UNDERSTANDING THE ROLE OF SALIVARY PROTEINS ON FLAVOUR PERCEPTION IN ELDERLY POPULATION

Carolina Muñoz González

Incoming to: Centre des Sciences du Goût et de l’Alimentation, CNRS, INRA, Université de Bourgogne, Dijon, France

AgreenSkills Annual Meeting
Barcelona, Spain
13/10/2015
About me

- **Diploma** in Human Nutrition and Dietetics
- **Degree** in Food Science and Technology

*Fellow at the Coca-Cola Company*

*Research Assistant at CSIC*

- **Master** in Biology and Food Science
About me

2003-2010
Studies (UAM)
Madrid, Spain

2010-2014
PhD (CSIC)
Madrid, Spain
Dijon, France

2014-2015
Flavour Scientist
(Mondelez Int.)
Reading, UK

Dijon, France
2015-
Postdoc (INRA)

About me

2003-2010 Studies (UAM) Madrid, Spain
2010-2014 PhD (CSIC) Madrid, Spain Dijon, France
2014-2015 Flavour Scientist (Mondelez Int.) Reading, UK
2015- Postdoc (INRA) Dijon, France

To produce healthier food products in a cost-effective manner
About me

2003-2010
Studies (UAM)
Madrid, Spain

2010-2014
PhD (CSIC)
Madrid, Spain
Dijon, France

2014-2015
Flavour Scientist
(Mondelez Int.)
Reading, UK

2015-
Postdoc (INRA)
Dijon, France

Dissertation title: “Understanding the role of salivary proteins on flavour perception in elderly population”

Supervisors: Dr. Canon & Dr. Feron
Flavour perception is a multimodal phenomenon involving aroma and taste impressions, as well as texture and other chemostetic sensations.\textsuperscript{1}

\textbf{CONSUMPTION PROCEDURE}

\textbf{SALIVARY PROTEINS}

Salivary film structure according to ref 2

Background

SALIVARY DISORDERS CAN FAVOUR UNDERNUTRITION

HUGE ECONOMIC COST TO THE SOCIETY

However, most of the studies on this topic have been conducted on young individuals and elderly population has remained underexplored.
Objective

To elucidate the molecular basis of the interactions between flavour compounds and salivary proteins as well as their sensory meaning in order to give recommendations to develop new food products adapted to the nutritional and sensory requirements of elderly.
Research methodology and approach

1.- Characterization of salivary proteins in elderly suffering or not from SHS

- Saliva characterization
- Mucosal pellicle characterization

2.- Analysis of the impact of salivary proteins (free and bound) on the retention/release of flavour compounds

- Ex vivo: GC-MS, PTR-MS
- In vivo: PTR-MS + TDS/TI

3.- Reformulation strategy