Symbiotic synergy: unravelling photobiont-mycobiont dynamics in lichen biology

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This symposium brings together cutting-edge research on the biology, diversity, and pairing mechanisms of lichen photobionts and their fungal partners. Recent advances in molecular techniques have revealed an astonishing diversity of green algal and cyanobacterial symbionts, shedding light on their taxonomy, phylogenetic relationships, and ecological roles. These photobionts are not only essential for nutrient cycling and carbon fixation but also exhibit remarkable adaptability and specificity in symbiosis—especially within extreme environments and microhabitats. By integrating ecological, evolutionary, and comparative genomic perspectives, this session will explore the mechanisms governing photobiont-mycobiont pairing across spatial scales and ecosystems. We invite contributions from researchers investigating any aspect of photobiont biology or symbiotic dynamics, aiming to foster interdisciplinary dialogue and deepen our understanding of the complex, co-evolved relationships that define lichen symbiosis.