

PROPUESTAS PARA LA ALIMENTACION DEL FUTURO
SUGGESTIONS FOR THE FOOD OF THE FUTURE

VIII SYMPOSIUM INTERNACIONAL SOBRE TECNOLOGÍAS ALIMENTARIAS

8th FOOD TECHNOLOGY
INTERNATIONAL SYMPOSIUM





“DEVELOPMENT OF HEALTHY FOOD PRODUCTS PROTOTYPES”

PRESENTACIÓN GARCÍA GÓMEZ
TECHNOLOGY AREA-CTC
sese@ctnc.es

SANTIAGO ORTEGA PÉREZ
RESEARCHER AT THE FOOD TECH-CTAEX
sortega@ctaex.com

MURCIA, 9TH MAY 2017

NATIONAL TECHNOLOGICAL CENTRE FOR THE CANNING AND FOOD- CTC

OBJECTIVES

- To promote research, development and innovation in the Agrofood sector
- Consultancy and analytical services
- Training at all levels
- Improve competitiveness in the Agrofood industry
- To solve environmental problems, etc

CTC'S ACREDITATIONS

- Technology Centre No. 51. Spanish Ministry of Science and Innovation Register of Technology Centres and Innovation Support Centres.
- OTRI- Research Findings Transfer Office. (Spanish Inter-Ministerial Commission for Science and Technology. October 1999. Number 150.
- Association declared to be of public interest
- Test laboratory accredited by ENAC; accreditation nº 220/LE1206 and 220/LE453
- Collaborative body of Hydraulic Administration
- Laboratory approved for taking part in fruitmonitoring.com der HTS GmbH

- Control Laboratory authorised to carry out physicochemical and microbiological tests by la Agencia Española de Medicamentos y Productos Sanitarios (Spanish Agency of Healthcare Products and Medicines)
- Laboratory authorised to carry out analytical processes by la Direccion General de Salud Publica (General Directorate for public Health)
- Centre approved by the Spanish Ministry for the Environment and Rural and Marine Affairs for pesticide testing (EU-Russia Memorandum)



AREAS

•TECHNOLOGY

Technical aid and advice

New products

HACCP

Pilot plant

•ANALYSIS

Quality and sensory lab

Packaging lab

Microbiology lab

Instrumental lab.

•LIBRARY

Scientific documentation

Technological doc

Databases

• R+D

International Events

R+D projects

Courses , Seminars

Congresses, etc

PILOT PLANT FACILITIES



Satiety Enhancing Ingredients & New Food Products Development



OBJECTIVES

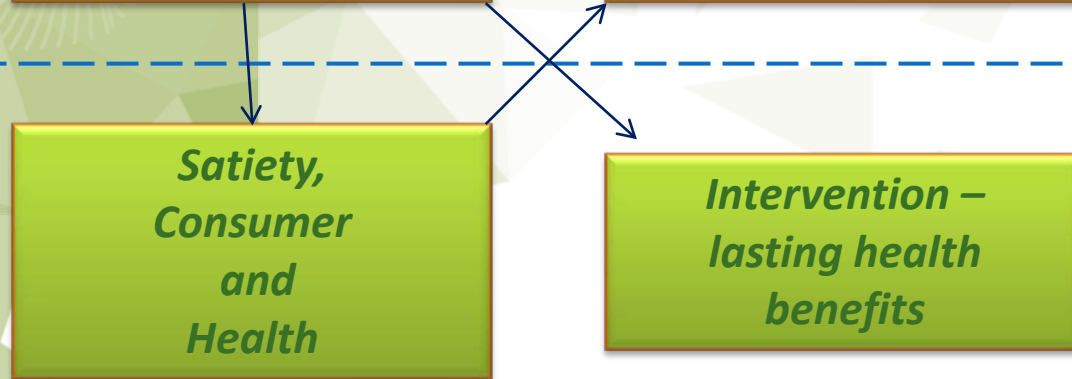
1. Integrate advanced technologies to screen novel food structures through in vitro models to isolate and refine products according to their satiating potential.
2. Develop novel food processing technologies that combine active ingredients and changes in food structure to produce a range of novel satiety enhancing ingredients.
3. Demonstrate the effects of prototype products on biomarkers of satiety and on nutrient bioavailability using in vivo studies and validating new in vivo approaches.
4. Produce finished food products that pass through safety analysis, early sensory evaluation and consumer testing.
5. Demonstrate the effects of final food products on within-meal satiation, post-meal satiety and/or reduced appetite using biomarkers of satiety.
6. Demonstrate the long-term consumer and health benefits of adhering to a diet containing satiety-enhancing products.
7. Validate health claim.

