



## 2022 Targeted Therapies Patient Forum

### Treatment of EGFR Mutated NSCLC

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#### TRANSCRIPT

When I came to the United States, to the University of Colorado, I was tasked with investigating EGFR (Epidermal Growth Factor) in pre-neoplasia and bronchial dysplasia. My group and I demonstrated, through the picture here, the lining of the bronchi — what we call the epithelium of the bronchi. We can see here that EGFR expression, which is represented by the brown surroundings of the cells, increases with the changes in the bronchial lining. This taught us that EGFR is an important factor in cancer development.

A host of clinical trials followed this with EGFR TKIs (Tyrosine Kinase Inhibitors). In Colorado, my group and I had the opportunity, after several years, to look into long-term survivors from this EGFR TKI, in this case, Gefitinib or Iressa. Astonishing data emerged: we were granted access to what was called the “Expanded Access Program for Iressa”, and we dug up around 200 patients who had a median treatment duration of 11 years and 86% of them were still alive after 10 years. We could not dream of finding 200 patients with these results. Of course, they are selected; they're all long-term survivors. But the fact that you could have patients with advanced lung cancer achieving these results with a targeted therapy was, in my opinion, revolutionary.

We learned about different generations of EGFR-targeted therapies. 'Flaura' was a study comparing Osimertinib, which is a third-generation EGFR TKI, with the first and second generations. We can clearly see that the survival curve here is much better with Osimertinib than with the first and second-generation EGFR TKIs. This, of course, led to Osimertinib becoming the first choice for 15-20% of patients who have an EGFR mutation in their tumor.