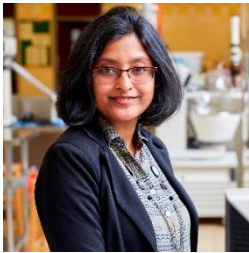




The Faculty of Biotechnology and Food Engineering

Thought for food and food for thought
Special seminar

Oral tribology: Sticky to Slippery Food and Beyond



Prof. Anwasha Sarkar
University of Leeds, United Kingdom

Abstract. Oral tribology at multiple length scales^{1,2} is emerging as a new paradigm to quantify friction and lubrication of food-saliva mixtures in the oral mucosa. This is largely due to the current consensus on oral processing dynamics, where researchers have proposed that the well-established 'rheology' (bulk property) cannot explain all the mouthfeel features such as astringency, smoothness, pastiness etc., and these perception are better explained³ by rather under-researched 'tribology' (surface property of food-saliva bolus based lubricants). In this talk, I will discuss three case studies highlighting the role of oral tribology across scales from protein films⁴ to microgels⁵, to model^{6,7} and real food applications⁸. I will also give some examples where oral tribology has been successful in correlating friction coefficients to sensory attributes in model foods^{6,7} and lubricity is used as modifiable factor in food to trigger satiation⁹. Finally, I will discuss few of the several challenges remaining in oral tribology field including appropriate tribological surfaces and testing conditions that need to be harmonized across laboratories.

Wednesday, 27/5/2020, 14:00 – 15:00, Via zoom
Meeting ID: 974 4524 4975 Password: 449595