From Targeted Success to Next-Generation Strategy: The Evolving Landscape of Third-Generation EGFR-TKIs in common EGFR-mutant NSCLC

James Yang

Organization National Taiwan University Cancer Center
Current Position Superintendent

Educational background

1996-2000 Ph.D., Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University
1979-1986 M.D., School of Medicine, Medical College, National Taiwan University

Professional experience

2021-Present Director, Cancer Research Center, College of Medicine, National Taiwan University
2020-Present Staff Physician, Department of Medical Oncology, National Taiwan University Cancer Center and Department of Oncology, National Taiwan University Hospital
2009-Present Professor, Graduate Institute of Oncology, Graduate Institute of Clinical Pharmacy, Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University

The treatment of common EGFR-mutant non-small cell lung cancer (NSCLC) has been transformed by the advent of third-generation EGFR tyrosine kinase inhibitors (EGFR-TKIs), offering improved efficacy and central nervous system penetration over earlier generations. This session, “From Targeted Success to Next-Generation Strategy: The Evolving Landscape of Third-Generation EGFR-TKIs in Common EGFR-Mutant NSCLC”, will trace the development, clinical data, and evolving role of these agents across disease stages.

The presentation will first highlight milestones in the evolution of third-generation EGFR-TKIs, spotlighting landmark trials such as FLAURA and LASER301, which have established as first-line therapies in stage IV EGFR-mutant NSCLC. The impact of adjuvant osimertinib, as confirmed by the ADAURA trial, as well as the promising results from LAURA in locally advanced disease, will be discussed, demonstrating a shift toward improved disease-free survival and recurrence prevention.

Recognizing resistance as a major clinical challenge, the session will examine strategies to address resistance complexity, including innovative first-line combination regimens, as reflected in the FLAURA2 and MARIPOSA trials. Finally, the session will conclude with future perspectives, considering emerging agents, combination strategies, and biomarker-driven approaches designed to further improve outcomes for patients with EGFR-mutant NSCLC.