PriMera Scientific Surgical
Research and Practice
Volume 7 Issue 3 March 2026
ISSN: 2836-0028

PriMera Scientific Publications

mRNA: A Non – Invasive Diagnostic Tool for Oral Squamous Cell Carcinoma

Type: Editorial
Received: September 18, 2025
Published: March 02, 2026

Citation:
Awadhesh Gupta. "mRNA: A Non – Invasive Diagnostic Tool for Oral Squamous Cell Carcinoma". PriMera Scientific Surgical Research and Practice 7.3 (2026): 01.

Copyright:
© 2026 Awadhesh Gupta. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Awadhesh Gupta*

Associate Professor, Department of Oral and Maxillofacial Pathology, D.J. College of Dental Sciences & Research, Modinagar, Ghaziabad (U.P.), India

***Corresponding Author:** Awadhesh Gupta, Associate Professor, Department of Oral and Maxillofacial Pathology, D.J. College of Dental Sciences & Research, Modinagar, Ghaziabad (U.P.), India.

Background: Messenger RNA (m RNA) is a large family of RNA molecules that convey genetic information from DNA to the Ribosome, where they specify the amino acid sequence of the protein products of gene expression. m RNA mostly obtained from Saliva, Blood, Urine and Serum by non – invasive methods as diagnostic tool for analysis of OSCC. It is most frequently collected from Saliva simply by Swab Technique, Spitting Technique and Collecting Tube Technique. There are several methods for the test and most commonly used are Qiagen RNA Protect Saliva Mini Kit, Nanosensor Test & Magnetic m RNA Isolation Kit. The Samples can be analyzed either by Microarray Technique or Quantitative PCR Technique. The results show missing 3' Poly – A tail of most salivary RNAs in Quantitative PCR Technique and sequence of amino acids of gene expression pattern for Oral Cancer through Microarray Technique suggesting m RNA as Biomarker for OSCC. This technique is absolutely non-invasive and comfort to the patients and its applications are in Oral Cancer, Forensic, Sjogren's Syndrome, Sleep Deprivation and Health Surveillance. On conclusion, we can say Salivary Testing is non-invasive, making it an effective alternative to serum testing and the possibility of developing home testing kits that would further facilitate it as a diagnostic aid, enabling patient to monitor their own health at home. It is also important for those who have far from their treatment centres and especially for those at risk of developing Oral Squamous Cell Carcinoma.

Keywords: m RNA; Biomarker; Microarray Technique; PCR; Forensic; Sjogren's syndrome; Health Surviellance; OSCC