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Firm wins grant to develop bloodless glucose monitor

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IOWA CITY — ASL Analytical, a medical technology firm in the University of Iowa's Technology Innovation Center, has received a \$967,297 federal grant to develop a monitor that would alert people with type 1 diabetes when their overnight blood glucose (sugar) levels drop to dangerously low levels.

The two-year, Phase 1 grant is from the National Institute

of Diabetes and Digestive and Kidney Diseases, a part of the National Institutes of Health, and is administered by the U.S. Small Business Administration through its Small Business Technology Transfer program.

Mark Arnold, ASL Analytical vice president and co-founder, said his company is developing the non-invasive monitor for people with type 1 diabetes to help avoid hypo-

glycemia, an abnormally low level of blood sugar.

"People with diabetes have variable blood sugar levels at night," said Arnold, a UI chemistry professor. "Estimates indicate a small percentage of people with type 1 diabetes die of comas, so people with type 1 diabetes, including adults and children, are concerned about this problem."

"The ideal device to moni-

tor this condition is a sensor that can be clipped onto the end of a fingertip. This device must wake people up so that some action can be taken before reaching dangerous glucose levels."

ASL's research device directs infrared light through a person's skin to determine the chemical composition of the blood.

Near infrared spectroscopy is used to identify and quan-

tify selected blood components by analyzing the spectrum produced when skin substances absorb certain wavelengths of light.

ASL is a university spinout company based on core technology developed at the UI.

The company has received gap grant funding from the Grow Iowa Values Fund and the UI Research Foundation to help develop the first product line.