 – 10:50 am	Mr. Joe May, EIT, LLC - *New dosimetry technology developments*

10:50 – 11:00 am	Mr. Claes Lindahl, Intellego Technologies - *Paper dosimetry developments*
11:00 – 11:10 am	Dr. Nancy Lin, NIST - *NIST perspectives on assurance for biological measurements*
11:10 – 11:20 am	Dr. Joy Dunkers, NIST - *Biological efficacy measurements, reference materials*
11:20 – 11:30 am	Dr. Yaw Obeng, NIST - *Novel approaches to measure efficacy*
11:30 – 11:40 am	Dr. John Boyce, J.M. Boyce Consulting, LLC - *Required doses: variability and refining measurements*
11:40 – 11:50 am	U.S. Environmental Protection Agency, invited - *Quantitative testing microbiological contamination on surfaces*
11:50 – 12:00 pm	Discussion
12:00 – 1:00 pm	**Lunch – NIST Cafeteria**
	Take time to view the poster – Poster Hallway
	Browse the Table Top Displays – Portrait Room
1:00 – 2:15 pm	**Closing Federal Roundtable: From Research to Implementation through Innovation -** Moderator: Dr. Richard Martinello, Yale School of Medicine
1:00 – 1:10 pm	Dr. Jomana F. Musmar, Designated Federal Officer, Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria (PACCARB), Office of the Assistant Secretary for Health, Department of Health and Human Services (DHHS)
1:10 – 1:20 pm	Dr. Chenzhong Li, Professor, Florida International University, Program Director, Biosensing Program, National Science Foundation (NSF)
1:20 – 1:30 pm	Dr. Michael Bell, Designated Federal Officer, Healthcare Infection Control Practices Advisory Committee (HICPAC), Deputy Director, Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention (CDC)
1:30 – 1:40 pm	Dr. Ryan Ortega, Acting Team Lead/Biomedical Engineer, Personal Protective Equipment, Reprocessing & Disinfection Devices Team, Center for Device and Radiological Health, U.S. Food and Drug Administration (FDA)
1:40 – 1:50 pm	Dr. Duane Caneva, Chief Medical Officer, Department of Homeland Security (DHS)
1:50 – 2:00 pm	Mr. Warren Merkel, Group Leader, Standards Services Group, NIST Standards Coordination Office

2:00 – 2:15 pm	Discussion
2:15 – 2:30 pm	**Wrap up and Close of the Workshop**, Workshop Chairs - Dr. Cameron Miller, NIST and Dr. Richard Martinello, Yale Medical School
2:30 – 4:30 pm	**Tours - Meet outside Green Auditorium lobby area**
Tours*	**Tour Leaders**
NIST UV Metrology (walking)	Dr. Cameron Miller
NIST Biohealth Metrology (walking)	Dr. Nancy Lin
ResInnova Laboratories, Silver Spring, Maryland (driving required, or carpooling optional)	Dr. Matthew Hardwick
*Tours consists of visits to working laboratories, visitors must use safety glasses (will be supplied) when asked; wear closed toe shoes; wear clothing to cover legs and please follow instructions of the speakers and tour leaders. Please dress comfortably; visitors will be moving around the NIST site and walking. No food or drink or applying cosmetics allowed in working laboratories.	
4:30 pm	**Adjourn/Depart**
4:45 pm	**Bus service to hotel** - NIST Building 101 main lobby entrance