

# Advancements and Challenges in Abuse Potential Evaluation 2023

## Agenda

27-28 September 2023

Hilton Hotel and Executive Meeting Center, Rockville, MD

Organized by the Cross-Company Abuse Liability Council (CCALC),  
With scientific support from Food and Drug Administration (FDA),  
And participation by representatives of FDA

<b>DAY 1</b>	<b>Wednesday, 27 September 2023</b>
7:30-8:00	<b>Breakfast and Registration</b>
<b>Welcome</b>	
8:00-8:10	<i>Beatriz Rocha (CCALC, Fortrea)</i>
8:10-8:20	<i>Dominic Chiapperino (FDA/OCD/CSS)</i>
<b>Topic #1: Exploring the Sensitivity of Pharmacodynamic Endpoints in the Human Abuse Potential (HAP) Study</b>	
8:20-8:45	Considerations of Discordant Findings from Nonclinical, Clinical and Epidemiological Data. <i>Presenter: Silvia Calderon (FDA/OCD/CSS)</i>
<b>Panel Discussion</b>	
8:45-9:30	<ul style="list-style-type: none"><li>For drugs with novel mechanism of action and for which nonclinical studies may be suggestive of no abuse potential:<ul style="list-style-type: none"><li>Are there any approaches that could help us to identify and measure subjects' drug seeking preferences among drugs producing similar overall pharmacological effects?</li></ul></li><li>Could HAP studies be used as a framework for drug preference questionnaires or other approaches? (e.g. money vs drug choice analysis or other parameters from a behavioral economics assessment)</li><li>Are there any key data gaps that may impact scheduling decisions and data interpretation?</li></ul> <p><i>Panelists: Kerri Schoedel (Altreos Research Partners), Beatrice Setnik (Altasciences), Jack Henningfield (Pinney Associates), Thomas Hudzik (ALA Biopharma Consulting), Beatriz Rocha (Fortrea), Chad Reissig (FDA/OCD/CSS), Rose Radin (FDA/OSE/OPE/DEPIII), Dominic Chiapperino (FDA/OCD/CSS), Silvia Calderon (FDA/OCD/CSS)</i></p>
<b>Topic #2: Evolving Statistical Methodology to Assess HAP Studies</b>	
9:30-9:45	Selecting Margins for Different Positive Controls (vs Placebo) – Does a One Size Fits All Approach Work? <i>Presenter: Denise Milovan (Altasciences)</i>
9:45-10:05	Enhancement of Enrichment on the HAP Study Population. <i>Presenter: Ling Chen (FDA/OTS/OB/DBVI)</i>
<b>Morning Break</b>	
10:05-10:20	
<b>Panel Discussion</b>	
10:20-10:50	<ul style="list-style-type: none"><li>Evaluating margins for differentially scheduled positive controls</li><li>Best approaches to define a modified completer population</li><li>Handling variability on Drug Liking (effect size based on drug class)</li></ul>

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*Panelists: Qianyu Dang (FDA/OTS/OB/DBVI), Yu Ding (Altasciences), Beatrice Setnik (Altasciences), Denise Milovan (Altasciences), Ling Chen (FDA/OTS/OB/DBVI)*

### Topic #3: Identifying and Reporting Relevant Adverse Events (AEs) Related to Abuse Potential Across Clinical Trials

10:50-11:05 Challenges of Capturing and Reporting Adverse Events to Assess Abuse Potential in Clinical Trials.

*Presenter: Cynthia Arons (Pfizer)*

11:05-11:20 Identifying Relevant Adverse Events of Interest and Recommendations for Analysis and Presentation of Data in the NDA Submission.

*Presenter: Steven Galati (FDA/OCD/CSS)*

#### Panel Discussion

- 11:20-11:50
- What is the right list, how do we balance inclusivity and reducing noise
  - How is it determined which events need narratives, can this be done early enough to plan for the information needed
  - What events trigger a HAP study
  - Are there other methods to capture the events, i.e., checklists, questionnaires
  - How does diversion relate

*Panelists: Joshua Lloyd (FDA/OCD/CSS), Thomas Sciascia (Trevi Therapeutics), Ryan Lanier (Pinney Associates), Steven Galati (FDA/OCD/CSS), Cynthia Arons (Pfizer)*

#### Lunch

11:50-12:50

### Topic #4 Incorporating Behavioral Economic Assessments

12:50-1:20 Exploring Behavioral Economics Outcome Measures in Animal and Human Abuse Potential Studies.

