



## Practical Methods for *In Vitro* Toxicology

Sponsored By:

Institute for In Vitro Sciences

30 W. Watkins Mill Rd, Gaithersburg, MD 20878

### Agenda for January 16-19, 2018

Day 1 – January 16, 2018		1:00pm-7:00pm
1:00	Shuttle from the Marriott to IIVS	
1:15	Arrive at IIVS	
Gettysburg Room – Introduction to In Vitro Testing		
1:20-1:50	Orientation, Introduction, and Goals <i>Lindsay Krawiec, IIVS</i>	
1:50-2:30	The Evolution of In Vitro Methods <i>Lindsay Krawiec, IIVS</i>	
2:30-3:00	Practical Approaches to Cell-Based Assay Design & Execution <i>Hans Raabe, IIVS</i>	
3:00-3:30	GLPs for In Vitro Studies <i>Amanda Ulrey, IIVS</i>	
3:30-3:45	Break	
3:45-4:15	Global Acceptance of Alternative Methods <i>Erin Hill, IIVS</i>	
Gettysburg Room – Novel Technologies		
4:15-4:45	Human Tissue Models for Better Therapies: Organ-on-a Chip Technology <i>Anthony Saleh, Mimetas</i>	
4:45-5:15	Pragmatic Use of 3D Lung Models to Evaluate Exposure-induced Adverse Effects that May Contribute to Pulmonary Disease <i>Holger Behrsing, IIVS</i>	
Laboratory		
5:15-5:30	Laboratory Tour and Orientation <i>Victoria Diersen, IIVS</i>	
5:30-7:00	Happy Hour Reception hosted by IIVS – in the Atrium	
7:00	Shuttle to Marriott	

Day 2 – January 17, 2018		8:00am-4:30pm
8:00	Shuttle from Marriott to IIVS	
8:15	Arrive at IIVS	
Gettysburg Room – Skin Sensitization Test Methods		
8:20-9:05	Skin Sensitization: Overview of Assays, ITS, AOP & the KeratinoSens Assay Allison Hilberer, IIVS	
9:05-9:25	Human Cell Line Activation Test for the Prediction of Skin Sensitizing Chemicals Megan Lamm, IIVS	
9:25-10:05	In Chemico Skin Sensitization: Direct Peptide Reactivity Assay & PhotoDPRA Greg Mun, IIVS	
10:05-10:15	Break	
Gettysburg Room – Introduction to Phototoxicity Testing		
10:15-10:45	Neutral Red Uptake Phototoxicity Assay in Balb/c 3T3 Mouse Fibroblasts Allison Hilberer, IIVS	
10:45-11:15	Question and Answer & 3T3 Phototoxicity Video	
Laboratory		
11:15-11:30	Pipettor Review Megan Lamm, IIVS	
11:30-12:30	Neutral Red Uptake Phototoxicity Assay in Balb/c 3T3 Mouse Fibroblasts Devin Sheehan and Asha Shravanthi Pidathala, IIVS <ul style="list-style-type: none"><li>Thawing/counting BALB/c 3T3 cells (demonstration)</li><li>Seeding 3T3 cells in 96-well plates</li></ul>	
12:30-1:30	Catered Lunch	
1:30-3:00	Neutral Red Uptake Phototoxicity Assay in Balb/c 3T3 Mouse Fibroblasts <ul style="list-style-type: none"><li>Dilution of test articles &amp; Dosing of 96-well plate cultures</li><li>UVA/Dark Exposure &amp; Rinsing of 96-well plate</li><li>Addition of Neutral Red &amp; Reading of the plates</li></ul>	
3:00-3:15	Break	
Gettysburg Room – Cell-Based Assays		
3:15-3:45	In Vitro Assays to Detect Live & Dead Cells: New Methods to Detect Cell Stress Events Leading to Toxicity Fangmiin Charlie Sheen, Promega	
3:45-4:30	3T3 Phototoxicity Assay: Case Studies Allison Hilberer, IIVS (Lab Binder)	
4:30	Shuttle to Hotel Open evening – Enjoy shopping and dining at your convenience	

