



# SENSORY & CONSUMER SCIENCE

## A MULTIDISCIPLINARY APPROACH

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From the senses to multimodal experiences and eating behavior

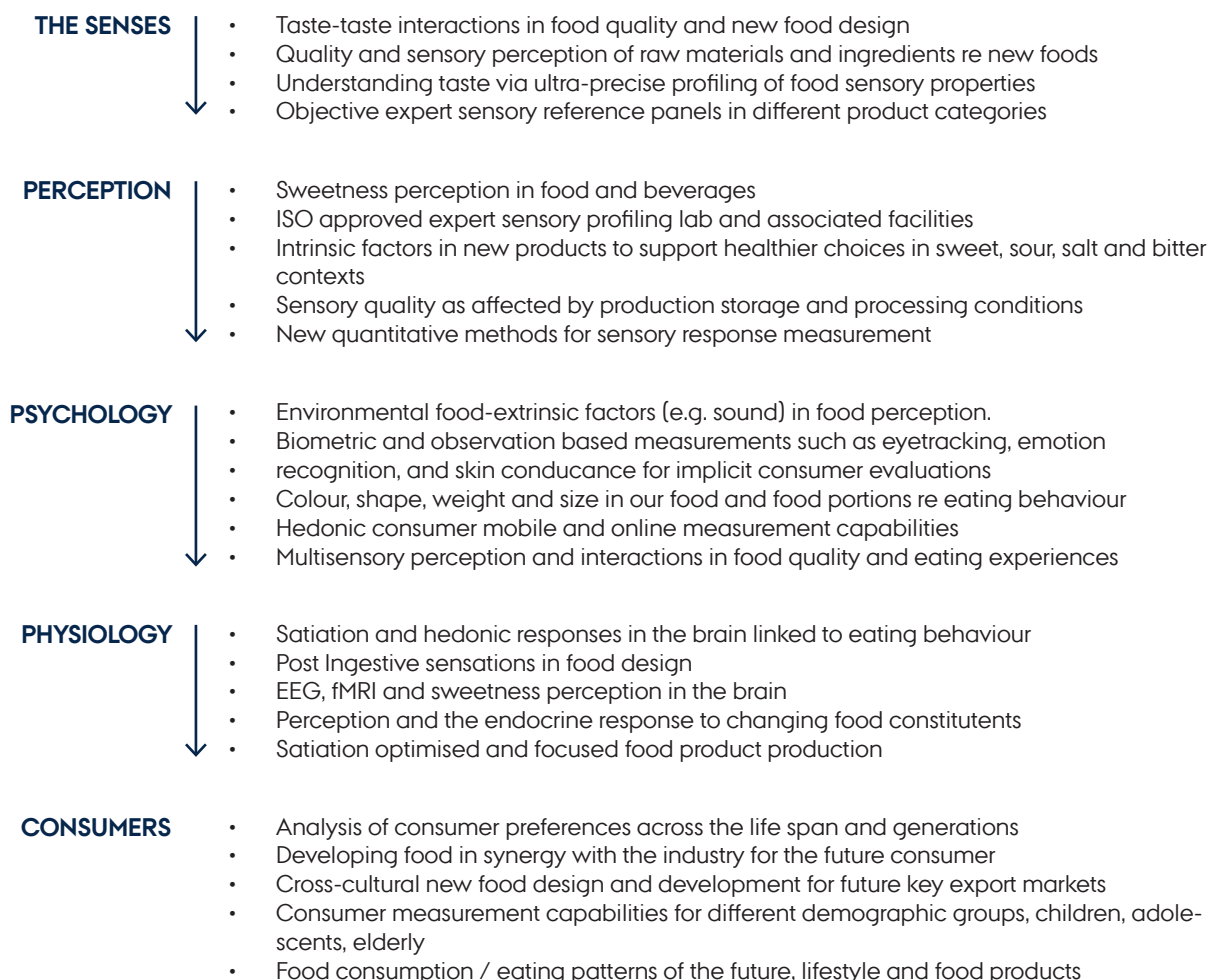


AARHUS  
UNIVERSITY  
DEPARTMENT OF FOOD SCIENCE

Sensory research at the Food Quality Perception & Society Science Team (FQS) at Aarhus University Denmark, focuses on innovation in food quality through human perception. Our approach is via a cross-disciplinary synergy of multisensory human food analysis, experimental psychology, physiological responses and cognitive neuroscience with partners. This multidisciplinary synergy is uniquely applied in the design and development of high quality, better-tasting, more stimulating, more memorable, and healthier food and drink experiences. As a team we work in all product categories across the food chain, from primary production to food processing and on to eating and retailing scenarios with the consumer.

Our outcome areas are focused on the determination of the sensory and perceptual effects of the intake of food products and constituents in relation to human health. We have specific focuses on, areas such as appetite, sensory specific satiety, sweetness and sugar reduction, lipid reduction and substitution, basic sensory cross modal interactions. In addition, we are interested in the combined influences of product intrinsic and extrinsic factors, and on to an understanding of the workings of our gustatory sensory system. Our research is underpinned by studies on the development of sensory methods and the application of multivariate data analysis in understanding sensory relationships in multidisciplinary scenarios. Moreover, enhancing knowledge about the ways in which variation in foods, contexts and individuals affect consumers' attitudes, hedonic eating experience and food intake is also central in our research.

### SENSORY RESEARCH IN MULTIDISCIPLINARY CONTEXTS FOR HEALTHIER EATING



### RESEARCH PLATFORM – IN MULTIMODAL PERCEPTION

Methodologies include the development, application and evaluation of unique approaches to measure and analyse food properties based on human perception from a mind and mouth and physiological perspective. FQS has professional; trained and tested sensory panels in different product categories and a state of the art ISO-approved sensory analysis laboratory.

Qualitative and quantitative consumer studies, (including children, adolescents, adults and the elderly) both in-house and in natural settings, are also utilised to elucidate consumers' reactions to foods before and after food intake and with repeated use. Important also at FQS is the synergy of human sensory measurements and methods with onsite instrumental techniques e.g. Texture and colour analysis, GC-MS, LC-MS and NMR. Moreover, via key project partnerships we integrate neuro-imaging, physiological measurements, clinical medicine and psychological paradigms into our research.

### CONTACT

Department of Food  
Science  
food@au.dk

Aarhus University  
Agro Food Park 48  
DK-8200 Aarhus N  
Denmark

Head of Department  
Michelle Williams  
Tel.: +45 25170049

www.food.au.dk