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## Advanced Materials Research Group

### project summary

<b>Project Title</b>	Manufacture and structural characterisation of resorbable phosphate glass microspheres for biomedical applications
<b>Researcher</b>	Uresha Patel
<b>Project Summary</b>	<p>The project will involve the production of phosphate-based glass (PBG) formulations doped with varying modifier oxides in aim of providing tailored degradation and ion release profiles. Structural analysis on complex (quaternary and quinary systems) will also be conducted in order to develop an understanding of the inter-relationship between composition, structure, durability and ion release rates. These PBGs will be manufactured into microspheres of varying diameters using a flame spheroidisation technique. The effect of altering glass composition will be examined by structural characterisation of the bulk glass compared to the microspheres, and the yield of particles to microspheres will also be further explored with a view to scaling-up the manufacturing process.</p>