Iridex Announces New Thermal Dynamics Study That Strengthens Clinical Foundation and Market Potential of MicroPulse® Technology and Continuous-Wave Laser for Glaucoma Treatment

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MOUNTAIN VIEW, Calif., Dec. 08, 2025 (GLOBE NEWSWIRE) -- Iridex Corporation (Nasdaq: IRIX), a worldwide leader providing innovative and versatile laser-based medical systems, delivery devices, and accessories for the treatment of glaucoma and retinal diseases, today announced a newly published study in *Translational Vision Science & Technology* (TVST) examining the thermal dynamics of transscleral laser treatments for glaucoma.[1]

Led by Tomas M. Grippo, MD, of the Grippo Glaucoma & Cataract Center (Buenos Aires, Argentina), the study provides the first quantitative computer model comparing the thermal tissue effects of continuous wave transscleral cyclophotocoagulation (CW-TSCPC) and transscleral laser therapy using MicroPulse® technology (MicroPulse TLT) with Iridex's Cyclo G6 ® Laser, G-Probe® and MicroPulse P3® delivery devices.

Using advanced Monte Carlo computer simulations, the authors modeled how each technique heats the ciliary body and quantified temperature peaks, duration, and thermal spread. The modeling revealed that CW TSCPC produced a 2 mm-wide zone of tissue heating with temperatures exceeding 100°C for approximately 2.2 seconds. MicroPulse TLT generated a smaller 0.6-1.2 mm thermal zone and shorter duration peak temperatures, remaining below 100°C. Additionally, MicroPulse TLT showed a more uniform heat distribution than CW-TSCPC.

Dr. Grippo explained, "Our study uses a computational model to analyze heat behavior in the ciliary body during CW-TSCPC and MicroPulse TLT treatments. By linking these findings to the safety, effectiveness, and mechanisms of action described in the literature for both treatments, we can reinterpret existing clinical evidence from a fresh perspective. This approach strengthens our understanding and conceptual framework for these techniques and provides insights that may help refine both laser procedures for improved patient outcomes."

The authors concluded that both techniques share a thermal continuum, and with further optimization, each may evolve to serve distinct but complementary roles from refractory glaucoma to earlier intervention cases.

"Dr. Grippo's work underscores Iridex's commitment to advancing evidence-based innovation in glaucoma care," said Patrick Mercer, CEO of Iridex Corporation. "By deepening our scientific understanding of how these two transscleral laser approaches interact with ocular tissues, we can continue to improve treatment optimization and safety creating broad clinical opportunities for both CW-TSCPC and MicroPulse TLT in modern glaucoma management."

The article is available in *Translational Vision Science & Technology*.

About Iridex Corporation
Iridex Corporation is a worldwide leader in developing, manufacturing, and marketing innovative and versatile laser-based medical systems, which include capital equipment and consumable probes for the ophthalmology market. The Company's proprietary MicroPulse ® technology delivers the therapeutic benefits of laser treatment while minimizing tissue damage, offering a safe, effective, and proven treatment for targeted sight-threatening eye conditions. Iridex's current product line is used for the treatment of glaucoma and diabetic macular edema (DME) and other retinal diseases. Iridex products are sold in the United States through a direct sales force and internationally primarily through a network of independent distributors into more than 100 countries. For further information, visit the Iridex website at www.iridex.com.

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For more information about Iridex technologies, visit www.iridex.com.

References

1. Grippo TM, LaMarche K, Davreux AM, Stauffer J, Stacey S, Arnold K. Thermal tissue modeling of the ciliary body with continuous wave transscleral cyclophotocoagulation and transscleral laser therapy using micropulse technology. *Transl Vis Sci Technol*. 2025;14(11):32.

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