Day 3 – January 18, 2018		8:00-8:00pm
8:00	Shuttle from Marriott to IIVS	
8:15	Arrive at IIVS	
Gettysburg Room – Introduction to Dermal Test Methods		
8:20-8:50	Validated In Vitro Assays Used for Dermal Safety Assessment <i>Gertrude-Emilia Costin, IIVS</i>	
8:50-9:20	Reconstructed Skin Micronucleus Assay (RSMN) <i>Greg Mun, IIVS</i>	
9:20-9:50	Non-regulatory In Vitro Assays Used for Dermal Safety and Efficacy Testing <i>Gertrude-Emilia Costin, IIVS</i>	
9:50-10:10	Question & Answers	
10:10-10:25	Break	
Laboratory		
10:30-12:00	Skin Irritation Test Protocol using MatTek EpiDerm™ Reconstructed Human Epidermis <i>Norah Sadowski, Rebecca Pham, and Brandan Nokes IIVS</i> <ul style="list-style-type: none"><li>Placing 3-D tissue models into culture &amp; Dosing of tissues</li></ul>	
12:00-1:00	Catered Lunch	
1:00-2:00	Skin Irritation Test Protocol using MatTek EpiDerm™ Reconstructed Human Epidermis <ul style="list-style-type: none"><li>Rinsing and inspection of treated tissues</li><li>Transfer of tissues for 42-hour post-treatment expression incubation</li><li>MTT reduction test and Freeze-Killed Tissue Controls</li><li>Addition of MTT</li></ul>	
2:00-2:30	Corrositex™ demonstration: <i>Rebecca Pham, IIVS</i> Corrosivity in 3-D construct demonstration: <i>Asha Shravanthi Pidathala, IIVS</i>	
2:30-3:30	Skin Irritation Test Protocol using MatTek EpiDerm™ Reconstructed Human Epidermis <ul style="list-style-type: none"><li>Transfer tissues to isopropanol to begin MTT extraction &amp; Read plates</li></ul>	
3:30-3:45	Break	
Gettysburg Room – Case Study		
3:45-4:30	3D RhE Case Studies: Skin Irritation & Corrosion <i>Nathan Wilt, IIVS</i> (Lab Binder)	
4:30-4:45	Shuttle to Marriott	
6:15-6:30	Shuttle to dinner hosted by IIVS	
6:30-8:00	Dinner at Il Porto – 245 Muddy Branch Road Gaithersburg, MD 20878	
8:00	Shuttle back to Marriott	

Day 4 – January 18, 2018		8:00am-4:30pm
8:00	Shuttle from Marriott to IIVS	
8:15	Arrive at IIVS	
Gettysburg Room - Introduction to In Vitro Ocular Irritation Testing		
8:20-9:05	Ocular Irritation Testing Methods: BCOP Assay <i>Allison Hilberer, IIVS</i>	
9:05-9:35	EpiOcular™ Assays: Protocols, Performance & Experience <i>Nathan Wilt, IIVS</i>	
9:35-10:05	Introduction to Integrated Approaches to Testing and Assessment <i>Hans Raabe, IIVS</i>	
10:05-10:15	Questions & Answers & BCOP video	
10:15-10:30	Break	
Laboratory		
10:30-11:30	Ocular Alternatives Laboratory (BCOP) <i>Nana Boakye, Adam Gamson and Timothy Herpel, IIVS</i> <ul style="list-style-type: none"><li>Isolation &amp; mounting of corneas and filling of chambers</li><li>Pre-incubation of corneas exposure of corneas to test agents</li></ul>	
11:30-12:30	Catered Lunch	
12:30-1:30	Ocular Alternatives Laboratory (BCOP) <ul style="list-style-type: none"><li>Exposure of corneas to test agents</li><li>Rinsing off test material from corneas</li><li>Post Exposure</li></ul>	
1:30-1:45	Break	
1:45-2:30	Ocular Alternatives Laboratory (BCOP) <ul style="list-style-type: none"><li>Measurements of opacity and fluorescein penetration</li><li>Reading of plates and data interpretation</li></ul>	
Gettysburg Room – Case Study & Round Table Discussion		
2:30-3:00	BCOP Data Case Studies <i>Nathan Wilt, IIVS (Lab Binder)</i>	
3:00-3:30	Using In Vitro Methods in the Comprehensive Safety Assessment Process <i>John Harbell, JHarbell Consulting LLC</i>	
3:30-4:00	Course summary, open discussion, completion of the course evaluation, presentation of the certificates and close of workshop	
4:00-4:30	Break-Out Groups	
4:30	Departures	

