Vein Illumination to Vein Visualization

Near Infrared Imaging, Inc.
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Near Infrared Imaging (NII), and the scientists at Lawrence Livermore National Laboratory, have developed Advanced Vein Visualization (AVV) cameras that are technically superior to competitive devices in the market.

And, they cost 60% to 80% less.

Near Infrared Imaging Inc. is a Delaware corporation that has been in business since 2009.

NII has filed all of its taxes and annual reports on a timely basis.

Near Infrared Imaging is owned in part by the Regents of the University of California and the City University of New York (CUNY).

Near Infrared Imaging has a strategic relationship with Lawrence Livermore National Laboratory.

The AVV cameras are Class 1 devices and registered with the FDA.
There are over 2,700,000 needle sticks every day in the USA.

While vein illumination is important in every needle insertion, it is critically important when the patient is obese, very young, aged and/or has dark skin.

The average number of attempts to insert a needle in a vein of young children is three (3). The failure to stick a needle the first time causes pain to the child, the child’s family, and the medical practitioner or nurse.

The AVV–1 solves the two most common complaints of medical practitioners:

- Existing vein illumination devices are too expensive,
- Existing vein illumination devices only illuminate veins that can be seen.

Recent studies have shown that patients overwhelmingly prefer vein illumination when their veins are punctured.

The importance of these findings is even greater based on the 2012 Affordable Care Act. Medicare now considers a patient’s well being.
The technology is based upon patents assigned to the City University of New York (CUNY) and Lawrence Livermore National Laboratory. The technology uses near infrared wavelengths that are polarized.

The patented technology detects objects below the surface of a scattering medium. This medium could be human tissue, water, and/or smoke.

The CUNY technology has been highlighted in over 250 research articles.

The AVV-2 next generation camera will color code veins according to depth.

NII will continually modify the AVV-1 and AVV-2 according to the needs of the end user.

We are presently in discussions with a metropolitan fire department to wall mount the camera and display in their ambulances.

Our technology has the capability to detect small objects, such as tumors, that are near the surface of the skin.
In a recent head-to-head comparison against the leading selling vein illumination cameras, the AVV–1 was clearly the better product.

The images of the veins had more clarity and definition with the AVV–1.

The AVV–1 images the entire vein, which is necessary for IV placement.

The AVV–1 can be used with a PC or iPad.

The AVV–1 uses LEDs; the competitors use lasers.
  - Lasers can cause damage to the eyes of the patient or medical practitioner.

The MSRP of the leading selling vein illumination devices range from $4,300 to $25,000.

The AVV–1 will have an MSRP in the $1499 range.
The AVV-1 and AVV-2 will soon become the gold standard in vein illumination and vein visualization.

They are handheld, lightweight cameras that will be mounted on a stand, hospital bed, or on a wall behind the phlebotomist’s chair.

In Radiology and Oncology, there is always the fear of Infiltration and Extravasation, i.e., the leakage of the radiology dye or chemotherapy medication from the vein into the soft tissue around the vein.

With our ability to see the entire vein, we will be able to detect Infiltration and Extravasation early and easily.

The AVV cameras will be also be used in detecting and treating varicose veins, skin disorders, and illnesses that are near the surface of the skin.

The AVV-1 will provide a solution for imaging the veins of newborn babies in the Isolette. The isolette cover will not have to be lifted and the newborn will not suffer loss of oxygen or heat.

In recent demonstrations to phlebotomists and medical practitioners at Massachusetts General Hospital and the Mayo Clinic, the response to the AVV-1 was overwhelmingly positive.
Management Team

Michael Feeney, President, has an M.S. from Northeastern University and is the Founder. He has over (ten) 10 years experience with optics in medicine.

Doctor Stavros G. Demos, Ph.D., is a scientist at Lawrence Livermore National Laboratory. Stavros is also on the Scientific Staff at the National Science Foundation SF Center of Biophotonics Science and Technology at UC Davis. http://cbst.ucdavis.edu/research/meet-the-researcher/dr-stavros-demos

Doctor Alexander Rubenchik, PhD, is presently a Staff Scientist at Lawrence Livermore. http://math.arizona.edu/~nrw/FNW_2010/talks/rubenchik.pdf

Doctor Neel Madan, MD, is a practicing Neuroradiologist and Associate Professor of Radiology and Pediatrics at Tufts University School of Medicine, Boston, MA.

Doctor Ryan Abbott has an MD and JD and is an Assistant Professor at the David Geffens School of Medicine at UCLA. http://www.drryanabbott.com/