1. No.
   2022G039

2. Title
   The Effect of New Tobacco Smoking on Innate Immunity in Saliva: Evaluation by Enzyme-Linked Immunosorbent Assay

3. Period
   2022-2024

4. Summary
   Over the past three years, we have analysed the effects of Heat-not-burn (HNB) tobacco smoking by assessing the major components of natural immunity in over 600 saliva samples using an enzyme-linked immunosorbent assay (ELISA). In the first year, we reported that the secretion rates of lactoferrin (Lac) and lysozyme (Lys) in saliva were significantly lower in smokers, particularly HNB tobacco smokers, than in non-smokers, suggesting the possibility of a negative effect of HNB tobacco smoking on the amount of Lac and Lys released into the mouth. In the second year, we also began to analyse secretory immunoglobulin A (sIgA) in saliva. The results of comparing the rate of sIgA secretion between the HNB tobacco smoking group and the non-smoking group showed that there was no statistically significant difference between the two groups, but we gained new knowledge in this area. In the last year of the project, we were able to put the MUC5B evaluation into practice and point out the possibility of low MUC5B secretion rates in HNB tobacco smokers. We believe that all the research results provide valuable data that provide new insights into the relationship between HNB tobacco smoking and natural immunity in saliva from the perspective of preventive medicine and public health.