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### FOR IMMEDIATE RELEASE

## **RESEARCHERS REPORT RAPID NON-INVASIVE TEST FOR PRE-DIABETES SKIN BIOMARKER DETECTION OUTPERFORMS FASTING PLASMA GLUCOSE AND A1C TESTS**

ATLANTA, November 3, 2006 — Researchers today reported a new screening device that doesn't require blood was able to significantly outperform both the fasting plasma glucose (FPG) test and the A1C test for identifying individuals with impaired glucose tolerance (IGT), a condition that often progresses to type 2 diabetes. Presented at the Sixth Annual Diabetes Technology Meeting, held here, results showed a prototype of the device was able to identify 78% more individuals with the IGT form of pre-diabetes than the FPG test, and 47% more than the A1C test. Both the FPG and A1C are blood tests commonly used to screen and evaluate patients at risk for diabetes. An estimated 54 million Americans have pre-diabetes.

Researchers from VeraLight Inc., the developer of the non-invasive diabetes-screening device code-named "Scout," conducted the study on 322 subjects ranging from 21 to 88 years old with a broad range of skin color. Slated for market introduction in early 2008, the device is able to detect abnormal concentrations of the skin biomarkers known to be associated with diabetes in less than one minute using fluorescent light from an individual's forearm. Unlike the FPG test, the device does not require a blood draw or an overnight fast prior to testing. Although the A1C test does not require the patient to fast, a blood sample is needed to perform it.

Using VeraLight's proprietary Spectroscopic Advanced Glycation Endproducts detection technology, or SAGE™, Scout is seen as a major breakthrough in diabetes and pre-diabetes screening that can lead to early intervention, and a dramatic reduction in the morbidity and \$132 billion annual cost to treat the disease and its complications.

### **Skin Biomarkers Predict Diabetes and Its Complications**

According to medical experts, non-invasive skin detection of "advanced glycation endproducts," or AGE, could replace the FPG test as the medical workhorse for screening people suspected of having diabetes or pre-diabetes. Previous studies have shown AGE are biological markers that correlate well with diabetes and are a predictor of the disease's serious complications. Analogous to a "diabetes odometer," AGE are a sensitive metric for the cumulative damage the body has endured due to the effects of abnormally high blood sugar and oxidative stress. They affect the proteins that make up blood vessels, connective tissue and skin, and are thought to be major factors in aging and age-related chronic diseases.

### **Scout Diabetes Screening System**

Scout is a portable, desktop system weighing about 10 pounds. After the subject places the palm side of their forearm onto the system, the device shines various wavelengths of light onto the skin that causes the AGE to emit a fluorescent light signature that indicates diabetes risk. The instrument optically

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calibrates for skin pigmentation so that performance is not diminished by skin coloration. A specially designed fiber-optic probe couples the excitation light to the subject and relays resulting skin fluorescence to a detection module. The system's software utilizes multivariate statistical techniques that are applied to the emitted light spectra to obtain a diabetes risk score. Total measurement time is about a minute.

### **Need for Early and More Accurate Diabetes Screening**

According to a study published in the June issue of *Diabetes Care*, more than 73 million Americans — one third of the adult population — now have diabetes or may be on their way to getting it. Current screening methods for diabetes are grossly inadequate due to their inaccuracy and inconvenience. Consequently, many people with diabetes are not identified until they present 5-to-9 years into the disease, and 50% have one or more often-irreversible complications at the time of diagnosis. A more accurate and convenient screening method could dramatically reduce the costs and morbidity associated with such complications, allowing patients to halt or reverse disease progression.

### **About VeraLight**

VeraLight, based in Albuquerque, N.M., is a privately held medical instrumentation company applying its proprietary SAGE technology to develop the first non-invasive diabetes screening system that provides healthcare professionals with a more accurate and convenient method for detecting type 2 diabetes and pre-diabetes based on the presence of biomarkers found in skin. For more information see <http://www.veralight.com>.

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