

Study finds new way to grow blood vessels

by UPI

BOSTON - U.S. scientists have discovered a molecular pathway in mice that spurs the growth of new blood vessels when body parts are jeopardized by poor circulation. Researchers at the Dana-Farber Cancer Institute said their finding adds to the understanding of blood vessel formation and, in the future, might lead to a new treatment for heart and blood vessel diseases, as well as cancer. Harvard Medical School Professor Bruce Spiegelman, Dr. Zoltan Arany and colleagues discovered PGC-1alpha -- a key metabolic regulatory molecule -- senses a dangerously low level of oxygen and nutrients when circulation is cut off and triggers the formation of new blood vessels to resupply the oxygen-starved area. The process is known as angiogenesis. "We were surprised to find this novel mechanism," said Spiegelman. "It was apparently there all along," added Arany. "That means there is now a second pathway that you need to know about if you are trying to activate or inhibit angiogenesis." The research is detailed in the journal Nature.

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