



## PhD in Medical Sciences

### Research Area: Dental Materials

**Title:** Physicochemical, mechanical and SEM characterization of a new experimental adhesive containing G-HEMA.

Universal dental adhesives are a new versatile and very attractive adhesive family recently introduced in the market, however, they still present limitations. Moreover, the in vitro performance of universal adhesives has been reported as material-dependent due to the complexity of their chemical composition. In this work, a dendrimer (G-HEMA) was synthesized and subsequently incorporated into an experimental adhesive (AE2) formulated without Bis-GMA. Their physicochemical and mechanical properties were studied and the bonding interfaces were characterized by SEM.

**Keywords:** Universal adhesives, Bis-GMA free adhesives, dendrimers, physicochemical and mechanical properties

**Supervisors:** Professor Doutor Doutor Mário Polido (Supervisor), Professora Doutora Luísa Gonçalves (Co-supervisor), Professor Doutor Artur Águas (ICBAS Supervisor)

**Start Year:** 2014