*Presenter: Neil Varshneya (FDA/OCD/CSS)*

1:20-1:35 Behavioral Economics for Abuse Potential Assessment.

*Presenter: Steven Hursh (Institutes for Behavior Resources)*

#### Panel Discussion

- 1:35-2:05
- *What are the benefits of this model over existing models, does it fill a gap*
  - *The role of currently available measures (e.g., Subjective Drug Value, Money vs Drug Choice) vs novel approaches*
  - *Pragmatic considerations in study design*
  - *Validation for broader use*
  - *Market economics-external factors*

*Panelists: Beatrice Setnik (Altasciences), Thomas Hudzik (ALA Biopharma Consulting), Chad Reissig (FDA/OCD/CSS), Justin Strickland (Johns Hopkins University School of Medicine), Sandra Comer (Columbia University), Dominic Chiapperino (FDA/OCD/CSS), Neil Varshneya (FDA/OCD/CSS), Steven Hursh (Institutes for Behavior Resources)*

### Topic #5: Methodological Considerations for the Abuse Potential Evaluation of Psychedelics

2:05-2:30 A Regulatory Perspective on the Preclinical and Clinical Abuse Potential Evaluation of Psychedelics.

*Presenter: Katherine Bonson (FDA/OCD/CSS)*

2:30-2:45 Current Approaches to the Preclinical Abuse Potential Evaluation of Psychedelics.

*Presenter: David Heal (DevelRx)*

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2:45-3:00 Current Approaches to the Abuse Potential Clinical Evaluation of Psychedelics.  
*Presenter: Beatrice Setnik (Altasciences)*

### Panel Discussion

3:00-3:30 Panel Discussion Part 1 (preclinical)

- Comment on methodological approaches and limitations
- Differentiating required elements of the abuse potential assessment for known psychedelics vs NMEs

*Panelists: Jamie DaSilva (Pfizer), Paul Kruzich (PTC Therapeutics), Thomas Hudzik (ALA Biopharma Consulting), Katherine Bonson (FDA/OCD/CSS), David Heal (DevelRx)*

### Afternoon break

3:30-3:45

### Panel Discussion

3:45-4:45 Panel Discussion Part 2 (clinical)

- Scenarios/ psychedelics for which a conventional HAP study may/may not be required
- HAP study methodological considerations for psychedelics
  - Identifying appropriate positive controls for HAP studies
  - Considerations for dosing and repeat exposure
  - “(At the Moment) Drug Liking” as a primary endpoint for psychedelics
  - Considerations for most informative primary and secondary endpoints
  - Additional questionnaires and scales
  - Appropriate selection of subjects
  - Defining the role of the facilitator for Phase I psychedelic trials
  - Environment/setting in a HAP study
- Risk management issues for a potential postmarket setting

*Panelists: Denise Milovan (Altasciences), Steven Galati (FDA/OCD/CSS), Heddie Martynowicz (Neokee Pharma Consulting), Naama Levy-Cooperman (Altreos Research Partners), Ryan Lanier (Pinney Associates), Sophia Raitsin (Biopharma Services), Beatrice Setnik (Alta Sciences), Katherine Bonson (FDA/OCD/CSS), Joshua Lloyd (FDA/OCD/CSS), Silvia Calderon (FDA/OCD/CSS)*

