ARSENAL MEDICAL PRESENTS PRECLINICAL DATA ON ITS UNIQUE EMBOLIC BIOMATERIAL

First-in-class, solvent-free biomaterial achieves occlusion of small blood vessels with minimal inflammation

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Arsenal Medical, a clinical-stage medical device company, developing biomaterials to transform medicine, presented preclinical findings evaluating its shear-thinning injectable embolic biomaterial. The results, presented orally at the Society for Neurointerventional Surgery (SNIS) Annual Meeting, demonstrated the ability of the solvent-free embolic biomaterial to provide durable occlusion of small blood vessels with minimal inflammation.

David Fiorella, MD, PhD, a Neuroradiologist and Director of the Stony Brook Cerebrovascular Center at Stony Brook University, presented the results. "Arsenal's embolic material is uniquely differentiated in its properties; it provides deep vessel casting of the microvasculature. These properties are ideal for applications such as pre-surgical embolization of tumors and other conditions where distal penetration is needed. These promising preclinical results support further studies of this embolic in human subjects," said Dr. Fiorella. The study was completed in collaboration with Stony Brook University with funding from a Small Business Innovation Research (SBIR) grant from the National Cancer Institute of the National Institutes of Health.

"Building on the experience of our foundational product, ResQFoam™, the Arsenal team set out to purpose-build a next-generation biomaterial for embolization that would address the limitations of commercially available materials. The challenge was to create a solvent-free material that achieves a deep, durable occlusion with minimal inflammation. These promising study results indicate that our embolic material may provide a new clinical treatment option for conditions throughout the body," said Upma Sharma, Arsenal's President & CEO.

Robert Langer, Arsenal's Co-founder and a member of the Board of Directors, said, "Arsenal has developed another revolutionary biomaterial – a further demonstration of the tremendous potential of our platform. Solving problems that are critical in medicine with materials is the realization of our vision as founders and has enormous implications for the growth of our business."

About Arsenal embolic's preclinical study

A total of 57 injections in 20 swine at two sites were performed to iterate and confirm optimal distal penetration and occlusion. Seven-day and thirty-day studies were conducted against commercially available controls to evaluate embolization and safety performance in kidney vasculature.

Key study findings include the following:

- Embolic was injectable by hand through a standard neurovascular catheter; usability was considered acceptable by all interventionalists
- At follow-up, angiography showed effective occlusion of target vasculature without evidence of recanalization
- Histological sections confirmed penetration of material in vessels of 30-micron diameter
- Vessel injury and necrosis were both absent, while inflammation was only minimal

About Arsenal Medical

Arsenal Medical is a clinical-stage company that develops biomaterials to solve challenging and underserved medical problems. It was founded by serial entrepreneur-investor Carmichael Roberts and academic luminaries Robert Langer and George Whitesides, who shared a vision for transforming medicine with materials. Arsenal's biomaterials address important medical conditions in trauma, neuro and peripheral vascular, and women's health. ResQFoam™, Arsenal's foundational product and an FDA Breakthrough Device is designed to temporarily stabilize patients suffering from life-threatening intra-abdominal hemorrhage due to traumatic

injury. Arsenal's embolic biomaterial is designed to completely occlude small blood vessels in applications such as tumors or subdural hemorrhage.

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