Laser Revascularization Method Could Help Where Bypasses Can't

A laser technique that uses pulses of infrared light to blast channels into the heart muscle has long been the last hope for patients whose arteries are so clogged and constricted that they cannot benefit from bypass surgery. The technique, called transmyocardial laser revascularization, or TMR, has remained a niche procedure for 20 years, but recent advances in stem cell research have inspired a new dimension to TMR therapy.

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Lasers Find Varied Uses in Space Applications

From the first laser fired on another planet to observatory guide stars and space collision avoidance systems, lasers in space are making news with numerous advances and universal firsts.

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Laser beams paint in 3-D

Like an artist meticulously placing colors on a canvas, lasers could someday precisely place molecules in a meshwork to grow organs.

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Tiny Probes Dramatically Boost Raman Signals

Novel gold nanoparticles can goose the signal from Raman reporters, or molecules whose jiggling atoms respond to a probe laser by scattering light at characteristic wavelengths. The discovery could lead to better-targeted drug delivery and deeper bioimaging within tissue.

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Theorists Propose Using Heat to Power QCLs

What if you could use the heat generated in a quantum cascade laser — something that normally causes the lasing to turn off — to power the device instead?

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