

## Extractable & Leachables Training Course

### March 17 – Morning sessions

Time	Topic	Speaker
9.00	Introduction and Attendee Expectations	
9.15	Introduction on Extractables & Leachables (E/L) <ul style="list-style-type: none"> <li>• What is the importance of a good E/L-qualification?</li> <li>• Historical cases of leachables, impacting the quality or the safety of a drug product</li> <li>• Regulatory requirements (FDA, EMA...) for primary packaging</li> </ul>	Koen Smets, PhD. <b>Nelson Labs</b>
10.15	Polymers & Glass <ul style="list-style-type: none"> <li>• Understanding the Materials, Used in the Manufacture of Pharmaceutical Containers &amp; Closures</li> <li>• Types of polymers – examples in medical/pharmaceutical use</li> <li>• Understanding the composition of polymers: Intentionally added &amp; non-intentionally added Compounds: Their function and origin</li> <li>• The issues with glass in parenteral applications</li> </ul>	Sona Kovackova, PhD. <b>Nelson Labs</b>
11.15	BREAK	
11.30	Polymers, Material Knowledge	
12.30	The Mechanism of Leaching – Polymer Migration <ul style="list-style-type: none"> <li>• What are the physicochemical parameters to be considered when trying to understand polymer migration</li> <li>• How do leachables move through a polymer, the diffusion model</li> <li>• Special cases in migration</li> </ul>	Sona Kovackova, PhD. <b>Nelson Labs</b>
13.00	LUNCH BREAK	

## March 17 – Afternoon sessions

Time	Topic	Speaker
13.45	<p>Analytical Techniques to Perform Extractables &amp; Leachables Research</p> <ul style="list-style-type: none"> <li>• The importance of sample preparation: the corner stone in E/L research</li> <li>• What are the target compounds for material research</li> <li>• How does a classification of these compounds assist in finding the right analytical technique</li> <li>• From basic “screening” methodologies to state-of-the-art equipment</li> </ul>	<p>Koen Smets, PhD. <b>Nelson Labs</b></p>
14.30	AET Concept	<p>Pieter Van Wouwe, PhD. <b>Nelson Labs</b></p>
14.45	<p>How to Set-up Extractables study</p> <ul style="list-style-type: none"> <li>• Selecting the right conditions for extraction</li> </ul>	<p>Pieter Van Wouwe, PhD. <b>Nelson Labs</b></p>
15.45	Q&A	
16.00	BREAK	
16.15	<p>Gas Sterilization</p> <ul style="list-style-type: none"> <li>• Delivering the desired contamination risk reduction for a drug delivery device while ensuring product Integrity</li> </ul>	<p>Annick Gillet, PhD. <b>Sterigenics</b></p>
18.15	End Day 1	

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Time	Topic	Speaker
9.00	Re-Cap Day 1	
9.15	<p>How to Set-up Leachables Studies</p> <ul style="list-style-type: none"> <li>• How to select the right compounds to monitor in a leachable study</li> <li>• Designing a leachable study</li> </ul>	<p>Pieter Van Wouwe, PhD. <b>Nelson Labs</b></p>
10.00	<p>Testing for Disposable and Single-Use Systems in Bioproduction</p> <ul style="list-style-type: none"> <li>• How to classify the risk of different single-use systems in the bioproduction process?</li> <li>• Understanding BPSA &amp; BPOG recommendations, and how they can be implemented in the study design</li> <li>• Performing E/L studies on filters: potential approaches</li> </ul>	<p>Koen Smets, PhD. <b>Nelson Labs</b></p>
11.15	COFFEE BREAK	
11.30	<p>Testing for a Small Volume Parenteral Container Closure Systems</p> <ul style="list-style-type: none"> <li>• Glass Syringes: the issues with tungsten, glue residues and silicone oil and glass metals leaching</li> <li>• The Issue with rubbers: the plunger, the needle shield or the tip cap: different approaches needed?</li> <li>• The impact of secondary packaging – option or necessity?</li> </ul>	<p>Sona Kovackova, PhD. <b>Nelson Labs</b></p>
12.30	LUNCH BREAK	

## March 18 – Afternoon sessions

Time	Topic	Speaker
13.15	<p>Large Volume Parenterals</p> <ul style="list-style-type: none"> <li>• The challenge in E/L testing for LVP's</li> <li>• Primary packaging for LVP's – critical materials and components</li> <li>• Secondary packaging for LVP: critical points to consider</li> </ul>	<p>Koen Smets, PhD. <b>Nelson Labs</b></p>
14.15	<p>Combination Products</p> <ul style="list-style-type: none"> <li>• Short introduction into Medical Device Regulations (ISO 10993 series)</li> <li>• Difference in Approaches for Medical Devices, compared to Pharmaceutical Packaging</li> <li>• Considerations for Combination Products: how to proceed?</li> </ul>	<p>Pieter Van Wouwe, PhD. <b>Nelson Labs</b></p>
15.15	BREAK	
15.30	Q&A	
16.00	<p>How to Perform a Safety Evaluation – Risk Assessment on Extractables &amp; Leachables</p> <ul style="list-style-type: none"> <li>• Toxicology 101</li> <li>• EMA Guideline on Genotoxic Impurities</li> <li>• ICH M7 (DNA reactive Impurities) and its suggested staged approach</li> <li>• The Threshold Concept of PQRI (OINDP and PDP/ODP)</li> <li>• Examples</li> </ul>	<p>Kevin Breesch <b>Nelson Labs</b></p>
17.00	End	