

Scientists find on-off cell switch in eye

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Boston scientists have discovered a blood vessel cell switch that controls vessel growth, opening the way for new drugs to combat eye problems.

The finding by the Schepens Eye Research Institute in Boston, published in the current issue of The EMBO Journal, is believed capable of leading to new, better targeted drugs for diseases such as cancer, diabetic retinopathy and macular degeneration.

The researchers at Schepens, an affiliate of Harvard Medical School, learned that the switch is turned on and off by the balance between two enzymes, which compete for the same lipid membrane to fulfill both growth and regression.

An important natural process, new vessel growth, or angiogenesis, restores blood flow after injury, increases circulation in a damaged heart and prepares a woman's body for pregnancy. But, when uncontrolled it can feed cancer tumors and damage delicate retinal tissues.

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