

Project Title: Estimating cancer risk using DNA methylation proxies of plasma protein abundance

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Summary:

Head and Neck cancer (HNC) comprises a number of different cancers arising from different tissues within the head and neck. HNC is primarily associated with manageable lifestyle choices such as tobacco usage, and despite a reduction in smoking in many countries, HNC still has a large global burden, being responsible for around 450,000 deaths in the year 2018. Beyond human papillomavirus status (HPV), a virus which can also cause HNC, there are no clinical biomarkers used for determination of prognostic outcome for patients with HNC. Here, we will determine to what extent DNAm, especially DNAm models of molecular intermediates such as serum protein levels, contains prognostic information about HNC from models which could be captured by a simple, minimally invasive blood test.

Keywords

Epigenetic, methylation, biomarker, prognostic