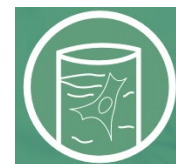


Internship proposition  
(One-page max)  
Master 2 GP Medicine 4R (Repair, Replace, Regenerate, Reprogram)



**Lab: UMR1229 RMeS**

**Team: Regos**

**Name and position of the supervisor: TRICHET Valérie, professeure**

**Email of the supervisor: valerie.trichet@univ-nantes.fr**

**Candidate (if internship filled):**

**Title of the internship: Marine biopolymers and bone regeneration**

**Summary of the internship proposal:**

The BONE-HEALTH industrial chair, supported by the Pays de la Loire region, brings together two companies, Algosource and Goliver Therapeutics, and two research laboratories of Nantes University, GEPEA and RMeS, to develop marine derivatives for human health. This collaboration has led to the identification of a biopolymer extract derived from a strain of microalgae, for which very encouraging *in vitro* results have been obtained in relation to several cell types involved in wound healing and bone remodeling.

The internship will include a study of the assembly of these biopolymers with hydrogels and cements, already used in the laboratory to form bone substitutes. Physical studies will characterize the rheological properties of formulations combining biopolymers with other components in varying proportions.

Depending on the progress of an *in vivo* implantation study, this internship may also include histological analyses to quantify and compare bone formation according to the composition of the implanted substitutes.

**Profile(s) linked to the project:**

Experimental Biology (*Recherche expérimentale*)

Clinical Research (*Recherche clinique*)