Spectral MD Awarded National Science Foundation Grant

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Innovative high technology systems company, Spectral MD, has been awarded a competitive Small Business Innovation Research Phase II grant from the National Science Foundation. The Phase II grant will allow Spectral MD to make significant progress in the development of their innovative diagnostic tool, the DeepView™ mobile imaging system.

The DeepView™ system was realized and applied in Spectral MD's Phase I research where experimental innovations led to technology that enabled interpretation of deep test artifacts hidden in tissue phantoms. In Phase II, Spectral MD is focused on completing its research and technical objectives necessary to produce a fully functional DeepView™ mobile imaging system capable of delivering imaging diagnostics at the point-of-care. The program will include evaluations of patients with conditions representative of those that would most benefit from the solution.

Spectral MD's DeepView™ imaging system will fill a present void within point-of-care medicine concerned with the treatment and management of deep tissue wounds, such as decubitus ulcers, commonly referred to as bed sores. Diagnosis of internal wounds by a physician is often limited by feedback from the patient and visual indicators already present on the surface of the skin. However, by the time a wound's development becomes externally visible it is often far more difficult and expensive to treat. In addition, information regarding the penetration depth of the condition, volume of blood present in the tissue, oxygenation of the blood and its change over time cannot be discerned by the physician's eye. Indeed, the current treatment procedures of internal wounds are time sensitive for health care providers and costly, financially and emotionally, to patients. DeepView™ uses a non-invasive, radiation-free digital illumination approach that allows clinicians to immediately look deeper beneath the skin, delivering image information from up to two centimeters under the skin's surface without ever touching the patient. The unit is not only revolutionary in its technology but is also portable, cost effective and patient friendly.

"There is no other technology that so readily allows a physician to see beneath a patient's skin without contact or x-ray," says Dr. Michael DiMaio, Founder of Spectral MD and Cardiothoracic Surgeon at the University of Texas Southwestern Medical Center.

"The Phase II grant will allow Spectral MD to continue to modify and perfect the technology to allow it to progress towards pervasive use throughout patient care facilities where clinicians will benefit by looking underneath the patient's skin and understanding physiological parameters more clearly."

Spectral MD's commercial objective for DeepView™ includes introducing the technology into hospitals, nursing homes and clinical care facilities to assist physicians in caring for patients with deep tissue wounds. Integrating the DeepView™ technology into these care facilities will produce a substantial benefit to the health care sector by dramatically reducing the overall cost to government and private insurers in the area of dermal wound care through early detection of debilitating conditions.

The University of Texas Southwestern Medical Center is a subawardee of the NSF Phase II grant. UT Southwestern Medical Center boasts one of the country's leading academic medical centers, patient care providers and research institutions. More than 90 percent of all federal biomedical grants in Dallas are awarded to UT Southwestern and more the three-fourths of all those awarded in Texas. Spectral MD is located in the BioCenter at Southwestern Medical District, the commercial life-science hub for the Dallas region.