stance HEALTH

SMART TECHNOLOGIES FOR PERSONALISED NUTRITION AND CONSUMER ENGAGEMENT

BUDGET
€6,393,914

DURATION
4 YEARS
2018 – 2022

19 PARTNERS
FROM 8 COUNTRIES

SMART PERSONALISED NUTRITION APP

A personalised nutrition app (i-Diet) will be designed to provide nutrition advice linked to an individual's gut microbiota and to support long-term dietary behaviour change.

USER

- Personal data (age, sex)
- Body measures (height, weight)
- Activity level
- Allergies
- Health status
- Personal tastes
- Goals
- Gut Microbiota

GENERATOR

- Food database
- Recipes database
- Recommandations

SOLUTION

Full weekly personalised menu

ADDITIONAL FEATURE

THE SMART BAND

The i-Diet app will also be able to pair with a smart band, which will help modify recommendations based on the users sleep time, physical activity level and body composition.

CITIZEN ENGAGEMENT

Consumer research will provide insight into how food preferences, lifestyle and socio-economic status influence health eating patterns.

WILL PERSONALISED NUTRITION INCREASE HOW MUCH PEOPLE SPEND ON FOOD?

ARE PEOPLE WILLING TO USE PERSONALISED NUTRITION APPS?

WHAT DO PEOPLE THINK ABOUT PERSONALISED NUTRITION?

WHAT INFLUENCES ADOPTION AND LONG-TERM USE OF PERSONALISED NUTRITION APPS?

PERSONALISED FOOD PRODUCTS FOR SPECIFIC GROUPS

Personalised foods and nutritional supplements will be designed to modify the gut microbiota and improve health.

Tannin extracts are selected

Italian chestnut

Peruvian Tara pods

Turkish gallnut

Argentinean quebracho

The extracts ability to modify the gut microbiota are tested in laboratory experiments

Extracts are chosen for food formulation

Cereal products fortified with tannin extracts are produced

The effect of the cereal products on the gut microbiota are tested in humans

VALIDATION STUDIES

Two intervention trials will test whether personalised nutrition can help improve the health of adults and children.

Trial in adults
Aged 20-65 - Two groups
healthy weight | overweight

Trial in children
Aged 6-12 - Four groups
milk allergy | coeliac disease
healthy weight | overweight

MAIN MEASUREMENTS

GUT MICROBIOTA COMPOSITION
for adults and children

METABOLITE ANALYSIS
for adults and children

IgE LEVELS
for children with milk allergy

TRANSGLUTAMINASE ANTIBODIES
for children with coeliac disease

The trials will split participants into four groups and test two levels of personalisation.

LEVEL 1

CONTROL

General healthy eating advice

LOW DEGREE INTERVENTION

The i-Diet app will provide personalised dietary advice linked to the users gut microbiota (level 1 i-Diet app)

LEVEL 2

CONTROL

i-Diet app (Level 1)

wearable smart band

in vitro urine diagnostic

placebo foods

HIGH DEGREE INTERVENTION

i-Diet app (Level 1)

wearable smart band

in vitro urine diagnostic

personalised foods
cereal foods fortified with tannin extracts

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