ACTIVITIES INTERRELATION

PHASE 1

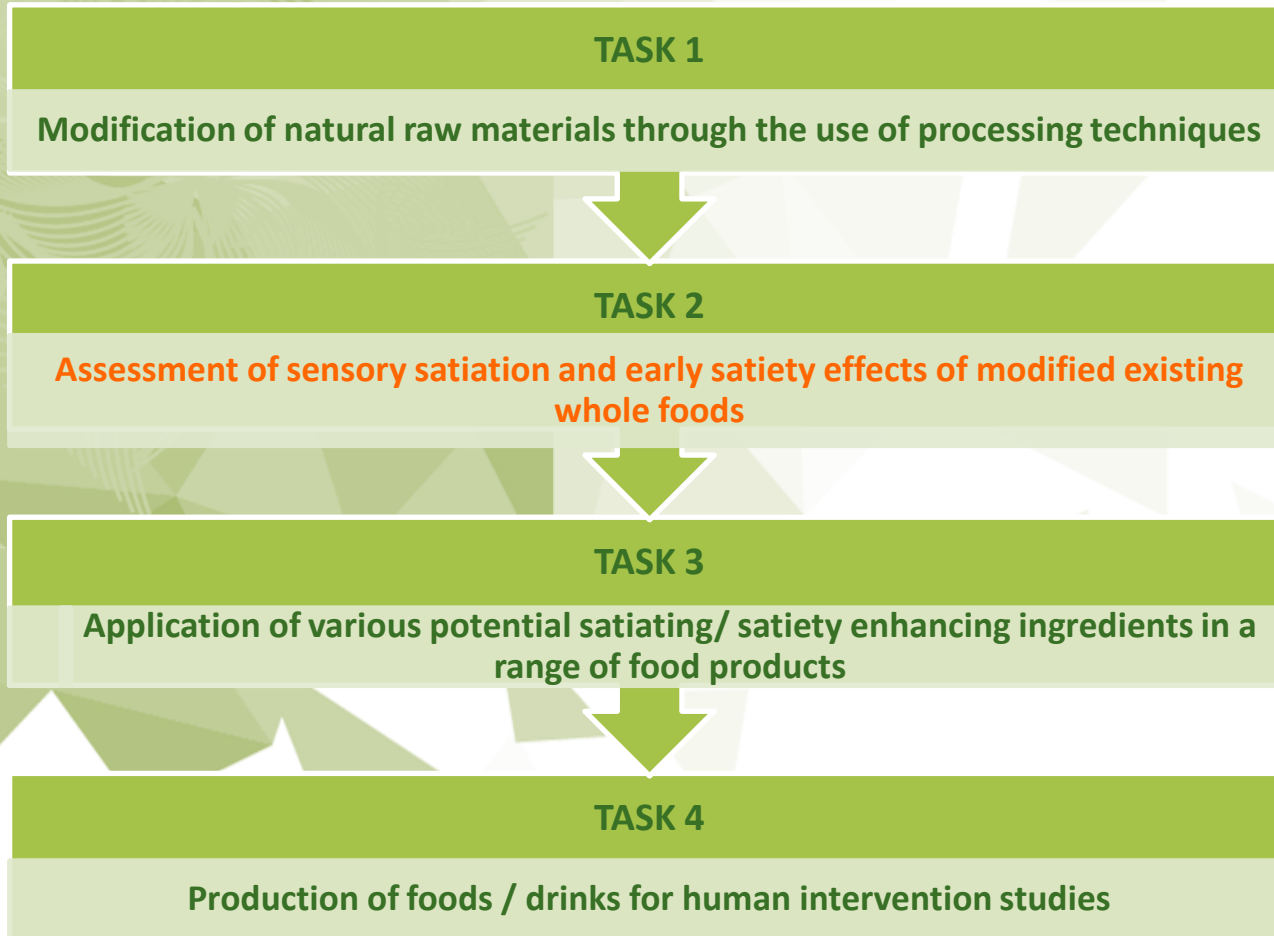


PHASE 2



Steps to develop novel food processing technologies that combine optimised food structures with active ingredients that are able to enhance satiation/satiety

SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY



SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 1: Modification of natural raw materials through the use of processing techniques



Tomato Juice



Gazpacho



**Peach - apple –
grape nectar**



Multifruit nectar



SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 1: Modification of natural raw materials through the use of processing techniques



Novel milling Homogenization technology



Natural fibre enrichment

SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 3: Application of various potential satiating/ satiety enhancing ingredients in a range of food products

- Polydextrose
- Sucromalt
- Erythritol

- Purple sandspurry
- White kidney bean
- Garcinia cambogia



TASK 4: Production of foods / drinks for human intervention studies



SHIME – TOMATO JUICE FROM CONCENTRATE

SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 1: Modification of natural raw materials through the use of processing techniques



Meatballs



Fishballs



Meat Clear Soup



Fish Clear Soup

CTC Centro
Tecnológico
Nacional de la
Conserva y
Alimentación



SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 1: Modification of natural raw materials through the use of processing techniques



Clarification Technology



Vacuum Concentration Technology

CTC | Centro
Tecnológico
Nacional de la
Conserva y
Alimentación



Liofilization Technology



Heat Treatment Technology



Homogenization Technology

SENSORY FACTORS AND FOOD STRUCTURES IN SATIATION AND SATIETY

TASK 3: Application of various potential satiating/ satiety enhancing ingredients in a range of food products

- BEAN EXTRACT
- SOY EXTRACT
- CURCUMINE

- LOCUST BEAN GUM
- TAPIOCA RESISTENT STARCH

CTC | Centro
Tecnológico
Nacional de la
Conserva y
Alimentación

TASK 4: Production of foods / drinks for human intervention studies

Checked on products:

- Oral sensory acceptance
- Food Safety
- Allergen profile





**THANK YOU VERY MUCH
QUESTIONS
????????**

PRESENTACIÓN GARCÍA GÓMEZ
TECHNOLOGY AREA-CTC
sese@ctnc.es

SANTIAGO ORTEGA PÉREZ
RESEARCHER AT THE FOOD TECH-CTAEX
sortega@ctaex.com

MURCIA, 9TH MAY 2017