

Diagnostics & Precision Medicine Summit 2016

June 21, 2016

Company Presentation/Poster Application

Company Name	
Life Sciences Sector	<input type="checkbox"/> Diagnostics <input type="checkbox"/> Biotech <input type="checkbox"/> Pharmaceuticals <input checked="" type="checkbox"/> Medical Devices <input type="checkbox"/> Other (specify):
Commercial Focus/Therapeutic Area	Bone regeneration, through the use of 3D printed surgically sized scaffolds capable of sustaining physiological loading
Company Description (max 50 words)	<i>Please attach</i>
Company Development/Commercial Stage	Basic science research being completed and validated.
Product Name (if applicable)	
Product Description – Include value and advancements that the product brings to Precision Medicine (max 100 words)	<i>Please attach</i>
Funding Status	Seeking additional funding to validate devices in in-vivo animal models.
Presentation/Poster Objectives	<input type="checkbox"/> Partnering <input checked="" type="checkbox"/> Funding <input type="checkbox"/> Other (specify):
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Company Description

Stevens Institute of Technology will be filing patents on the scaffold designs. We are currently seeking funding to complete characterization and validation of the scaffolds for 510K submission to FDA. Additional work will include in-vivo animal studies to validate the bone regeneration efficacy of the scaffolds.

Product Description

Traditional scaffold designs have not been effectively translated to implant use due to limitations in mechanical properties. Coupling 3-D printing technology with novel design features, we have successfully printed biodegradable (PLA) scaffolds capable of sustaining physiological loading. Scaffolds have been designed for application in trauma/segmental replacement and for inter-vertebral spinal fusion. The scaffolds have demonstrated yield loads in excess of 8500N and 4900N respectively. Fatigue loading for each scaffold indicated sustainment of full body weight to 5 million cycles. With degradation times of approximately one year these devices can function as traditional implants while bone remodeling is achieved.