

## PhD research pre-proposal

<b>Code:</b> BioMed-2021PhD3	
<b>Title:</b> Exploration and analysis of antimicrobial properties of plant extracts for endodontic use	
<b>Supervisors:</b> Prof. Babacar TOURE (UIR), Prof. Sonia GHOUL	
<b>Host college:</b> College of Health Sciences	<b>Host research unit:</b> BioMed

### SUMMARY OF THE RESEARCH PRE-PROPOSAL

The major cause of failure in endodontic therapy in dentistry is the persistence of intraradicular microorganisms. The search of new compounds to inhibit such infections or to develop new biomaterials for endodontic use seems to be of great interest.

The use of plant extracts for endodontic use has been described in the literature and usually needs the study of 1/ the physicochemical characteristics of the extracts, 2/ their antimicrobial activity and mechanism of actions and 3/ their cytocompatibility.

The Moroccan flora is rich in medicinal plants that are widely used for treatment of various infection diseases.

The aim of the research project is to explore and analyse specific Moroccan plant extracts for their antimicrobial properties and to determine their mechanism of actions for endodontic use.

### REQUIRED ACADEMIC QUALIFICATIONS & SKILLS

Applicants should have a Master or Engineering degree with solid background in microbiology or be a Doctor in Dental Medicine.

Academic qualifications and skills are required for the success of this project, such as knowledge of infectious pathologies, fluency in academic English and the ability to read critical scientific articles.