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## **Research Interests:**

### ***Histologic evaluation***

The main focus of BioTis, U1026, is to understand specific pathologic conditions of bone and vascular tissues and to develop tissue-engineering approaches for tissue repair.

My role as responsible for the histology unit is to provide with all of the technical support for histological analysis. Routinely, we process samples for paraffin, resin and cryosection. This range of histologic techniques enables us to evaluate different tissues for staining or immunostaining, and to adjust protocols to the wide range of hard or soft tissues evaluated (vascular substitutes, bone tissue, cellularized matrices, laser printed tissues, amniotic membrane, etc).

Currently, the performed analysis ranges from standard staining for inflammatory response (H.E) and bone regeneration (Masson's Trichrome, H.E.S, Goldner's Trichrome), to the immunostaining of specific tissue processes (angiogenesis).

In the unit we have the following equipment's for histologic processing:

- Automatic paraffin processing carousel;
- Paraffin inclusion station;
- One microtome for paraffin sectioning;
- One microtome (motorized) for resin and paraffin sectioning;
- One microtome for cryosection.

## **Keywords:**

- Histology
- Tissue engineering
- Bone defect
- Vessel
- Experimental model
- Biomaterial transplant
- Fixation
- Decalcification
- Paraffin embedding
- Micro sectioning
- Staining
- Immunohistochemistry

## **Selected publications:**

1-The proangiogenic potential of a novel calcium releasing biomaterial: Impact on cell recruitment. Oliveira H, Catros S, Boiziau C, Siadous R, Marti-Munoz J, Bareille R, Rey S, Castano O, Planell J, Amédée J, Engel E. *Acta Biomater.* 2016 Jan 1;29:435-45. doi: 10.1016/j.actbio.2015.10.003. Epub 2015 Oct 9.