Longitudinal Cohorts in Airway Disease. What have they Taught us About Personalised Treatment of our Everyday Patients?

This session was aimed to engage in a comprehensive dialogue about the successful examination of airway disease phenotypes and endotypes, the identification of newly uncovered underlying pathologies, and innovative treatments derived from longitudinal cohort studies. Additionally, to provide insights into the lasting impacts of various treatments and elucidate how longitudinal cohorts have contributed significantly to our current understanding of airway diseases. Lastly, to conduct a critical assessment of the establishment and findings from four key longitudinal cohort studies. The first of the presentations in this study was" The Unbiased Biomarkers for the Prediction of Respiratory Disease Outcomes (U-BIOPRED) consortium, a pan-European public-private collaboration, has described molecular phenotypes and endotypes that stretch across severe refractory asthma using innovative systems biology approach.

The next in this series was "The COPDGene Study: investigating the underlying genetic factors of chronic obstructive pulmonary disease" presented by the renowned Prof Meilan Han King.

COPDGene is a remarkable research initiative that has left an indelible mark on the field of COPD research. Its large-scale, multifaceted approach has not only unraveled the genetic foundations of COPD but has also enhanced our ability to classify disease phenotypes and understand the complex interplay of factors contributing to this debilitating respiratory condition. Through its longitudinal design and comprehensive data collection, COPDGene continues to inform and guide advancements in COPD diagnosis, treatment, and patient care.

The third in this series was the" Assessment of the involvement of small airways in asthma: the ATLANTIS study" presented by Dr Monica Kraft MD.

The ATLANTIS study was structured with the aim of pinpointing the most effective combination of biomarkers, physiological tests, and imaging techniques for assessing the presence and severity of small airway involvement in a substantial group of asthma patients. This assessment was conducted both as a snapshot in time (cross-sectionally) and over the course of one year, allowing for the observation of changes and developments. The fourth in this session was the NOVEL observational longiTudinal studY (NOVELTY): real-world evidence on asthma and/or chronic obstructive pulmonary disease development, presented by Dr Alberto Papi. The NOVELTY study, short for "NOVEL Observational Longitudinal StudY," is an international, forward-looking research initiative spanning three years. It focuses on patients who have been diagnosed with asthma and/or chronic obstructive pulmonary disease (COPD), or those who are suspected of having these conditions. Additionally, there is an optional extension study for two more years available at participating research sites. The core objective of NOVELTY is to comprehensively depict various aspects of patients' characteristics, their treatment patterns, and the overall burden of disease over an extended period, encompassing the full spectrum of obstructive lung diseases. By doing so, NOVELTY seeks to generate real-world evidence that can contribute to the advancement of precision medicine, ensuring that the right treatment is administered to the right patient at the right time.