


Citation for the award

Dr. Dutt's work has significantly advanced our understanding of occult lymph nodal metastases in tongue squamous cell carcinoma (TSCC), a unique and critical challenge in early-stage patients. By mapping the genetic landscape of Indian tongue cancer patients, Dr. Dutt identified key prognostic biomarkers such as *NOTCH1* alterations and *MMP10* overexpression, which hold potential in sparing many patients from unnecessary neck dissection, thus reducing morbidity and improving survival outcomes. Furthermore, Dr. Dutt's research on the *miR-944/MMP10/AXL*-axis, validated through sophisticated in vivo models, has provided essential insights into the mechanisms driving lymph node metastasis in TSCC. His development of the "HPVDetector" tool has revolutionized the detection of HPV in cancers, and his subsequent findings have established the absence of HPV in Indian tongue cancer patients, a significant deviation from the patterns observed in Caucasian populations. His identification of *Fusobacterium nucleatum*'s role in tongue tumors has also paved the way for understanding distinct subgroups of head and neck cancers, with implications for patient survival and treatment strategies. More recently, Dr. Dutt's discovery of the *UBE3C-LRP5* fusion transcript in head and neck cancer, along with its potential therapeutic targeting via pyrvinium pamoate, underscores his commitment to translating basic research into clinically actionable insights. His contributions exemplify a seamless integration of cancer genomics with functional biology, positioning him as a distinguished leader in the field.



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