

IVT System Innovator Lightengale Secures Additional \$255K STTR Grant From NSF

New NFS Award Drives Extended Application Research for Lightengale

ATLANTA, GEORGIA, UNITED STATES, December 3, 2021 /EINPresswire.com/ -- Lightengale, an innovator in intravenous tubing (IVT) systems, announced that it won a second grant through the Small Business Technology Transfer program (STTR). The \$255,957 award is a National Science Foundation (NSF) grant for continued research. Awarded in May 2021, this additional STTR program's Phase I support is being used to develop and study a version of the Lightengale illuminated intravenous tubing (IVT) system that can be used in infection isolation wards.

In these environments, the lines from isolation patients to the infusion pumps can be up to 30 feet long, adding additional complexity to the IVT tracing process. The infusion pumps are maintained outside the patient rooms, with the nurses forced to trace IVTs in full personal protection equipment (PPE). This increases the challenge of IVT tracing and risk for IV-line mix-ups, potentially leading to an infusion line medication error event which could have serious or fatal consequences.



Lightengale Illuminated Intravenous Tubing System

The <u>Lightengale illuminated IVT system</u> was developed to address this critical issue. Lightengale uses fiber optic and LED technology to illuminate IV lines on demand. By illuminating the entire length of the line, nurses can quickly and accurately identify IVT in the ICU. The system is compatible with all infusion pumps and seamlessly integrates with current IVT tracing protocols.

Since its emergence, COVID-19 has placed a taxing burden on ICUs and created additional risk for overwhelmed, overburdened ICU/isolation ward nurses. The grant funds are being used to study Lightengale in a simulated isolation ward. The research is designed to evaluate the impact that the Lightengale illuminated system has on nurse cognitive load and time-in-motion in this high-stress setting. Lightengale is partnering with Atlanta-based Emory University and Children's Healthcare of Atlanta for this research.

"My son was born with a severe heart condition that required intensive care, and the nurses were the superheroes of the time we spent in the ICU. As I watched the nurses trace the lines, which looked like stressful and difficult work, it occurred to me that rather than having to touch every single line, it would be much easier if they could just flip a switch and turn the line on. Lightengale was created to make a difference for ICU patients and the nurses that care for them." Hans Utz, Founder and CEO

About the NSF STTR Program The NSF STTR program focuses on transforming scientific discovery into products and services with commercial potential and/or societal benefit. Unlike fundamental or basic research activities that focus on scientific and engineering discovery itself, the NSF STTR program supports the creation of opportunities to move fundamental science and engineering out of the lab and into the market or other use at scale, or startups and small businesses representing "deep technology ventures."

https://beta.nsf.gov/funding/opportuni ties/small-business-technologytransfer-program-phase-i-0

About Lightengale Lightengale is an Atlanta-based medical device company on a mission



Hans Utz, Founder & CEO



lightengale

The solution, light. The future, bright. Lightengale Illuminated Intravenous Tubing (IVT) System

to reduce IVT mix-ups in ICUs, increasing nursing efficiency, reducing errors – and saving lives.

Founded in 2016 by innovator and entrepreneur Hans Utz, the Company emerged in response to Mr. Utz's experience in observing ICU nurses caring for his infant son. As he watched nurses manually trace lines, he was alarmed, conscientious of the complexity, time involved and potential risks. As a formally trained industrial engineer, he recognized a practical solution: if nurses could easily see and distinguish an infusion line from pump to patient, the whole process to identify IVT would be faster and safer. Patient safety demands better solutions. Lightengale is illuminating the way. For more information visit lightengalehealth.com. https://lightengalehealth.com

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