



## Multi Ethnicity diversity of polymorphism within the TAS2R38 gene and phenotypic correlation with bitter taste perception

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### Abstract:

Bitterness is natural taste component which protects us from consumption of plant toxins. G-protein-coupled receptors (GPCRs) bind with bitter substance like Phenylthiocarbamide (PTC) and transmit signals to the brain where flavour perceived. Three SNPs of TAS2R38 gene are responsible for individual's ability to taste bitter compound. This study design was a questionnaire and Laboratory based study. Study participants of Coventry University filled Food consumption questionnaire about age, gender, Ethnicity, favourite fruits and vegetables and preferences for bitter fruits and vegetables. Saliva sample was collected from all participants followed by PTC strip and Dye testing including photography of dyed tongue tip. Then restriction fragment length polymorphism (RFLP-PCR) with gel-electrophoresis was done on extracted and amplified amplicon of DNA including digestion with enzymes (HaeIII, RsaI, Eco47III, and Fnu4h). DNA-Sequencing was also done to confirm RFLP-PCR results. Statistical analysis was done by using SPSS, One-way ANOVA, Principal component analysis and Descriptive statistics.

### Biography:

Zanera Nawaz has completed his masters in 2019 from Coventry University, UK in Biomedical science and have



three publications in Health sciences (two nationally and one internationally URL attached). She is member of IBMS as MIBMS, Sensory Integration, and American society of Microbiology. She is experienced medical lab technologist and had a lot of experience in clinical and Pathology labs. She is multilingual, (speaking English, Urdu, Hindi, and Punjabi fluently), Speaker, debater and health leader. She is working in Baxter International UK at Compounding site Croydon, London.

### Recent Publications:

1. Multi Ethnicity diversity of polymorphism within the TAS2R38 gene and phenotypic correlation with bitter taste perceptions

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