**Resin Component Optimization for Green Strength of Photocrosslinked Resorbable Scaffolds Prepared by Continuous Digital Light Processing (cDLP) Additive Manufacturing**

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High-resolution 3D printing allowing the production of thin walls in any orientation can help to ensure the *in vivo* resorption of polymeric scaffolds. Prior to fabrication, the orientation of porous spaces may be designed on computer to facilitate the formation and ingrowth of host tissue and vasculature within the defect site. However, reliable resorption of the scaffold may be necessary for sufficient neo-tissue material properties, vascularization, and prevention of compartmentalizing the defect site. 3D printing can be used to achieve this ;however, competing needs on the material are such that it is strong enough for processing and implantation, yet weak enough to resorb by the time the neo-tissue filling the defect site must remodel. Current studies in this lab have been aimed at better understanding the outcome of 3D-printed poly(propylene fumarate) (PPF) scaffolds with regard to strength, resolution, and design. Solid PPF cylinders were 3D-printed using an EnvisionTec Perfactory® Micro at 90, 180, and 210 seconds exposure time. These were then mechanically tested in compression to evaluate the exposure time’s effect on strength. As expected, the strength significantly increased with increasing exposure time. This is an important consideration when designing and 3D-printing PPF scaffolds for bone tissue engineering.