









LinkedIn.com/yurixybugarin-castillo

Time (s)

25 kPa

## **BUGARIN CASTILLO Yurixy**

#### **Doctorante**

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Début du projet : 2020

#### **ABOUT ME**

Creative and self-motivated Ph.D student eager to acquire new knowledge and experiences to improve nutrition through different food habits and products.



#### **Team IHAC**

« Interactions Homme – Aliment pour la Conception » Supervisors : M. Ramaioli and

V. Mathieu

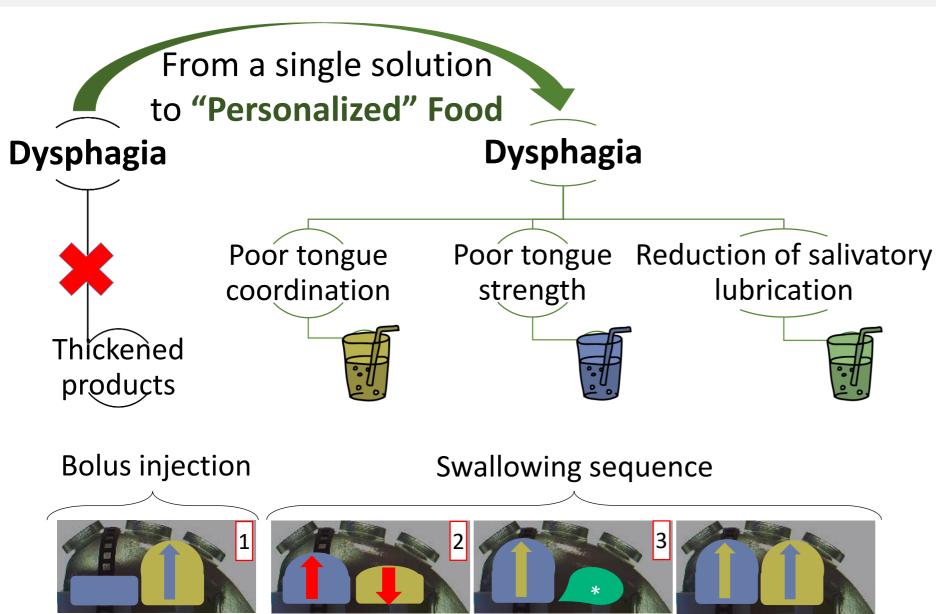
## **Key words**

Dysphagia, *in vitro*, personalized food, healthy swallow

# Realistic in vitro model of swallowing to develop pleasurable and safe personalized food for specific swallowing disorders

## **Graphical abstract**

In 2050, 21.5% of the world population will be over 60 years old



Developing age-friendly products to foster safety swallowing is urgent.

0.1

-20 kPa

Vacuum;

**Initial position** 

0

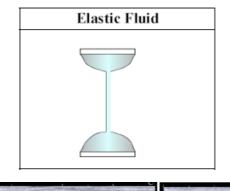
10 kPa

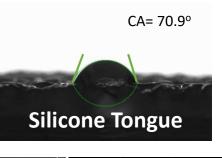
#### **Objectives**

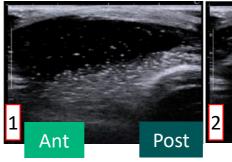
- In vitro simulation of healthy swallowing conditions
- In vitro simulation of specific swallowing disorders
- Formulation of personalized food by adapting bolus rheology to each cause of dysphagia

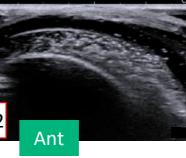
## **Techniques**

- Extensional Rheology
- Contact Angle
- Ultrasound
- Soft robotics











Financers & Collaborators

Deflation begins

Inflation begins

0.6



