

headandneck 5000

The role of somatic mutations in head and neck cancers outside of the oral cavity and oropharynx

Principle Applicant: Dr. Neil Hayes

Co-Applicants: Dr Miranda Pring, Ms Katrina Hurley, Professor Andy Ness

Scientific Outline

Summary

The current project will run in parallel to Voyager, a multicentre collaborative study, that is already supported by HN5000. The Voyager study aims to improve understanding of the role of genetic factors in risk and prognosis of oral cavity cancer and oropharyngeal cancer. Using similar methodology, the current proposal will now focus specifically on less common head and neck cancer sub-types including salivary gland, nasopharyngeal, sinonasal, thyroid and odontogenic tumours. The specific aim and focus of the study are to assess for the presence of somatic driver alterations in tumour DNA. Potential associations between socioeconomic factors and environmental exposures will also be evaluated.

We will extract DNA from formalin fixed paraffin embedded (FFPE) tissue blocks (up to n=500) that have already been collected by HN5000 from study participants. We will then use targeted sequencing to determine the presence of somatic driver mutations within tumour sub-types.

KEYWORDS

Nasopharyngeal, Sinonasal, salivary gland, thyroid gland, cancer, odontogenic, somatic mutations