### Day 1 Summary and Closing Remarks

4:45-5:00 *Beatriz Rocha (CCALC, Fortrea)*

### Networking Reception

5:30-6:30

# Advancements and Challenges in Abuse Potential Evaluation 2023

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<b>Day 2</b>	<b>Thursday, 28 September 2023</b>
<b>7:30-8:15</b>	<b>Breakfast and Networking</b>
<b>Opening Remarks and Overview</b>	
<b>8:15-8:20</b>	<i>Beatriz Rocha (CCALC, Fortrea)</i>
<b>Topic #6: Evaluating Physical Dependence and Withdrawal</b>	
<b>8:20-8:35</b>	FDA Perspective on Best Practices for the Preclinical Evaluation of Physical Dependence and Withdrawal (PDW). <i>Presenter: Jovita Randall-Thompson (FDA/OCD/CSS)</i>
<b>8:35-8:50</b>	Proposal for Preclinical Evaluations of PDW. <i>Thomas Hudzik (ALA Biopharma Consulting)</i>
<b>Panel Discussion</b>	
<b>8:50-9:50</b>	<ul style="list-style-type: none"><li>• Incorporation of learnings from clinical WD syndromes (e.g., sleep disturbances for stimulants, anhedonia) when selecting endpoints for preclinical PDW studies</li><li>• Stand-alone studies vs Add-on to general toxicology studies; study design considerations for positive control and dose selection.</li><li>• Utility of preclinical dose tapering for informing clinical strategy</li><li>• Appropriate duration of monitoring during the WD period (PK/PD driven vs. fixed)</li><li>• Demonstrating model sensitivity and interpretation of WD vs. rebound/recovery in the context of a positive control.</li></ul> <i>Panelists: Jamie DaSilva (Pfizer), Paul Kruzich (PTC Therapeutics), Chad Reissig (FDA/OCD/CSS), David Heal (DevelRx), Thomas Hudzik (ALA Biopharma Consulting), Jovita Randall-Thompson (FDA/OCD/CSS)</i>
<b>9:50-10:05</b>	Regulatory Requirements for Assessing Physical Dependence and Withdrawal in Human Subjects. <i>Presenter: Emily Deng (FDA/OCD/CSS)</i>
<b>10:05-10:20</b>	Pragmatic Considerations for Assessing Physical Withdrawal in Phase 2/3 Studies. <i>Presenter: Thomas Sciascia (Trevi Therapeutics)</i>
<b>Break</b>	
<b>10:20-10:35</b>	<b>Panel Discussion</b>
<b>10:35-11:35</b>	<ul style="list-style-type: none"><li>• Timing and duration of physical dependency assessments in Phase 2/3 trials</li><li>• to identifying adverse events related to withdrawal</li><li>• Pragmatic data collection in patient studies – how to include PK and other in clinic assessments</li><li>• Demonstrating model sensitivity and interpretation of WD vs. rebound neuroadaptation in the context of a positive control.</li><li>• Assessment for abuse potential vs safety (CSS/OND)</li><li>• Best practices</li></ul>

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*Panelists: Beatrice Setnik (Altasciences), Kerri Schoedel (Altreos Research Partners), Michael Klein (Controlled Substance Scientific Solution), Beatriz Rocha (Fortrea), Joshua Lloyd (FDA/OCD/CSS), Emily Deng (FDA/OCD/CSS), Thomas Sciascia (Trevi Therapeutics)*

### Topic #7: Discussion of Preclinical Assessments and Best Practices

**11:35-11:50** Defining Controls, Variables and Conditions for Preclinical Evaluations of a Novel Drug Entity.

*Presenter: Sharon Rowton (Labcorp)*

**11:50-12:05** Regulatory Perspective on Positive Controls vs Comparators in Preclinical Drug Discrimination and Self-Administration Studies, Other Updates in Considerations for Design of these Studies.

*Presenter: Chad Reissig (FDA/OCD/CSS)*

### Lunch

**12:05-12:50**

#### Panel Discussion

- 12:50-1:50**
- Which controls, variables and conditions are required to validate assessment of a NME in self-administration and drug discrimination (e.g., higher responding for training drug vs vehicle under FR schedule and >80% appropriate responding for training drug in generalization testing)
  - Positive Controls vs comparators; study validation vs. NME differentiation (e.g., between a C-II and C-IV)

*Panelists: Jamie DaSilva (Pfizer), Paul Kruzich (PTC Therapeutics), Thomas Hudzik (ALA Biopharma Consulting), David Heal (DevelRx), Chad Reissig (FDA/OCD/CSS), Sharon Rowton (Labcorp)*

**1:50-2:05** Design Considerations and Interpretation of Preclinical studies – An Overview of Current Challenges.

*Presenter: Thomas Hudzik (ALA Biopharma Consulting) [for Anton Bespalov]*

#### Panel Discussion

- 2:05-2:55**
- Best practices for preclinical study design and analysis
  - Importance of true randomization and blinding in preclinical study design and analysis versus current practice
  - How do we standardize and implement

*Panelists: Jamie DaSilva (Pfizer), Paul Kruzich (PTC Therapeutics), David Heal (DevelRx), Chad Reissig (FDA/OCD/CSS), Ling Chen (FDA/OTS/OB/DBVI), Thomas Hudzik (ALA Biopharma Consulting)*

### Closing Remarks

**2:55-3:00** *Beatriz Rocha (CCALC, Fortrea)*