

# Biocompatibility Insights Training Day

26 September 2023

Course Leaders: Ron Brown (Risk Science Consortium) & Senior consultants from Veranex

Time	Topic
8.30 – 9.00	Registration, coffee & networking
9.00 - 9.05	Welcome and housekeeping
9.05 – 10.00	The EU MDR from a biological safety perspective <ul style="list-style-type: none"><li>• Substance based devices</li><li>• Particles</li><li>• CMR/ED</li><li>• Some of our experiences so far</li><li>•</li></ul>
10.00-10.30	What the toxicologist needs to know about chemical characterization
10.30-11.00	Coffee Break
11.00-13.00	Introduction to computational approaches for the safety assessment of extractable and leachable compounds including case studies – <i>Use of QSAR Models and Read Across Approaches</i>
13.00-14.00	Lunch
14.00 -15.15	An overview of new concepts discussed in the FDIS/ISO 10993-17 standard with group exercises and case studies
15.15-15.45	Coffee break
15.45-16.45	Group exercises and case studies (continued)
16.45-17.00	Summary of the day and what to expect for the future End of training and farewell

*Please note, we reserve the right to adjust the program.*

Q&A and short breaks included during the day.

**Moderated by:** Senior consultants from Veranex

**Location:** Annapolis Waterfront Hotel

# Program Biocompatibility Insights 2023

The Science Behind the Regulations  
Addressing Challenges in Medical Device Toxicology

Chairmans: Sherry Parker and Arthur Brandwood

## Day 1 September 27

### *Registration and Networking*

Welcome/Housekeeping and words from chairman

### **Welcome to our world – the current state of ISO 10993**

Setting the scene - Challenges that we currently face in medical device toxicology

*Ron Brown (Risk Science Consortium, US)*

Keynote speaker:

New standards and ongoing development – what happened since last year's conference, Biocompatibility Matters 2022?

*Jeremy Tinkler (Chair ISO TC 194, ICON, UK)*

### **The role of Chemistry in evaluation of Medical Devices**

Common Challenges in chemical analysis and strategies when seeking feedback from the US FDA

*Joshua Young (US FDA CDRH, US)*

### *Coffee Break*

Challenging in navigating laboratory studies and regulatory submissions in the changing environment of Chemical characterization

*Eric Sussman (MCRA, US)*

### **Aspects of extractions**

Use of simulating solvents in medical devices and adjacent disciplines

*Ted Heise (Convenor 10993-18, MED Institute, US)*

Substance release – Implications for Extractables/leachables

*Jianwei Li (Chemical Characterization Solutions, US)*

Q/A Chemistry sessions

### *Lunch*

### **Toxicological Risk Assessments**

Overview of Changes to ISO 10993-17

*Sherry Parker (SParker Consulting, US)*

Case studies addressing identification and assessment of potentially carcinogenic substances in medical devices, cohort of concern, and common medical device degradation products

*Joel Cohen (Gradient, US)*

### *Coffee Break*

Use of simulated-use extractable studies to refine exposure estimation for toxicology risk assessment

*Kimberly Ehman (WuXi AppTec, US)*

### **Panel discussion**

“ Is the future in chemistry? Advantages and limitations”

*Moderator: Sherry Parker*

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*Mingle and Conference Dinner*

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## **Day 2 September 28**

*Welcome / Housekeeping*

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Introduction to day two - Emerging approaches for the safety assessment of medical devices

*Philip Clay (Chorley consulting, UK)*

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### **The case of implantation - When and why are implantation studies really relevant?**

When and why are implantation studies really relevant?

*Lars-Magnus Bjursten (Convenor ISO 18562, Sen Prof Bioimplant Res, SE)*

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Quantitative In Vitro In Vivo Extrapolation of Nickel Toxicity to Tissues Adjacent to a Metallic Implant

*Ron Brown (Risk Science Consortium, US)*

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Q/A Implantation

*Coffee Break*

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### **New risk assessment approaches to evaluate skin sensitization**

Update on WG8 (ISO 10993-10) round robin and Thresholds for sensitization

*Kelly Coleman (Medtronic, US)*

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Prediction of Sensitization Hazard for Chemical Substances Released From Medical Devices: PreS/MD and other tools

*Alex Tropsha (UNC-Chapel Hill, US)*

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Q/A Sensitization

*Lunch*

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### **Safety assessment addressing inhalation**

ISO 18562 – Evaluation, testing and new approaches, incl. Physics and Measurement of VOCs

*Lina Burman (Veranex, SE) and Jianwei Li (Chemical Characterization Solutions, US)*

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In vitro methods to assess inhalation toxicity

*Amy Clippinger (PETA Science Consortium International, US)*

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Q/A Inhalation

*Coffee Break*

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### **Closing plenary**

Reflection of the conference – where are we going

*Arthur Brandwood (Project Leader – revision of ISO 10993-1, AU)*

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### **Panel discussion**

Where are we going?

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### **Closing remarks**

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