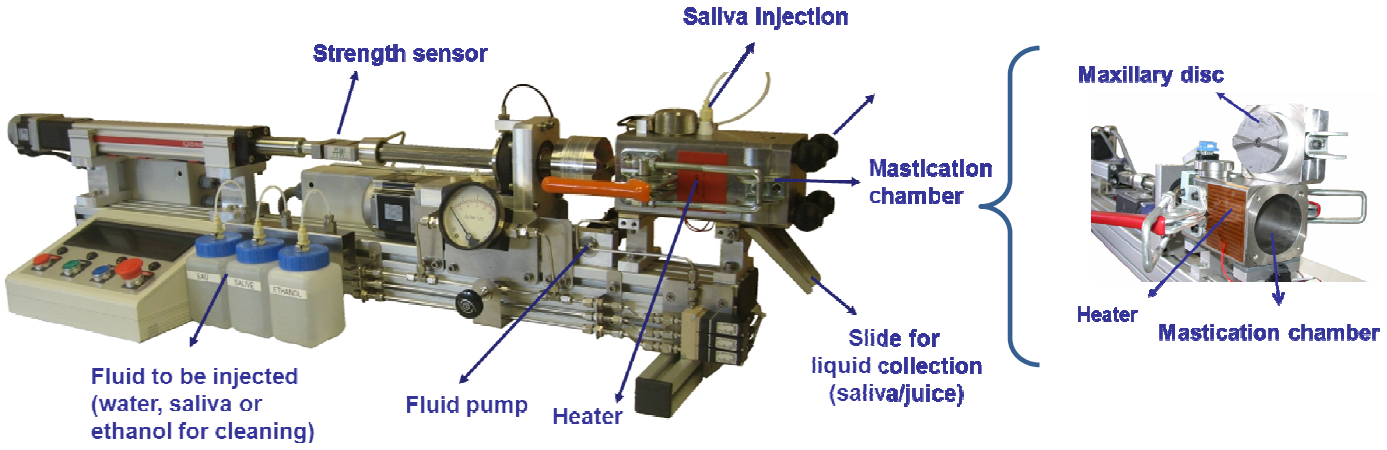
ARTIFICIAL MASTICATOR PLATFORM

The AM² platform includes an artificial masticator which can simulate chewing and reproduce a bolus taking into account various physiological conditions (temperature, saliva, strength, imposed constraints ...). The device also allows monitoring of the bolus production and collection (solid and liquid phases) at any time.



Artificial masticator developed by the research team of the Centre for Research in Odontology and Clinic (CROC), University of Auvergne (Patent belongs to University of Auvergne)

OFFER

• **Scientific and technical expertise (*in vivo* and *in vitro*):** recording of *in vivo* mastication, human and artificial saliva, chewing forces, analysis of bolus characteristics... links with the oral state, physiological abilities, age… - *in vitro* simulation of observed *in vivo* conditions

• **All types of collaborations:** services, research contracts…

FIELDS OF APPLICATION

• **Analysis of compounds of interest**: food components, nutrients released from the food matrix during chewing

• **Characteristics of the bolus and kinetics of its formation** (rheology, particle size, lubrication, digestion by salivary enzymes...)

• **Formulation of new foods** adapted to targeted populations (children, aged people…)

• **Food texture analysis**

• **Testing the behaviour of dental materials** in oral condition (wearing ...)

• **Intra-oral release of active ingredients** (pharmaceutical drugs…)

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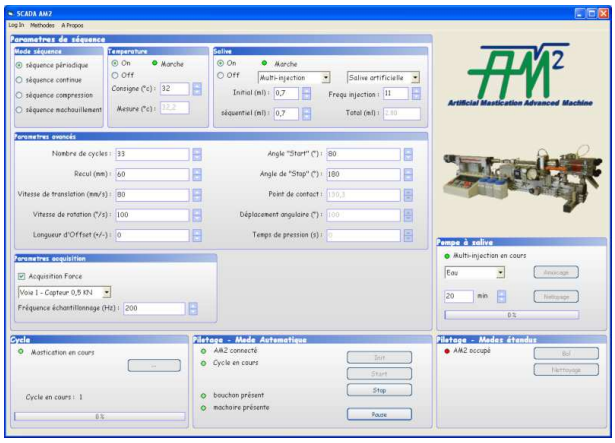

This interface allows the setting of the constraints imposed on the food, the number of masticatory cycles, the range of forces, salivation and temperature

CONTACTS Marie-Agnès Peyron, Alain Woda
contact-AM2@u-clermont1.fr
+ 33 (0)4 73 17 73 84
Dental Faculty 11 bd Charles de Gaulle 63000 Clermont-Ferrand, FRANCE
http://masticateur.u-clermont1.fr