**Sample Abstract Guidelines:**

1. Abstract Content should be in English
2. The maximum word count should be 250-300 words
3. If your title includes scientific notation, Greek letters, bold, italics, or other special characters/symbols, do make sure they appear correctly.
4. Corresponding details of corresponding author should be correct which will be used for further communication.
5. Abstracts should highlight the major points of your research and should not include tables, figures and references.

**Format**

**Presentation title:** Phytochemical Exploration of Ceruchinol in Moss: A Multidisciplinary Study on Biotechnological Cultivation of Physcomitrium patens (Hedw.) Mitt.

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**Presentation type:** (Oral presentation)

**Abstract (250-300 words):**

The moss Physcomitrium patens (P. patens), formerly known as Physcomitrella patens, has ascended to prominence as a pivotal model organism in plant biology. Its simplicity in structure and life cycle, coupled with genetic amenability, has rendered it indispensable in unraveling the complexities of land plant evolution and responses to environmental stimuli. As an evolutionary bridge between algae and vascular plants, P. patens offers a unique perspective on early terrestrial adaptation.

This research involved the biotechnological cultivation of P. patens, followed by a deep phytochemical investigation of two extracts covering a large polarity range together using an NMRbased dereplication approach combined with GC/MS analyses. Subsequently, a multidisciplinary approach combining bioinformatics, in-silico techniques, and traditional methods was adopted to uncover intriguing molecules such as the diterpene ceruchinol and its potential receptor interactions for future cosmetic applications. The kaurene diterpene ceruchinol, representing up to 50% of the supercritical CO2 extract and also identified in the hydroalcoholic extract, was selected for the molecular docking study, which highlighted several biological targets as CAR, AKR1D1, and 17β-HSD1 for potential cosmetic use. These findings offer valuable insights for novel uses of this plant biomass in the future.

**Biography (150-200 words):**

Carlos Munoz-Hernando is a highly accomplished Senior RnD Scientist at Mibelle Group Biochemistry with a PhD magna cum laude in Biological Sciences from Eberhard-Karls Universität Tübingen, Germany. He made significant contributions as a post-doc at the University of Zurich, Switzerland, where he worked on cloning new protein variants, protein-protein interactions and amino acid transporters. His expertise lies in uncovering new actives, devising innovative concepts, and driving projects from conception to reality. His work has led to more than 45 publications in various fields.