

Emerald Conference 2022 Abstract Interest Areas:

Analytical Solutions

The move towards regulated cannabis markets drives specific testing requirements for compliance. All segments of the cannabis industry are impacted by the state of its analytical technologies.

Desired topics include but are not limited to innovations in:

- Methodologies, instrumentation and technologies in cannabis testing
- Immunoassays for toxins produced by pathogens and food allergens, cell-based bioassays for API potency
- Plant genetics and microbiome screening
- Chemotyping advance
- Extraction techniques used to purify samples to remove analytical interferences

Cultivation & Alternative Strategies

This topic area aims to highlight the best agricultural technologies and practices that produce highly marketable crops that perform with optimum vigor, expressing identical phenotypes, consistent potency and are free from pests and disease.

Desired topics include but are not limited to innovations in:

- Using lab data in conjunction with plant phenotypic data to determine optimal lighting, pruning and defoliation techniques, proper irrigation and nutrient management
- Drying and curing advancements
- Selection of genetics, cultivation methods, harvesting conditions, bio stimulants, and microbial symbionts that enhances the quality and consistency of all final products
- New and/or alternative technologies and practices such as micropropagation, automation, and aeroponics for example

Extraction & Separation

This interest area's intention is to focus on the different requirements for manufacturing chemical concentrates that are consumed for recreational, supplement or medical type products.

Desired topics include but are not limited to innovations in:

- Improving extraction efficiencies
- Experimentation in quality and consistency of results
- Refining processes needed for specific end use cases
- Using extraction processes to achieve the synergistic, entourage effect normally affiliated with flower.

Formulation and Fill/Finish

This Interest area will offer insights for the success of recreational, supplement or medical type products including ingredients, methods of manufacture and delivery mechanisms.

Desired topics include but are not limited to innovations in:

- Better dose control and decreased variability, Good Manufacturing Process (GMP) methodologies
- Safe additives, ingredients or flavors for inhalation
- Enhancing bioavailability
- Full-spectrum formulations vs. high purity cannabinoid formulations
- Microdose formulations
- Integration of specific minor cannabinoids
- Analysis of consistency and formulation challenges in various modalities such as tablets versus gummies
- Larger scale manufacturing efficiencies vs craft production
- Enhanced stability through formulation or packaging innovation and green packaging considerations

Pre-Clinical/Clinical Research

Translational science emphasizes interdisciplinary research in order to improve diagnosis and prevention and hasten treatment.

Desired topics include but are not limited to innovations in:

- *In vitro* and *in vivo* models involving cannabinoids and relevant phytochemicals
- Advances in chemical manufacturing for dossiers of Cannabis-related products
- The pharmacology of Cannabis and its molecular constituents
- Diagnostic developments associated with the Endocannabinoid System
- Cannabis effect on human physiology and its therapeutic potential
- Cannabis-Drug interactions and adverse effects
- Entheogens and their developing role in medical treatments