RecoveryOne: Post-Heart Attack Growth Factor Therapy

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Technology: The Biomaterials Foundry (BMF) has developed a platform technology that will provide controlled delivery of biotherapeutics to specific tissues over time. The global market for biopharmaceutical proteins is expected to exceed \$155 billion by 2015, many of which will rely on delivery methods to localize them and extend their release over time. BMF is a startup company raising capital to finish preclinical and clinical trials in order to push to market our first product: RecoveryOne, a post-heart attack therapy with active agent fibroblast growth factor-2 (FGF2).

Growth factors are potent natural molecules that play a key role in orchestrating regenerative processes in the body. Dr. Yadong Wang, Professor of Bioengineering at University of Pittsburgh, invented our core technology as a simple and intuitive approach to localizing these therapeutic proteins to a site of need in the body, protecting them from degradation, and slowly releasing them over time. A patent application protecting the technology has been submitted and we are finalizing a worldwide, exclusive license agreement with University of Pittsburgh.

Initial preclinical data demonstrates that RecoveryOne therapy increased cardiac output by 70% after 6 weeks by reducing heart enlargement and scarring and increasing new blood vessel formation. RecoveryOne is easily deliverable through a standard cardiac catheter and will therefore be delivered concomitantly with preexisting treatments such as angioplasty, stents, thrombolytic drugs and recanalization devices. BMF plans to complete all preclinical trials and ADMET testing by 2014 and clinical trials by 2017 to enter the market shortly thereafter. RecoveryOne will replace current high-risk, expensive treatments, significantly improving patient quality of life while saving the healthcare system an estimated \$57B over 10 years.

Market: Current post-MI therapies can minimize damage to the heart but do nothing to repair and regenerate the heart or prevent Congestive Heart Failure and reduce risk of subsequent heart attacks. BMF is uniquely positioned enter the post-MI market as a concomitant therapy to be delivered alongside existing therapies, resulting in no additional application costs. RecoveryOne will be reimbursable under current DRG codes covering cardiology procedures. interventional Based on conservative estimates, BMF will generate \$75 million in first-year revenue, enough to cover its development costs, and will have a \$1.7 billion annual revenue 3 years after market entry. A gross profit margin of 90-95% is expected.

Business Strategy: BMF has begun Series A funding and hopes to raise \$7 million to support the company through Year 2. The majority of R&D funding through preclinical testing will come from currently held federal research grants, and equity capital investors are being sought to secure funding for clinical testing in Years 3-5. BMF offers an outstanding value for investors because numerous spin-out companies may be developed to address additional multi-billion dollar markets, all based around the same core technology. As soon as clinical data becomes available, BMF will begin discussing acquisition deals with major cardiovascular device and therapeutics companies.





6 weeks post-MI, Fractional Area Change (FAC), a measure of cardiac function was increased 70% in mice treated with RecoveryOne compared to the Untreated control group. Free FGF2, not delivered by the RecoveryOne vehicle, had no significant effect on heart function.

